

Robert E. Pastor, Esq. (021963)
MONTOYA, LUCERO & PASTOR, P.A.
3200 N. Central Ave., Ste. 2550
Phoenix, AZ 85012, (603) 279-9869
pastor@mlpattorneys.com

Michael A. Daoudi, Esq.
LAW OFFICES OF MICHAEL S. DAOUDI, P.C.
246 Park St., Ste. 120, (248) 220-4377
Birmingham, MI 48009
msd@msd4law.com

David L. Abney, Esq. (009001)
AHWATUKEE LEGAL OFFICE, P.C.
P.O. Box 50351, Phoenix, AZ 85076
(480) 734-8652, abneymaturin@aol.com
Counsel for Plaintiff

**IN THE SUPERIOR COURT OF THE STATE OF ARIZONA
IN AND FOR THE COUNTY OF MARICOPA**

JOHN CD DOE, a single man,

Plaintiff,

v.

BIG BROTHERS BIG SISTERS OF
AMERICA, a District of Columbia
nonprofit corporation; BIG BROTHERS
BIG SISTERS OF CENTRAL ARIZONA,
an Arizona corporation,

Defendants.

Case No. CV 2020-014920

**RESPONSE TO
MOTION TO DISMISS**

(Hon. M. Scott McCoy)

(Oral Argument Requested)

Italo Arbulu (“Arbulu”), an agent, employee, and representative of Big Brothers Big Sisters of America (“Big Brother”) sexually abused a minor boy. We call the victim “Doe” to protect his privacy. In its April 12, 2021 motion to dismiss, Big Brother never once denies that its agent and employee repeatedly sexually abused Doe. Of course, for purposes of this motion, any denial would not matter.

Dismissal is proper only if, as a matter of law, a plaintiff would not be entitled to relief under any interpretation of the facts susceptible of proof. *State ex rel. Brnovich v.*

Ariz. Bd. of Regents, 250 Ariz. 127, 130 ¶ 10 (2020). Looking only to the pleadings, a trial court must assume the truth of all well-pleaded factual allegations and indulge all reasonable inferences from those facts. *Id.* That is, for a motion to dismiss, trial courts must “take as true” the complaint’s facts. *Shepherd v. Costco Wholesale Corp.*, 250 Ariz. 511, 512 ¶ 3 n. 1 (2021). The trial court must determine if the complaint, construed in the light most favorable to the plaintiff, sufficiently sets forth a valid claim. *Scenic Arizona v. City of Phoenix Bd. of Adjust.*, 228 Ariz. 419, 422 ¶ 5 (App. 2011). Under that standard, the Complaint alleges valid claims. Thus, this Court should deny the motion.

Memorandum of Points and Authorities

1. Big Brother knew its agent and alter ego had sexually abused Doe.

Doe, a vulnerable minor, lived in Maricopa County. *Complaint* ¶¶ 1, 15. The single mother who was raising Doe enrolled him in Big Brother’s one-on-one mentoring program. *Id.* ¶ 31. In June or July 1983, Big Brother paired Doe with Italo Arbulu, an adult sexual predator. *Id.* ¶¶ 11-12, 32-33. Arbulu used the position of trust and authority that Big Brother gave him to groom and sexually abuse Doe. *Id.* ¶ 33.

In July 1983, when Doe was just 9 years old, he reported to the Phoenix police that Arbulu had been touching Doe’s penis. *Id.* ¶ 36. In addition, while still under the age of 15, *Id.* ¶ 103, Doe told another employee, agent, or representative of Big Brother that: (1) Doe did not want to be matched with Arbulu; (2) Doe and Arbulu had different interests; and (3) Doe did not recommend that Big Brother match Arbulu with another child because Arbulu had touched Doe’s penis. *Id.* ¶ 35. Big Brother thus had direct notice of the sexual abuse.

Arbulu fondled, masturbated, and had oral sexual contact with Doe’s penis. *Id.* While Doe was under the age of 15, Arbulu engaged in sexual contact, oral sexual contact, and sexual intercourse with Doe, without any consent by Doe, who was, in any event, a minor incapable of consenting. *Id.* ¶¶ 37, 40-41.

At all times, Arbulu was Big Brother’s agent and representative—acting within the course and scope of his employment, agency, actual authority, and apparent authority with Big Brother. *Id.* ¶¶ 10, 42, 68, 98. Arbulu used the position of trust and authority Big Brother gave him to sexually abuse Doe. *Id.* ¶¶ 10, 36. In addition, at all times, there was such a unity of interest between Big Brother and Arbulu that any individuality or separateness between them ceased to exist and they became alter egos. *Id.* ¶ 16. That is, Big Brother and Arbulu acted in concert to commit the wrongful acts against Doe. *Id.*

2. Doe’s claims are timely.

Big Brother first argues that A.R.S. § 12-514, the statute of limitations for civil actions alleging sexual conduct or sexual contact committed against a minor, bars Doe’s claims against Big Brother. A.R.S. § 12-514’s text appears in Appx. A.

A.R.S. § 12-514(A)(1) provided a 12-year statute of limitations that would start after the plaintiff reached 18 years of age for: “An injury that a minor suffers as a result of another person’s negligent or intentional act if that act is a cause of sexual conduct or sexual contact committed against the minor.”

Because of the hardships confronting adults who seek legal redress for sexual abuse suffered as minors, the Arizona Legislature enacted a special provision providing that an A.R.S. § 12-514(A)(1) cause of action that would otherwise be time barred

because of an applicable statute of limitations “is revived and may be commenced before December 31, 2020.” Ariz. Sess. Laws ch. 259, § 3 (54th Legis., 1st Reg. Sess. filed May 27, 2019) (full text provided in Appx. B). Doe filed the Complaint on November 18, 2020, within the December 31, 2020 statutory deadline.

Notably, Subpart C of Section 3 provides that a cause of action revived under A.R.S. § 12-514(A)(1) “may be brought against a person who was not the perpetrator of the sexual conduct or sexual contact if that person knew or otherwise had actual notice of any misconduct that creates an unreasonable risk of sexual conduct or sexual contact with a minor by an employee, a volunteer, a representative or an agent.” Ariz. Sess. Laws ch. 259, § 3(C) (Appx. B).

The Motion claims the Complaint failed to allege that Big Brother “knew or otherwise had actual notice” of Arbulu’s misconduct that created an unreasonable risk of sexual conduct or sexual contact with Doe. *Motion* at 5-6. But in the Complaint, Doe specifically alleged that, while he was still under the age of 15, *Complaint* ¶ 103, Doe told another employee, agent, or representative of Big Brother that Doe did not recommend that Big Brother match Arbulu with another child because Arbulu had touched Doe’s penis. *Id.* ¶ 35. Doe thus did allege that Big Brother had “actual notice” of sexual conduct or sexual contact with a minor by Arbulu, in compliance with Ariz. Sess. Laws ch. 259, § 3(C) (Appx. B).

3. Doe alleged facts supporting respondeat superior liability.

Big Brother argues there are no allegations of respondeat superior liability. *Motion* at 2. But Doe alleged Arbulu was Big Brother’s agent and employee. *Complaint* ¶¶ 10,

42, 97-98, 104-06. And Doe alleged that Arbulu was acting in the course and scope of his employment with Big Brother in committing sexual assault against Doe. *Complaint* ¶¶ 10, 13, 18, 42, 68, 98, 104-06.

“Respondeat superior liability is vicarious liability; the negligence of the principal is not relevant, only the principal’s relationship with the tortfeasor.” *Warner v. Sw. Desert Images, LLC*, 218 Ariz. 121, 129 ¶ 17 (App. 2008). “Vicarious liability results solely from the principal-agent relationship: ‘those whose liability is only vicarious are fault free—someone else’s fault is imputed to them by operation of law.’” *Kopp v. Physician Group of Arizona, Inc.*, 244 Ariz. 439, 441 ¶ 9 (2018) (quoting *Wiggs v. City of Phoenix*, 198 Ariz. 367, 371 ¶ 13(2000)). Doe alleged sufficient facts to support applying the doctrines of respondeat superior and vicarious liability.

4. Doe alleged facts sufficient to support Count I of the Complaint.¹

Count I alleges sexual assault, sexual abuse, and sexual conduct with a minor in violation of the common law and A.R.S. § 13-1405. *Complaint* ¶¶ 39-44. A person commits sexual conduct with a minor (1) by intentionally or knowingly engaging in sexual intercourse or oral sexual contact (2) with any person who is under 18 years of age. A.R.S. § 13-1405. Count I alleges Arbulu had intentionally and knowingly engages in sexual intercourse and/or oral sexual contact with Doe, who was alleged to be under the age of 15. *Complaint* ¶¶ 41, 103. Count I further states that its allegations “constitute traditional negligence and negligence per se for violation of A.R.S. § 13-3623 and other

¹ The Defendant makes a series of technical objections about various aspects of the Complaint. Plaintiff has resolved those objections in an amended Complaint filed earlier today, on June 29, 2021, in accordance with Ariz. R. Civ. Proc. 15(a)(1)(B).

relevant statutes and laws, including the common law, enacted for the protection of a specific class of persons of which Doe is a member. *Complaint* ¶ 44.

Despite those clear, plain allegations, Big Brother asserts Count I fails to state a claim for relief, because Doe failed to allege that before Big Brother matched Arbulu with Doe it knew of had actual notice of misconduct by Arbulu that would create an unreasonable risk of sexual conduct or sexual contact with a minor by Arbulu that would make Big Brother liable. *Motion* at 7.

But as noted above, Doe specifically alleged that, while he was still under the age of 15, *Complaint* ¶ 103, Doe told another employee, agent, or representative of Big Brother that Arbulu had touched Doe's penis. *Id.* ¶ 35. Those Complaint paragraphs were incorporated in full into Count I. *Complaint* ¶ 39. They make Big Brother liable under the "actual notice" applicability section of Ariz. Sess. Laws ch. 259, § 3(C) (Appx. B) and under A.R.S. § 13-3623, which provides that a person having care or custody of a child causes or permits a child to be injured or placed the health of the child in danger is guilty. That describes Big Brother perfectly.

5. Doe alleged facts sufficient to support Count II of the Complaint.

Count II alleged Big Brother had special, fiduciary, *in loco parentis* relationships with Doe, with resulting duties of care to protect him from harm, which it negligently failed to do, creating liability. *Complaint* ¶¶ 45-66. Big Brother once again claims that there was no allegation of actual knowledge. *Motion* at 7-8. But as noted above, Doe expressly alleged that, while he was still under the age of 15, *Complaint* ¶ 103, Doe told another employee, agent, or representative of Big Brother that Arbulu had touched Doe's

penis. *Id.* ¶ 35. Those Complaint paragraphs were incorporated in full into Count II. *Complaint* ¶ 45. As a result, Big Brother had actual knowledge, and Count II alleges a timely, valid negligence claim under the “actual notice” applicability section of Ariz. Sess. Laws ch. 259, § 3(C) (Appx. B).

6. Doe alleged facts sufficient to support Counts III and IV of the Complaint.

Count III and IV alleged Big Brother was liable for negligent training, supervision, and retention of Arbulu. *Complaint* ¶¶ 67-80. Big Brother mainly attacks Counts III and IV by misstating the elements of those claims. For a negligent-training claim, a plaintiff must merely allege that an employer negligently failed to provide adequate job training and that its lack of that training was a proximate cause of a plaintiff’s injuries. *See Inmon v. Crane Rental Servs., Inc.*, 205 Ariz. 130, 137 ¶ 28 (App. 2003). Count III adequately alleged that Big Brother had a duty to train its agents and employees and that as a result of the breach of that duty, Doe was injured. *Complaint* ¶¶ 70, 74.

For negligent supervision a plaintiff need only allege that a party was responsible to supervise an employee and negligently failed to do so. *See Kuehn v. Stanley*, 124, 130 ¶ 21 (App. 2004). Count III adequately alleged Big Brother was liable by failing to properly supervise Doe, which resulted in the sexual abuse. *Complaint* ¶¶ 69, 73-74.

For negligent retention, a plaintiff need only allege a duty of care, breach of the duty by retaining an employee although it knew or should have known of the employee’s dangerous propensities, a breach causing injury to the plaintiff, and damages. *See Peterson v. Miranda*, 57 F.Supp.3d 1271, 1280 (D. Nev. 2014). Count IV adequately alleged Big Brother negligently retained Arbulu knowing his propensity for the type of

behavior that resulted in Doe’s injuries and damages. *Complaint* ¶¶ 77-80.

7. Doe alleged facts sufficient to support Count V of the Complaint.

Big Brother argues that Count V failed to allege a cause of action for breach of fiduciary duty. *Motion* at 9-10. The elements of a breach-of-fiduciary-duty claim are simply existence of a duty, breach, and causally-related damages. *Surowiec v. Capital Title Agency, Inc.*, 790 F. Supp. 2d 997, 1004 (D. Ariz. 2011). Count V alleged a special relationship creating a fiduciary duty to investigate, obtain, warn, and disclose sexual misconduct, sexual assault, sexual abuse, molestation, sexual propensities, and other inappropriate acts of its agents and employees, including Arbulu. *Complaint* ¶ 82. It also alleged breach of that duty and proximate harm to Doe. *Id.* ¶¶ 83-84. Because of those allegations, Count V adequately alleged a breach-of-fiduciary-duty claim.

8. Doe alleged facts sufficient to support Count VI of the Complaint.

Big Brother alleged Count VI failed to allege a claim for intentional infliction of emotional distress (“IIED”). *Motion* at 10-11. One formulation of an IIED claim’s elements is that a defendant is liable for IIED if it caused severe emotional distress through extreme and outrageous conduct committed with the intent to cause emotional distress or with a reckless disregard of the near certainty that the distress would result. *Watkins v. Arpaio*, 239 Ariz. 168, 170 ¶ 8 (App. 2016).

Count VI alleged the Defendants’ wrongful conduct, including the sexual abuse, the conspiracy to conceal it, the failure to report Arbulu’s sexual abuse, and the acquiescence, affirmance, and ratification of Arbulu’s sexual abuse all “exceeded the bounds of decency and were extreme and outrageous causing [Doe] to suffer severe

emotional and psychological distress.” *Complaint* ¶ 86.

Big Brother argues the claim is deficient because reckless disregard is not alleged. *Motion* at 11. But a reasonable inference, which the Court must take, is that Big Brother acted with an utter and reckless disregard for the near certainty Doe would suffer extreme emotional distress. *See, e.g., Fid. Sec. Life Ins. Co. v. Ariz. Dept. of Ins.*, 191 Ariz. 222, 224 ¶ 4 (1998) (For a motion to dismiss, “courts must assume the truth of all well-pleaded factual allegations and indulge all reasonable inferences from those facts.”). Count VI adequately alleges the IIED tort.

9. Doe alleged facts sufficient to support Count VII of the Complaint.

Big Brother attacks Count VII because it supposedly could not find any Arizona cause of action for endangerment. *Motion* at 11-12. Arizona has adopted and follows the common law. A.R.S. § 1-201; *Grande v. Jennings*, 229 Ariz. 584, 588 ¶ 13 (App. 2012).

In Arizona, a “person commits endangerment by recklessly endangering another person with a substantial risk of imminent death or physical injury.” A.R.S. § 13-1201. Under Arizona common law, a duty to control the conduct of a third party (such as Arbulu) arises when there is a special relationship (as between Big Brother and Doe) that gives a duty to protect a person such as Doe. *Wertheim v. Pima County*, 211 Ariz. 422, 424-25 ¶ 11 (App. 2005). Despite that special relationship, Big Brother endangered Doe by negligently, recklessly, and intentionally exposing him to child sexual abusers such as Arbulu, which caused Doe to suffer damages. *Complaint* ¶¶ 88-94. Count VII states a viable common-law cause of action.

10. Doe alleged facts sufficient to support Count VIII of the Complaint.

Big Brother argues that Count VIII fails to state a cause of action for child abuse because there are supposedly no facts alleging that Big Brother had knowledge of actual knowledge of misconduct by Arbulu. *Motion* at 12. But as noted above, Doe specifically alleged that, while he was still under the age of 15, *Complaint* ¶ 103, Doe told another employee, agent, or representative of Big Brother that Arbulu had touched Doe’s penis. *Id.* ¶ 35. Thus, there was actual notice, in addition to the knowledge that Big Brother had concerning the propensities, proclivities, and activities of deviants such as Arbulu. Count VIII adequately alleged a cause of action for child abuse.

11. Doe alleged facts sufficient to support Count IX of the Complaint.

Big Brother argues that Count IX failed to state a claim for assault. *Motion* at 13. Under Arizona law, a claim for common-law assault requires that the plaintiff allege the defendant has acted with intent to cause another to apprehend a harmful or offensive contact and the other person apprehended that imminent contact.” *A.G. v. Paradise Valley Unif. Sch. Dist. No. 69*, 815 F.2d 1195, 1209 (9th Cir. 2016). Count IX alleged that Arbulu, acting as Big Brother’s agent and employee, and within the course and scope of his actual or apparent authority, intentionally placed Doe “in reasonable apprehension of imminent physical injury.” *Complaint* ¶ 105. Count IX stated a valid cause of action.

12. Dismissal of the request for punitive damages is premature.

Big Brother alleges that punitive damages are unavailable under the applicability provision of applicability section of Ariz. Sess. Laws ch. 259, § (D)(2) (Appx. B). But the “question of whether punitive damages are justified should be left to the jury if there is

any reasonable evidence which will support them.” *Farr v. Transamerica Occidental Life Ins. Co. of Cal.*, 145 Ariz. 1, 9 (App.1984). As this case proceeds, facts may arise to support application of the discovery rule to A.R.S. § 12-514 that might support a claim for punitive damages. Resolution of this issue can wait until closer to trial.

13. The applicability provision of A.R.S. § 12-514 is constitutional.

Big Brother argues A.R.S. § 12-514’s applicability provision is unconstitutional. That provision states that a cause of action for damages under A.R.S. § 12-514(A)(1) “that involves sexual conduct or sexual contact and that would be time barred under” that statute, “or that would otherwise be time barred because of an applicable statute of limitations, a claim presentation deadline or the expiration of any other time limit is revived and may be commenced before December 31, 2020.” Ariz. Sess. Laws ch. 259, § 3(B) (Appx. B). *Motion* at 13-18.

“An act of the legislature is presumed constitutional, and where there is a reasonable, even though debatable, basis for enactment of the statute, the act will be upheld unless it is clearly unconstitutional.” *State v. Arevalo*, 249 Ariz. 370, 373 ¶ 9 (2020) (quoting *State v. Ramos*, 133 Ariz. 4, 6 (1982)). A “party challenging the validity of a statute has the heavy burden of overcoming that presumption.” *State v. Tyau*, 250 Ariz. 659, 664 ¶ 13 (App. 2021) (quoting *State v. McMahon*, 201 Ariz. 548, 550 ¶ 5 (App. 2002)).

Big Brother argues the applicability provision is “a prohibited ex post facto law.” *Motion* at 13:25 to 14:1. That argument is wrong. There are, indeed, state and federal constitutional bans against ex post facto laws. Ariz. Const. art. 2, § 25; U.S. Const. art. 1,

§ 10, cl. 1. But they only apply to criminal matters; they do not apply to civil matters.

“That the state and federal constitutional prohibition against the enactment of ex-post-facto laws applies only to statutes dealing with criminal matters has long been settled.” *Ray v. Rambaud*, 103 Ariz. 186, 188 (1968). *See also State v. Trujillo*, 248 Ariz. 473, 487 ¶ 78 (2020) (The “prohibition against ex post facto laws only applies to criminal laws.”); *Galvan v. Press*, 347 U.S. 522, 531 & n.4 (1954) (The ex post facto bar only applies to criminal laws, and not to civil ones.). A.R.S. § 12-514 deals with a civil matter. It is not a statute subject to the state or federal prohibitions against ex post facto laws.

Big Brother also argues that the applicability provision is unconstitutional because it supposedly violates the constitutional protections of due process of law. The Arizona Legislature, however, may provide for an extended statute of limitations in a civil case without violating due process of law.

In the relevant and controlling 1945 *Chase Securities* case, which Big Brother did not even cite to this Court, the U.S. Supreme Court considered the 14th Amendment due-process constitutionality of a state statute that created a new statute of limitations to save a civil securities law lawsuit that the state supreme court had thrown out on a statute-of-limitations defense. The defendant claimed that the due-process clause prevented the state legislature from reviving the civil cause of action by creating a new statute of limitations.

The U.S. Supreme Court, however, held that due process notions were not affected by the revival of a civil law claim because civil limitations periods “find their justification in necessity and convenience rather than in logic. . . . They are by definition arbitrary, and their operation does not discriminate between the just and the unjust claim,

or the avoidable and unavoidable delay. They have come into the law not through the judicial process but through legislation.” *Chase Securities Corp. v. Donaldson*, 325 U.S. 304, 314 (1945).

As a result, the “shelter” of statutes of limitations in civil cases has never been viewed as some sort of fundamental right. *Id.* Statutes of limitations are “good only by legislative grace” and are therefore “subject to a relatively large degree of legislative control.” *Id.* And so, “statutes of limitations go to matters of remedy, not to destruction of fundamental rights.” *Id.* (citing *Campbell v. Holt*, 115 U.S. 620, 628 (1885) (In civil matters, a change in the statute of limitations does not affect a “vested right.”)).

A statute that has the “effect of lifting any preexisting bar of the general limitation statute” would not “violate the due process clause of the Fourteenth Amendment.” *Chase Securities*, 325 U.S. at 309. “The Fourteenth Amendment does not make an act of state legislation void merely because it has some retrospective operation.” *Id.* at 315.

After all, “it cannot be said that lifting the bar of a statute of limitation so as to restore a remedy lost through mere lapse of time is per se an offense against the Fourteenth Amendment.” *Id.* at 316. In fact, a legislative body, such as Congress, has the “constitutional power to revive, by enactment, an action which, when filed, is already barred by the running of a limitations period.” *Electrical, Radio & Machine Workers Local 790 v. Robbins & Myers, Inc.*, 429 U.S. 229, 243 (1976).

In the *Chevron* case, the Arizona Legislature had passed a statute extending a statute of limitations for pursuing a workers’ compensation claim. *Chevron Chemical Co. v. Superior Court*, 131 Ariz. 431 (1990). The *Chevron* petitioners had, as Big Brother

does here, contended that “a statute of limitations defense is a vested property right which may not be taken without due process of law contrary to the Fifth and Fourteenth Amendments to the United States Constitution and Article 2, Section 4 of the Arizona Constitution.” *Id.* at 438.

Instead, the Arizona Supreme Court held that it did “not believe, however, that the right to raise a one year statute of limitations defense instead of a two year statute of limitations defense is a vested property right within the protection of the Fourteenth Amendment even if the result may be increased liability on the part of the defendant.” *Id.* at 438.

The Arizona Supreme Court noted that the U.S. Supreme Court “has held that a state legislature may restore a barred remedy without violating the Fourteenth Amendment.” *Id.* at 438 (citing *Campbell v. Holt*, 115 U.S. 620 (1885)). And the Arizona Supreme Court quoted the U.S. Supreme Court’s holding in the *Chase Securities* case that “‘certainly it cannot be said that lifting the bar of a statute of limitation so as to restore a remedy lost through lapse of time is per se an offense against the Fourteenth Amendment.’” *Id.* at 439 (quoting *Chase Securities*, 325 U.S. 304, 316 (1945)).

As for the effect of the Arizona Constitution’s due process clause, the Arizona Supreme Court specifically disagreed with the other state courts that “have held that the opportunity to defend on statute of limitations grounds is a vested right protected by due process against retroactive deprivation.” *Id.* at 440. Instead, the Arizona Supreme Court held that it would “agree” with the Hawaii Supreme Court’s statement that it was not able “to accept the proposition that statutory causes of action which become barred through

the expiration of a statute of limitations can never be revived by a subsequent legislative extension of that period of limitations.” *Id.* at 440 (quoting *Roe v. Doe*, 581 P.2d 310, 315 (Haw. 1978)). The Arizona Supreme Court found “no error.” *Id.*

In summary, both the U.S. Supreme Court and the Arizona Supreme Court have held that a legislature may revive or extend a statute of limitations in a civil case without violating due process of law. On this point, Big Brother is incorrect. A.R.S. § 12-514 does not violate any due process protections.

Big Brother has also misconstrued precedent. For instance, Big Brother claims that, in *San Carlos Apache Tribe v. Superior Court*, 193 Ariz. 195 (1999), “the Arizona Supreme Court specifically recognized that civil ex post facto laws violate the constitution.” *Motion* at 14. That is incorrect. First, the phrase “ex post facto” nowhere appears in the *San Carlos* case. Second, there is no such thing as a “civil” ex post facto law, since an “ex post facto” law is, by definition, a “statute the criminalizes an action and simultaneously provides for punishment of those who took the action before it legally became a crime.” *Black’s Law Dictionary* 726 (11th ed. 2019).

The cases Big Brother cites from other states are irrelevant in light of the Arizona Supreme Court’s *Chevron* decision. In fact, Arizona is one of 18 states that follow the federal approach of allowing retroactive extensions of statutes of limitations. *See, e.g.*, Timothy J. Muyano, *A Not So Retro Problem: Extending Statutes of Limitations to Hold Institutions Responsible for Child Sexual Abuse Accountable Under State Constitutions*, 63 Vill. L. Rev. 47, 56 n. 68, 61 (2018).

14. The Court should liberally construe and apply A.R.S. § 12-514.

A.R.S. § 12-514 is a remedial statute that the Legislature enacted to provide a realistic chance for the targets of child abuse to hold their victimizers liable. Courts must construe remedial statutes broadly to effectuate the Legislature's purposed in enacting them. *In re Estate of Wyatt*, 235 Ariz. 138, 140 ¶ 6 (2014). The obvious purpose of this remedial statute is to allow people who suffered sexual abuse while children to sue when they are finally able, as adults, to do that.

Childhood sexual abuse in adult males is both under-reported and under-identified. Male victims are less likely to report the abuse, because, among other things, "there is an intense cocktail of pressures on males to use the defenses of denial and dissociation regarding their childhood abuse" that, in extreme forms, "will lead to repression and inaccessibility of memories." Guy R. Holmes, et al., *See No Evil, Hear No Evil, Speak No Evil: Why Do Relatively Few Male Victims of Childhood Sexual Abuse Receive Help for Abuse-Related Issues in Adulthood?*, 17 Clin. Psych. Rev. 69, 79 (1997) (Appx. C).

Simply stated, "boys and men have difficulty disclosing childhood sexual abuse and may take many years to discuss this victimization." Patrick J. O'Leary & James Barber, *Gender Differences in Silencing Following Childhood Sexual Abuse*, 17(2) J. Child Sexual Abuse 133, 141 (2008) (Appx. C). Appendix C offers some peer-reviewed articles on reporting and memory issues of adult survivors of childhood sexual abuse.

The Legislature passed A.R.S. § 12-514 to ensure that the victims of sexual abuse would have more time to overcome the severe, recognized obstacles to reporting the sexual abuse they suffered as children.

Conclusion

The Complaint states valid claims for relief. A.R.S. § 12-514, the remedial statute extending the statute of limitations for civil actions arising from sexual conduct or sexual contact against a minor is constitutional. The Court should thus deny the Motion.

DATED this 29th day of June, 2021.

AHWATUKEE LEGAL OFFICE, P.C.

/s/ David L. Abney, Esq.
David L. Abney, Counsel for Plaintiff

Certificate of Service

On this date, this document was electronically filed with the Clerk of the Maricopa County Superior Court and copies were delivered to:

- Lori V. Berke, Esq. and Jody C. Corbett, Esq., **BERKE LAW FIRM, PLLC**, 1601 North 7th Street, Suite 360, Phoenix, Arizona 85006, lori@berkelawfirm.com, jody@berkelawfirm.com, (602) 254-8800, Attys for Def. BB-BS of Am.

/s/ David L. Abney, Esq.
David L. Abney

Appendix A

A.R.S. § 12-514

Civil action arising from sexual conduct or sexual contact committed against a minor; failure to report; statute of limitations; definitions

- A. Notwithstanding §§ 12-505, 12-511 and 12-542, an action for the recovery of damages that is based on either of the following shall be commenced within twelve years after the plaintiff reaches eighteen years of age and not afterward:
1. An injury that a minor suffers as a result of another person's negligent or intentional act if that act is a cause of sexual conduct or sexual contact committed against the minor.
 2. The failure to report pursuant to § 13-3620 sexual conduct or sexual contact committed against a minor.
- B. For the purposes of this section:
1. "Person" means an individual, the United States, this state or a public or private corporation, local government unit, public agency, partnership, association, firm, trust or estate or any other legal entity.
 2. "Sexual conduct" means sexual conduct as proscribed by § 13-1405.
 3. "Sexual contact" has the same meaning prescribed in § 13-1401.

Appendix B

Ariz. Sess. Laws ch. 259, § 3 54th Legislature, 1st Regular Session (filed May 27, 2019)

Sec. 3. Applicability; definitions

- A. Section 12–514, Arizona Revised Statutes, as added by this act, applies to any cause of action that either:
 - 1. Is commenced on or after the effective date of this act.
 - 2. Was filed before and remains pending on the effective date of this act.
- B. Notwithstanding any other law, a cause of action for damages described in subsection A, paragraph 1 of this section that involves sexual conduct or sexual contact and that would be time barred under section 12–514, Arizona Revised Statutes, as added by this act, or that would otherwise be time barred because of an applicable statute of limitations, a claim presentation deadline or the expiration of any other time limit is revived and may be commenced before December 31, 2020.
- C. A cause of action revived pursuant to subsection B of this section may be brought against a person who was not the perpetrator of the sexual conduct or sexual contact if that person knew or otherwise had actual notice of any misconduct that creates an unreasonable risk of sexual conduct or sexual contact with a minor by an employee, a volunteer, a representative or an agent.
- D. For a claim described in subsection B or C of this section, both of the following apply:
 - 1. The plaintiff has the burden of proving the claim by clear and convincing evidence.
 - 2. Punitive damages may not be awarded.
- E. For the purposes of this section:
 - 1. “Sexual conduct” means intentionally or knowingly engaging in sexual intercourse or oral sexual contact with any person who is under eighteen years of age.
 - 2. “Sexual contact”:

- (a) Means any direct touching, fondling or manipulating of any part of the genitals, anus or female breast by any part of the body or by any object, or masturbation in the presence of a minor.
- (b) Does not include direct or indirect touching or manipulating during caretaking responsibilities, or interactions with a minor that an objective, reasonable person would recognize as normal and reasonable under the circumstances.

Appendix C

Sample of Peer-Reviewed Articles on Childhood Sexual Abuse and Problems with Adult Memory of the Abuse

- Ramona Alaggia, et al., *Facilitators and Barriers to Child Sexual Abuse (CSA) Disclosures: A Research Update (2000–2016)*, 20(2) *Trauma, Violence & Abuse* 260 (2017).
- Kristen Weede Alexander, et al., *Traumatic Impact Predicts Long-Term Memory for Documented Child Sexual Abuse*, 16(1) *Psychol. Sci.* 33 (2005).
- Lisa A Bunting, *Exploring the Influence of Reporting Delay on Criminal Justice Outcomes: Comparing Child and Adult Reporters of Childhood Sexual Abuse*, 23 *J. Child Sexual Abuse* 577 (2014).
- Elke Geraerts, et al., *Cognitive Mechanisms Underlying Recovered-Memory Experiences of Childhood Sexual Abuse*, 20(1) *Psychol. Sci.* 92 (2009).
- Elke Geraerts, et al., *Forgetting of Prior Remembering in Persons Reporting Recovered Memories of Childhood Sexual Abuse*, 17(11) *Psychol. Sci.* 1002 (2006).
- Elke Geraerts, et al., *The Reality of Recovered Memories Corroborating Continuous and Discontinuous Memories of Childhood Sexual Abuse*, 18(7) *Psychol. Sci.* 564 (2007).
- Simona Ghetti, et al., *What Can Subjective Forgetting Tell Us About Memory for Childhood Trauma?*, 34(5) *Memory & Cognition* 1011 (2006).
- Deborah Goldfarb, Gail S. Goodman, et al., *Forgetting of Prior Remembering in Persons Reporting Recovered Memories of Childhood Sexual Abuse*, 7(2) *Clin. Psychol. Sci.* 381 (2019).
- Guy R. Holmes, et al., *See No Evil, Hear No Evil, Speak No Evil: Why Do Relatively Few Male Victims of Childhood Sexual Abuse Receive Help for Abuse-Related Issues in Adulthood?*, 17 *Clin. Psych. Rev.* 69, 79 (1997).
- Maxwell R. Hong and Sue D. Hobbs, *Simulated Memory Error and Blame Attribution in Cases of Child Sexual Abuse*, 27(5) *Psychol., Crime & Law* 494 (2021).
- Patrick O’Leary & James Barber, *Gender Differences in Silencing Following Childhood Sexual Abuse*, 17(2) *J. Child Sexual Abuse* 133 (2008).

- Heather B. MacIntosh, et al., *“As Time Went On, I Just Forgot About It”: Thematic Analysis of Spontaneous Disclosures of Recovered Memories of Childhood Sexual Abuse*, 25(1) J. Child Abuse 56 (2016).
- Richard L. McNally, et al., *Clinical Characteristics of Adults Reporting Repressed, Recovered, or Continuous Memories of Childhood Sexual Abuse*, 74(2) J. Consul. & Clinical Psychol. 237 (2006).
- Sarah Miragoli, et al., *Narrative Fragmentation in Child Sexual Abuse: The Role of Age and Post-Traumatic Stress Disorder*, 73 Child Abuse & Neglect 106 (2017).
- Linsey Raymaejers, et al., *Autobiographical Memory Specificity Among People with Recovered Memories of Childhood Sexual Abuse*, 41 J. of Behavior Therapy and Experimental Psych. 338 (2010).
- Dafna Tener & Sharon B. Murphy, *Adult Disclosure of Child Sexual Abuse: A Literature Review*, 16(4) Trauma, Violence & Abuse 391 (2014).
- Sarah Turner, et al., *The Relationship Between Childhood Sexual Abuse and Mental Health Outcomes Among Males: Results from a Nationally Representative United States Sample*, 66 Child Abuse & Neglect 64 (2017).
- Delphine Collin-Vézina, et al., *A Preliminary Mapping of Individual, Relational, and Social Factors that Impede Disclosure of Childhood Sexual Abuse*, 43 Child Abuse & Neglect 123 (2015).
- Kate Walsh, et al., *Adult Coping with Childhood Sexual Abuse: A Theoretical and Empirical Review*, 15 Aggression & Violent Behavior 1 (2010).

Appendix C

Ramona Alaggia, et al., *Facilitators and Barriers to Child Sexual Abuse (CSA) Disclosures: A Research Update (2000–2016)*, 20(2) *Trauma, Violence & Abuse* 260 (2017).

Appendix C

Facilitators and Barriers to Child Sexual Abuse (CSA) Disclosures: A Research Update (2000–2016)

TRAUMA, VIOLENCE, & ABUSE
2019, Vol. 20(2) 260–283
© The Author(s) 2017



Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/1524838017697312
journals.sagepub.com/home/tva



Ramona Alaggia¹, Delphine Collin-Vézina², and Rusan Lateef¹

Abstract

Identifying and understanding factors that promote or inhibit child sexual abuse (CSA) disclosures has the potential to facilitate earlier disclosures, assist survivors to receive services without delay, and prevent further sexual victimization. Timely access to therapeutic services can mitigate risk to the mental health of survivors of all ages. This review of the research focuses on CSA disclosures with children, youth, and adults across the life course. Using Kiteley and Stogdon's literature review framework, 33 studies since 2000 were identified and analyzed to extrapolate the most convincing findings to be considered for practice and future research. The centering question asked: What is the state of CSA disclosure research and what can be learned to apply to practice and future research? Using Braun and Clarke's guidelines for thematic analysis, five themes emerged: (1) Disclosure is an iterative, interactive process rather than a discrete event best done within a relational context; (2) contemporary disclosure models reflect a social–ecological, person-in-environment orientation for understanding the complex interplay of individual, familial, contextual, and cultural factors involved in CSA disclosure; (3) age and gender significantly influence disclosure; (4) there is a lack of a life-course perspective; and (5) barriers to disclosure continue to outweigh facilitators. Although solid strides have been made in understanding CSA disclosures, the current state of knowledge does not fully capture a cohesive picture of disclosure processes and pathways over the life course. More research is needed on environmental, contextual, and cultural factors. Barriers continue to be identified more frequently than facilitators, although dialogical forums are emerging as important facilitators of CSA disclosure. Implications for practice in facilitating CSA disclosures are discussed with recommendations for future research.

Keywords

sexual abuse, child abuse, cultural contexts

Introduction

Timely access to supportive and therapeutic resources for child sexual abuse (CSA) survivors can mitigate risk to the health and mental health well-being of children, youth, and adults. Identifying and understanding factors that promote or inhibit CSA disclosures have the potential to facilitate earlier disclosures, assist survivors to receive services without delay, and potentially prevent further sexual victimization. Increased knowledge on both the factors and the processes involved in CSA disclosures is timely when research continues to show high rates of delayed disclosures (Collin-Vézina, Sablonni, Palmer, & Milne, 2015; Crisma, Bascelli, Paci, & Romito, 2004; Easton, 2013; Goodman-Brown, Edelstein, Goodman, Jones, & Gordon, 2003; Hershkowitz, Lanes, & Lamb, 2007; Jonzon & Lindblad, 2004; McElvaney, 2015; Smith et al., 2000).

Incidence studies in the United States and Canada report decreasing CSA rates (Fallon et al., 2015; Finkelhor, Shattuck, Turner, & Hamby, 2014; Trocmé et al., 2005, 2008), while at

the same time global trends from systematic reviews and meta-analyses have found concerning rates of CSA, with averages of 18–20% for females and of 8–10% for males (Pereda, Guilera, Forns, & Gómez-Benito, 2009). The highest rates found for girls is in Australia (21.5%) and for boys in Africa (19.3%), with the lowest rates for both girls (11.3%) and boys (4.1%) reported in Asia (Stoltenborgh, van IJzendoorn, Euser, & Bakermans-Kranenburg, 2011). These findings point to the incongruence between the low number of official reports of

¹ Factor-Inwentash Faculty of Social Work, University of Toronto, Toronto, Ontario, Canada

² Centre for Research on Children and Families, School of Social Work, McGill University, Montreal, Quebec, Canada

Corresponding Author:

Ramona Alaggia, Factor-Inwentash Chair in Children's Mental Health, Factor-Inwentash Faculty of Social Work, University of Toronto, 246 Bloor St. West, Toronto, Ontario, Canada M4K1W1.

Email: ramona.alaggia@utoronto.ca

CSA to authorities and the high rates reported in prevalence studies. For example, a meta-analysis conducted by Stoltenborgh, van IJzendoorn, Euser, and Bakermans-Kranenburg (2011) combining estimations of CSA in 217 studies published between 1980 and 2008 revealed rates of CSA to be more than 30 times greater in studies relying on self-reports (127 in 1,000) than in official report inquiries, such as those based on data from child protection services and the police (4 in 1,000) (Jillian, Cotter, & Perreault, 2014; Statistics Canada 2013). In other words, while 1 out of 8 people retrospectively report having experienced CSA, official incidence estimates indicate only 1 per 250 children. In a survey of Swiss child services, Maier, Mohler-Kuo, Landholt, Schnyder, and Jud (2013) further found 2.68 cases per 1,000 of CSA disclosures, while in a recent comprehensive review McElvaney (2015) details the high prevalence of delayed, partial, and nondisclosures in childhood indicating a persistent trend toward withholding CSA disclosure.

It is our view that incidence statistics are likely an underestimation of CSA disclosures, and this drives the rationale for the current review. Given the persistence of delayed disclosures with research showing a large number of survivors only disclosing in adulthood (Collin-Vézina et al., 2015; Easton, 2013; Hunter, 2011; McElvaney, 2015; Smith et al., 2000), these issues should be a concern for practitioners, policy makers, and the general public (McElvaney, 2015). The longer disclosures are delayed, the longer individuals potentially live with serious negative effects and mental health problems such as depression, anxiety, trauma disorders, and addictions, without receiving necessary treatment. This also increases the likelihood of more victims falling prey to undetected offenders. Learning more about CSA disclosure factors and processes to help advance our knowledge base may help professionals to facilitate earlier disclosures.

Previous literature reviews examining factors influencing CSA disclosure have served the field well but are no longer current. Important contributions on CSA disclosures include Paine and Hansen's (2002) original review covering the literature largely from the premillennium era, followed by London, Bruck, Ceci, and Shuman's (2005) subsequent review, which may not have captured publications affected by "lag to print" delays so common in peer-reviewed journals. These reviews are now dated and therefore do not take into account the plethora of research that has been accumulated over the past 15 years. Other recent reviews exist but with distinct contributions on the *dialogical relational processes* of disclosure (Reitsemá & Grietens, 2015), CSA disclosures in *adulthood* (Tener & Murphy, 2015), and delayed disclosures in *childhood* (McElvaney, 2015). This literature review differs by focusing on CSA disclosures in children, youth, and adults from childhood and into adulthood—over the life course.

Method

Kiteley and Stogdon's (2014) systematic review framework was utilized to establish what has been investigated in CSA

disclosure research, through various mixed methods, to highlight the most convincing findings that should be considered for future research, practice, and program planning. This review centered on the question: *What is the state of CSA disclosure research and what can be learned to apply to future research and practice?* By way of clarification, the term systematic refers to a methodologically sound strategy for searching literature on studies for *knowledge construction*, in this case the CSA disclosure literature, rather than *intervention* studies. The years spanned for searching the literature were 2000–2016, building on previous reviews without a great deal of overlap. Retrieval of relevant research was done by searching international electronic databases: PsycINFO, PsycARTICLES, Educational Resources Information Center, Canadian Research Index, International Bibliography of the Social Sciences, Published International Literature on Traumatic Stress, Sociological Abstracts, Social Service Abstracts, and Applied Social Science Index and Abstracts. This review searched peer-reviewed studies. A search of the gray literature (unpublished literature such as internal agency documents, government reports, etc.) was beyond the scope of this review because unpublished studies are not subjected to a peer-review process. Keyword search terms used were child sexual abuse, childhood sexual abuse, disclosure, and telling.

A search of the 9 databases produced 322 peer-reviewed articles. Selected search terms yielded 200 English publications, 1 French study, and 1 Portuguese review. The search was further refined by excluding studies focusing on forensic investigations, as these studies constitute a specialized legal focus on interview approaches and techniques. As well, papers that focused exclusively on rates and responses to CSA disclosure were excluded, as these are substantial areas unto themselves, exceeding the aims of the review question. Review articles were also excluded. Once the exclusion criteria were applied, the search results yielded 33 articles. These studies were subjected to a thematic analysis as described by Braun and Clarke (2006). This entailed (1) multiple readings by the three authors; (2) identifying patterns across studies by coding and charting specific features; (3) examining disclosure definitions used, sample characteristics, and measures utilized; and (4) major findings were extrapolated. Reading of the articles was initially conducted by the authors to identify general trends in a first level of analyses and then subsequently to identify themes through a deeper second-level analyses. A table of studies was generated and was continuously revised as the selection of studies was refined (see Table 1).

Key Findings

First-level analysis of the studies identified key study characteristics. Trends emerged around definitions of CSA disclosure, study designs, and sampling issues. First, in regard to definitions, the term "telling" is most frequently used in place of the term disclosure. In the absence of standardized questionnaires or disclosure instruments, telling emerges as a practical term more readily understood by study participants. Several

Table 1. Child Sexual Abuse (CSA) Disclosure Studies: 2000–2016.

Study	Purpose	Design	Sample	Findings	Summary
Gagnier and Collin-Vézina (2016)	To explore disclosure processes for male victims of CSA	Phenomenological methodology used to interview male CSA survivors. The Long Interview Method (LIM) guided data collection and analyses.	17 men ranged in age from 19 to 67—average age 47. Purposive sampling strategy was used	The majority of the men in the study waited until adulthood to disclose their abuse, with negative stereotypes contributing to their delayed disclosures. Negative stereotypes contributed to delayed disclosure with trying to forget. Breaking isolation was cited as a motivator to disclosure along with the aid of various forms of media on disclosure. Important contextual issues such as negative stereotyping of males, sexuality, and victims were noted. Social media was seen as a facilitator of disclosures	All participants had disclosed and received services before participating in the study. Member checking could not be done with the participants to check themes. Small but sufficient size for a qualitative inquiry. Otherwise, high level of rigor in establishing trustworthiness of the data and analysis. Retrospective study could imply recall issues
Brazelton (2015)	To explore the meaning African American women make of their traumatic experiences with CSA and how they disclosed across the life course	Collective case study design with using narrative tradition (storyboard) for data collection and analysis. Qualitative interviewing	17 African American women in mid-life between 40 and 63 who experienced intrafamilial CSA. Purposive, snowballing strategy	CSA onset was largely between the ages 5 and 9. No one ever talked to them about sex, so they didn't have language to disclose. Barriers: fear of family breakdown and removal, not wanting to tarnish the family's name, and fear of retribution by family members if they disclosed. Pattern of stifled and dismissed disclosures identified over the life course. All 17 participants identified spirituality as a primary source of strength throughout the life course	One of few studies to focus exclusively on African American women. Small but sufficient size for a qualitative inquiry. Important cultural and contextual issues were brought forward. Retrospective study that may have been affected by recall issues. Use of a life-course perspective as a theoretical lens for understanding CSA in the middle to later years of life that should be considered in further investigations
Collin-Vézina, Sablonni, Palmer, and Milne (2015)	To provide a mapping of factors that prevent CSA disclosures through an ecological lens from a sample of CSA adult survivors.	Qualitative design using LIM.	67 male and female CSA adult survivors (76% identified as female and 24% as male). Age ranges from 19 to 69 years ($M = 44.9$). Purposive sampling strategy	Three broad categories were identified as barriers to CSA disclosure: Barriers from within-internalized victim blaming, mechanisms to protect oneself, and immature development at time of abuse; barriers in relation to others—violence and dysfunction in the family, power dynamics, awareness of the impact of telling, and fragile social network; barriers in relation to the social world labeling, taboo of sexuality, lack of services available, and culture or time period.	Half of the participants had not disclosed their CSA experiences before the age of 19. Retrospective aspect of the study could imply recall issues. All participants had disclosed and received counseling at some before participating in the study. High level of rigor in establishing trustworthiness of the data and analysis
Leclerc and Wortley (2015)	Study objectives investigated the factors that facilitate CSA disclosures	Adult male child sexual offenders were interviewed to examine predictors of	369 adult males who had been convicted of a sexual offense against a child aged between 1	Disclosure increased with the age of the victim: if penetration had occurred, if the victim was related to the offender, if the victim was not living with the offender at	Offender generated data through self-reports could be subject to cognitive distortions—minimization or exaggerations.

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
McElvaney and Culhane (2015)	To investigate the feasibility of using child assessments as data sources of informal CSA disclosure. To assess if these reports provide substantive data on disclosures	victim disclosure. Semistructured interviews based on the QID questionnaire. File reports of children seen for assessment in a child sexual abuse unit in a children's hospital were reviewed	and 17 years old. Majority were White, uneducated, almost half unemployed before their arrest Content analysis was completed on 39 files (32 females and 7 males) based on a coding framework. Parents were asked to consent to have their child's file reviewed for the study. Victims assessed were 12–18 years of age	the time of the abuse, or if the victim resisted during the offense. Male victims and victims from dysfunctional backgrounds were less likely to disclose Majority of children told their mothers (43%) and peers (33%) first. Three major themes were identified as influencing the disclosure process: (1) feeling distressed, (2) opportunity to tell, and (3) fears for self. Additional themes of being believed, shame/self-blame, and peer influence were also identified	Perspectives of offenders on vulnerability of victims in relation to disclosure could be important information to inform interventions The sample size is small but will contribute to a large multisite study in Ireland. Serves as an important exploratory pilot bringing forward disclosure themes for consideration
Dumont, Messerschmitt, Vila, Bohu, and Rey-Salmon (2014)	This study aimed to explore how the relationship between the perpetrator and the victim, especially whether these relations are intrafamilial or extrafamilial, impact CSA disclosure	File reports of children seen for assessment in a child sexual abuse unit in a children's hospital were reviewed	220 minor victims—78.2% female victims, 41.8% aged between 14 and 18 (most prevalent age range), and 48.2% were abused by a family member	Disclosure processes were more complex when it concerned sexual abuse committed by intrafamilial perpetrator: 60% of the victims reveal the facts several years after, and most often to individuals outside the family (78.6% of the disclosures done at school); on the contrary, extrafamilial disclosures take place more spontaneously and quickly: 80% of the victims reveal the facts a few days after, most often to their mother or peers	The relationship with the perpetrator has a significant impact on both timing and recipient of disclosure, with intrafamilial abuses less likely to be disclosed promptly and within the family system
Easton, Saltzman, and Willis (2014)	Study focus was on identification of barriers to CSA disclosure with male survivors	Using qualitative content analysis, researchers conducted a secondary analysis of online survey data, the 2010 Health and Well-Being Survey, that included men with self-reported CSA histories with an open-ended item on disclosure barriers	460 men with CSA histories completed an anonymous, Internet-based survey. Recruited from survivors' organizations. Age range of 18–84 years. Two thirds of respondents reported clergy-related abuse. Majority of respondents were White	Vast majority of participants (94.6%) were sexually abused by another male. Duration of sexual abuse broke down into: 30.2% less than 6 months, 32.3% 6 months to 3 years, and 34.3% more than 3 years. Ten years old was average age of CSA onset. Ten categories of barriers were classified into three domains: (1) sociopolitical: masculinity, limited resources; (2) interpersonal: mistrust of others, fear of being labeled "gay," safety and protection issues, past responses; and (3) personal: internal emotions, seeing the experience as sexual abuse, and sexual orientation.	At time of the study, this was the largest qualitative data set to have been analyzed with an explicit focus on adult male survivors' perceptions of barriers to CSA disclosure. Because the sample was limited in terms of the low percentage of racial minorities (9.3%), disclosure differences based on race or ethnicity were not discerned. The majority of abuse reported was by clergy which might present a unique set of barriers to disclosure

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
Easton (2013)	Study purpose was to describe male CSA disclosure processes using a life span approach examining differences based on age. Also, to explore relationships between disclosure attributes and men's mental health	Cross-sectional survey design. Eligible participants were screened and completed an anonymous, Internet-based survey during 2010. Measures used: General Mental Health Distress Scale and General Assessment of Individual Needs. Questions related to CSA disclosure and supports were included	Purposive sampling of 487 men from three national organizations devoted to raising awareness of CSA among men. Age range: 19–84 years. Mean age for onset of CSA was 10.3 years	Older age and being abused by a family member were both related to delays in disclosure. Most participants who told someone during childhood did not receive emotionally supportive or protective responses and the helpfulness of responses across the life span was mixed. Delays in telling were significant periods of time (over 20 years). Approximately one half of the participants first told about the sexual abuse to a spouse/partner (27%) or a mental health professional (20%); 42% of participants reported that their most helpful discussion was with a mental health professional. However, unhelpful responses caused most mental distress. Clinical recommendations included more of a life-course perspective be adopted, understanding impact of unhelpful responses and the importance of expanding networks for male survivors	Purposive sampling of men from awareness raising organizations may have attracted particular participants who had already disclosed and received help. Participants needed to have access to Internet which would have eliminated men in lower SES groups and required proficiency in English which would eliminate certain cultural groups. However, the sampling strategy gained access to a predominantly hidden population. Important clinical recommendations are made with an emphasis on a life-course focus
McElvaney, Greene, and Hogan (2012)	Qualitative study asked the central research question: "How do children tell?" Objective was to develop theory of how children tell of their CSA disclosure experiences. Parents were interviewed.	Grounded theory method study. Interviews were conducted. Line-by-line open and axial coding was conducted on verbatim transcripts	Sample of 22 young people; 16 girls and 6 boys; age range: 8–18 years; 22 interviewed in total between the ages of 8 and 18. Mixed sample of some enduring intrafamilial CSA, some extrafamilial CSA, and two endured both forms	A theoretical model was developed that conceptualizes the process of CSA disclosure as one of containing the secret: (1) the active withholding of the secret on the part of the child; (2) the experience of a "pressure cooker effect" reflecting a conflict between the wish to tell and the wish to keep the secret; and (3) the confiding itself which often occurs in the context of a trusted relationship. These were derived from eleven categories that were developed through open and axial coding	Modest but sufficient sample for an exploratory qualitative inquiry. High level of trustworthiness rigor. A subsample of randomly selected transcripts was independently coded. Very young children and young adults were not captured in this sample. Transferability of findings can only be made to the age range sampled in the context of Ireland
Schonbucher, Maier, Mohler-Kuo, Schnyder, and Landolt (2012)	To investigate the process of CSA disclosure with adolescents from the general population who had experienced CSA. How many disclosed, who did	Data collection was through face-to-face qualitative interviews. Standardized questions and measures were administered on family situation, sociodemographic	Convenience sample of 26 sexually victimized adolescents. 23 girls and 3 boys. Age range: 15–18 years. Online advertisements and flyers were used to recruit youth from	Less than one third of participants immediately disclosed CSA to another person. In most cases, recipients of both immediate and delayed disclosure were to peers. More than one third of participants had never disclosed the abuse to a parent. Participants reported reluctance to disclose to parents so as	Two thirds of the sample did not disclose right away. Strengthening parent-child relationships may be one of the most important ways to increase disclosure to parents. Disclosure to peers has been found a common trend in other

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
Hunter (2011)	they disclose to, and what were their motives for disclosing	data, sexual victimization, general, and mental health. Sexual Assault Module of the Juvenile Victimization Questionnaire was used	community and counseling services	not to burden them. Earlier disclosures were related to extrafamilial CSA, single occurrence CSA, age of victim at abuse onset, and parents who were living together. Higher levels of reported guilt and shame were related to delayed disclosures. Peers were viewed by this sample as more reliable confidants	research and bears more examination
	Aim of this study was to develop a fuller understanding of CSA disclosures	Narrative inquiry methodology: Face-to-face in-depth interviews were conducted with participants. Data were analyzed using Rosenthal and Fischer-Rosenthal's (2004) method.	Purposive sampling was employed. Sample consisted of 22 participants aged 25–70 years; 13 women and 9 men. Participants were sexually abused at 15 years or under with someone over the age of 18.	Only 5 out of 22 participants told anyone about their early sexual experiences as children. Fear, shame, and self-blame were the main inhibitors to disclosure. These factors are further detailed through subthemes. Telling as a child and as an adult was further expanded upon using Alaggia's (2004) framework verifying behavioral indirect attempts to tell and purposeful disclosure as categories. Thematic analysis supported that CSA disclosure should be conceptualized and viewed as a complex and lifelong process	Delayed disclosure was common in this qualitative sample. Most participants did not make a selective disclosure until adulthood. These findings support Alaggia's (2004) model of disclosure but also highlights the importance of life stage. Modest but sufficient sample size for a qualitative inquiry. Well-designed study with detailed analysis for transferability of findings
Schaeffer, Leventhal, and Asnes (2011)	This study aimed to: (1) add direct inquiry about the process of a child's CSA disclosure; (2) determine if children will discuss process that led them to tell; and (3) describe factors that children identify that led them to tell about or caused them to delay CSA disclosure	Study sought to find out if process issues of disclosure could be identified in the context of forensic interviews. Forensic interviewers were asked to incorporate questions about "telling" into an existing forensic interview protocol. Interview content related to the children's reasons for telling or waiting was extracted, transcribed, and analyzed using grounded theory method of analysis	191 interviews of CSA victims aged 3–18 over a 1-year period were used for the study. Inclusion criteria included children who made a statement about CSA prior to referral, reasons for telling or waiting to tell, and those who spoke English. Participants were children who were interviewed at a child sexual abuse clinic. 74% were female and 51% were Caucasian	Reasons the children identified for telling were classified into three domains: (1) disclosure as a result of internal stimuli (e.g., the child had nightmares); (2) disclosure facilitated by outside influences (e.g., the child was questioned); and (3) disclosure due to direct evidence of abuse (e.g., the child's abuse was witnessed). The barriers to disclosure identified fell into five groups: (1) threats made by the perpetrator (e.g., the child was told she or he would get in trouble if she or he told), (2) fears (e.g., the child was afraid something bad would happen if she or he told), (3) lack of opportunity (e.g., the child felt the opportunity to disclose never presented), (4) lack of understanding (e.g., the child failed to recognize abusive behavior as unacceptable), and (5) relationship with the perpetrator (e.g., the child thought the perpetrator was a friend)	An innovative study to try to assess if formal investigative interviews can facilitate disclosures of CSA. Data were based on a large number of interviews. Detailed analysis produced detailed findings supporting other study findings on CSA disclosure

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
Alaggia (2010)	The study aimed to identify factors impeding or promoting CSA disclosures. Overarching research question: What individual, interpersonal, environmental, and contextual influences impede or promote CSA disclosures.	A qualitative phenomenological design, LIM, was used to interview adult CSA survivors about their disclosure experiences to provide retrospective accounts of CSA disclosure and meaning-making of these experiences. Thematic analysis was done through a social-ecological lens.	Purposive sampling was employed. Snowball sampling was also used to recruit more male survivors. 40 adult survivors of CSA were interviewed: 36% men and 64% women. Age range of 18–65 with a mean age of 40.1 years. Average age of abuse onset was 5.3 years old. 36% of the sample was non-White. Diverse socioeconomic backgrounds	Themes fell into four domains: (1) individual and developmental factors, developmental factors as to whether they comprehended what was happening, personality traits also had some bearing on their ability to tell, and anticipating not being believed; (2) disclosure inhibited by family characteristics such as rigidly fixed gender roles with dominating fathers, chaos and aggression, other forms of child abuse, domestic violence, dysfunctional communication, and social isolation; (3) neighborhood and community context, that is, lack of interest from neighbors and teachers not pursuing troubling behavior; and (4) cultural and societal attitudes, media messages and societal attitudes, feeling unheard as kids, gender socialization for males, and cultural attitudes influencing parent's reactions. Purposeful disclosure is higher than reported in other studies because of the sampling attempts to purposefully locate disclosers	The study presents a comprehensive social-ecological analysis to CSA disclosure highlighting the multifaceted influences. Of note, 42% had disclosed the abuse during childhood; 26% had not disclosed because they had repressed the memory, or the abuse had occurred in preschool years and they had difficulty with recall. The remainder had attempted some form of disclosure in indirect ways during childhood. A retrospective approach that could be affected by recall issues
Fontes and Plummer (2010)	This examination of CSA disclosure explored the ways culture affects processes of CSA disclosure and reporting, both in the United States and internationally	Using published literature with clinical data, this article conducted an analysis to provide a culturally competent framework for CSA disclosure questioning	Data consisted of published literature on disclosure and culture that was triangulated with clinical case material	Cultural and structural factors affecting CSA disclosure are identified in in-depth detail. Recommendations made include (1) disclosure interviewing should be tailored to the child's cultural context, (2) questioning should also take into consideration age and gender factors, and (3) culture stands as an important factor in all cases in which children are considering disclosing or being asked to disclose, and not solely in cases in which children are from noticeable minority groups. Presents a comprehensive interview framework integrating cultural considerations	One of the few works that adds knowledge to culturally contextual disclosure interviewing. Unique combination of literature findings with clinical material. Anecdotal accounts may preclude transferability of findings. Overall adds to an impoverished area of CSA disclosure information
Ungar, Barter, McConnell, Tutty, and Fairholm. (2009a)	This study explored disclosure strategies with a national sample of youth focusing on	Forms were completed by youth following participation in abuse prevention	Examination of results from a national sample of 1,621 evaluation forms where youth	Youth who have been abused or witnesses to abuse employ five disclosure strategies: using self-harming behaviors to signal the abuse to others; not talking	This study highlights that disclosure is an interactive ongoing process. Findings lend support to studies that have identified similarly

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
	(1) What are the hidden experiences of abuse among Canadian youth? (2) What impact does participation in abuse prevention programs have on youth to express their abuse experiences? (3) What disclosure barriers do youth face? (4) What are young people's disclosure patterns? and (5) Who do they tell?	programming by the Canadian Red Cross (RespectED). A series of focus groups and observations of the workshops were used to help contextualize the findings. Evaluation forms were analyzed from two violence prevention programs: (1) It's not your fault and (2) What's love got to do with It?	anonymously disclosed abuse experiences. Respondent's ages: 13 and under (27%), 14–15 (37%), 16–17 (25%), 18 and older (4%), and unknown (7%)	at all about the abuse to prevent intrusive interventions by others; seeking help from peers; seeking help from informal adult supports; and seeking help from mandated service providers (social workers and police). Results suggest disclosure is an interactive process, with expectations regarding consequences to disclosure. Patterns of incrementally sharing abuse experiences are shaped by young people's interactions with peers, educators, and caregivers. About three-quarters of females previously disclosed; significantly less males disclosed	interactive models of disclosure such as those detailed by Alaggia (2004) and Staller and Nelson-Gardell (2005). This mixed sample of youth who experienced different forms of abuse and violence exposure were participants—not limited to CSA survivors
Ungar, Tutty, McConnell, Barter, and Fairholm (2009b)	This study explored abuse disclosure strategies with a national sample of Canadian youth who participated in violence prevention programming. One of the goals of the study was to document not previously identified experiences of abuse and youth attitudes toward disclosure of abuse experiences	Exploratory design with a nonrepresentative samples. Qualitative analysis of 1,099 evaluation forms completed following Red Cross RespectED violence prevention programming delivered between 2000 and 2003 Red Cross RespectED violence prevention programming delivered between 2000 and 2003 Exploratory design with a nonrepresentative samples. Qualitative analysis of 1,099 evaluation forms completed following Red Cross RespectED violence prevention programming delivered between 2000 and 2003. Forms of anonymous abuse disclosures by youth participants of neglect, emotional, physical, and sexual abuse. Twenty-seven interviews and focus groups were also done to understand contextual issues and engage youth and program facilitators in the interpretation of the findings. A coding structure was developed for analysis to synthesize themes across data sources	Purposeful sample of 1,099 evaluation forms completed following Red Cross RespectED violence prevention programming delivered between 2000 and 2003	Findings suggest high rates of hidden abuse, with less than one quarter of youth reporting a disclosure. 244 of the 1,099 youth who disclosed abuse on their evaluation forms identified specific individuals they told about their abuse. Disclosure patterns vary with boys, youth aged 14–15, victims of physical abuse, and those abused by a family member being most likely to disclose to professionals or the police. One third of disclosures were directed toward professionals and the least, 5% percent each, were directed toward friends, parents, and others. Participants were most likely to disclose sexual abuse to parents/family, professionals, and the police/courts, with fewer choosing friends. Out of all 1,099 participants, 225 males and 779 females indicated that they had been abused. Out of those, 43 males and 180 females indicated that they had disclosed the abuse. Of those who had disclosed, only a portion of males and females specified who they had disclosed the abuse to ("While 1,099 evaluations with disclosure statements were analyzed, only 22% made mention of people to	Innovative design of this study provides insight into young people's perceptions of disclosure experiences. High level of rigor with trustworthiness of the data analysis ensured through use of youth focus groups, interviews, and observational data. The study results are somewhat limited in the thickness of the descriptions it can offer because most of the data are survey based. Regional differences may not have been picked up. Scope of the study is broad and approach is creative

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
Priebe and Svedin (2008)	This study aimed to investigate disclosure rates and disclosure patterns and examine predictors of nondisclosure in a sample of male and female adolescents with self-reported experiences of sexual abuse	Participants completed 65-item questionnaire that included questions about background, consensual sex, sexual abuse experiences (noncontact, contact or penetrating abuse, including peer abuse), disclosure of CSA, own sexual abusive behavior, sexual attitudes, and experiences with pornography and sexual exploitation. The questionnaire included 6 modified items from the SCL-90 and 9 of 25 items from the Parental Bonding Instrument. The data for girls and boys were analyzed separately	The sample consisted of 4,339 high school students in Sweden (2,324 girls and 2,015 boys). The mean age of the participants was 18.15 years. This study used a subsample of 1,962 participants who reported CSA and who answered disclosure questions	whom disclosures occurred.") More females specified who they disclosed to compare to males. The data show perceptions among youth of negative consequences following disclosure Of the sample, 1,505 girls (65%) and 457 boys (23%) reported CSA. The disclosure rate was 81% (girls) and 69% (boys). Girls and boys disclosed most often to a friend of their own age. Few had disclosed to professionals, and even fewer had reported to the authorities. There were higher rates of disclosure to a professional with more severe abuse (contact abuse with or without penetration) for girls, but lower rates for boys. The more severe the sexual abuse was, the less likely both girls and boys had talked to their mother, father, or a sibling. Girls were less likely to disclose if they had experienced contact sexual abuse with or without penetration, less frequent abuse, abuse by a family member, or if they had perceived their parents as less caring and less overprotective and highly overprotective. Boys were less likely to disclose if a family member abused them, they were studying a vocational program (vs. an academic program), lived with both parents or had perceived their parents as less caring and not overprotective. Adolescents who reported CSA perceived their mental health as poorer compared to adolescents without CSA. Nondisclosers reported more symptoms on the Mental Health Scale than those who had disclosed	This study highlighted that sexual abuse is largely hidden from adult society, especially from professionals and the legal system. However, time lapsed to disclosure was not reported. Since friends appeared to be the main recipients of sexual abuse disclosures, practice implications of this could be to find ways to give young people better information and guidance about how to support a sexually abused peer. A qualitative component to the study would have provided a broader understanding of disclosure processes. Study limitations include a significant amount of boys who did not complete the questions regarding disclosure on; the timing of disclosures (whether they were delayed or not) was not measured; possibility of recall bias with retrospective studies based on self-reports; and youth participants may not have understood all the questions
Sorsoli, Kia-Keating, and Grossman (2008)	Study focused on disclosure challenges for male survivors of CSA to understand three issues: (1) To	Male survivors of CSA were interviewed about their disclosure experiences. Analytic techniques included	The sample consisted of 16 male survivors of childhood sexual abuse; 11 Caucasian, 2 African American, 1	Barriers to disclosure were found to be operant in three interrelated domains: (1) personal (e.g., lack of cognitive awareness, intentional avoidance, emotional readiness, and shame); (2)	Since the vast majority of men in the sample had not disclosed in childhood, they may have been predisposed to identifying barriers to disclosure more

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
	whom and in what contexts have they disclosed these experiences? (2) What do they have to say about their disclosure experiences? and (3) What are their perceptions of positive and negative aspects of their disclosure, including incentives and barriers?	grounded theory method of analysis for coding and development of conceptually clustered matrices. Participants completed two in-depth, semi-structured interviews, lasting between 2 and 3 hr each taking place approximately a week apart	Puerto Rican, 1 part Native American, 1 African Cuban; age range of 24–61 years; 9 identified themselves as heterosexual, 5 as homosexual, and 2 as bisexual	relational (e.g., fears about negative repercussions, isolation); and (3) sociocultural (e.g., lack of acceptance for men to experience or acknowledge victimization). Only 1 of the 16 men in this sample disclosed the full extent of his sexual abuse experiences while he was still a child. The other men reported that they had not disclosed, although some reported attempts to tell that were indirect or incomplete. Several other men disclosed certain experiences or elements of their abuse, but concealed others. By the time of the study, many of these men had disclosed their past experiences in a variety of relationships, including those with family members, partners, therapists, and infrequently friends. Several had only limited discussions of their sexual abuse	readily. Retrospective accounts are subject to recall issues. Investigators made significant efforts to gather a diverse sample. High level of rigor was executed in the dependability of the data and iterative process of the interpretation of findings was conducted
Hershkowitz, Lanes, and Lamb (2007)	The goal of the present study was to examine how child victims of extrafamilial sexual abuse disclosed the abuse experience	Alleged victims of sexual abuse and their parents were interviewed. Children were interviewed using the NICHD Investigative Interview Protocol by experienced youth investigators. Information on disclosure processes was obtained in the first formal interview, before any police investigation or child welfare intervention	Thirty alleged victims of CSA; 18 boys and 12 girls. Child sample was 7- to 12-year-olds with an average age of 9.2 years. Twenty mothers and 10 fathers were also interviewed for a total of 30 parent interviews. A content analysis was conducted on child and parent interviews	Disclosure categories were identified as follows: (1) delayed 53% of the children delayed disclosure for between 1 week and 2 years; (2) recipient of disclosure: 47% of children first disclosed to siblings or friends, 43% first disclosed to their parents, and 10% first disclosed to another adult. 57% of the children spontaneously disclosed abuse, but 43% disclosed only after they were prompted. 50% of the children reported feeling afraid or ashamed of their parents' responses. Parents' reactions: supportive (37%) and unsupportive (63%). There was a strong correlation between predicted and actual parental reactions suggesting children anticipated their parents' likely reactions accurately. Disclosure processes varied depending on the children's ages (e.g., younger children disclosed to parents), severity and frequency of abuse, parents' expected reactions, suspects' identities, and strategies used to foster secrecy	Innovative design to gather disclosure data from young children. Focus is on extrafamilial CSA which may differ than disclosure patterns of intrafamilial CSA. Two thirds of the parents registered unsupportive responses which is high

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
Alaggia and Kirshenbaum (2005)	The objectives of the current study were to identify a broad range of factors, including family dynamics that contribute to or hinder a child's ability to disclose CSA.	A qualitative phenomenological design—LIM—was used to elicit disclosure experiences; facilitators and barriers; and relevant circumstances. Interviews were transcribed verbatim. Line-by-line open coding was conducted to capture family-level factors. Axial and selective coding facilitated identification of themes	Purposive sampling was employed to recruit 20 adult survivors between the ages of 18 and 65 who were sexually abused by a family member. Average age of participants was 40.1 years; 60% of participants were female and 40% male. Average age of onset of abuse was 6.7 years. Mixed clinical and nonclinical sample. The majority had received treatment for CSA at some point in their lives	Four major themes emerged suggesting that CSA disclosure can be significantly compromised when certain family conditions exist: (1) rigidly fixed, gender roles based on a patriarchy-based family structure; (2) presence of family violence; (3) closed, indirect family communication patterns; and (4) social isolation of the family as a whole, or specific members, played a part in CSA victims feeling they had no one safe to tell. Family systems formulations through a feminist lens are important in understanding children and families at risk of disclosure barriers	Over half the participants had not disclosed the abuse during childhood. Of the nondisclosing participants, six did not disclose because they had repressed or forgotten the memory. Almost one third withheld disclosure intentionally. More data are needed on early disclosures to garner more information on facilitators of disclosure. Retrospective approach implies recall issues. High level of trustworthiness of the data and interpretations were achieved through credibility, dependability, and confirmability through direct quotes
Alaggia (2005)	The study purpose was to qualitatively explore dynamics that impede or promote disclosure by examining a range of factors including gender as a dynamic—how disclosures of females and males are similar and different, and in what ways gender affects CSA disclosure	Survivors of CSA were interviewed about their disclosure experiences using LIM. Analysis of 30 participant narratives was used for theme development regarding impact of gender on disclosure. Interviews were transcribed verbatim for open, axial, and selective coding. Categories and subcategories were collapsed and refining into theme areas	Purposive sampling of women and men, along with those who disclosed during the abuse and those who did not. 19 females and 11 males; 18–65 (mean 40.1) years who were sexually abused by a family member or a trusted adult. Average age of abuse onset was 5.3 years, 36% were nonwhite, and 58% had not disclosed during childhood	Three themes emerged for men that inhibited or precipitated disclosure for reasons related to gender: (1) fear of being viewed as homosexual; (2) profound feelings of stigmatization or isolation because of the belief that boys are rarely victimized; and (3) fear of becoming an abuser, which acted as a precipitant for disclosure. Two predominant themes with female participants related to difficulties disclosing: (1) they felt more conflicted about who was responsible for the abuse and (2) they more strongly anticipated being blamed and/or not believed	One in a dearth of studies that conduct gender analysis. Comparative analysis draws out important practice implications. Retrospective design of the study which implies possible recall issues. High level of trustworthiness of the data and interpretations were achieved through credibility, dependability, and confirmability through direct quotes
Collings, Griffiths, and Kumalo (2005).	Study examined patterns of disclosure in a large representative sample of South African CSA victims. Two study objectives to: (1) examine how and	File reviews of all social work and medical case files for CSA victims seen at the crisis center where all cases of CSA reported to the North Durban	1,737 cases of CSA reported in the North Durban area of KwaZulu-Natal, South Africa, during January 2001 to December 2003. 1,614 girls and	Content analysis identified two broad dimensions of disclosure: (1) agency: child-initiated disclosure versus detection by a third party and (2) temporal duration: an event versus a process. These disclosure dimensions defined four discrete categories of	These results fit into Alaggia's (2004) disclosure framework. Through data analysis two raters coded disclosure categories using author's disclosure framework, which proved to be both exhaustive and mutually exclusive

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
Hershkowitz, Horowitz, and Lamb (2005).	when CSA victims disclose their abuse and (2) Identify factors associated with different patterns of disclosure	policing area were referred during the period of January 2001 to December 2003	123 boys; average age of victimized children was 9.9 years. 47% reports were made within 72 hr of the abuse, 31% from 72 hr to 1 month, and 22% more than a month after the abuse	disclosure: (1) purposeful disclosure (30% of cases), (2) indirect disclosure (9% of cases), (3) eyewitness detection (18% of cases), and (4) accidental detection (43% of cases). Disclosure independently predicted by victim's age, nature of the victim-perpetrator relationship, offender's age, frequency of abuse, and reporting latency. Mean age of purposeful disclosures (10.67) was higher than the mean age of indirect disclosures (5.84). Explicit forms of disclosure were less likely when the offender was a family member. Shorter reporting latency was more likely with repeated abuse	with the percentage of interrater agreement at 98%. Generalizability of this study is limited to child clients receiving a crisis assessment referred through a police report
Jensen, Gulbrandsen, Mossige, Reichelt, and Tjersland (2005)	This study aimed to identify characteristics of suspected child abuse victims that are associated with disclosure and nondisclosure during formal investigations	Large database of suspected cases of physical and sexual abuse investigated in Israel between 1998 and 2002 was analyzed. Interviews were also conducted using standardized NICHDI Investigative Interview Protocol. Archival data were analyzed	The sample was comprised of 26,446 of 3- to 14-year-old alleged victims of sexual and physical abuse interviewed in Israel in the 5-year period from 1998 to 2002. 140 experienced trained youth investigators conducted interviews	Overall, 65% of the 26,446 children made allegations when interviewed. Rates of disclosure were greater for sexual abuse (71%) over physical abuse (61%). Children of all ages were less likely to disclose/allege abuse when a parent was the suspected perpetrator. Disclosure rates increased as children grew older: 50% with 3- to 6-year-olds, 67% of the 7- to 10-year-olds, and 74% of the 11- to 14-year-olds disclosed abuse when questioned	Overall findings indicated that rates of disclosure varied systematically depending on the nature of the alleged offences, the relationship between alleged victims and suspected perpetrators, and the age of the suspected victims. Analyses only involved cases that had come to the attention of official agencies, making it difficult to determine how many of abuse take place without ever triggering any kind of official investigation. Evidence for delayed disclosures. The results indicate that disclosure is a fundamentally dialogical process that becomes less difficult if children perceive that there is an opportunity to talk, a purpose for speaking and a connection has been established to what they are talking about. Strengthening parent-child relationships is an important practice implication
Jensen, Gulbrandsen, Mossige, Reichelt, and Tjersland (2005)	This study investigated the context in which children were able to report their child sexual abuse experiences; their views as to what made it difficult to talk about abuse; what helped them in the disclosing process; and their parent's perceptions of their disclosure processes	Qualitative approach to data collection and analysis was used. Therapeutic interviews o the children and mostly their mothers were analyzed through a qualitative approach. Follow-up interviews were held 1 year later	20 families with a total of 22 children participated. All children had told about experiences that created concerns for care-givers about CSA. Children's ages ranged between 3 and 16 years (average age 7.5 years); 15 girls and 7 boys. Sexually abused by someone in the family or a close person to the family	None of the children told of abuse immediately after it occurred. Children exposed to repetitive abuse kept this as a secret for up to several years; 17 told their mothers first, 3 first told a friend, 1 told their father, and 1 their uncle. Majority of remarks that led to the suspicion of CSA were made in situations where someone engaged the child in a dialogue about what was bothering them, resulting in a referral. The children felt it was difficult to find situations containing enough privacy and prompts that they could share their experiences. When the children did	

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
Staller and Nelson-Gardell (2005)	The purpose of this study was to understand the full process of CSA disclosure and how this unfolded for preadolescent and adolescent girls. Examined what facilitated and hindered disclosure and subsequent consequences	Secondary analysis of qualitative focus group data. Original project consisted of four focus groups conducted within the context of ongoing therapy for girls who had experienced CSA. Secondary analysis consisted of written narrative summaries of each session grouping these conceptually, and examining their interconnectedness	Sample consisted of 34 participants from four groups. Sessions analyzed were between 60 and 90 min long; audiotaped and later transcribed for content analysis	disclose they did it in situations where the topic of child sexual abuse was in some form addressed or activated, where someone recognized the child's cues and probed further. They also were sensitive to others' reactions, and whether their disclosures would be misinterpreted. Several of the children perceived negative consequences as major factors contributing to delaying disclosure. They were primarily concerned about negative effects for the mother. The mothers said they were also sensitive to the children's feelings. If their children showed signs of distress and did not want to talk, the mothers would change the subject or not pursue the topic further	This study provided a contextual examination of the entire disclosure process, closer to the point in time when the abuse and disclosure occurred. Small groups of preadolescent and adolescent girls who had survived sexual abuse also served as consultants and were encouraged to share their knowledge for the benefit of professional practitioners
Alaggia (2004)	The study sought to examine influences that inhibit or promote children's disclosure of CSA to address gaps in knowledge about how, when, and under what circumstances victims of CSA disclose	The study employed LIM—a phenomenological design. Intensive interviewing that were 2 hr long on average generated data for a thematic analysis. The interview guide was	Using purposive sampling 24 adult survivors of intrafamilial abuse between ages of 18 and 65 (average age 41.2) were recruited from agencies and one university; 57% male and 43% female;	Through analysis of the interview new categories of disclosure were identified to add to existing types. Three previously identified were confirmed in these data: accidental, purposeful, and prompted/elicited accounted for 42% of disclosure patterns in the study sample. Over half the disclosure patterns described by the study sample did not fit these	This study expanded types of CSA disclosures to more fully understand how children and adults disclose. And under what circumstances. Asking people to recount events that occurred in childhood is susceptible to memory failure, especially when memories were forgotten.

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
Crisma, Bascelli, Paci, and Romito (2004)	The main goals of this study were to understand impediments that prevent adolescents from disclosing CSA and seeking help from their social network and/or the services	In-depth telephone (anonymous) interviews were conducted after informed consent was explained and obtained. Three investigators experienced in counseling CSA the interviews which were recorded with permission. Three researchers independently scored the interviews according to a coding framework	developed to probe for individual, interpersonal, and environmental, and cultural factors influencing CSA disclosure average age of abuse onset was 6.5 years; 42% of the participants had disclosed the abuse during childhood; 58% disclosed as adults The sample was comprised of 36 young people who experienced sexual abuse in adolescence; 35 females and 1 male; aged 12–17. Some of the sample experienced sexual violence in a dating relationship	previously established categories. Three additional disclosure categories emerged: behavioral and indirect verbal attempts, disclosures intentionally withheld, and disclosures triggered by recovered memories The main impediments to disclose to a family member were: fear of not being believed, shame, and fear of causing trouble to the family. The main impediments for not seeking services were: unaware of appropriate services, wish to keep the secret, lack of awareness of being abused, mistrust of adults and professionals, and fear of the consequences of disclosing sexual abuse. When they did disclose to professionals, teens received very limited support as many professionals were not trained on sexual abuse and could not offer appropriate interventions to victims	delayed, or repressed and later recovered. Distortion and revision of events are also potential problems in recall. High degree of trustworthiness of the data was achieved and quotes provided supported the categories This study represented the findings of a mixed sample of survivors of child sexual abuse and intimate partner violence. The study was conducted in Italy and it is not clear what sexual abuse response training is available. There may have been a selection bias as the most dissatisfied survivors responded to the research call
Jonzon and Lindblad (2004)	Study purpose was to explore how abuse traits, openness, reactions to CSA disclosure, and social support were related. Differences based on severity of abuse, timing and outcomes of disclosure, social support, and predicting factors of positive and negative reactions were probed	Adult women reporting CSA by someone close were interviewed using semi-structured guides together with questionnaires. Data on victimization and current social support were retrieved through the questionnaires, and data on disclosure and reactions were gathered through the interviews with participants	122 adult women between 20 and 60 years old (average age of 41 years) reporting exposure to child sexual abuse by someone close before the age of 18 and had told someone about at least one abuse event. 90% were Swedish subjects. Purposive sampling strategy was used	Abuse characteristics: abuse by multiple perpetrators was more common than by a single perpetrator. Age of onset was often before age of 7, with an average duration of 7 years. Severely abused women had talked to more of their social network, especially to professionals. Disclosures: 32% disclosed during childhood (before the age of 18) with an average of 21 years delay. Women who had disclosed in childhood reported more instances of physical abuse, multiple perpetrators, use of violence, and were more likely to have confronted a perpetrator, and had received a negative first reaction. Factors	68% delayed disclosure until adulthood. At the time of the study, it was one of the first studies to focus on the interplay between social support networks and disclosure of child sexual abuse. The study results are somewhat limited by an overrepresentation of severely abused women. Retrospective study and self-report of information could imply recall issues and thus limits the accuracy of the information obtained on abuse and disclosure characteristics. Cross-sectional

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
Kogan (2004)	The purpose of this study was to identify factors that influence the disclosures made by female survivors of USE in childhood and adolescence. The predictors of both the timing of disclosure and the recipient of the disclosure were investigated	Data were gathered from a subsample of female adolescents that participated in the NSA, which consisted of structured phone interviews. USEs reported in the NSA were assessed using a modified version of the Incident Classification Interview. They were then asked a series of questions about each episode of unwanted sexual contact including event characteristics and perpetrator characteristics	A subsample of 263 adolescent females between 12 and 17 years old, mean age of 15.2 years old, who reported at least one experience of unwanted sexual contact in the NSA. Participant characteristics, USE characteristics, and family contextual attributes were explored	significantly predicting delay were younger age at first event and no use of violence. Disclosure outcomes: of the 26 women who told in childhood during a period with ongoing abuse, 15 women were continuously abused after disclosure Children under the age of 7 were at a higher risk for delayed disclosures. Participants whose USE occurred between the ages of 7 and 13 were most likely to tell an adult. Adolescents (14–17) were more likely to tell only peers than children aged 7–10 years. Children under 11 were more likely to tell an adult, but were at risk for delaying disclosure beyond a month. Children aged 11–13 tended to disclose within a month. Closer relationship to the perpetrator or a family member was associated with delayed disclosure. Immediate disclosure was more likely with stranger perpetration. Fear for one's life during and penetration were associated with disclosure to adults. Family factors linked to disclosure were (1) drug abusing household member, which made survivors more likely to disclose more promptly and (2) never living with both parents was associated with nondisclosure	design does not allow for definite conclusions of cause and effect on the relationships found This study examined factors including disclosures of USEs in childhood and adolescence in a nationally representative sample of female adolescents who participated in the NSA. Surveys for investigations of victimization experiences may be biased due to underreporting. Adolescents who refused to report or discuss an USE may represent a source of systematic bias and would make the results generalizable only to adolescents who are willing to disclose USE via survey. Although data may be retrospective, recall bias may have been minimized in this study since participants were adolescents, and so the time lag between the USE and the interview were presumably shorter than a study of adult participants recalling CSA experiences
Goodman-Brown, Edelstein, Goodman, Jones, and Gordon (2003)	The purpose of this study was to investigate variables associated with delay of disclosure of CSA and test a model for factors that influence how quickly children disclose sexual abuse	Case file reviews of data obtained from prosecution files, as well as from structured interviews with the children's caretaker and observations of child interviews. Trained graduate students and one victim advocate completed the Sexual Assault Profile	Sample consisted of 218 children referred to prosecutors' offices for alleged CSA. All children in the sample had disclosed their abuse in some manner. Children ranged in age from 2 to 16 years at the beginning of abuse; 3–16 years at the end of the abuse, and 4–16 years at the time of the	64% disclosed within a month and 29% within 6 months. Five variables for the model were tested. (1) age: children who were older took longer to disclose and older children feared more negative consequences to others than younger children; (2) type of abuse: victims of intrafamilial families took longer to disclose—victims of intrafamilial abuse feared greater negative consequences to others compared to victims of extrafamilial abuse; (3) fear of negative consequences: children who feared	This study represents a higher rate of disclosers within a month. These cases had been reported to authorities and were in process of prosecution which may explain higher rate of early disclosures. Legal sample with higher rate of extrafamilial abuse (52%) may also account for earlier disclosures. Model suggests that older children, victims of intrafamilial abuse, felt greater responsibility for the abuse, and perceiving

(continued)

Table 1. (continued)

Study	Purpose	Design	Sample	Findings	Summary
Smith, Letourneau, Saunders, Kilpatrick, Resnick, and Best (2000)	The study focus was to gather data from a large sample of women about the length of time women who were raped before age 18 delayed disclosure who they disclosed to, and variables that predicted disclosure within 1 month	questionnaire for child characteristics, the abuse and their disclosure. Children's perception of responsibility and fear of negative consequences were probed. Correlational analyses were conducted with path analyses to test the hypothesized causal relations among variables	initial police report; 77% female, 70% Caucasian, 17% Hispanic, and 11% African American. Predominantly middle to low SES. Approximately 47% intrafamilial abuse	negative consequences of disclosure took longer to disclose, children who believed that their disclosure would bring harm to others took longer to disclose, fear of negative consequences to the self or the perpetrator was unrelated to time of disclosure, and girls more than boys feared negative consequences to others; (4) Perceived responsibility: children who felt greater responsibility for the abuse took longer to disclose and older children felt more responsibility for the abuse; and (5) gender was not significantly correlated with time to disclosure	negative consequences to disclosing took longer to disclose. Well-designed study with high level of rigor. Produced a viable model of disclosure for further investigations. However, researchers were not able to interview children directly
		Structured telephone interviews that lasted approximately 35 min were used to collect data using a computer-assisted telephone interview system. All telephone interviews were conducted with each question on a computer screen. The survey consisted of several measures designed to elicit demographic information, psychiatric symptoms, substance use, and victimization history. The present study reports on data from the demographic and child rape victimization questions	Two probability samples. Wave 1 was a random sample of 2,009 respondents selected from stratified samples of defined jurisdictions. Random digital dialing was used to solicit households for listed and unlisted telephone numbers. Second random sample of 2,000 women between the ages of 18 and 34 was selected. Both Wave 1 and Wave 2 data were weighted to conform to the 1989 Census statistics	288 (9%) reported experiencing at least one event that met the study's definition of childhood rape. The average age at the time of the first rape was 10.9 years. Of the 288 women who reported a child rape, 28% stated that they had never told anyone about this sexual assault until specifically queried by the interviewer for this study. 58% did not disclose for over 1 year and up to 5 years post-rape. 27% disclosed within a month. Among women who disclosed prior to their NWS interview close friends were the most common person to whom victims made disclosures, followed by mothers and other immediate family members. Fewer than 10% of victims reported making their initial disclosure to social workers or law enforcement personnel. Only 12% of child rape victims stated that their assaults were reported to authorities at some point	The time frame of this survey may have had contextual implications. The majority of child rapes reported by this sample occurred prior to the large-scale child assault prevention education programs that were begun in the 1980s that teach children that assaults (including CSA) are wrong and should be disclosed to responsible adults. This information may have influenced (and may currently be influencing) young women's disclosure patterns. For Wave 1, comparison of these data with the population parameters obtained from the U.S. Census Bureau indicated that the sample closely matched the demographic attributes of the population of U.S. women

Note. SCL-90 = Symptom Check List-90; SES = socioeconomic status; LIM = long interview method; CSA = child sexual abuse; NICHD = National Institute of Child Health and Human Development; USE = unwanted sexual experiences; NSA = National Survey of Adolescents; NWS = National Women's Study; QIDS = Questionnaire informaté sur les délinquants sexuels.

examples of this usage were found in the research questions, interview guides, and surveys examined: “How and when do people decide to tell others about their early sexual experiences with adults?” (Hunter, 2011, p. 161); “Some men take many years to tell someone that they were sexually abused. Please describe why it may be difficult for men to tell about/discuss the sexual abuse” (Easton, Saltzman, & Willis, 2014, p. 462). “Participants were asked a series of open-ended questions to elicit a narrative regarding their experiences of telling . . .” (McElvaney, Greene, & Hogan, 2012, p. 1160). “Who was the first person you told?” (Schaeffer, Leventhal, & Anes, 2011, p. 346).

There was sound consistency between studies, defining disclosure in multifaceted ways with uniform use of categories of prompted, purposeful, withheld, accidental, direct, and indirect. However, defining the period of time that would delineate a disclosure as delayed varied widely across studies, wherein some studies viewed 1 week or 1 month as a delayed disclosure (i.e., Hershkowitz et al., 2007; Kogan, 2004; Schönbucher, Maier, Moher-Kuo, Schnyder, & Lamdolt, 2012). Other studies simply reported average years of delay sometimes as long as from 20 to 46 years (Easton, 2013; Jonzon & Linblad, 2004; Smith et al., 2000).

Second, the number of qualitative studies has increased significantly over the last 15 years. This rise is in response to a previous dearth of qualitative studies. Based on Jones’s (2000) observation that disclosure factors and outcomes had been well documented through quantitative methods; in a widely read editorial, he recommended “Qualitative studies which are able to track the individual experiences of children and their perception of the influences upon them which led to their disclosure of information are needed to complement . . .” (p. 270).

Third, although a few studies strived to obtain representative samples in quantitative investigations (Hershkowitz, Horowitz, & Lamb, 2005; Kogan, 2004; Smith et al., 2000), sampling was for the most part convenience based, relying on voluntary participation in surveys and consent-based participation in file reviews (Collings, Griffiths, & Kumalo, 2005; Priebe & Sveidin, 2008; Schönbucher et al., 2012; Ungar, Barter, McConnell, Tutty, & Fairholm, 2009a). Therefore, generalizability of findings is understandably limited. The qualitative studies used purposive sampling as is deemed appropriate for transferability of findings to similar populations. Some of those samples contained unique characteristics, since they were sought through counseling centers or sexual advocacy groups. These would be considered clinical samples producing results based on disclosures that may have been delayed or problematic. This might presumably produce data skewed toward barriers and bring forward less information on disclosure facilitators.

Through an in-depth, second-level analysis, this review identified five distinct themes and subthemes beyond the general trends as noted earlier.

Theme 1: Disclosure is viewed as an ongoing process as opposed to a discrete event—iterative and interactive in nature. A subtheme was identified regarding disclosure as

being facilitated within a dialogical and relational context is being more clearly delineated.

Theme 2: Contemporary disclosure models reflect a social–ecological, person-in-environment perspective to understand the complex interplay of individual, familial, contextual, and cultural factors involved in CSA disclosure. Subthemes include new categories of disclosure and a growing focus on previously missing cultural and contextual factors.

Theme 3: Age and gender are strong predictors for delaying disclosure or withholding disclosure with trends showing fewer disclosures by younger children and boys. One subtheme emerged that intrafamilial abuse/family-like relationship of perpetrator has a bearing on disclosure delays or withholding.

Theme 4: There is a lack of a cohesive life-course perspective. One subtheme includes the lack of data within the 18- to 24-year-old emerging adult population.

Theme 5: Significantly more information is available on barriers than on facilitators of CSA disclosure. Subthemes of shame, self-blame, and fear are uniformly identified as disclosure deterrents.

Disclosure as an ongoing process: Iterative and interactive in nature.

Disclosure is now generally accepted as a complex and lifelong process, with current trends showing that CSA disclosures are too often delayed until adulthood (Collin-Vézina et al., 2015; Easton, 2013; Hunter, 2011). Knowledge building about CSA disclosure has moved in the direction of understanding this as an iterative and interactive process rather than a discrete, one-time event. Since the new millennium, disclosure is being viewed as a dynamic, rather than static, process and described “not as a single event but rather a carefully measured process” (Alaggia, 2005, p. 455). The catalyst for this view originates from Summit (1983) who initially conceptualized CSA disclosures as process based, although this notion was not fully explored until several years later. Examinations of Summit’s (1983) groundbreaking proposition of the CSA accommodation (CSAA) model produced varying results as to whether his five stages of secrecy, helplessness, entrapment and accommodation, delayed, conflicted, and unconvincing disclosures, and retraction or recantation, hold validity (for a review, see London, Bruck, Ceci, & Shuman, 2005). However, the idea of disclosure as a process has been carried over into contemporary thinking.

Recently, McElvaney, Greene, and Hogan (2012) detailed a process model of disclosure wherein they describe an interaction of internal factors with external motivators which they liken to a “pressure cooker” effect, preceded by a period of containment of the secret. Moreover, this and other studies strongly suggest disclosures are more likely to occur within a dialogical context—activated by discussions of abuse or prevention forums providing information about sexual abuse (Hershkowitz et al., 2005; Jensen, Gulbrandsen, Mossige, Reichelt, & Tjersland, 2005; Ungar et al., 2009a). The term

dialogical simply means to participate in dialogue. Key dialogical vehicles identified in these studies were providing sexual abuse information through prevention programs, being asked about sexual abuse, and being prompted to tell (McElvaney et al., 2012; Ungar et al., 2009a).

Contemporary models of CSA disclosure reflect a social-ecological perspective. Knowledge on CSA disclosure has been steadily advancing toward a holistic understanding of the complex interplay of individual, familial, contextual, and cultural factors (Alaggia & Kirshenbaum, 2005; Brazelton, 2015; Fontes & Plummer, 2010). Where at one time factors examined and identified were predominantly of intrapersonal factors of child victims, knowledge construction has shifted to fuller social-ecological, person-in-environment explanations (Alaggia, 2010; Collin-Vézina et al., 2015; Easton et al., 2014; Hunter, 2011; Ungar, Tutty, McConnell, Barter, & Fairholm, 2009b). Social-ecological explanations open up more opportunities to intervene in facilitating earlier disclosures. Alaggia (2010) proposes an ecological mapping of what individual, interpersonal, environmental, and contextual influences impede or promote CSA disclosures based on analysis of in-depth interview data of 40 adult survivors. Subsequently, based on a sample of 67 adult survivors, Collin-Vézina, Sablonni, Palmer, and Milne (2015) identified three broad categories, closely aligned with an ecological framework that impede CSA disclosure: (1) barriers from within, (2) barriers in relation to others, and (3) barriers in relation to the social world which can be aligned to intrapersonal, interpersonal, and contextual factors.

A summary of knowledge building using a social-ecological framework follows. Knowledge gained in the intrapersonal domain includes expanded conceptualization of disclosure by building on previous categories of accidental, purposeful, and prompted disclosure to also include behavioral and indirect attempts to tell, intentionally withheld disclosure, and triggered and recovered memories (Alaggia, 2004). Categories of indirect behavioral disclosure patterns have been further verified in follow-up research by Hunter (2011), and through an extensive file review that used Alaggia's (2004) disclosure framework to analyze their data (Collins et al., 2005) for verification.

Interpersonal factors have also emerged in regard to certain family characteristics as disclosure barriers. Families with rigidly fixed gender roles, patriarchal attitudes, power imbalances, other forms of child abuse and domestic violence, chaotic family structure, dysfunctional communication, and social isolation have been found to suppress disclosure (Alaggia & Kirshenbaum, 2005; Collin-Vézina et al., 2015; Fontes & Plummer, 2010). In addition, relationship with perpetrator is a factor whereby research indicates that disclosure is made more difficult when the perpetrator is a family member or close to the family (Dumont, Messerschmitt, Vila, Bohu, & Rey-Salmon, 2014; Easton, 2013; Goodman-Brown et al., 2003; Hershkowitz et al., 2005; Priebe & Svedin, 2008; Schönbucher et al., 2012). This is especially a barrier when the perpetrator lives with the victim (LeClerc & Wortley, 2015).

In terms of environmental factors, one study revealed that neighborhood/community conditions can hinder disclosure when there is lack of school involvement in providing a supportive environment, such as in following up on troubling student behavior (Alaggia, 2010). Additionally, a child victim's anticipation of a negative response to disclosure, especially that they may not be believed by others outside their family such as neighbors or other community members, has shown to deter disclosure (Collin-Vézina et al., 2015).

Cultural factors influencing CSA disclosure have been studied to a much lesser degree. Despite this, a few important studies examining critical sociocultural factors now exist for better understanding CSA disclosure within a cultural context (Brazelton, 2015; Fontes & Plummer, 2010). Among these important contributions, Brazelton's (2015) research has delineated CSA disclosure processes as "shaped by relational, racial, socio-cultural, historical, and developmental factors" (p. 182). In a unique study using culturally focused research literature as data triangulated with clinical case material, culturally based belief systems in many cultures have been found to foster family climates that can silence children from disclosing abuse (Fontes & Plummer, 2010). Taboos about sexuality, patriarchal attitudes, and devaluation of women are among some of the cultural barriers that inhibit disclosure (Fontes & Plummer, 2010).

Clearly, disclosure conceptualizations are being integrated into a social-ecological model of individual and developmental factors, family dynamics, neighborhood, and community context as well as cultural and societal attitudes toward better understanding disclosure barriers and facilitators (Alaggia, 2010), although more data are needed on cultural and contextual factors.

Age and gender as predictors of disclosure

Age. Age is consistently found to be an influential factor in CSA disclosure, making the life stage of the victim/survivor a critical consideration. Studies draw distinctions in age-groups falling into either under or over 18 years of age. Eighteen years of age was the common age cutoff point that investigators chose in order to distinguish child/youth populations from adult samples. Sixteen of the studies drew on samples of children and youth, while the other 15 studies sampled adults over the age of 18, and a further two studies used mixed age-groups (refer to Table 1). Among the child and youth samples, the age ranges spanned from preschool to late adolescence (3–17 years of age), with varying methodological approaches implemented across age cohorts. For younger cohorts, file reviews and secondary data analyses of CSA reports were typically undertaken. Adolescents were most often given surveys. Sometimes children and youth were interviewed as part of administering a survey or as a follow-up (Crisma et al., 2004; Hershkowitz et al., 2005; Ungar et al., 2009b). In the majority of child and adolescent samples, sexual abuse concerns were already flagged to investigative authorities. However, the work of Ungar, Barter, McConnell, Tutty, and Fairholm (2009a, 2009b) is one exception, whereby their survey elicited new disclosures.

Adult studies typically had a mean age between 40 and 50 years. Interviews were the main data collection method with a few exceptions using survey designs (i.e., Easton, 2013; Kogan, 2004; Smith et al., 2000) and case file reviews (i.e., Collings et al., 2005; Goodman-Brown et al., 2003). Results show a clear trend toward increased likelihood of disclosure in older youth, and findings from adult samples showing a preponderance of disclosures in adulthood, with the large majority of participants of adults reporting never having had a sexual abuse complaint filed with investigative authorities as a child or an adolescent (i.e., Hunter, 2011; Gagnier & Collin-Vézina, 2016; Sorsoli, Kia-Keating, & Grossman, 2008; Ungar et al., 2009b).

With children and youth under the ages of 18 distinct patterns emerged. First, accidental detection, rather than purposeful disclosure, is more likely to occur with younger children. For example, in one large-scale study of over 1,737 file reviews, over half of the CSA-related cases were identified through accidental and eyewitness detection (61%), while less than one third were purposeful disclosures initiated by the child victim (Collings et al., 2005). A second pattern which emerged is that rates of disclosure increase with age, especially into adulthood, which is supported by persistent findings of high rates of delayed disclosure reported later in the life course by adult survivors (Collings et al., 2005; Collin-Vézina et al., 2015; Easton, 2013; Jonzon & Linblad, 2004; Kogan, 2004; Leclerc & Wortley, 2015; Sorsoli et al., 2008). While gender and relationship with the perpetrator are considerable factors in CSA disclosure, age is consistently a stronger predictor of disclosure (or nondisclosure) (Hershkowitz et al., 2005; Leclerc & Wortley, 2015). Third, younger children who disclose are more likely to do so in an interview situation or other environment that provides prompts or questions about sexual abuse (Hershkowitz et al., 2005; McElvaney, Greene, & Hogan, 2014; Schaeffer et al., 2011), but this trend can also be seen in older youth (Ungar et al., 2009a, 2009b).

Gender. A number of studies have recently focused on CSA disclosures with male victims, since males have been an understudied population (Alaggia, 2005; Easton, 2013; Easton et al., 2014; Gagnier & Collin-Vézina, 2016). Most investigations that sampled both sexes show females outweighing male participants. Although women are at double the risk of being subjected to CSA, the ratio of women to men in most disclosure studies has not been representative. This finding may be indicative of male victims more likely delaying disclosing their CSA experiences, leaving male disclosure in child and youth samples underrepresented (Hébert, Tourigny, Cyr, McDuff, & Joly, 2009; Ungar et al., 2009b).

Easton, Saltzman, and Willis (2014) have been developing gender-specific modeling of disclosure examining male disclosures. Their proposed model groups male disclosures into barrier categories as determined by individual factors, interpersonal issues, and factors that are sociopolitical in nature. These authors suggest that predominant gender norms around masculinity reinforce the tendency for male victims of CSA to blame themselves

for the abuse, resulting in no disclosure. Male participants in a subsequent study also relayed that gender norms and stereotypes contributed to them concealing the abuse because they were abused by a woman (Gagnier & Collin-Vézina, 2016). In the one study that compared male and female disclosures, investigator found that men's fears of being viewed as homosexual; profound feelings of stigmatization or isolation because of the belief that boys are rarely victimized; and fear of becoming an abuser acted as disclosure barriers. Whereas females felt more conflicted about who was responsible for the abuse and more strongly anticipated being blamed and not believed (Alaggia, 2005).

Lack of a life-course perspective. Given that the study of CSA disclosure draws on age-groups ranging from samples of very young children to retrospective studies of adult survivors, with significant developmental considerations, this area of study lacks an intentional cohesive life-course perspective. Most data are derived from either cross-sectional or retrospective designs, with few longitudinal studies. There are a series of sound, yet disconnected, studies focusing on specific age-groups of children and adolescents, along with adult retrospective studies. Thus, the available knowledge base does not allow for a cohesive picture of CSA disclosure processes and pathways over the life course to emerge.

The life-course perspective has long been recommended as a critical lens for the study of child abuse (Browning & Laumann, 1997; Williams, 2003). For example, a life-course perspective has been utilized to understand the immediate- and long-term effects of CSA on the developing child victim (Browning & Laumann, 1997). Further, a life-course perspective is important in terms of examining age of onset of CSA to explain the differential effects of sexual victimization and developmental impacts in terms of understanding their ability to disclose—effects that need to be understood within a developmental context, especially for designing appropriate interventions for disclosure at critical transitions from early childhood through to adolescence and into adulthood. In addition, important “turning points” in life may facilitate disclosures. For example, entry into adulthood given that delayed disclosure occurs more often in adulthood. Alaggia (2004, 2005) found that being in a committed relationship or the birth of children acted as facilitators for some survivors to disclose, especially to their spouses. These significant life events, as contributing to disclosures, bear further examination.

Summary of barriers and facilitators. Research over the past 15 years continues to uncover barriers to CSA disclosure at a higher frequency than that of facilitators. As stated previously, this might be the result of sampling methods whereby participants who volunteer for disclosure research may have had more negative disclosure experiences, especially since many report delays in disclosure. The following section outlines the major trends in both barriers and facilitators (see Table 2).

Barriers. Age and gender were found to contribute to barriers as covered in Theme 3. Disclosures generally increase with age

Table 2. Factors Influencing Child Sexual Abuse Disclosures.

Barriers	Facilitators
Age: The younger the child victim, the less likely they will purposefully disclose.	Age: Disclosures increase with age, especially in adulthood.
Gender: Males may be less likely to disclose in childhood/adolescence, fear of being seen as homosexual and as a victim, females experience more self-blame and anticipation of being blamed and/or not believed	Gender: Slight trend toward females who are older (adolescent) to disclose before adulthood
Relationship to perpetrator: If the perpetrator is a family member or in a family-like role, disclosure is less likely to happen	Relationship to perpetrator: If the perpetrator is not living with the victim, disclosure rates increase
Internal: Shame, self-blame, and fear are psychological barriers. In addition, fear of negative consequences on the family and for self-safety inhibits disclosure	Dialogical context: Opportunities to disclose through discussion, therapeutic relationship, information sessions on sexuality, and sexual abuse prevention programs
Family relations: Families with a patriarchal structure, rigidly fixed gender roles, dysfunctional communication, other forms of abuse (i.e., domestic violence), and isolation inhibit disclosure	Family relations: Supportive parent-child relationship.
Environmental and cultural context: Lack of discussion about sexuality; passive acceptance that unwanted sexual experiences are inevitable; not wanting to bring shame to the family by admitting sexual abuse; lack of involvement from neighbors, school personnel; and stigma perpetuated by societal perceptions	Involvement of others: Eyewitnesses coming forward and reporting; detection through community members, professionals
	Environmental and cultural context: Promotion of open discussion of sexuality; community member involvement

as children gain more developmental capacity, understanding of sexual abuse as victimization, and increased independence. Males are somewhat less likely to disclose, but this is often in interaction with other factors in the environment such as societal attitudes that promote hypermasculinity as desirable, attitudes that perpetuate negative views of boys and men who are victims, and homophobic attitudes (Alaggia, 2010; Easton et al., 2014; Gagnier & Collin-Vézina, 2016).

Victims of intrafamilial abuse when the offender is a parent, caregiver, significant family member, or someone in a family-like role are less likely to disclose immediately or at all in childhood/adolescence because of obvious power differentials and dependency needs (Collings et al., 2005; Dumont et al., 2014; Hershkowitz et al., 2005; Kogan, 2004; Leclerc & Wortley, 2015; Paine & Hansen, 2002; Schaeffer et al., 2011).

Further, the perpetrator residing with their victim(s) increases the likelihood of no disclosure (Leclerc & Wortley, 2015).

Internalized victim-blaming, mechanisms to protect oneself (such as minimizing the impact of the abuse), and developmental immaturity at the onset of abuse constituted internal barriers. Further, shame, self-blame, and fear have been identified as significant factors deterring disclosure (Collin-Vézina et al., 2015; Crisma et al., 2004; Goodman-Brown et al., 2003; Hunter, 2011; Kogan, 2004; McElvaney & Culhane, 2015; McElvaney et al., 2014). However, aspects of shame, self-blame and fear, and have not been fully explored in research. Since these are strong predictors of disclosure suppression, they bear further examination in future research to understand more fully how they operate in disclosure processes.

In terms of interpersonal and environmental factors, family dynamics can play a part in deterring disclosure. As previously mentioned, families characterized by rigidly defined gender roles, patriarchal attitudes that perpetuate power imbalances

between men and women, parents and children, presence of other forms of child abuse and/or domestic violence, chaotic family structure, dysfunctional communication, and social isolation have been found to suppress disclosure (Alaggia & Kirshenbaum, 2005; Collin-Vézina et al., 2015; Fontes & Plummer, 2010). In regard to broader environmental factors, disclosure can be hindered when involved and supportive community members are not available, or not trained in sensitive responses, or when child victims anticipate not being believed by neighbors and other people outside the family (Alaggia, 2010; Collin-Vézina et al., 2015). Further, barriers in relation to the social world were identified as stigmatization, the negative labeling of sexual abuse victims, and taboos surrounding sexuality and talking about sex as driven by cultural norms (Collin-Vézina et al., 2015; Fontes & Plummer, 2010).

Identification of cultural barriers is important recent contribution to understanding disclosure processes—and in particular to the obstacles. Findings related to cultural barriers included themes of children's voices not being heard leading to silencing, the normalization of the sexualization and objectification of girls and women, and the perpetuation of hypermasculinity in men—all acting as barriers in terms of stigma to disclosure (Alaggia, 2005, 2010; Easton et al., 2014). Brazelton (2015) similarly found that lack of discussions about sex, young age at the onset of sexual abuse, therefore not having the language to express what was happening to them, and preserving the family good name by not talking about abuse in the family were also barriers to disclosure.

Finally, it may be the case that more barriers continue to be identified over facilitators of CSA disclosure perhaps because of the methods employed in studies—particularly those drawing on adult populations who delayed disclosure. These samples may not be representative of the overall population of CSA victims, since they may have had more negative disclosure

experiences, consequently more readily identifying barriers. On the other hand, these findings may speak to the actual imbalance between facilitating factors and barriers for disclosure, the latter carrying more weight in the victims/survivors' experiences, thus, explaining the high rates of disclosures delayed until adulthood.

Facilitators. Although fewer disclosure facilitators are identified in this review, very important facilitators were nonetheless uncovered—ones that should be noted for professionals in this field of practice. Internal factors that facilitate disclosures include symptoms that become unbearable, getting older with increased developmental efficacy, and realizing that an offence was committed (Collin-Vézina et al., 2015; Crisma et al., 2004; Easton, 2013; Hershkowitz et al. 2007; McElavaney, Greene, & Hogan, 2014; Schaeffer et al., 2011). Circumstantial facilitators are those where the child discloses because there has been evidence provided, eye-witnessing has occurred, and a report has been made. Environmental factors include settings that provide opportunities such as counseling, interviews, information sessions and educational forums/workshops, and prevention programs for children and youth to disclose.

To elaborate, dialogical contexts about CSA for children and youth can provide opportunities for discussion that may facilitate disclosures (Jensen et al., 2005). The research shows creating open dialogue in relationship contexts, to offset the power and influence of the perpetrator, can facilitate earlier disclosure. Among disclosure facilitators is being asked about abuse and given the opportunity to “tell” (McElavaney et al., 2014); workshops on abuse and sexual abuse, in particular, can facilitate disclosures (Ungar et al., 2009b); and using culturally sensitive probes and questions (Fontes & Plummer, 2010). In Gagnier and Collin-Vézina's (2016) study, positive disclosure experiences were described by participants as those where they felt that they had been listened to, were safe, were believed, and were not judged by the person they disclosed to. Further, family members and friends (peers) of the child victim can act as key supports to creating an open relational context and fostering positive responses (Jensen et al., 2005; Priebe & Svedin, 2008; Schönbucher et al., 2012; Ungar et al., 2009b). In particular, as children grow older, they are more likely to disclose to a peer, as shown in a number of studies, and this is an important reality for counselors and educators to be aware of (Dumont et al., 2014; Kogan, 2004; Schönbucher et al., 2012; Ungar et al., 2009b).

Discussion

Through examination of 33 studies published since the year 2000, this review identified five distinct themes regarding CSA disclosure: (1) Disclosure is best viewed as an iterative, interactive process rather than a discrete event done within a relational context; (2) contemporary models reflect a social-ecological, person-in-environment framework for understanding the complex interplay of individual, familial, contextual, and cultural factors involved in CSA disclosure;

(3) age and gender are significant disclosure factors; (4) there is a lack of a life-course perspective; and (5) barriers to disclosure continue to outweigh facilitators. Based on these themes, a number of conclusions are drawn from this review. First, disclosure as a process is emphasized throughout contemporary research. Advances have been made in understanding these complex processes. However, the disclosure process over time—for example, how the first detection of CSA or attempts to disclose in childhood impact later disclosures—are not well understood. This is the result of the absence of a cohesive life-course perspective in investigations, although age consistently surfaces as significantly influencing CSA disclosure. Using a life-course perspective through the use of longitudinal studies is recommended.

The use of varied methodological designs, depending on the developmental stage of the victims/survivors, influences the data generated and subsequent findings. For example, most studies on children and youth are based on file reviews of cases that have been brought to the attention of authorities, or surveys, with only a few studies using interviewing of younger children. Therefore, there is less information available on process issues with children and youth. In contrast, research on adult populations largely favors the use of qualitative interview methods for retrospective inquiry producing important process findings. In addition, investigations have not yet captured the disclosure experiences of adults in the “emerging adult” stage given that adult studies have failed to recognize that the age range of 18–24, which is now considered a developmental phase defined by neurobiological developmental uniqueness. As well, late adulthood has not been given attention as shown by the absence of participants representing this age-group in current research (70+). With a swelling geriatric population in North America, issues of historic CSA can be expected to surface and, with that, new disclosures. This trend is also anticipated due to attitudinal shifts that have presumably occurred over the last two generations about revealing such traumas and changing views about discussing sexual victimization.

Interview guides used in a number of studies intentionally probed for facilitators, producing notable findings. For example, one such finding focuses on the importance of creating a contextually supportive environment to promote disclosure across the life course. These include developing therapeutic relational contexts for disclosure by providing information about sexuality, sexual abuse, prevention programming, and by asking directly. Disclosures to professionals are positive outcomes of how therapeutic contexts work; however, for forensic purposes prompting such disclosures would be viewed as problematic in legal settings, seriously compromising testimonies for trial proceedings. This is one example that speaks to the structural barriers victims and survivors run up against time and time again. Facilitators that show evidence to promote disclosure in one domain (therapeutic) are seen to work against CSA survivors in another domain—such as legal settings when perpetrators face prosecution. Defense attorneys will use this as evidence that the disclosure was prompted, and therefore the disclosure is potentially seen as not credible. Broadcasting of

the frequency of acquitted cases or rulings in favor of the perpetrator through media outlets, often sensationalized, become a further compounding barrier. Given the review findings, we conclude that barriers and facilitators to CSA disclosures are nuanced and clearly embedded within intrapersonal, interpersonal, environmental, contextual, and cultural domains—often interlocked in complex ways.

Limitations

Although comprehensive in nature with its life-course coverage, this review may be limited by its qualitative, thematic focus rather than providing an evaluative, quantitative accounting of CSA disclosures. However, because of the recent focus on disclosure processes, the authors chose a suitably compatible approach—qualitative in nature. As well, a traditional checklist approach in rating the studies was not employed for interrater reliability, since two of the authors hold expertise in CSA disclosure research and are well versed with the literature. This expertise, and through closely following a systematic review framework (Kiteley & Stogdon, 2014), assures that a thorough adjudication of the research literature was completed.

Implications for Research and Practice

These review findings have implications that can be useful in guiding future research and practice:

- Solid strides are being made in the use of a social–ecological framework to underpin investigations in the CSA disclosure investigations. Research efforts and practice considerations should continue in this vein. Investigating environmental factors and contextual and cultural forces is understudied, necessitating more research in these areas to more fully fill out understanding of CSA disclosure from a social–ecological perspective.
- There is good evidence that CSA disclosures are more likely to occur in a dialogical context—formal helping relationships but as well as other relationships such as peers and trusted adults. Providing information and education on topics of sexuality in general, and sexual abuse specifically, can help children and youth to disclose. Raising awareness and prevention programs can promote disclosures of sexual violence committed against children and youth.
- Goals of therapeutically supported disclosures (i.e., through therapy) may need to take precedence over forensic approaches, if well-being of child victims and adult survivors is to be made paramount. Legal processes may act to facilitate disclosures but can also act as barriers because of the negative outcomes experienced in the court process.
- Practitioners need to keep in mind that the legal system is lagging far behind in knowledge uptake of recent evidence on CSA disclosures so that victims and

survivors continue to be systemically and structurally disadvantaged in legal proceedings.

- Health-care practitioners (i.e., child abuse pediatricians, family practice doctors, clinical nurse specialists, and public health nurses) should be made aware of the evidence in the CSA disclosure literature to create environments for facilitating therapeutic disclosures.
- Given that age is a stable predictor of disclosure of CSA, more studies are needed that make use of a life-course perspective. More longitudinal studies are needed to better identify trends over different life stages.
- The emerging young adult as a developmental age group needs specific investigation. Neuroscience research has established that ages 18–24 is a distinct developmental phase. Late adulthood is another life stage that deserves to be researched.
- Gender needs to be more fully investigated in relation to impact on disclosure. Awareness that boys and girls have unique challenges and barriers in disclosing CSA should be paramount for practitioners.
- Intervention planning should take note that disclosures increase when perpetrators no longer reside with victims, and this finding should be heeded by policy and law makers.
- Shame, self-blame, and fear are intrapersonal factors that persistently emerge as barriers to CSA disclosures and warrant more research to understand how to redress these barriers for earlier disclosures.

Conclusion

There are still a substantial number of children and youth who are subjected to sexual abuse, despite preventative efforts. Just as concerning is the fact that many victims continue to suffer in silence as evidenced by the high numbers of delayed disclosure. These hidden cases should not be overlooked, and these victims should not be forgotten. Despite significant progress in bringing the issue of CSA to the forefront, improving facilitation of disclosure and increasing positive influences on disclosure processes are still critical in order to protect current and future generations of children and youth from the grave effects of sexual violence. Further, the focus should not be simply on strengthening and shoring up intrapersonal resources of victims to disclose but rather to change environmental conditions to create a more supportive and safer context for CSA victims and survivors to disclose.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

- Alaggia, R. (2004). Many ways of telling: Expanding conceptualizations of child sexual abuse disclosure. *Child Abuse & Neglect*, 28, 1213–1227.
- Alaggia, R. (2005). Disclosing the trauma of child sexual abuse: A gender analysis. *Journal of Loss and Trauma*, 10, 453–470.
- Alaggia, R. (2010). An ecological analysis of child sexual abuse disclosure: Considerations for child and adolescent mental health. *Journal of the Canadian Academy of Child and Adolescent Psychiatry Journal De l'Académie Canadienne De Psychiatrie De l'Enfant Et De l'Adolescent*, 19, 32–39.
- Alaggia, R., & Kirshenbaum, S. (2005). Speaking the unspeakable: Exploring the impact of family dynamics on child sexual abuse disclosures. *Families in Society*, 86, 227–234.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 93. doi:10.1191/1478088706qp0630a
- Brazelton, J. F. (2015). The secret storm: Exploring the disclosure process of African American women survivors of child sexual abuse across the life course. *Traumatology: An International Journal*, 21, 181–187.
- Browning, C. R., & Laumann, E. O. (1997). Sexual contact between children and adults: A life course perspective. *American Sociological Review*, 62, 540–560.
- Collings, S. J., Griffiths, S., & Kumalo, M. (2005). Patterns of disclosure in child sexual abuse. *South African Journal of Psychology*, 35, 270–285.
- Collin-Vézina, D., Sablonni, D. L., Palmer, A. M., & Milne, L. (2015). A preliminary mapping of individual, relational, and social factors that impede disclosure of childhood sexual abuse. *Child Abuse & Neglect*, 43, 123–134. doi:10.1016/j.chiabu.2015.03.010
- Crisma, M., Bascelli, E., Paci, D., & Romito, P. (2004). Adolescents who experienced sexual abuse: Fears, needs and impediments to disclosure. *Child Abuse & Neglect*, 28, 1035–1048.
- Dumont, M., Messerschmitt, P., Vila, G., Bohu, D., & Rey-Salmon, C. (2014). Le processus de révélation dans les agressions sexuelles intrafamiliales et extrafamiliales sur mineurs. *Annales Médico-Psychologiques*, 172, 426–431. doi:10.1016/j.amp.2012.06.024
- Easton, S. D. (2013). Disclosure of child sexual abuse among adult male survivors. *Clinical Social Work Journal*, 41, 344–355. doi:10.1007/s10615-012-0420-3
- Easton, S. D., Saltzman, L. Y., & Willis, D. G. (2014). “Would you tell under circumstances like that?”: Barriers to disclosure of child sexual abuse for men. *Psychology of Men & Masculinity*, 15, 460–469.
- Fallon, B., Van Wert, M., Trocmé, N., MacLaurin, B., Sinha, V., Lefebvre, R., . . . Goel, S. (2015). *Ontario Incidence Study of Reported Child Abuse and Neglect-2013* (OIS-2013). Toronto, ON: Child Welfare Research Portal.
- Finkelhor, D., Shattuck, A., Turner, H. A., & Hamby, S. L. (2014). Trends in children's exposure to violence, 2003 to 2011. *JAMA Pediatrics*, 168, 540–546. doi:10.1001/jamapediatrics.2013.5296
- Fontes, L. A., & Plummer, C. (2010). Cultural issues in disclosures of child sexual abuse. *Journal of Child Sexual Abuse*, 19, 491–518.
- Gagnier, C., & Collin-Vézina, D. (2016). The disclosure experiences of male child sexual abuse survivors. *Journal of Child Sexual Abuse*, 25, 221–241.
- Goodman-Brown, T. B., Edelstein, R. S., Goodman, G. S., Jones, D., & Gordon, D. S. (2003). Why children tell: A model of children's disclosure of sexual abuse. *Child Abuse & Neglect*, 27, 525–540.
- Hébert, M., Tourigny, M., Cyr, M., McDuff, P., & Joly, J. (2009). Prevalence of childhood sexual abuse and timing of disclosure in a representative sample of adults from Quebec. *Canadian Journal of Psychiatry*, 54, 631–636. Retrieved from <http://search.proquest.com/docview/222860811?accountid=14771>
- Hershkowitz, I., Horowitz, D., & Lamb, M. E. (2005). Trends in children's disclosure of abuse in Israel: A national study. *Child Abuse & Neglect*, 29, 1203–1214.
- Hershkowitz, I., Lanes, O., & Lamb, M. E. (2007). Exploring the disclosure of child sexual abuse with alleged victims and their parents. *Child Abuse & Neglect*, 31, 111–123.
- Hunter, S. V. (2011). Disclosure of child sexual abuse as a life-long process: Implications for health professionals. *The Australian and New Zealand Journal of Family Therapy*, 32, 159–172.
- Jensen, T. K., Gulbrandsen, W., Mossige, S., Reichelt, S., & Tjersland, O. A. (2005). Reporting possible sexual abuse: A qualitative study on children's perspectives and the context for disclosure. *Child Abuse & Neglect*, 29, 1395–1413.
- Jillian, B., Cotter, A., & Perreault, S. (2014). *Police-reported crime statistics in Canada, 2013* (Catalogue number 85-002-X). Ottawa, ON: Statistics Canada.
- Jones, D. P. H. (2000). Editorial: Disclosure of child sexual abuse. *Child Abuse & Neglect*, 24, 269–271.
- Jonzon, E., & Lindbald, F. (2004). Disclosure, reactions, and social support: Findings from a sample of adult victims of child sexual abuse. *Child Maltreatment*, 9, 190–200.
- Kiteley, R., & Stogdon, C. (2014). *Literature reviews in social work*. London, England: Sage.
- Kogan, S. (2004). Disclosing unwanted sexual experiences: Results from a national sample of adolescent women. *Child Abuse & Neglect*, 28, 147–165.
- Leclerc, B., & Wortley, R. (2015). Predictors of victim disclosure in child sexual abuse: Additional evidence from a sample of incarcerated adult sex offenders. *Child Abuse & Neglect*, 43, 104–111.
- London, K., Bruck, M., Ceci, S. J., & Shuman, D. W. (2005). Disclosure of child sexual abuse: What does the research tell us about the ways that children tell? *Psychology, Public Policy, and Law*, 11, 194–226.
- McElvaney, R. (2015). Disclosure of child sexual abuse: Delays, non-disclosure and partial Disclosure. What the research tells us and implications for practice. *Child Abuse Review*, 24, 159–169.
- McElvaney, R., & Culhane, M. (2015). A retrospective analysis of children's assessment reports: What helps children tell? *Child Abuse Review*. doi:10.1002/car.2390.
- McElvaney, R., Greene, S., & Hogan, D. (2012). Containing the secret of child sexual abuse. *Journal of Interpersonal Violence*, 27, 1155–1175.

- McElvaney, R., Greene, S., & Hogan, D. (2014). To tell or not to tell? Factors influencing young people's informal disclosures of child sexual abuse. *Journal of Interpersonal Violence*, 29, 928–947.
- Maier, T., Mohler-Kuo, M., Landholt, M. A., Schnyder, U., & Jud, A. (2013). The tip of the iceberg. Incidence of disclosed cases of child sexual abuse in Switzerland: Results from a Nationwide Agency Survey. *International Journal of Public Health*, 58, 875–883.
- Paine, M. L., & Hansen, D. J. (2002). Factors influencing children to self-disclose sexual abuse. *Clinical Psychology Review*, 22, 271–295. doi:10.1016/S0272-7358(01)00091-5
- Pereda, N., Guilera, G., Forns, M., & Gómez-Benito, J. (2009). The international epidemiology of child sexual abuse: A continuation of Finkelhor (1994). *Child Abuse & Neglect*, 33, 331. Retrieved from <http://search.proquest.com/docview/230158315?accountid=14771>
- Priebe, G., & Svedin, C. G. (2008). Child sexual abuse is largely hidden from the adult society: An epidemiological study of adolescents' disclosures. *Child Abuse & Neglect*, 32, 1095–1108.
- Reitsema, A. M., & Grietens, H. (2015). Is anybody listening? The literature on the dialogical process of child sexual abuse disclosure reviewed. *Trauma Violence Abuse*. doi:10.1177/1524838015584368
- Rosenthal, G., & Fisher-Rosenthal, W. (2004). The analysis of narrative-biographical interviews in U Flick. In E. von Kardorff & I. Steinke (Eds.), *A Companion to Qualitative Research* (pp. 259–265). London, UK: Sage.
- Schaeffer, P., Leventhal, J. M., & Asnes, A. G. (2011). Children's disclosures of sexual abuse: Learning from direct inquiry. *Child Abuse & Neglect*, 35, 343–352. doi:10.1016/j.chiabu.2011.01.014
- Schönbucher, V., Maier, T., Mohler-Kuo, M., Schnyder, U., & Landolt, M. A. (2012). Disclosure of child sexual abuse by adolescents: A qualitative in-depth study. *Journal of Interpersonal Violence*, 27, 3486–3513. doi:10.1177/0886260512445380
- Smith, D. W., Letourneau, E. J., Saunders, B. E., Kilpatrick, D. G., Resnick, H. S., & Best, C. L. (2000). Delay in disclosure of childhood rape: Results from a national survey. *Child Abuse & Neglect*, 24, 273–287. Retrieved from <http://search.proquest.com/docview/70933344?accountid=14771>
- Sorsoli, L., Kia-Keating, M., & Grossman, F. K. (2008). "I keep that hush-hush": Male survivors of sexual abuse and the challenges of disclosure. *Journal of Counseling Psychology*, 55, 333–345. doi:10.1037/0022-0167.55.3.333
- Staller, K. M., & Nelson-Gardell, D. (2005). "A burden in your heart": Lessons of disclosure from female preadolescent and adolescent survivors of sexual abuse. *Child Abuse & Neglect*, 29, 1415–1432.
- Statistics Canada. (2013). *Police-reported crime statistics in Canada, 2012* (Catalogue number 85-002-X). Retrieved from the Statistics Canada website <http://www.statcan.gc.ca/pub/85-002-x/2013001/article/11854-eng.htm#n2>
- Stoltenborgh, M., van IJzendoorn, M. H., Euser, E. M., & Bakermans-Kranenburg, M. (2011). A global perspective on child sexual abuse: Meta-analysis of prevalence around the world. *Child Maltreatment*, 16, 79–101. doi:10.1177/1077559511403920
- Summit, R. C. (1983). The sexual abuse accommodation syndrome. *Child Abuse & Neglect*, 7, 177–193.
- Tener, D., & Murphy, S. (2015). Adult disclosure of child sexual abuse. *Trauma, Violence & Abuse*, 16, 391–400.
- Trocme, N., Fallon, B., MacLaurin, B., Daciuk, J., Felstiner, C., Black, T., . . . Cloutier, R. (2005). *Canadian incidence study of reported child abuse and neglect – 2003: Major findings*. Ottawa: Minister of Public Works and Government Services Canada.
- Trocme, N., Fallon, B., MacLaurin, B., Sinha, V., Black, T., Fast, E., . . . Holroyd, J. (2008). *Characteristics of substantiated maltreatment. Canadian incidence study of reported child abuse and neglect: Major findings* (Chapter 4). Retrieved from <http://www.phac-aspc.gc.ca/cm-vee/public-eng.php>
- Ungar, M., Barter, K., McConnell, S. M., Tutty, L. M., & Fairholm, J. (2009a). Patterns of abuse disclosure among youth. *Qualitative Social Work*, 8, 341–356.
- Ungar, M., Tutty, L. M., McConnell, S., Barter, K., & Fairholm, J. (2009b). What Canadian youth tell us about disclosing abuse. *Child Abuse & Neglect*, 33, 699–708.
- Williams, L. M. (2003). Understanding child abuse and violence against women: A life course perspective. *Journal of Interpersonal Violence*, 18, 441–451.

Author Biographies

Ramona Alaggia, MSW, PhD, is an associate professor in social work and the Factor-Inwentash Chair in Children's Mental Health at the University of Toronto. Her teaching and research focuses on gender and violence, sexual abuse disclosures, domestic violence exposure, and resilience processes.

Delphine Collin-Vézina, PhD, is an associate professor for School of Social Work, McGill University and director for Centre for Research on Children and Families. She holds the Nicolas Steinmetz and Gilles Julien Chair in Social Pediatrics in Community and the Canada Research Chair (Tier II) in Child Welfare. Her work focuses on research and clinical topics related to child maltreatment, child sexual abuse, and trauma.

Rusan Lateef, MSW, is a social worker employed in the criminal justice system with adult male offenders in Ontario, Canada. She specializes in the intersection of health and mental health, child sexual abuse disclosures, and she is a researcher on the "Make Resilience Matter" project examining childhood exposure to domestic violence with Dr. Alaggia at the Factor-Inwentash Faculty of Social Work, University of Toronto.

Appendix C

Kristen Weede Alexander, et al., *Traumatic Impact Predicts Long-Term Memory for Documented Child Sexual Abuse*, 16(1) Psychol. Sci. 33 (2005).

Appendix C

Research Article

Traumatic Impact Predicts Long-Term Memory for Documented Child Sexual Abuse

Kristen Weede Alexander,¹ Jodi A. Quas,² Gail S. Goodman,³ Simona Ghetti,^{3,4} Robin S. Edelstein,³ Allison D. Redlich,⁵ Ingrid M. Cordon,³ and David P.H. Jones⁶

¹California State University, Sacramento; ²University of California, Irvine; ³University of California, Davis; ⁴Research Institute on Judicial Systems, National Research Council, Bologna, Italy; ⁵Policy Research Associates, Inc., Delmar, New York; and ⁶University of Oxford, Park Hospital for Children, Oxford, England

ABSTRACT—*Prospective studies of adults' memories of documented child sexual abuse (CSA) reveal that the majority of individuals remember their victimization. However, the accuracy of these memories has rarely been investigated scientifically. The present study examined predictors of memory accuracy and errors 12 to 21 years after abuse ended for individuals with legal experiences resulting from documented CSA. Severity of posttraumatic stress disorder (PTSD) symptomatology was positively associated with memory accuracy. However, individuals nominating CSA as their most traumatic life event exhibited relatively accurate memory regardless of indicators of PTSD. Predictors of memory errors were also identified (e.g., less maternal support). These results indicate that, in addition to understanding the role of traditional cognitive factors, understanding an event's traumatic impact is important for predicting the accuracy of long-term memory for reported CSA.*

Although research has focused on forgetting of child sexual abuse (CSA), virtually no studies have examined the accuracy of long-term memory for such trauma among adults who remember being victimized. We conducted a longitudinal study involving victims of documented and prosecuted CSA to investigate, prospectively, the accuracy of long-term memory of sexual abuse in childhood.

Address correspondence to Gail S. Goodman, Department of Psychology, One Shields Ave., University of California, Davis, CA 95616, e-mail: ggoodman@ucdavis.edu, or to Jodi Quas, Department of Psychology and Social Behavior, University of California, Irvine, CA 92697, e-mail: jquas@uci.edu.

We specifically sought to examine how reactions to trauma (i.e., trauma symptoms, cognitive appraisals) affect memory (see also Williams, 1995). Regarding trauma symptoms, much current interest focuses on memory functioning in relation to posttraumatic stress disorder (PTSD; McNally, 2003), a psychopathology that is defined by anxiety and memory problems (Sullivan & Gorman, 2002) and is a possible sequela of CSA (Browne & Finkelhor, 1986). Research suggests that trauma survivors, especially those with PTSD, overattend to trauma-related cues (e.g., for rape victims, the word *rape* on the modified Stroop test; e.g., Field et al., 2001; Foa, Feske, Murdock, Kozak, & McCarthy, 1991) and evince heightened memory and reduced forgetting of trauma-related words (e.g., Amir, McNally, & Wiegartz, 1996; McNally, Metzger, Lasko, Clancy, & Pitman, 1998; Paunovic, Lundh, & Oest, 2002).

One possible explanation of such findings is that traumatized individuals, especially those with PTSD, develop semantic networks ("fear networks") within which trauma-related information becomes stored (e.g., Foa, Steketee, & Rothbaum, 1989; but see Foa & Riggs, 1993, and for review, Dalgleish, 2004). These networks may predispose traumatized individuals to be hypervigilant to trauma-related information and retain it particularly well. These networks could also affect retention of the original trauma (e.g., by fostering greater rehearsal) and influence memory for similar experiences or traumatic events generally (e.g., by activation of related nodes in memory). Accordingly, one might predict that abused individuals, especially those who exhibit high levels of PTSD symptomatology, have robust CSA memories, despite findings that link trauma backgrounds with information processing deficits for non-trauma-related information (e.g., Bremner, Shobe, & Kihlstrom, 2000; Edwards, Fivush, Anda, Felitti, & Nordenberg, 2001;

Hunter & Andrews, 2002; McNally, Lasko, Macklin, & Pitman, 1995; cf. Metcalfe & Jacobs, 2000, regarding “hot” and “cold” memory systems).

Independent of potential effects of PTSD symptomatology on memory of CSA, cognitive appraisals of distressing events may also affect CSA memories. Events appraised as highly negative are remembered especially well (e.g., Berntsen, 2002), perhaps because of their salience or distinctiveness. They may activate physiological (e.g., amygdala; LeDoux, 2000) and behavioral (e.g., rehearsal; Christianson, 1992) responses that help consolidate or maintain memories, possibly including memories for whole categories of experiences. Moreover, for highly negative incidents, information directly related to the cause of the stress is prioritized in memory, with such information often retained better the greater the distress (Christianson, 1992); this relation between memory and distress implies that increased severity of CSA would result in more accurate memory for main features of the abuse. Thus, overall, although alternative hypotheses exist (e.g., traumatic reactions and negative appraisals could overwhelm coping abilities or activate defense mechanisms, leaving victims with reduced or distorted processing of CSA experiences; Terr, 1991; van der Kolk, 1997), there is reason to predict that individuals who appraise their CSA as a particularly traumatic experience would remember it well, especially if they evince high levels of PTSD symptomatology, and further that more severe abuse would result in better CSA memory.

In addition to the aforementioned trauma-specific factors, numerous factors correlated with trauma undoubtedly affect memory. Thus, the impact of trauma must be considered in the context of other potentially important variables. Increased severity of CSA may result in increased trauma, but severity can comprise such factors as duration and frequency, which themselves may affect memory accuracy independently of traumatic impact. Moreover, severe abuse is often aggressively prosecuted. Insofar as extensive legal involvement results in elaborative rehearsal, greater stress, and a more distinct experience, children with extensive legal involvement may remember their CSA experiences particularly well.

Another set of variables potentially correlated with trauma concerns interpersonal relationships. Close relationship to the perpetrator is associated with lack of maternal support when child victims disclose their abuse (Everson, Hunter, Runyon, Edelsohn, & Coulter, 1989). To the extent that unsupportive mothers talk less often with their children about the CSA than supportive mothers do or fail to legitimate their children’s allegations, long-term memory may be adversely affected (Goodman, Quas, Batterman-Faunce, Riddlesberger, & Kuhn, 1994; Haden, Hayne, & Fivush, 1997). Furthermore, individuals abused by an emotionally close caregiver may feel especially betrayed (Freyd, 1996). Such feelings may reduce the clarity and accessibility of memories (e.g., through cognitive avoidance). However, a close relationship to the abuser (e.g.,

intrafamilial abuse) may be associated with a detailed knowledge base, which may support memory. Thus, relationship variables must be considered, despite the unclear direction of their effects.

Factors that are not necessarily related to trauma but affect long-term retention (e.g., age, delay) also likely influence memory of CSA. Older children provide more accurate and complete memory reports than do younger children (e.g., Quas et al., 1999), which suggests that children who were older when the abuse ended may have more accurate long-term memories than children who were younger. Additionally, delay often heralds forgetting; a shorter delay between the event and memory interview should engender better memory. Furthermore, compared with females, males may be less likely to disclose CSA (e.g., Finkelhor, Hotaling, Lewis, & Smith, 1990; Widom & Morris, 1997; but see Goodman et al., 2003) and may have less detailed autobiographical memories about emotional events (Davis, 1999). If males are hesitant to talk about CSA, their memory of it might fade over the years. In the present study, memory accuracy was considered in light of these possible influences.

THE PRESENT STUDY

Our goal was to examine the accuracy of adolescents’ and young adults’ memory for CSA that ended 12 to 21 years previously. We hypothesized that individuals displaying more PTSD symptomatology and reporting CSA as their most traumatic life event would exhibit better memory for the abuse than individuals displaying less PTSD symptomatology and reporting another event as their most traumatic experience. Further, increased abuse severity, greater maternal support, more extensive legal involvement, older age when the abuse ended, shorter delay, and being female were expected to make independent contributions to memory accuracy.

METHOD

Participants and Procedure

Participants had been involved during the 1980s in a study of the short-term effects of criminal prosecutions on CSA victims (Goodman et al., 1992). In that study, detailed information was collected on two hundred seventeen 3- to 17-year-olds’ backgrounds, mental health, and abuse and legal experiences.¹ The data included demographic information (e.g., ethnicity, socioeconomic status), ratings of the children’s behavioral adjustment at the outset of prosecution (i.e., Achenbach’s, 1991, Child Behavior Checklist, or CBCL), information about the abuse (e.g., victim-perpetrator relationship, abuse duration), and facts

¹One participant from the original study ($n = 218$) is not included because the defendant was not 4 years older, a necessary element of the crime for prosecution.

related to the children's legal experiences (e.g., extent of legal involvement).²

Ten to 16 years following the original study, when participants were adolescents and young adults, they were recontacted to join a study of attitudes toward and experiences with the legal system. The follow-up was conducted in three phases: (a) Phase 1 was conducted via telephone interview, (b) Phase 2 was conducted via mailed questionnaires, and (c) Phase 3 was conducted via in-person interview. Exceptions to interview format were made as necessary (e.g., for participants lacking telephones, Phase 1 was conducted via mail or in-person interview). For scientific and ethical reasons, participants were not told of the researchers' knowledge of the sample's past victimization, legal involvement, or participation in the original study. Interviewers were blind to individual participants' prior experiences. In each phase, information about the participants' mental health, victimization, and legal experiences was elicited. Of the original 217 eligible participants, 81% ($n = 175$) were interviewed at least once.

For the present report, CSA memory accuracy was determined using primarily information collected during Phase 3 (in-person interview), which focused on participants' CSA memories, disclosure, and legal experiences. CSA was defined as exhibitionism, sexual touching, rape, oral sex, or intercourse (completed or attempted acts) that occurred before age 18 and with a person more than 4 years older (see Goodman et al., 2003). Of the 103 individuals (23 males, 80 females) who completed all portions of Phase 3, 7 said they were never abused (although 3 of them had disclosed abuse in Phase 1 or 2), and 2 discussed the legal case but stated the abuse was a false report. The present study concerns the 94 individuals (19 males, 75 females) who reported the former CSA and answered questions about it (see Table 1).³ Of these individuals, 69.1% were non-Hispanic Caucasian, 8.5% were African American, 12.8% were Hispanic, and 9.6% were "other." Alleged perpetrators were strangers (9%), acquaintances (30%), nonparental caregivers (39%), or parental caregivers (22%). Of the cases, 44.7% involved genital contact and 42.6% involved penetration. At entry into the original study, maternal support following disclosure was assessed on a dichotomous scale; most individuals had supportive mothers ($n = 83$ of 91). Participants' legal involvement was scored as 1 if the child never went to the courthouse ($n = 25$), 2 if the child went to the courthouse but did not testify ($n = 32$), or 3 if the child went to the courthouse and testified ($n = 37$).

Participants who completed Phase 3 and disclosed the CSA were comparable to the other participants from the original sample (Goodman et al., 1992) in terms of gender, socioeco-

TABLE 1
Characteristics of the Sample

Variable	<i>M</i>	<i>SD</i>	Range
Victim's age at end of abuse ^a	9.88	3.38	3–16
Victim's age at police report ^a	10.23	3.51	3–17
Victim's age at Phase 3 ^a	24.23	3.55	17–31
Delay ^b	14.34	1.41	12–21
Socioeconomic status ^c	4.88	1.69	1–7
Victim's relationship to perpetrator ^d	2.76	0.90	1–4
Abuse severity ^e	4.81	1.80	2–9
Abuse frequency ^f	1.88	0.89	1–3
Legal involvement ^g	2.13	0.81	1–3
Maternal support ^h	.91	.28	0–1
Number of posttraumatic stress disorder criteria met	3.65	1.95	0–6

^aAges are reported in years. ^bDelay is the number of years between the cessation of abuse and the Phase 3 interview. ^cSocioeconomic status (1 = high, 7 = low) was determined during the original study using a modified Hollingshead index. ^dThe scale for relationship to perpetrator ranged from *stranger* (1) to *parental figure* (4). ^eThe abuse-severity composite index (1 = low, 12 = high) included abuse duration, extent of sexual contact, amount of force, and extent of injury sustained because of the abuse, all from the original case documentation. ^fAbuse frequency was scored as 1 (1 time), 2 (2–3 times), or 3 (4 or more times). ^gThe scale for legal involvement ranged from *minimal* (1) to *testified* (3). ^hMaternal support was scored on a dichotomous scale (0 = no, 1 = yes).

omic status, abuse severity, victim-perpetrator relationship, and original CBCL total *T* score, $ts(213-215) \leq 1.19$. However, this subsample experienced greater legal involvement, received more maternal support, and was older at the end of the abuse than were others from the original sample, $ts(164-215) \geq 12.311$, $ps < .01$.

PTSD was assessed during Phase 2 using the Post-Traumatic Stress Diagnostic Scale (PDS), which has commendable psychometric properties (e.g., internal consistencies from .78 to .84 for the criteria; Foa, Cashman, Jaycox, & Perry, 1997). This measure provides a list of traumatic events (including CSA); respondents indicate which events happened to them and, among those, which was the most traumatic. The answer to the latter question was used to score the *most traumatic event* (MTE) as CSA or another event. The measure then lists a series of questions regarding the effects of participants' self-identified MTE on their lives. Depending on participants' responses to these questions, they could meet up to six PTSD criteria: exposure to trauma, reexperiencing symptoms, avoidance symptoms, arousal symptoms, trauma-related symptoms lasting 3 months or more, and significant distress or impairment in daily functioning. A PTSD diagnosis is made when all six criteria are met. However, because another potentially important index is number of PTSD criteria satisfied, which may reflect more precisely the magnitude of an individual's psychopathology related to a particular trauma, we used *number of PTSD criteria met* (nPTSD) as the operational index of traumatization. Of participants who completed the PDS ($n = 86$), 77 provided detailed information about the nature of their most traumatic

²See Goodman et al. (1992) and Goodman et al. (2003) for details about the measures in the original study and identification of target cases, respectively.

³For predictors of Phase 1 disclosure, see Goodman et al. (2003). An identical analysis predicting disclosure in the smaller Phase 3 sample revealed similar findings, although age no longer significantly predicted disclosure.

TABLE 2
Correlations Among Key Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Victim's age at end of abuse	—											
2. Victim's gender	.05	—										
3. Abuse severity	.06	.11	—									
4. Legal involvement	.17	-.09	.06	—								
5. Victim's relationship to perpetrator	-.03	.28**	.38***	-.19	—							
6. Maternal support	-.04	.04	-.04	.11	.09	—						
7. Delay	-.09	-.07	.02	-.08	.25**	.04	—					
8. Abuse frequency	.02	.09	.62***	-.11	.56***	.04	.05	—				
9. Number of posttraumatic stress disorder criteria met	.25*	.01	.04	.20	.08	.03	-.16	.00	—			
10. Most traumatic event	-.22*	-.03	.13	-.20	.22*	-.02	.30**	.10	.00	—		
11. Proportion correct	.07	-.01	.16	.19	.01	.29**	.09	-.08	.14	.26*	—	
12. Proportion commission errors	.09	.13	-.30**	-.24*	.13	.08	-.04	-.04	-.01	-.08	-.61***	—
13. Proportion omission errors	-.16	-.21*	.15	.02	-.09	-.29**	.09	.24*	-.26*	-.20	-.43***	-.16

Note. *Ns* ranged from 75 to 94. See Table 1 for explanations of rating scales; in addition, for victim's gender, male = 1 and female = 2, and most traumatic event was scored 0 if it was not child sexual abuse and 1 if it was child sexual abuse.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$ (two-tailed tests).

experience, which was CSA for 48 of these participants and another event for 29.⁴

Memory Coding

Memory interviews were coded for accuracy according to facts recorded in the original study. The coding scheme was based on 11 points of information (i.e., perpetrator's name, sexual acts, victim's age at onset and offset, perpetrator's age, child-perpetrator relationship, frequency and duration of abuse, child-perpetrator living arrangement, and force and coercion involved). Participants' Phase 3 responses to relevant questions (e.g., "How old were you when the CSA first happened?" "What was the defendant's name?") were examined for this information. When necessary for clarification, Phase 1 interviews and Phase 2 questionnaires were consulted. Then, responses were compared with the corresponding information from the original study (Goodman et al., 1992). Proportion correct was computed by dividing the number of correct responses by the number of the 11 points of information reported by the participant. For 7 of the 11 points (e.g., whether force was involved), errors could be scored as errors of commission (exaggeration or addition of information relative to the original record; e.g., the victim stating that he or she lived with the perpetrator when our records indicated that was not the case) or omission (exclusion or downplaying of information; e.g., indicating no force was involved when our records indicated force was used).⁵

⁴For most cases, it was possible to determine that the CSA reported as the MTE was the CSA case we had studied previously (i.e., of the 48 participants indicating CSA as their MTE, 36 provided enough information to verify that they were referring to the documented CSA).

⁵Questions not scored for errors were those such as, "How old were you when the abuse ended?" If, for example, the participant was 10 years old but indicated 9 years, it was unclear whether this should be scored as a commission or omission error. The denominator for proportion errors was 7.

To establish reliability, four raters independently coded 12% of the interviews. For correct responses, commission errors, and omission errors, proportion agreement ranged from .83 to .99 ($M = .93$) for each pair of raters. The raters divided the remaining interviews for coding.

RESULTS

Our goal was to identify predictors of memory accuracy for CSA. Dependent measures included proportion correct ($M = .72$, $SD = .18$, range = .29–1.00), proportion commission errors ($M = .14$, $SD = .17$, range = .00–.71), and proportion omission errors ($M = .14$, $SD = .18$, range = .00–.80). Correlations among key variables are shown in Table 2.

To examine the relative contribution of each variable in predicting memory of CSA, we conducted three linear regressions.⁶ Predictors included victim's age at the end of the abuse, victim's gender, abuse severity, maternal support, victim-perpetrator relationship, extent of legal involvement, delay between end of abuse and current memory interview, nPTSD, MTE, and the nPTSD $\times$ MTE interaction. The regression for proportion correct was significant, $F(10, 64) = 3.34$, $p < .01$ (Table 3): Maternal support, nPTSD, MTE, and the MTE $\times$ nPTSD interaction were significant predictors.

Individuals who received maternal support following CSA discovery evinced more accurate long-term memory than those who did not receive such support. More PTSD criteria met and nominating CSA as the MTE were also associated with more accurate responses. Figure 1 shows the interaction between

⁶Because of missing data, n in the regressions was 73 to 75. The pattern of results was virtually identical (except as noted in the text) when duration or frequency, which could independently affect memory, replaced severity, and when only corroborated cases were considered.

TABLE 3

Regression Analysis for Variables Predicting Accuracy of Long-Term Memory for Child Sexual Abuse

Variable	β	t	p
Victim's age at end of abuse	-.07	-0.62	.54
Victim's gender	.16	1.47	.15
Abuse severity	.17	1.47	.15
Legal involvement	.03	0.28	.78
Victim's relationship to perpetrator	-.10	-0.82	.42
Maternal support	.33	3.11	.003
Delay	-.06	-0.51	.61
MTE	.29	2.54	.01
nPTSD	.23	2.07	.04
MTE $\times$ nPTSD	-.33	-3.10	.003

Note. $n = 75$. MTE = most traumatic event (not child sexual abuse = 0, child sexual abuse = 1), nPTSD = number of posttraumatic stress disorder criteria met. MTE and nPTSD were standardized to create the interaction term. $R^2 = .34$. The addition of the interaction term led to R^2 change of .10, $p < .01$. See Tables 1 and 2 for explanations of rating scales.

MTE and nPTSD. For individuals designating CSA as their most significant life trauma, there was virtually no relation between nPTSD and memory for the abuse, $r = -.02$; memory was rel-

atively accurate regardless of the number of PTSD criteria satisfied. However, for individuals nominating another life event (e.g., car accident, loved one's death) as their most significant trauma, the relation between nPTSD and memory was positive, $r = .44$, $p < .05$. For these individuals, a greater number of PTSD criteria met was associated with better memory of CSA.

It is possible that PTSD symptomatology is related to how often the abuse was discussed with a counselor or parent, which could affect memory. To investigate this possibility, we added therapy (whether the participant reported receiving counseling during or immediately following the prosecution) and frequency of CSA discussion with the caregiver (immediately following the CSA and during the delay), as indicated during Phase 2, individually to the regressions.⁷ We similarly included self-reported number of other CSA experiences ($M = 1.71$ for participants whose MTE was CSA and $M = 2.07$ for participants whose MTE was not CSA) and number of non-CSA traumas ($M = 7.02$ for participants whose MTE was CSA and $M = 8.90$ for participants whose MTE was not CSA), assessed in Phase 1. No significant R^2 changes resulted.⁸

Our accuracy measure might be perceived as simply an index of consistency between the original and current reports. Although some facts used to create the accuracy variable relied solely on children's original statements, others were objectively verifiable (e.g., perpetrator's name and age). When a composite variable including only proportion correct for these verifiable questions was entered as the dependent variable, the regression results remained virtually identical, $F(10, 64) = 2.57$, $p = .01$.

The regression analysis for omission errors was also significant, $F(10, 62) = 2.17$, $p < .05$, $R^2 = .26$. Maternal support was the only significant predictor, $\beta = -.30$, $p = .01$ (greater maternal support predicted fewer omissions),⁹ although gender, $\beta = -.21$, $p < .10$, approached significance (females produced somewhat fewer omission errors than males). When we conducted the analysis replacing severity with frequency (the two variables were highly correlated), greater frequency of CSA significantly predicted increased omission errors, $\beta = .40$, $p = .01$, despite a positive relation between frequency and

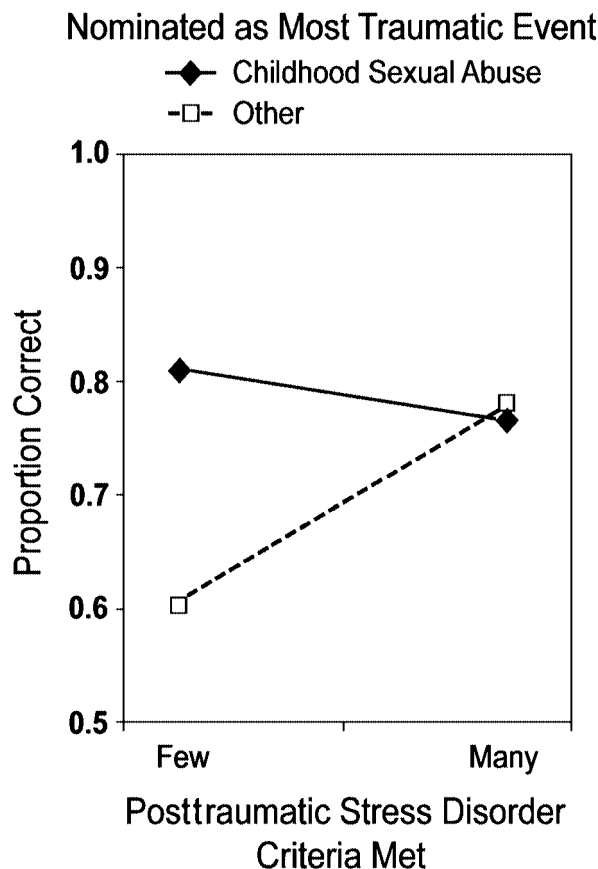


Fig. 1. Relation between number of posttraumatic stress disorder criteria satisfied and proportion correct on the measure of memory for the target childhood sexual abuse for participants indicating their most traumatic life event was child sexual abuse versus another event. Lines are plotted according to the regression coefficients.

⁷We did not have information on recent therapy.

⁸Other mental health indices (composite scores) collected during the initial study (i.e., CBCL) or present study (i.e., Dissociative Experiences Scale, Bernstein & Putnam, 1986; Youth Self Report, Achenbach, 1997; Behavior Symptom Index, Derogatis, 1983; Beck's Depression Inventory, Beck & Beamesderfer, 1974; Trauma Symptom Inventory, Briere, Elliott, Harris, & Cotman, 1995) were not significantly related to memory accuracy or errors, $r_s \leq .19$. Of the 86 individuals whose data allowed for a formal PTSD diagnosis to be made, 14 (15.9%) reached the clinical diagnosis level (meeting the six criteria). Having a PTSD diagnosis was not related to proportion correct or commission or omission errors regarding the documented CSA, $r_s \leq .108$, largely because participants who met four or five PTSD criteria generally evinced accurate memory for the documented CSA.

⁹Participants who reported that their mother avoided talking about the abuse or told them not to talk about it made more omission errors than other participants, $r_s = -.29$ and $-.25$, $n_s = 78$, $p_s < .05$.

initially receiving counseling related to the case, $r = .30$, $p < .05$. The regression model for commission errors was not significant, $F(10, 62) = 1.35$, $R^2 = .18$.

For the three memory measures, the findings remained virtually identical when we excluded the 12 people who indicated another CSA case (not our target case) was their MTE; for example, the regression for the proportion correct was again significant, $F(10, 52) = 4.79$, $p < .001$. Also, the effect of gender became significant for proportion correct, $\beta = .23$, $p < .05$; females were more accurate than males.

DISCUSSION

The present study examined the accuracy of long-term memory for CSA using a prospective design. Individuals who designated CSA as their MTE and individuals with more PTSD symptomatology were particularly accurate in their memory of the documented CSA case, which suggests an important influence of trauma symptoms and cognitive appraisals on long-term CSA memory. Evidence demonstrates that memory for emotional events often endures and that trauma-related information is generally retained well, especially among individuals with PTSD (Paunovic et al., 2002). Our results are largely consistent with this evidence.

Regarding the significant interaction involving PTSD criteria, it is possible that when CSA (our documented case or another incident) was indicated as the MTE, individuals encoded and rehearsed central details of the CSA enough to maintain accurate memory over the long term, regardless of PTSD symptoms. For them, as they reported, CSA was an emotional event, and the emotion or trauma-related semantic network that resulted may have facilitated memory retention (Foa et al., 1989; LeDoux, 2000). Among victims who indicated a non-CSA event as their most traumatic, those with fewer PTSD symptoms may not have focused on or may have actively tried to forget the CSA, leading to poorer long-term memory. In contrast, those who reported greater PTSD symptomatology (for a non-CSA trauma) may have been preoccupied with trauma or possessed fear networks that generalized to traumatic events overall, supporting relatively accurate long-term memory of CSA. It is also possible that this latter group had discussed the abuse more (e.g., in recent psychotherapy), although apparently not with a therapist right after the target CSA or with their nonoffending caregiver up to the time of the present interview.

Maternal support following disclosure of the abuse significantly predicted a higher proportion correct and fewer omission errors. Previous research has revealed benefits of maternal support on children's memory for distressing experiences (e.g., Goodman et al., 1994). In our study, maternal supportiveness may have facilitated formation of a coherent representation of the abuse. Also, children with supportive mothers may have felt comfortable discussing the CSA with other people. Both

greater coherence of an initial event representation and increased discussion could lead to maintenance of accurate memory.

When the entire sample was included in the analyses, men's and women's memory accuracy did not differ significantly. However, when the sample was limited to participants specifying the target case as their MTE, results demonstrated that females provided more correct information than did males. Former research has suggested gender differences in what males and females define as abusive and in their memory for emotional events (e.g., Davis, 1999; Widom & Morris, 1997). To the extent that males may be less willing to discuss CSA, perhaps particularly when the CSA is appraised as a highly traumatic personal event, they may have fewer rehearsal opportunities from the time the abuse ends, even in individuals willing to disclose their victimization. The resulting lack of rehearsal may affect accuracy of long-term memory.

Frequency of abuse was associated with a greater proportion of omission errors. There are several possible interpretations of this finding. For instance, frequent events are associated with schematization in memory, which could lead to omission errors. Victims may also downplay incest or abuse in which they were frequently (and perhaps actively) involved (Bidrose & Goodman, 2000).

Although the regression predicting commission errors was nonsignificant, two potentially important factors were identified in correlational analyses, warranting further research. Abuse severity predicted lack of commission errors, a result consistent with studies indicating that stress is often (although not always) associated with accuracy (e.g., Christianson, 1992). Also, greater legal involvement predicted fewer commission errors. Legal involvement might be associated with elaborative rehearsal, which facilitates long-term retention. The additional stress of possibly or actually testifying may have further solidified memory, thus reducing the likelihood of memory errors.

In the regression analyses, age at end of abuse was not significantly associated with long-term memory. In a previous analysis based on a larger sample (from Phase 1, $n = 174$; Goodman et al., 2003), we found that age predicted whether participants disclosed CSA. Nondisclosing participants were not included in the present study. Moreover, the present sample did not contain individuals whose abuse ended before they were 3 years old. Age at end of abuse may be related to childhood amnesia or "lost memory" but not to accuracy for core, salient features among individuals whose abuse ended at age 3 or after and who remember CSA.

Finally, victim-perpetrator relationship and delay were statistically unrelated to memory of CSA. Relationship between the victim and perpetrator is likely more complicated than our classification captured. Delay may have lost its predictive power given the long time interval, and subsequent forgetting, between the abuse and memory interview.

Some limitations of our study should be noted. The generalizability of our findings to nonreported CSA cases is unknown, and most CSA is never reported to authorities. Because we tested memory in a prosecution sample, disclosure and discussion of CSA had typically taken place during childhood. Our results do not necessarily reflect memory accuracy for cases in which the first disclosure occurs after lengthy delays (i.e., in adulthood). Moreover, if the initial allegations were false or distorted, our findings would be affected. Lack of statistical power may have reduced our ability to detect certain effects, such as those of age and delay. Furthermore, future studies should focus on additional memory characteristics (e.g., completeness, emotional content).

Nevertheless, by examining trauma-related factors, the present study sheds light on theoretical and applied issues regarding memory for traumatic experiences. Although replication is needed, our results indicate that in addition to traditional cognitive factors, an event's traumatic impact predicts accuracy of long-term memory for CSA.

Acknowledgments—This article is based on work supported by the National Science Foundation (NSF) under Grant 0004369. Any opinions, findings, conclusions, or recommendations expressed in this article are those of the authors and do not necessarily reflect the views of NSF. We thank Lois Buckman, Deena Day, Patricia England, Gina Gallo, Jenny Garfein, John Kihlstrom, Jennifer Noll, Linda Port, Lydia Prado, Juliana Rascauskas, Leslie Rudy, Jennifer Schaaf, Daniel Stroski, Elizabeth Taub, and Penelope Trickett. We also thank members of the Adams, Arapahoe, and Denver County District Attorney Offices, especially District Attorneys James Peters, Robert Grant, and William Ritter, and Deputy District Attorneys John Jordan, Jill Straus, and Norman Brisson.

REFERENCES

- Achenbach, T.M. (1991). *Manual for the Child Behavior Checklist/4-18 and 1991 Profile*. Burlington: University of Vermont, Department of Psychiatry.
- Achenbach, T.M. (1997). *Manual for the Young Adult Self-Report and Young Adult Behavior Checklist*. Burlington: University of Vermont, Department of Psychiatry.
- Amir, N., McNally, R., & Wiegartz, P.S. (1996). Implicit memory bias for threat in posttraumatic stress disorder. *Cognitive Therapy and Research*, 20, 625–635.
- Beck, A.T., & Beamesderfer, A. (1974). Assessment of depression: The Depression Inventory. *Psychological Measurements in Psychopharmacology*, 7, 151–169.
- Bernstein, E.M., & Putnam, F.W. (1986). Development, reliability, and validity of a dissociation scale. *Journal of Nervous and Mental Disease*, 174, 727–735.
- Berntsen, D. (2002). Tunnel memories for autobiographical events: Central details are remembered more frequently from shocking than from happy experiences. *Memory & Cognition*, 30, 1010–1020.
- Bidrose, S., & Goodman, G.S. (2000). Testimony and evidence: A scientific case study of memory for child sexual abuse. *Applied Cognitive Psychology*, 14, 197–214.
- Bremner, J.D., Shobe, K.K., & Kihlstrom, J.F. (2000). False memories in women with self-reported childhood sexual abuse: An empirical study. *Psychological Science*, 11, 333–337.
- Briere, J., Elliott, D.M., Harris, K., & Cotman, A. (1995). Trauma Symptom Inventory: Psychometrics and association with childhood and adult victimization in clinical samples. *Journal of Interpersonal Violence*, 10, 387–401.
- Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. *Psychological Bulletin*, 99, 66–77.
- Christianson, S.-A. (1992). Emotional stress and eyewitness memory: A critical review. *Psychological Bulletin*, 112, 284–309.
- Dalgleish, T. (2004). Cognitive approaches to posttraumatic stress disorder: The evolution of multirepresentational theorizing. *Psychological Bulletin*, 130, 228–260.
- Davis, P. (1999). Gender differences in autobiographical memory for childhood emotional experiences. *Journal of Personality and Social Psychology*, 76, 498–510.
- Derogatis, L.R. (1983). *SCL-90-R: Administration, scoring, and procedures manual*. Townsend, MD: Clinical Psychometric Research.
- Edwards, V.J., Fivush, R., Anda, R.F., Felitti, V.J., & Nordenberg, D.F. (2001). Autobiographical memory disturbances in childhood abuse survivors. *Journal of Aggression, Maltreatment and Trauma*, 4, 247–263.
- Everson, M.D., Hunter, W.M., Runyon, D.K., Edelson, G.A., & Coulter, M.L. (1989). Maternal support following disclosure of incest. *American Journal of Orthopsychiatry*, 59, 197–207.
- Field, N.P., Classen, C., Butler, L.D., Koopman, C., Zarccone, J., & Spiegel, D. (2001). Revictimization and information processing in women survivors of childhood sexual abuse. *Journal of Anxiety Disorders*, 15, 459–469.
- Finkelhor, D., Hotaling, G., Lewis, I.A., & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence, characteristics, and risk factors. *Child Abuse and Neglect*, 14, 19–28.
- Foa, E.B., Cashman, L., Jaycox, L., & Perry, K. (1997). The validation of a self-report measure of posttraumatic stress disorder: The Posttraumatic Diagnostic Scale. *Psychological Assessment*, 9, 445–451.
- Foa, E.B., Feske, U., Murdock, T., Kozak, M.J., & McCarthy, P.R. (1991). Processing of threat-related information in rape victims. *Journal of Abnormal Psychology*, 100, 156–162.
- Foa, E.B., & Riggs, D.S. (1993). Post-traumatic stress disorder in rape victims. In J. Oldham, M.B. Riba, & A. Tasman (Eds.), *Review of psychiatry* (Vol. 12, pp. 273–303). Washington, DC: American Psychiatric Association.
- Foa, E.B., Steketee, G., & Rothbaum, B.O. (1989). Behavioral/cognitive conceptualization of post-traumatic stress disorder. *Behavior Therapy*, 20, 155–176.
- Freyd, J.J. (1996). *Betrayal trauma: The logic of forgetting childhood abuse*. Cambridge, MA: Harvard University Press.
- Goodman, G.S., Ghetty, S., Quas, J.A., Edelstein, R.S., Alexander, K.W., Redlich, A.D., Cordon, I.M., & Jones, D.P.H. (2003). A prospective study of memory for child sexual abuse: New findings relevant to the repressed-memory controversy. *Psychological Science*, 14, 113–118.
- Goodman, G.S., Quas, J.A., Batterman-Faunce, J.M., Riddlesberger, M.M., & Kuhn, J. (1994). Predictors of accurate and inaccurate memories of traumatic events experienced in childhood. *Consciousness and Cognition*, 3, 269–294.

- Goodman, G.S., Taub, E.P., Jones, D.P.H., England, P., Port, L.K., Rudy, L., & Prado, L. (1992). Testifying in criminal court. *Monographs of the Society for Research in Child Development*, 57(5, Serial No. 229).
- Haden, C.A., Hayne, R.A., & Fivush, R. (1997). Developing narrative structure in parent-child reminiscing across the preschool years. *Developmental Psychology*, 33, 295–307.
- Hunter, E.C.M., & Andrews, B. (2002). Memory for autobiographical facts and events: A comparison of women reporting childhood sexual abuse and non-abused controls. *Applied Cognitive Psychology*, 16, 575–588.
- LeDoux, J.E. (2000). Emotion circuits in the brain. *Annual Review of Neuroscience*, 23, 155–184.
- McNally, R.J. (2003). Progress and controversy in the study of post-traumatic stress disorder. *Annual Review of Psychology*, 54, 229–252.
- McNally, R.J., Lasko, N.B., Macklin, M.L., & Pitman, R.K. (1995). Autobiographical memory disturbance in combat-related post-traumatic stress disorder. *Behaviour Research and Therapy*, 33, 619–630.
- McNally, R.J., Metzger, L.J., Lasko, N.B., Clancy, S.A., & Pitman, R.K. (1998). Directed forgetting of trauma cues in adult survivors of childhood sexual abuse with and without posttraumatic stress disorder. *Journal of Abnormal Psychology*, 107, 596–601.
- Metcalf, J., & Jacobs, W.J. (2000). 'Hot' emotions in human recollection: Toward a model of traumatic memory. In E. Tulving (Ed.), *Memory, consciousness, and the brain: The Tallinn Conference* (pp. 228–242). Philadelphia: Psychology Press.
- Paunovic, N., Lundh, L.-G., & Oest, L.-G. (2002). Attentional and memory bias for emotional information in crime victims with acute posttraumatic stress disorder. *Journal of Anxiety Disorders*, 16, 675–692.
- Quas, J.A., Goodman, G.S., Bidrose, S., Pipe, M.-E., Craw, S., & Ablin, D. (1999). Emotion and memory: Children's long-term remembering, forgetting, and suggestibility. *Journal of Experimental Child Psychology*, 72, 235–270.
- Sullivan, G.M., & Gorman, J.M. (2002). Finding a home for post-traumatic stress disorder in biological psychiatry: Is it a disorder of anxiety, mood, stress, or memory? *Psychiatric Clinics of North America*, 25, 463–468.
- Terr, L.C. (1991). Childhood traumas: An outline and overview. *American Journal of Psychiatry*, 148, 10–20.
- van der Kolk, B.A. (1997). The psychobiology of posttraumatic stress disorder. *Journal of Clinical Psychiatry*, 58, 16–24.
- Widom, C.S., & Morris, S. (1997). Accuracy of adult recollections of childhood victimization, Part 2: Childhood sexual abuse. *Psychological Assessment*, 9, 34–46.
- Williams, L.M. (1994). Recall of childhood trauma: A prospective study of women's memories of child sexual abuse. *Journal of Consulting and Clinical Psychology*, 62, 1167–1176.
- Williams, L.M. (1995). Recovered memories of abuse in women with documented child sexual victimization histories. *Journal of Traumatic Stress*, 8, 649–673.

(RECEIVED 9/15/03; ACCEPTED 10/24/03)

Appendix C

Lisa A Bunting, *Exploring the Influence of Reporting Delay on Criminal Justice Outcomes: Comparing Child and Adult Reporters of Childhood Sexual Abuse*, 23 J. Child Sexual Abuse 577 (2014).

Appendix C

RESEARCH ON CRIMINAL JUSTICE ISSUES

Exploring the Influence of Reporting Delay on Criminal Justice Outcomes: Comparing Child and Adult Reporters of Childhood Sexual Abuse

LISA A. BUNTING

Queen's University, Belfast, Northern Ireland

Delay between disclosure and reporting child sexual abuse is common and has significant implications for the prosecution of such offenses. While we might expect the relationship to be a linear one with longer delay reducing the likelihood of prosecution, the present study confirms a more complex interaction. Utilizing data from 2,079 police records in Northern Ireland, the study investigated the impact of reporting delay on pretrial criminal justice outcomes for child and adult reporters of child sexual abuse. While teenagers were found to be the group most disadvantaged by reporting delay, increased delay actually appeared advantageous for some groups, notably adult females reporting offenses that occurred when they were 0 to 6 years old. Conversely, adult males reporting child sexual abuse did not appear to benefit from increased delay, suggesting both an adult and gender bias within decision-making processes. The implications for future research are discussed.

KEYWORDS *pretrial decision making, case detection, historic abuse, child sexual abuse, crime detection, delayed reporting*

It is well evidenced that child sexual abuse (CSA) is a global problem of considerable extent affecting the lives of millions of children each year (Stoltenborgh, Van IJzendoorn, Euser, & Bakermans-Kranenburg, 2011). Equally well evidenced is that, despite the frequency of child maltreatment

Received 22 November 2012; revised 13 August 2013; accepted 25 October 2013.

Address correspondence to Lisa A. Bunting, School of Sociology, Social Policy and Social Work, Queen's University, Belfast BT7 1NN, Northern Ireland. E-mail: l.bunting@qub.ac.uk

across a range of populations, many children do not disclose abuse during childhood, and even in adulthood some may never tell (London, Bruck, Ceci, & Shuman, 2005; London, Bruck, Wright, & Ceci, 2008; Sas & Cunningham, 1995). Even when disclosure does take place, only a minority of cases come to the attention of child protection services or the police, often many years after the abuse occurred (Connolly & Read, 2006; Goodman-Brown, Edelstein, Goodman, Jones & Gordon, 2003; London, Bruck, Ceci et al., 2005; London, Bruck, Wright, et al. 2008; Sas & Cunningham, 1995). Disclosure itself is a process rather than a singular event (Sas & Cunningham, 1995) and can take different forms: accidental, in which the abuse is found out by someone else through observation or through medical examinations; purposeful, in which a child intentionally tells someone about the abuse; and prompted/elicited, in which professionals, parents, caregivers, or other adults encourage a reluctant child to tell about the abuse (Alaggia, 2004). As such, cases reported to the authorities may be precipitated by victim disclosure as well as parental or professional suspicions that abuse has occurred.

There is an extensive literature exploring the issue of disclosure, with a number of studies specifically examining cases that have come to the attention of the authorities either for treatment, assessment, or investigation (see London, Bruck, Ceci et al., 2005; London, Bruck, Wright, et al. 2008; for reviews). While results are sometime conflicting, there is data to suggest that boys may be more reluctant to disclose than girls (e.g., Hershkowitz, Horowitz, & Lamb, 2005; Lippert, Cross & Jones, 2009), and children who are victims of familial CSA tend to delay disclosure longer than those experiencing extrafamilial abuse (Sas & Cunningham, 1995; Smith et al., 2000; Goodman Brown et al., 2003). Older age at forensic interview has also been associated with increased likelihood of disclosure at interview (e.g., Hershkowitz et al., 2005; Lippert et al., 2009) while younger age at onset of abuse has been associated with increased delay in disclosure (Smith et al., 2000; Sas & Cunningham, 1995) as well as decreased likelihood of disclosure at interview (Lippert et al., 2009).

Despite considerable academic interest in the factors associated with delayed reporting and subsequent disclosure to statutory authorities, specific examination of the impact that delay itself has on case outcomes has been much more limited. Connolly and Read's (2006) examination of cases referred for prosecution in Canada noted an average reporting delay of 14 years, with two-thirds falling within a range of five to 22 years and some extending to three to four decades. The authors highlight the serious implications this has for the legal process in terms of admissibility of evidence, highlighting the paucity of empirical research on the retention of traumatic childhood events recalled in adulthood as well as the lack of research investigating the characteristics of adult reports of historic CSA. This is particularly important for jurisdictions that have no statute of limitations

for serious sexual offenses, such as Canada and the United Kingdom. Even in countries such as the United States, which have a statute of limitations in most states, this is often suspended until the child reaches adulthood, thus facilitating prosecution in many cases in which reporting has been delayed.

The limited available research investigating the impact of reporting delay on CSA legal outcomes tends to focus on the court stage of the criminal justice system and uses mock jurors and trial simulations as the primary means of evaluating impact. For example, Ellison and Munro's (2009) observation of juror deliberations in mock adult rape trials found that delayed reporting of up to three days was frequently interpreted by participants as reducing complainant credibility. Similarly, Yozwiak, Golding, and Marsil's (2004) mock juror study identified delays in full disclosure as negatively impacting ratings of defendant guilt and belief in the alleged victim while Pozzulo, Dempsey, and Crescini's (2010) findings indicate that shorter reporting delay leads to significantly higher guilt ratings and lengthier sentence recommendations.

Research with real life trial cases (Read, Connolly, & Welsh, 2006) has demonstrated that reporting delay predicts legal outcomes in judge-only trials of delayed and historic child abuse trials, but not in jury trials. Analysis of judicial assessments of complainant credibility also indicates that adults may be viewed more positively than children even when all the complainants were children when the alleged offense occurred (Connolly, Price, & Gordon, 2010). This is further supported by the earlier work of Golding, Sanchez, and Sego (1999), which investigated how mock jurors react to testimony involving claims of a repressed memory involving child sexual assault. The results showed that delay in reporting an incident adversely affected believability of the alleged victim and led to fewer rulings in support of the prosecution compared to cases that were reported immediately. Longer delays in reporting generally led to lower alleged victim believability and fewer decisions in support of the plaintiff than shorter delays. Important, however, is that the study also showed that the age at the time of the incident was a critical variable in determining belief of the alleged victim, with younger victims (and hence those with the longest delay) tending to be judged as more believable than older children.

These studies offer valuable insight into how reporting delay can influence successful prosecution. They suggest that the relationship between delay and case outcomes is not a straightforward one and is likely mediated by the age of the victim and whether they are a child or adult when they come into contact with the legal system. However, given that only a minority of reports of sexual crime against children proceed past the investigative stage of the criminal justice system and even fewer proceed to trial or subsequent conviction, they are unlikely to be representative of cases reported to the police in the first instance (Bunting, 2008; Feist, Ashe, Lawrence, McPhee, & Wilson, 2007; Gallagher & Pease, 2000; Stroud, Martens, & Barker,

2000). A range of international studies also highlight reporting delay as a key determining factor in decisions to prosecute, indicating that police and prosecutors, like jurors, tend to view the presence of reporting delay with scepticism (Bronitt, 1998; Jordan, 2004; Kelly, 2002; Lonsway, Archambault, & Lisak, 2009).

However, to date only a small numbers of studies have addressed this gap through quantitative comparison of alleged cases of CSA assessed by police and/or prosecutors as having sufficient evidence to prosecute with those that do not meet this threshold (Bunting, 2008; Feist et al., 2007). Both Feist and colleagues (2007) and Bunting (2008) specifically focused on the relationship between case characteristics and case outcomes but produced slightly different results. Feist and colleagues' (2007) analysis of 676 rape cases reported to police found that, for victims under the age of 16, around half of offenses reported on the same day were "detected" by police (i.e., an offender was either charged, received a summons to appear in court, or was given a "caution," a formal alternative to prosecution in minor cases administered by the police and other law enforcement agencies). As the time between offense and report increased (beyond seven days), there was a nonsignificant decrease in the proportion of offenders charged, summonsed, or cautioned. For adult victims, the picture was rather different. Only one quarter of offenses reported on the same day as the offense took place resulted in an offender being charged, summonsed, or cautioned, and there was a statistically significant drop in detection as reporting delay increased.

However, Bunting's (2008) analysis of 8,789 sexual offenses recorded by police between 2001 and 2006 found a significant association between reporting delay and an offender being charged, summonsed, or cautioned in both child and adult cases. Fifty percent of cases involving child victims who reported on the same day as the offense occurred resulted in an offender being charged, summonsed, or cautioned, a figure that dropped to 31.1% for cases reported the next day but rose to 56% for those reported more than 501 days after the offense occurred. These differing results are likely related to the much larger sample size used by Bunting (2008) as well as the more extensive categorization of reporting delay compared to Feist and colleagues' (2007) range of same day to 7+ days after offense occurrence.

Although neither study looked at potential differences in outcomes for children reporting sexual offenses compared to adults reporting childhood sexual offenses (i.e., the child/adult status of the reporter), Bunting's (2008) results point to a curvilinear relationship between reporting delay and case outcomes. It was hypothesized that this was because those who report the same day were likely have the greatest amount of physical evidence, while those who report later were more likely to be reporting on historical cases that involve other witnesses or because, as an adult, they appeared more credible a witness.

The present study extends previous research in this area by investigating the influence of age at report, age when offense occurred, and the length of reporting delay on criminal justice outcomes for both child and adult reporters of sexual victimization during childhood. To date, no analysis has been undertaken examining these factors, and such research is necessary to better understand decision making within the criminal justice system as a whole rather than focusing solely on trial outcomes. It can also expand our knowledge as to how and why different groups may “drop out” of the legal system in the earlier, pretrial stages of the process. Two specific research questions are addressed: (a) does reporting delay predict criminal justice outcomes for child and adult reporting groups? and (b) does reporting delay have a differential impact on different child and adult groups?

METHOD

The study involved quantitative analysis of data relating to 2,079 sexual offenses recorded by the Police Service for Northern Ireland (PSNI) between April 1, 2008, and March 31, 2010. Northern Ireland is a part of the United Kingdom (UK) and is situated at the northeast of the island of Ireland. According to the midyear populations estimates for 2010 (NISRA, 2010), its population is approximately 1,799,392, with 433,797 (24%) being under the age of 18. Crimes across the UK, including Northern Ireland, are recorded in accordance with strict counting rules issued by the UK Home Office (Home Office, 2010) and are counted on the basis of crimes rather than offenders (i.e., one victim one crime). All alleged offenses reported to the police in the UK are recorded unless there is specific evidence to indicate that the crime did not happen.

Where an offense is recorded by PSNI, a variety of victim and offense characteristics are available: victim gender, victim age (in years) when the offense first occurred, victim age (in years) when the offense was reported, delay between reporting and occurrence (days), offense type and subcategory, and the police district where the offense was reported (eight in total). It also includes information on whether the crime was detected or not. Where an offense is recorded as detected, additional case characteristics such as offender gender, offender age (age groups), offender relationship to the victim, and method of detection are also recorded.

Key Definitions

CHILD

All cases involving children aged 0 to 17 years (inclusive) were included.

REPORT/ER

This term is used to identify when the allegation was reported to police. It should be recognized that in many cases the victim themselves, particularly younger children, may not necessarily have “reported” the crime but rather a third party, usually a parent or child care professional.

SEXUAL OFFENSE TYPE

This variable is based on four classifications used by PSNI: rape/attempted rape, sexual assault of a child/sexual activity with a child (sexual assault refers to any kind of intentional sexual touching of a child without their consent while sexual activity refers to any sexual activity, consensual or otherwise, between a child or an adult), indecent exposure, and other sexual offenses (a range of miscellaneous offenses including grooming, voyeurism, etc.).

DETECTED

Detected crimes are those cases that are deemed by the police and, in the vast majority of sexual offenses, the Public Prosecution Service (PPS), to have sufficient evidence to have a reasonable chance of securing a conviction in court. They encompass offenses in which an offender has been charged, cautioned, or summoned to court.

Statistical Analysis

The data was analyzed using SPSS Version 19.0. A dichotomous detected/not detected variable was used as the outcome variable, and comparisons across all available offense characteristic variables were made using chi-square tests. An additional Age at Report/Delay variable was developed to encapsulate the child/adult status of the reporter, whether they were the same age when they reported as when the offense occurred and the presence of delay. This was coded into four groups: (a) *Child, same age at report, no delay* (children who reported immediately [within 48 hours] and thus were the same age when they reported the offense as when it occurred); (b) *Child, same age, delay of < 1 year* (children who did not report immediately but who reported within the year in which the offense occurred and were thus the same age when they reported as when the offense occurred); (c) *Child, older when reported, delay > 1 year* (children who reported a year or more after the offense took place and were thus older when they reported than when the offense occurred); and (d) *Adult reporters, delay* (adults reporting sexual offenses that occurred during childhood who were, by definition, delayed reporters).

As adult reporters were by definition delayed reporters, analyses were conducted across two groups, adult reporters and child reporters, to facilitate examining the influence of the degree of delay on case outcomes. Case characteristics with p value $< .05$ were regarded as significant and entered into a logistic regression model to test how they predicted case outcome (detection). Interactions between the variables were also tested within the logistic regression model to identify differential probabilities of a case being detected within different groups.

Ethical Considerations

Formal ethical approval was not required. However, a formal information sharing agreement was drawn up between the National Society for the Prevention of Cruelty to Children (NSPCC) and PSNI that specified the NSPCC's responsibilities in relation to the storage, analysis, and dissemination of the data. This required formal agreement to act in accordance with legal data protection principles and, accordingly, the data were stored on a password protected secure IT system. It also required compliance with the PSNI disclosure policy of not publishing any text or tables relating to cells of three or less.

RESULTS

Sample Characteristics

Overall, a quarter of the sample ($N = 2,079$) involved adults reporting childhood sexual offenses, and 75% involved children reporting sexual offenses. Among the child reporters, close to 1 in 5 children were recorded as victims of rape/attempted rape, 15% were male, 63% were teenagers when the offense first occurred, and 70% were teenagers when the offense was reported (see [Table 1](#)). Overall, 52.4% of child victims reported the offense immediately (same or next day) and 31.4% within the year, giving a total of 84% of children who were the same age when they reported the offense as when it occurred. Sixteen percent of child reporters delayed reporting by more than one year and hence were older than when the offense occurred. The proportion of sexual offenses recorded across the eight police districts varied from 10% to 18%.

Among adult reports, 30% were recorded as victims of rape/attempted rape, 28% were male, and 21% were teenagers when the offense occurred (see [Table 2](#)). All adult reporters were by definition delayed reporters with a majority (87%) involving a delay of 11 or more years. The proportion of adults reporting childhood sexual offenses across the eight police districts varied from 6% to 17%, and a total of 14% of sexual offenses reported by adults were detected.

TABLE 1 Relationship between Case Characteristics and Case Detection: Child Reporters

Variables	Total		Detected		<i>N</i>	χ^2	df	<i>p</i>
	<i>n</i>	%	<i>n</i>	%				
<i>Offense Type</i>								
Rape/attempted rape	312	18.9	63	20.2	1654	.251	1	.616
Sexual assault/activity	1188	71.8	225	18.9				
Indecent exposure	126	7.6	23	18.3				
Other sexual offenses	28	1.7	7	25.0				
<i>Age When Offense Occurred (1st offense)</i>								
0–6 years	203	12.3	20	9.9	1654	21.031	2	.000
7–12 years	418	25.3	105	25.1				
13–17 years	1033	62.5	193	18.7				
<i>Age When Offense Reported</i>								
0–6 years	145	8.8	12	8.3	1654	21.327	2	.000
7–12 years	348	21.0	90	25.9				
13–17 years	1160	70.1	212	18.6				
<i>Age at Report/Delay</i>								
Child, same age at report, no delay	866	52.4	187	21.6	1654	6.579	2	.037
Child, same age, delay of < 1 year	519	31.4	87	16.8				
Child, older when reported, delay > 1 year	269	16.3	44	16.4				
<i>Gender of Victim</i>								
Female	1413	85.4	275	19.5	1654	.251	1	.616
Male	241	14.6	43	17.8				
<i>Police District</i>								
A	165	10.0	32	19.2	1654	18.922	7	.008
B	159	9.6	33	20.8				
C	204	12.3	44	21.6				
D	238	14.4	44	18.5				
E	221	13.4	22	10.0				
F	157	9.5	40	25.5				
G	293	17.7	54	18.4				
H	217	13.1	48	22.6				

Bivariate Analysis

Among child reporters, four case characteristics showed a significant relationship with case detection (see Table 1): age at first offense occurrence, age at offense report, age at report/delay, and police district the offense was reported in. Results for both age at offense occurrence and age at offense report suggested a curvilinear relationship with case detection, with victims in the 7- to 12-year-old categories having the highest levels of detection, 0 to 6 years the lowest, followed by teenagers.

Among adult reporters, two case characteristics showed a significant relationship with case detection (see Table 2): age at offense occurrence and victim gender. The results indicated that adult reporters who had been victimized between the ages of 0 to 6 years and 7 to 12 years had similar high levels of detections compared with those who had been victimized as teenagers. Females also had significantly higher levels of detection than males.

TABLE 2 Relationship between Case Characteristics and Case Detection: Adult Reporters

	Total		Detected		<i>N</i>	χ^2	<i>df</i>	<i>Sig</i>
	<i>n</i>	%	<i>n</i>	%				
<i>Offense Type+</i>								
Rape/attempted rape	125	29.8	22	17.6	420	1.465	1	.226
Sexual assault/sexual activity	295	70.2	37	12.5				
<i>Age When Offense Occurred (1st offense)</i>								
0–6 years	127	29.9	21	16.5	425	6.906	2	.032
7–12 years	208	48.9	34	16.3				
13–17 years	90	21.2	5	5.6				
<i>Length of Reporting Delay</i>								
1–5 years	22	5.2	3	13.6	425	.126	2	.939
6–10 years	33	7.8	4	12.1				
11+ years	370	87.1	53	14.3				
<i>Gender of Victim</i>								
Female	305	71.8	50	16.4	425	3.973	1	.046
Male	120	28.2	10	8.3				
<i>Police District</i>								
A	50	11.8	4	8.0	425	11.355	7	.124
B	26	6.1	4	15.4				
C	72	16.9	13	18.1				
D	52	12.2	6	11.5				
E	65	15.3	12	18.5				
F	69	16.2	15	21.7				
G	59	13.9	4	6.8				
H	32	7.5	2	6.3				

Note. +Categories of indecent exposure and other sexual offenses were excluded due to small cell counts.

Multivariate Analysis

CHILD REPORTERS

To confirm the curvilinear relationship between “victim age at first offense occurrence” and “detection” suggested by the bivariate analysis, logistic regression was conducted with the continuous “age at first offense occurrence” variable and “detection” and “age at first offense occurrence squared” and “detection” to compare results, as recommended by (Ormes & Combs-Orme, 2009). The analysis showed significantly better model fit using age at offense occurrence squared, $\chi^2(2, N = 1,654) = 18.166, p \leq 0.005$, confirming the curvilinear nature of the relationship with detection.

Based on these results, categorical “victim age at first offense occurrence,” police district, age at report, length of delay, and the “age at report/delay” variable that identified the child/adult status of the reporter were entered into a logistic regression model to measure their influence on detection levels. Although significant at the bivariate level of analysis, age at offense report was not entered as age at offense report and the “age at report/delay” variable were both essentially measures of reporting delay.

TABLE 3 Final Logistic Regression Predicting Case Detection for Child Reporters (N = 1,654)

Predictor	β	SE	Wald	<i>p</i>	Odds Ratio
<i>Victim Age at Occurrence</i>					
0–6 yrs versus 13–17 years	–.640	.256	6.259	.012	.527 (.319, .871)
7–12 years versus 13–17 years	.461	.148	9.770	.002	1.586 (1.188, 2.118)
<i>Age Difference at Report (Delay)</i>					
Same age (immediate reporter) versus different age (report 1+ years later)	.456	.201	5.168	.023	1.578 (1.065, 2.337)
Same age (report within year) versus different age (report 1+ years later)	.095	.218	.192	.661	1.100 (.718, 1.685)

Note. Coefficients adjusted for police district.

In addition, “age at offense report” was also highly correlated with age at first offense occurrence, $r(1,652) = 0.824$, $p \leq .005$, necessitating exclusion.

The omnibus test of coefficients indicated a significantly better fit when the three predictor variables were entered into the logistic regression model, $\chi^2(11, N = 1654) = 51.205$, $p \leq .005$. The results showed that, after controlling for the effect of delay and police district, victims who were aged 0 to 6 years when the offense occurred were less likely than teenagers to have their cases detected while victims aged 7 to 12 years were more likely (see Table 3). Child victims who reported immediately were 1.58 times more likely to have their cases detected than those who reported more than a year after the offense occurred (after controlling for influence of age when the offense happened and the police district in which the offense was reported). There was no significant difference between those who reported within the year and those who reported after one year in terms of detection.

Further analysis revealed significant interaction between age at first offense occurrence and the “age at report/delay” variable, indicating reporting delay had a differential impact on different age groups, $\chi^2(15, N = 1,654) = 60.597$, $p \leq .005$. Examination of the mean predicted probabilities derived from this interaction model (see Table 4) highlighted victims aged 0 to 6 years as having some of the lowest probabilities of having their case

TABLE 4 Mean Predicted Probability and 95% Confidence Intervals by Victim Age at Offense Occurrence and Age at Report/Delay

<i>Victim age at offense occurrence</i>	<i>Age at Report/Delay</i> <i>Mean (95% CI)</i>		
	Same age, no delay	Same age, report within year of occurrence	Older, report 1+ years after occurrence
0–6 years	10 (9, 11)	6 (5, 8)	12 (11, 12)
7–12 years	28 (27, 29)	25 (23, 26)	22 (21, 23)
13–17 years	21 (21, 22)	16 (16, 17)	11 (10, 12)

detected; those reporting immediately had a 9% chance of their case being detected, a figure that fell to 6% where reporting was delayed but occurred within the year and rose to 11% where the delay was more than one year. Those aged 7 to 12 years when the offense occurred had some of the highest probabilities, with those reporting immediately having a 28% chance of their case being detected, a figure that decreased as delay increased.

ADULT REPORTERS

As with the child reporter analysis, logistic regression comparing the continuous “age at first offense occurrence” and the “age at first offense occurrence squared” showed significantly better model fit using “age at first offense occurrence squared,” $\chi^2(2, N = 425) = 6.992, p = .030$, confirming the curvilinear nature of the relationship with detection. Consequently, the categorical “age at first offense occurrence” and dichotomous “gender” variables were entered into a logistic regression model to measure impact on detection for adult reporters.

The omnibus test of coefficients indicated a significantly better fit when the two predictor variables were entered into the logistic regression model, $\chi^2(10, N = 425) = 26.279, p = .003$. After controlling for the effect of gender, adult victims of sexual offenses occurring between 0–6 years were 3.4 times more likely to have their cases detected than those whose offenses occurred when they were teenagers, while adults who were aged 7 to 12 years when the offense occurred were 4 times more likely (see Table 5). Female victims were 2.3 times more likely to have their cases detected than males, after controlling for the effect of age at offense occurrence.

Further analysis revealed significant interaction between the two predictor variables, indicating that reporting delay had a differential impact on different age groups, $\chi^2(12, N = 425) = 30.234, p = .003$. Examination of the mean predicted probabilities derived from this interaction model showed that adult females reporting offenses that occurred when aged 0 to 6 years and 7 to 12 years had a 20% predicted probability of having their case detected (see Table 6). This was much higher than for males, who had a probability

TABLE 5 Final Logistic Regression Predicting Case Detection for Adult Reporter (N = 425)

Predictor	β	SE	Wald	<i>p</i>	Odds Ratio
<i>Victim Age at Occurrence</i>					
0–6 years versus 13–17 years	1.321	.528	6.260	.012	3.747 (1.331, 10.548)
7–12 years versus 13–17 years	1.358	.507	7.170	.007	3.887 (1.439, 10.502)
<i>Gender</i>					
Female versus male	.828	.376	4.843	.028	2.289 (1.095, 4.785)

Note. Coefficients adjusted for police district.

TABLE 6 Mean Predicted Probability and 95% Confidence Intervals by Victim Age at Offense Occurrence and Victim Gender–Adult Interaction Model

Age at offense occurrence	Male	Female
	<i>Mean (95% CI)</i>	<i>Mean (95% CI)</i>
0–6 years	7 (6, 8)	20 (18, 21)
7–12 years	9 (8, 10)	20 (19, 22)
13– 17 years	10 (7, 12)	4 (4, 5)

of having their case detected of 7% for those aged 0 to 6 years when the offense occurred and 9% when they were aged 7 to 12 years.

DISCUSSION

This study sought to extend previous research by examining the relationship between reporting delay, child/adult status of the reporter, and case outcomes at the earlier pretrial stage of the criminal justice system. While the reasons for CSA cases not proceeding are multiple and varied, the findings confirm that reporting delay is an important factor that has a complex relationship with the age the child was at offense occurrence and the age they present to the police. The presence of reporting delay was shown to increase the odds of case detection in child cases involving offenses that occurred when the victim was very young, a finding aligned with previous research that has shown victim age at incident as critical in mock juror determinations of victim believability where reporting has been delayed (Golding et al., 1999). In the present study, children aged 0 to 6 years reporting either immediately or within the year of offense occurrence were notably disadvantaged in terms of case outcomes. The ability of children who experience early onset abuse may be hampered by the limits of their memory and cognitive abilities to understand what is happening to them (Lippert et al., 2009) and thus make an adequate disclosure. Equally, where a disclosure is made, concerns about children’s credibility or ability to withstand questioning in court may mean the case is less likely to be prosecuted. This presents particular difficulties in interviewing such children in a developmentally appropriate manner while at the same time obtaining sufficient evidence for a successful prosecution. The use of structured interview protocols such as the National Institute of Child Health and Development (NICHD) have been shown to be effective in increasing the amount and quality of information retrieved by recall from all children, including very young children (Lamb, Orbach, Hershkowitz, Esplin, & Horowitz, 2007).

On the other hand, the implications for admissibility of evidence and memory recall in historic CSA cases involving adults noted by Connolly and

Read (2006) did not appear to be borne out by the findings, at least not for women. Indeed, adult females reporting offenses that occurred when they were very young, aged 0 to 6 years, and hence where delay was the longest, had the highest probability of detection of all child and adult groups who experienced sexual violence within the 0 to 6 age group. This may be attributable to the greater willingness of older victims or those who delayed reporting to make full disclosures and support further prosecutions (Feist et al., 2007), and it may be indicative of the influence of the adult status of female reporters on police and prosecutors' decisions to prosecute sexual abuse that occurred when they were very young.

Conversely, male adult reporters who experienced sexual violence when aged 0 to 6 years had the lowest probability of case detection. Some of this variation may be related to a greater unwillingness of males to disclose abuse experiences during forensic interview (Hershkowitz et al., 2005; Lippert et al., 2009). It may also be attributable to differences in the offenses committed against male versus female children, with sexual abuse of boys more likely to be extrafamilial or involving a female offender (Finkelhor, Hotaling, Lewis, & Smith, 1990). However, the finding that adult females were three times as likely to have their cases detected than males who experienced sexual offenses in the same age group is notable and is suggestive of variation in the criminal justice response to adult male reporters of CSA, requiring further investigation.

Teenagers emerged as the group most negatively affected by reporting delay, with the probability of detection decreasing from 21% for immediate teenage reporters to 11% for those reporting a year or more after offense occurrence, a very different pattern compared to younger age groups. While older age at forensic interview has been associated with increased likelihood of disclosure, Goodman-Brown and colleagues (2003) found the opposite to be true, highlighting how older children and victims of familial abuse tended to perceive more negative consequences resulting from disclosure and were more apt to feel responsible for the abuse.

Equally, while the precise circumstances of the sexual offenses against teenagers and the relationship between the offenders is unknown, they likely involved a social or "dating" context and were committed by offenders known to the victim (Cawson, Wattam, Brooker, & Kelly, 2000; Kaufman, 2008). Jury-based research has also highlighted how jurors tend to find younger children more credible because they see them as being trustworthy and cognitively unable to fabricate false allegations; jurors are more likely to attribute responsibility for the sexual assault to older victims (Bottoms, Golding, Stevenson, Wiley & Yozwiak, 2007; Bottoms & Goodman, 1994). Legal arguments around the issue of consent will also have more relevance to the teenaged group as well as the potential presence of factors such as alcohol consumption or drug use. These factors likely combine to make reporting delay a significantly more important issue for teenaged

victims compared with younger children in terms of evidence gathering and establishing credibility, a circumstance that was not improved by adult status.

Limitations

While every effort has been made to ensure a rigorous and systematic approach to this analysis, there are important limitations to this study that should be noted. The nature of the analysis and the range of the variables included are, by necessity, limited to those recorded by police information systems, and it should be recognized that a broader and more complex range of variables are likely to be related to cases outcomes. Of particular note is the lack of data in relation to the victim–offender relationship, which the literature suggests has a strong association with delayed reporting (Connolly & Read, 2006) as well as an association with higher levels of victim withdrawal (Bunting, 2008; Feist et al., 2007).

It should also be noted that the sample relates to alleged offenses, many of which will not have proceeded to court, in some cases because the victim withdrew from the investigative process after the initial allegation or victim did not disclose an offense when interviewed. As such, there is no objective measure of ascertaining the degree to which these reflect actual experiences of victimization. Arguably, detected offenses provide a high degree of confirmation that a crime was indeed committed, as they represent those offenses in which the police and prosecutors believe there is enough evidence to prosecute. The author takes the view that to operate such a high level of corroboration would be to ignore the varied reasons for case attrition and the role delay clearly plays in detecting cases once they come to the attention of police.

Despite these limitations, this study provides unique information on the presence of delay and degree of delay and the child/adult status of the reporter on case detection, highlighting this as an area for further study and investigation

Conclusion

Intuitively, we might expect delays in reporting sexual offenses to reduce the likelihood of prosecution and conviction. We might also expect the relationship to be a linear one, with longer delays further reducing the likelihood of prosecution. However, court-based research has suggested a more complex interplay between the child/adult status of the reporter, the length of delay, and subsequent prosecution and/or conviction (Connolly et al., 2010; Golding et al., 1999). This study confirmed the influence of these variables at the pretrial stages of the criminal justice process, highlighting those victimized as teenagers as the group most disadvantaged by reporting delay.

This suggests the importance of raising awareness of sexual violence within this age group and developing initiatives to increase youth confidence in the system response and encourage earlier reporting.

While teenagers were disadvantaged by reporting delay, the results showed that delay may actually be of benefit in terms of criminal justice outcomes for those who experience sexual abuse at a very young age (0 to 6 years). While the most important outcome of any abuse report is that the abuse stops and the victim is provided with safety and support, criminal prosecution is also an important element of the future safeguarding of other children. While the difficulties inherent in interviewing and obtaining evidence from very young children are well recognized, structured protocols have shown to be of benefit and should be considered within the UK context as a way of developing a more equitable justice response to very young victims.

It is particularly interesting to note that adult females reporting offenses with some of the longest delays had a higher probability of case detection than any of the child groups reporting an offense that occurred in the same age group, a finding that was reversed for adult males. While the findings are suggestive of an adult and gender bias within decision-making processes, such variation may, in part, be attributable to differences in victim–offender relationships and disclosure rates among different victims groups that were outside the scope of the present study. Nonetheless, the findings contribute to further understanding the complex interplay of variables in this area, highlighting the need for future research to consider how both the child/adult status of the reporter and the length of delay influence different legal outcomes.

ACKNOWLEDGMENTS

The author would like to thank the Statistics Branch of the Police Service in Northern Ireland, in particular Gillian Hunter, for all her assistance in providing data and patiently explaining the different categories and interpretations. She would also like to thank Mark McCann at Queen's University Belfast for all his help with statistical analysis.

REFERENCES

- Alaggia, R. (2004). Many ways of telling: Expanding conceptualization of child sexual abuse disclosure. *Child Abuse & Neglect: An International Journal*, 28, 1213–1227.
- Bottoms, B., Golding, J. M., Stevenson, M. C., Wiley, T. R. A., & Yozwiak, J. A. (2007). A review of factors affecting jurors' decisions in child sexual abuse cases. In M.

- Toglia, J. D. Read, D. F. Ross, & C. L. Lindsay (Eds.), *Handbook of eyewitness psychology* (Vol. I, pp. 509–543). Mahwah, NJ: Lawrence Erlbaum.
- Bottoms, B. L., & Goodman, G. S. (1994). Perceptions of children's credibility in sexual assault cases. *Journal of Applied Social Psychology*, 24, 702–732. doi:10.1111/j.1559-1816.1994.tb00608.x
- Bronitt, S. (1998). The rules of recent complaint: Rape myths and the legal construction of the "reasonable" rape victim. In P. Eastaugh (Ed.), *Balancing the scales: Rape, law reform and Australian culture* (pp. 41–59). Leichhardt, Sydney, Australia: The Federation Press.
- Bunting, L. (2008). Sexual offences against children: An exploration of attrition in the Northern Ireland criminal justice system. *Child Abuse and Neglect*, 32, 1109–1118.
- Cawson, P., Wattam, C., Brooker, S., & Kelly, G. (2000). *Child maltreatment in the United Kingdom: A study of the prevalence of child abuse and neglect*. London: National Society for the Prevention of Cruelty to Children.
- Connolly, D. A., Price, H. L., & Gordon, H. M. (2010). Judicial decision making in timely and delayed prosecutions of child sexual abuse in Canada: A study of honesty and cognitive ability in assessments of credibility. *Psychology, Public Policy, and Law*, 16, 177–199. doi:10.1037/a0019050
- Connolly, D. A., & Read, J. D. (2006). Delayed prosecutions of historic child sexual abuse: Analyses of 2064 Canadian criminal complaints. *Law and Human Behavior*, 30, 409–434. doi:10.1007/s10979-006-9011-6
- Ellison, L., & Munro, V. E. (2009) Reacting to rape: Exploring mock jurors' assessments of complainant credibility. *British Journal of Criminology*, 49, 202–219. doi:10.1093/bjc/azn077
- Feist, A., Ashe, J., Lawrence, J., McPhee, D., & Wilson, R. (2007). *Investigating and detecting recorded offences of rape* (Home Office Online Report 18/07). London, England: Home Office.
- Finkelhor, D., Hotaling, G., Lewis, I. A., & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence, characteristics, and risk factors. *Child Abuse & Neglect*, 14, 19–28. doi:10.1016/0145-2134(90)90077-7
- Gallagher, B., & Pease, K. (2000) *Understanding the attrition of child abuse and neglect cases in the criminal justice system*. Huddersfield, England: University of Huddersfield.
- Golding, J. M., Sanchez, R. P., & Sego, S. A. (1999). Age factors affecting the believability of repressed memories of child sexual assault. *Law and Human Behavior*, 23, 257–268. doi:10.1023/A:1022329119988
- Goodman-Brown, T. B., Edelstein, R. S., Goodman, G. S., Jones, D. P. H., & Gordon, D. S. (2003). Why children tell: A model of children's disclosure of sexual abuse. *Child Abuse & Neglect*, 27, 525–540. doi:10.1016/S0145-2134(03)00037-1
- Hershkovitz, I., Horowitz, D., & Lamb, M. (2005). Trends in children's disclosure of abuse in Israel: A national study. *Child Abuse & Neglect*, 29, 1203–1214.
- Home Office. (2010). *Home office counting rules for recorded crime*. London, England: Author.
- Jordan, J. (2004). Beyond belief? Police, rape and women's credibility. *Criminal Justice*, 4(2), 29–59. doi:10.1177/1466802504042222
- Kaufman, M. (2008). Care of the adolescent sexual assault victim. *Pediatrics*, 122, 462–470. doi:10.1542/peds.2008-1581

- Kelly, L. (2002). *A research review on the reporting, investigation and prosecution of rape cases*. London, England: Her Majesty's Crown Prosecution Service Inspectorate.
- Lamb, M. E., Orbach, Y., Hershkowitz, I., Esplin, P. W., & Horowitz, D. (2007). Structured forensic interview protocols improve the quality and informativeness of investigative interviews with children: A review of research using the NICHD Investigative Interview Protocol. *Child Abuse and Neglect*, 31, 1201–1231.
- Lippert, T., Cross, T. P., & Jones, L. (2009). Telling interviewers about sexual abuse: Predictors of child disclosure at forensic interviews. *Child Maltreatment*, 14, 100–113. doi:10.1177/1077559508318398
- London, K., Bruck, M., Ceci, S. J., & Shuman, D. (2005). Children's disclosure of sexual abuse: What does the research tell us about the ways that children tell? *Psychology, Public Policy and the Law*, 11, 194–226. doi:10.1037/1076-8971.11.1.194
- London, K., Bruck, M., Wright, D., & Ceci, S. J. (2008). Review of the contemporary literature on how children report sexual abuse to others: Findings, methodological issues, and implications for forensic interviewers. *Memory*, 16, 29–47.
- Lonsway, K. A., Archambault, J., & Lisak, D. (2009). False reports: Moving beyond the issue to successfully investigate and prosecute non-stranger sexual assault. *The Voice*, 3(1), 1–11.
- Northern Ireland Statistics and Research Agency. (2010). *Historical mid-year population estimates, 1961–2010, Northern Ireland home population by sex & single year of age*. Belfast, Northern Ireland: Author.
- Orme, J., & Combs-Orme, T. (2009). *Applied multiple regression with discrete dependent variables*. New York, NY: Oxford University Press.
- Pozzulo, J. D., Dempsey, J. L., & Crescini, C. C. (2010). Factors affecting juror decisions in historic child sexual abuse cases involving continuous memories. *Criminal Justice and Behavior*, 37, 951–964. doi:10.1177/0093854810373587
- Read, J. D., Connolly, D. A., & Welsh, A. (2006). An archival analysis of actual cases of historic child sexual abuse: A comparison of jury and bench trials. *Law and Human Behavior*, 30, 259–85. doi:10.1007/s10979-006-9010
- Sas, L. D., & Cunningham, A. H. (1995). *Tipping the balance to tell the secret: The public discovery of child sexual abuse*. London, Ontario, Canada: London Family Court Clinic.
- Smith, D., Letourneau, E. J., Saunders, B. E., Kilpatrick, D. G., Resnick, H. S., & Best, C. L. (2000). Delay in disclosure of childhood rape: Results from a national survey. *Child Abuse & Neglect*, 24, 273–287.
- Stoltenborgh, M., Van IJzendoorn, M., Euser, E., & Bakermans-Kranenburg, M. (2011). A global perspective on child sexual abuse: Meta-analysis of prevalence around the world. *Child Maltreatment*, 16, 79–101. doi:10.1177/1077559511403920
- Stroud, D., Martens, S. L., & Barker, J. (2000). Criminal investigation of child sexual abuse: A comparison of cases referred to the prosecutor to those not referred. *Child Abuse & Neglect*, 24, 689–700. doi:10.1016/S0145-2134(00)00131-9
- Yozwiak, J., Golding, J., & Marsil, D. (2004). The impact of type of out-of-court disclosure in a child sexual assault trial. *Child Maltreatment*, 9, 325–334. doi:10.1177/1077559504266518

AUTHOR NOTE

Lisa Bunting, MSW, PhD, is a lecturer in social work in the School of Sociology, Social Policy and Social Work at Queen's University, Belfast. Her current research interests focus on the response of the criminal justice system to child victims of sexual abuse as well as policy and service response to families experiencing multiple adversities.

Appendix C

Elke Geraerts, et al., *Cognitive Mechanisms Underlying Recovered-Memory Experiences of Childhood Sexual Abuse*, 20(1) Psychol. Sci. 92 (2009).

Appendix C

Research Article

Cognitive Mechanisms Underlying Recovered-Memory Experiences of Childhood Sexual Abuse

Elke Geraerts,^{1,2} D. Stephen Lindsay,³ Harald Merckelbach,² Marko Jellicic,² Linsey Raymaekers,² Michelle M. Arnold,¹ and Jonathan W. Schooler⁴

¹University of St. Andrews, ²Maastricht University, ³University of Victoria, and ⁴University of California, Santa Barbara

ABSTRACT—People sometimes report recovering long-forgotten memories of childhood sexual abuse. The memory mechanisms that lead to such reports are not well understood, and the authenticity of recovered memories has often been challenged. We identified two subgroups of people reporting recovered memories of childhood sexual abuse. These subgroups differed dramatically in their cognitive profiles: People who recovered memories of abuse through suggestive therapy exhibited a heightened susceptibility to the construction of false memories, but showed no tendency to underestimate their prior remembering. Conversely, people who recovered memories of abuse spontaneously showed a heightened proneness to forget prior incidences of remembering, but exhibited no increased susceptibility to false memories. This double dissociation points to mechanisms that underlie recovered-memory experiences and indicates that recovered memories may at times be fictitious and may at other times be authentic.

How people remember and forget trauma has been a controversial issue in psychiatry and psychology (Brewin, 2007; Geraerts & Jellicic, 2008; McNally, 2003). The debate has been particularly intense with regard to the authenticity of reports of recovered memories of childhood sexual abuse (CSA). Some scholars and clinicians maintain that the mind is able to protect itself by repressing traumatic events from awareness (Brown,

Schefflin, & Whitfield, 1999). Others hold that abuse, combat, and other horrifying events are essentially imprinted in memory and are seldom, if ever, truly forgotten (McNally, 2003). Complicating matters further, human memory is susceptible to distortion (e.g., Geraerts, Bernstein, et al., 2008), and therapeutic interventions such as hypnosis, dream interpretation, and guided imagery—practices intended to recover memories of CSA—may unintentionally foster false memories of CSA (Loftus & Davis, 2006).

Strikingly, only recently has research focused on the cognitive functioning of the people at the heart of this recovered-memory debate: those who report recovered memories of CSA. Such work provides an opportunity to test hypotheses about how recovered-memory reports come about and may be valuable for diagnostics. Some research has shown that individuals reporting recovered CSA memories are significantly more likely than control participants to create false memories in the laboratory (Clancy, Schacter, McNally, & Pitman, 2000; Geraerts, Smeets, Jellicic, van Heerden, & Merckelbach, 2005). This finding suggests that people reporting recovered memories may be prone in general to remember events that they have not experienced, and is consistent with the hypothesis that some recovered-memory experiences are false recollections induced by suggestive therapy.

In contrast, Schooler and his coworkers (Schooler, 2001; Schooler, Ambadar, & Bendiksen, 1997) described several case studies of individuals who remembered apparently long-forgotten incidents of CSA that were corroborated. These case studies demonstrate that at least some recovered-memory experiences are not merely false recollections, but come about by some other means. Remarkably, in some of these cases, the partners of the women who reported recovered-memory expe-

Address correspondence to Elke Geraerts, School of Psychology, University of St. Andrews, St. Mary's Quadrangle, St. Andrews, Fife KY16 9JP, United Kingdom, e-mail: elke.geraerts@st-andrews.ac.uk.

riences said that the women had talked about the abuse *before* the recovered-memory experience. Schooler et al. proposed that these cases illustrate a “forgot it all along” (FIA) phenomenon, in which remembering an event in a qualitatively new way (e.g., more vividly and emotionally) leads the individual to fail to recall prior occasions of recollecting that event. Hence, these case studies suggest that at least some recovered memories reflect genuine episodes of abuse that people simply forgot having thought about previously (Geraerts et al., 2006).

DIFFERENT RECOVERED-MEMORY EXPERIENCES

The evidence just summarized suggests two radically different hypotheses for how recovered-memory experiences come about. Rather than being contradictory, perhaps the hypotheses reflect two different types of recovered-memory experiences. In one type, memories arise following a prolonged and intensive effort to uncover suspected repressed memories. Such recovered memories are often induced by suggestive therapeutic techniques. In a recent study in which independent corroborative evidence for CSA was sought, none of the abuse events remembered through suggestive therapeutic techniques were corroborated (Geraerts et al., 2007). Although the lack of corroboration does not prove that these memories were not genuine, it raises the possibility that suggestive methods induced some of these reports and is consistent with a false-recollection hypothesis.

In the other type of recovered-memory experience, people are suddenly reminded of events that they feel they have not thought about in years. These recovered-memory experiences occur spontaneously—outside therapy—when individuals encounter reminders of the abuse episodes. Recent work found that memories recovered in this way are much more likely to be corroborated by independent evidence (37%) than are memories recovered in suggestive therapy, and can be corroborated about as often as abuse memories that have been continuously available to the victims (45%; Geraerts et al., 2007). Some such experiences may be exactly what they seem—essentially accurate recollections of events that the individual has not thought about in decades. But other cases of spontaneous memory recovery may arise when people fail to remember their prior recollections of authentic traumas; such memory recovery would be consistent with the FIA hypothesis. Remarkably, prior research examining the cognitive characteristics of people reporting recovered memories of CSA has not distinguished these two subgroups of people who have recovered memories of abuse spontaneously. Clearly, examining the cognitive characteristics of different populations reporting recovered memories of abuse may be informative for clinicians involved in diagnosing and treating such patients.

We hypothesized that laboratory measures of memory would show a double dissociation between individuals who recover memories of abuse in suggestive therapy and individuals who recover memories of abuse spontaneously. Specifically, we

predicted that people reporting CSA memories recovered during suggestive therapy would score high on a measure of susceptibility to false memories, but would perform similarly to control subjects on a measure tapping the tendency to forget prior experiences of remembering (the FIA effect). Conversely, we predicted that people who report spontaneously recovered memories of abuse would be especially prone to forgetting their prior recollections, but would score similarly to control subjects on false-memory tasks. To test this double-dissociation hypothesis, we invited subjects to the laboratory to perform tasks tapping both the propensity to experience false memories and the tendency to forget prior remembering.

METHOD

Subjects

Subjects were recruited through advertisements in Dutch newspapers. One hundred twenty Caucasian subjects participated in this study. All gave informed consent for their participation. On the basis of a 30-min structured interview prior to the experiment, subjects were classified into four groups, each consisting of 30 subjects. Subjects in the *spontaneously-recovered-memory group* reported that they had previously forgotten memories of CSA and then spontaneously recalled them outside of therapy, without being prompted by anyone else or consciously seeking such memories. Subjects in the *recovered-in-therapy group* stated that they had gradually recovered memories of CSA during therapy, after prompting by suggestive therapeutic techniques, during an active effort to reconstruct their missing pasts. It should be emphasized that only people reporting having undergone suggestive therapeutic techniques (e.g., hypnosis, guided imagery, dream interpretation) were included in this group. The *continuous-memory group* comprised subjects who reported CSA and said that they had never forgotten their abuse. The *control group* consisted of subjects who reported no history of abuse in either childhood or adulthood.

These four groups were matched on age (mean age = 41.75 years, $SD = 10.7$), gender (79% female, 21% male), and level of education. The frequency of different types of alleged perpetrators (parent, family member, friend, stranger) did not vary significantly across the three groups reporting abuse. Also, the duration and severity of the abuse, as well as history of other trauma, as assessed in the structured interview, did not differ between these groups. There were no differences among the abuse groups with regard to anxiety (State-Trait Anxiety Inventory; Spielberger, Gorsuch, & Lushene, 1970), depression (Beck Depression Inventory; Beck, Ward, & Mendelson, 1961), or reported dissociative experiences (Dissociative Experiences Scale; Bernstein & Putnam, 1986).

Materials

To examine our hypothesis about the differing origins of recovered memories, we tested our four subject groups on both the

Deese-Roediger-McDermott (DRM) false-memory task (Deese, 1959; Roediger & McDermott, 1995) and the FIA paradigm (Arnold & Lindsay, 2002). The order of these tasks was counterbalanced across subjects.

In each of the 10 trials of the DRM task, subjects studied a different list of 15 words that are strong semantic associates of a word not presented in the list—the critical lure. For example, one DRM study list includes 15 words (e.g., *bed*, *rest*, *awake*, and *tired*) that are strongly related to *sleep* (i.e., the nonpresented critical lure). On a subsequent test, subjects often falsely recall and recognize *sleep* as having been presented. We expected that individuals who recovered their CSA memories in suggestive therapy would be especially prone to the false-memory effects elicited by the DRM manipulation.

To study the FIA phenomenon, the underestimation of prior remembering, we used a laboratory analogue that requires subjects to recall material in qualitatively different ways on two occasions (Arnold & Lindsay, 2002). Subjects studied a list of homographic target words, each accompanied by a context word that biased the interpretation of the target to one of its meanings (e.g., “hand-*palm*”).¹ In Test 1, subjects were tested on a subset of the study list, with some of the target items being cued with the same context word presented during study (e.g., “hand-p**m”) and the others being cued with a completely new context word that was intended to bias the interpretation of the target item to its other meaning (e.g., “tree-p**m”). The intention of introducing these other-context items was to mimic the situation in which a person recollects a past experience in a context that is qualitatively different from the context in which it was originally encoded. If they recall an experience under these conditions and subsequently recall the same experience in a different context, might they forget the first recollection? The second test made it possible to answer this question. In Test 2, subjects’ memory for all the previously studied items was tested with the original studied-context cues. Thus, subjects’ recall efforts were directed back to the original encoding experience at study, and not to the intervening test phase.

To measure subjects’ susceptibility to forgetting prior acts of remembering in the FIA paradigm, we asked them to make a crucial judgment right after they recalled each target item on Test 2; that is, we asked subjects whether they had recalled that same item on the first test. Although people successfully recall most of the target items correctly in Test 2, they often fail to recollect that they had remembered the same items previously, especially if the retrieval took place in a different context. Essentially, if people remembered the experience in a different rather than the same context on the previous test, they are more likely to report that they had not previously recalled the target. This procedure was used to investigate whether people who believe they have suddenly recovered a memory of abuse for the

first time (i.e., the spontaneously-recovered-memory group) are prone to forgetting their prior acts of remembering, as in the cases documented by Schooler et al. (1997).

Procedure

DRM Test

For the DRM test, subjects were instructed that they would see several lists of words on a computer screen and that after viewing each list, they would be asked to write down the words. During the study phase, each word remained on the screen for 3 s. Subjects were given 2.5 min to recall each list. After the 10th list, the experimenter engaged subjects in a brief conversation lasting about 3 min. Subsequently, subjects were given a sheet with 30 old (studied) words and 30 new (nonstudied) words (10 of which were critical lures), and they were asked to indicate whether or not each word had appeared on any of the studied lists. Nonstudied words that were not critical lures were weak associates of the studied words. The test words were randomly intermixed.

FIA Test

For the FIA test, subjects were told that on each study trial, a context word and a target word would be displayed on a computer screen for 2 s, and that they were to repeat the words aloud in preparation for a memory test. Immediately after a word pair was removed from the screen, a sentence containing the context word and a row of asterisks in place of the target word was presented for 3.5 s, and subjects were instructed to read the sentence aloud. Finally, the target word appeared above the sentence for 1 s.

The study phase was followed immediately by the first cued-recall test (Test 1). Subjects were told that they would be tested on a subset of the targets (cues were presented for two thirds of the studied targets). On each trial, a context word was presented with the first and last letters of a target word, and the task was to fill in the missing letters and say the target word out loud. Subjects were told that on half of the trials, the context words would be those presented with the targets during the study phase, whereas on the other half of the trials, the context words would not be the same as those presented during the study phase (but would be related to the targets). Subjects were warned to respond only with targets that they remembered from the study phase.

The second cued-recall test (Test 2) occurred immediately after the first test. All of the target words were tested, and subjects were informed that all of the context words on Test 2 were the same as those presented with the targets during the study phase. On each trial, subjects were given a context word with the first and last letters of the target word and asked to recall the target word from the study phase. If a subject gave an incorrect answer or said “pass,” the experimenter supplied the correct target. Finally, subjects were required to judge whether they remembered recalling the target word during Test 1. Subjects

¹The words and themes in the DRM and FIA tests did not overlap. The words used were relatively neutral.

were reminded that many of the items had not been cued on Test 1, and therefore could not have been recalled on that test.

RESULTS

DRM Test: False Recall and Recognition

Table 1 summarizes recall and recognition on the DRM false-memory test. Analysis showed that the four groups did not differ in the proportion of presented words recalled correctly, $F < 1$. This result suggests comparable overall memory ability across the groups. On average, subjects correctly recalled .61 ($SD = .10$) of the studied words. To examine whether the recovered-in-therapy group showed higher levels of false recall than the other groups, we computed the false-recall rate (i.e., the proportion of false recall of critical lures minus the proportion of false recall of nonstudied words other than critical lures). An analysis of variance (ANOVA) confirmed that our subject groups differed significantly in their rates of false recall, $F(3, 116) = 11.81, p < .001, \eta^2 = .23$. People with CSA memories recovered in the course of suggestive therapy had a significantly higher rate of false recall than people reporting spontaneously recovered memories, $t(58) = 5.02, p < .001, d = 1.31$; people reporting continuous memories of abuse, $t(58) = 3.43, p = .001, d = 0.61$; or control subjects, $t(58) = 4.76, p < .001, d = 1.23$. Rates of false recall in the latter three groups did not differ from one another, $p > .05$.

In our DRM task, we also measured recognition memory. As was the case for correct recall, correct recognition of the studied words did not differ significantly among the four groups, $F < 1$; the overall hit rate was .82 ($SD = .09$). In contrast, the groups differed significantly in their rate of false recognition (i.e., proportion of false recognition of critical lures minus proportion

of false recognition of nonstudied words other than critical lures), $F(3, 116) = 3.96, p < .01, \eta^2 = .093$. Subjects reporting memories recovered during suggestive therapy were significantly more likely to falsely recognize nonstudied critical items as having been encountered before than were people with spontaneously recovered memories of abuse, $t(58) = 3.14, p = .003, d = 0.81$; people with continuously accessible memories of abuse, $t(58) = 3.99, p < .001, d = 1.03$; or control subjects, $t(58) = 2.95, p = .005, d = .76$. The latter three groups did not differ from one another, $p > .05$.

FIA Test: Judging Prior Remembering

On the FIA task, subjects uniformly were good at retrieving the original target words on Test 2, in which the cue was the same as the cue given at study ($M = .93, SD = .06$). This recall rate was high regardless of whether subjects had previously recalled the target from a same- or a different-context cue on Test 1, $F < 1$. Thus, subjects were equally likely to “recover” their initial experience regardless of whether their intervening recall had taken place in the same or a different retrieval context. Context did, however, affect whether or not subjects reported that they had recalled the item on Test 1: Specifically, subjects were significantly less likely to correctly judge that they had recalled the item before in the other-context condition than in the same context-condition, $F(1, 116) = 308.16, p < .001, \eta^2 = .73$. Thus, the overall pattern of data across all of our subject groups replicates prior work, demonstrating an increased tendency to forget prior incidents of remembering when retrieval contexts change between retrieval attempts (Arnold & Lindsay, 2002). Of key interest was whether this FIA phenomenon varied across our four populations of subjects (see Table 2 for a summary of memory judgments in the four subject groups).

TABLE 1

Mean Proportion of Words Recalled and Recognized on the Deese-Roediger-McDermott False-Memory Task

Test and word type	Subject group			
	Memory recovered in therapy ($n = 30$)	Memory recovered spontaneously ($n = 30$)	Continuous memory ($n = 30$)	Control ($n = 30$)
Recall test				
Studied words	.60 (.10)	.61 (.09)	.61 (.12)	.63 (.08)
Critical lures	.73 (.22)	.40 (.22)	.45 (.22)	.40 (.24)
Nonstudied nonlures	.19 (.24)	.21 (.17)	.16 (.17)	.21 (.14)
False-recall rate	.54 (.31)	.20 (.22)	.29 (.25)	.19 (.26)
Recognition test				
Studied words	.83 (.10)	.81 (.08)	.83 (.09)	.81 (.09)
Critical lures	.90 (.08)	.68 (.29)	.70 (.24)	.68 (.31)
Nonstudied nonlures	.12 (.11)	.09 (.10)	.11 (.09)	.09 (.09)
False-recognition rate	.79 (.12)	.59 (.33)	.59 (.24)	.60 (.33)

Note. Standard deviations are given in parentheses. The false-recall rate was calculated as the proportion of critical lures falsely recalled minus the proportion of nonstudied words other than critical lures falsely recalled; the false-recognition rate was calculated analogously.

TABLE 2

Results From the Forgot-It-All-Along Task: Mean Proportion of Items Judged as “Recalled” as a Function of Recall Status on Test 1 and Test 2

Test 1/Test 2 recall status	Subject group			
	Memory recovered in therapy ($n = 30$)	Memory recovered spontaneously ($n = 30$)	Continuous memory ($n = 30$)	Control ($n = 30$)
Studied-context cue in Test 1				
Not recalled/not recalled	.01 (.05)	.10 (.23)	.09 (.27)	.06 (.20)
Not recalled/recalled	.14 (.23)	.14 (.21)	.16 (.28)	.15 (.28)
Recalled/recalled	.84 (.13)	.82 (.16)	.81 (.17)	.84 (.13)
Recalled/not recalled	.26 (.41)	.35 (.41)	.34 (.42)	.31 (.43)
Other-context cue in Test 1				
Not recalled/not recalled	.04 (.14)	.09 (.20)	.09 (.23)	.12 (.22)
Not recalled/recalled	.22 (.26)	.25 (.23)	.10 (.23)	.30 (.34)
Recalled/recalled	.55 (.25)	.24 (.17)	.52 (.27)	.56 (.25)
Recalled/not recalled	.26 (.38)	.16 (.30)	.24 (.35)	.26 (.40)
Not tested in Test 1				
NA/not recalled	.04 (.10)	.04 (.11)	.09 (.20)	.05 (.15)
NA/recalled	.14 (.20)	.14 (.20)	.10 (.14)	.19 (.29)

Note. Standard deviations are given in parentheses. Boldface indicates the data for which statistical analyses are reported in the text. NA = not applicable.

To examine this question, we compared the magnitude of the FIA effect across our four groups in a 2 (context) $\times$ 4 (group) ANOVA, and found that the interaction between subject group and context was significant, $F(3, 116) = 12.71, p < .001, \eta^2 = .25$. Whether or not groups differed in memory for prior remembering depended on context. The four groups did not differ in memory for prior remembering of same-context items, $F < 1$. Thus, as long as retrieval had always taken place in the same retrieval context that was present during encoding, the groups did not differ significantly in how accurately they judged their past memory experiences. The groups did differ, however, in how well they remembered their past acts of remembering on Test 1 when the retrieval context had changed on Test 2, $F(3, 116) = 12.05, p < .001, \eta^2 = .24$. Critically, as hypothesized, subjects reporting spontaneously recovered memories of abuse were significantly more likely to forget that they had previously recalled an item on Test 1 than were people reporting abuse memories recovered in therapy, $t(58) = 5.54, p < .001, d = 1.43$; people reporting continuous CSA memories, $t(58) = 4.85, p < .001, d = 1.25$; or control subjects, $t(58) = 5.69, p < .001, d = 1.47$.

Thus, the only measurable difference among our subject groups on the FIA task was that subjects reporting spontaneously recovered memories showed a significantly increased tendency to falsely report that they had never recalled an experience before when the retrieval context had changed. This propensity to forget prior remembering occurred even though the spontaneously-recovered-memory group did not show a general increased bias to say that they had not recalled a target before; that is, the four groups did not differ in the proportion of

not-tested items that they reported not having recalled before, $F_s < 1.03, p_s > .87$. This forgetting of prior remembering is especially striking because these denials of retrieval occurred even though prior recall could be objectively demonstrated on Test 1, much as prior recall could be demonstrated in the case studies reported by Schooler et al. (1997).

DISCUSSION

The double dissociation observed in this study indicates that there are important differences between the cognitive profiles of people who recover memories of CSA through suggestive therapy and the cognitive profiles of people who recover memories of CSA more spontaneously, without extensive prompting or attempts to reconstruct their past. As a group, people who believed that they had recovered a memory of CSA through suggestive therapeutic techniques showed a pronounced tendency to incorrectly claim that they had experienced events that they had not really experienced, as measured by a simple cognitive test of false memory formation. To the extent that this pattern on the DRM task is indicative of a broader deficit in monitoring the source of one's memories, this finding suggests that such reports of recovered memories should be viewed with a cautious eye, as they may reflect the unwitting interaction of suggestive therapy with preexisting deficits in source memory (Johnson, Hashtroudi, & Lindsay, 1993; Lindsay, 2008), particularly given the difficulty in independently corroborating memories recovered in this way (Geraerts et al., 2007). It should be emphasized that our findings at the group level cannot speak to the validity of any individual's recovered-memory experience, and it is possible that some memories recovered

through suggestive therapy are accurate, even if they cannot be corroborated.

In contrast, people who believed that they had spontaneously recovered a memory of CSA showed no evidence of heightened susceptibility to false recall. This new finding significantly restricts the generality of past findings that people reporting recovered memories of CSA showed a propensity toward false recall; such effects appear to be associated with suggestive therapy, not recovery of CSA in general. Our findings also do not speak to the cognitive characteristics of people who recover memories spontaneously in therapy without suggestive techniques (Andrews et al., 1999). This population merits further study, to isolate whether some aspect of the therapeutic context itself or suggestive therapy in particular is associated with a propensity to falsely remember events that never happened.

Although subjects who reported recovering memories of CSA spontaneously were no more susceptible to false memories than were control subjects, they showed a striking tendency in the FIA task to forget prior episodes of remembering when those prior retrievals had been cued differently from their current recollections. Thus, even when prior accessibility of simple events studied in the laboratory could be demonstrated objectively, this group, as a whole, was significantly more likely than the other groups to deny having remembered those events on the first test. To the extent that performance on this simple laboratory test is indicative of a broader vulnerability to forgetting in the face of shifts in context, these findings suggest that many members of this group failed to remember their prior thoughts about genuine incidences of CSA (perhaps because their way of thinking about the abuse had changed).

Our data do not address why people who have spontaneously recovered memories of CSA show a stronger tendency than others to underestimate their prior remembering. One possibility is suggested, however, by recent findings establishing that, in laboratory measures of thought suppression, this population shows an enhanced ability to suppress unwanted thoughts, especially if those thoughts concern negative experiences (Geraerts & McNally, 2008; Geraerts, McNally, Jelicic, Merckelbach, & Raymaekers, 2008). Memory for prior thoughts concerning the target CSA event might have been more effectively suppressed by members of this group, relative to other subjects, because those thoughts were unpleasant, and such suppression would have impaired the long-term accessibility of those memories (Anderson & Green, 2001). If appropriate cues subsequently led such a person to remember his or her abuse more completely, that experience would likely feel novel, and the person might infer that he or she had not remembered the abuse previously (i.e., the FIA phenomenon).

This study is the first to establish qualitatively distinct cognitive profiles in different populations of individuals reporting recovered memories of CSA. The patterns of memory function we observed suggest differing mechanisms underlying recovered-memory experiences, with some such experiences reflecting

forgotten recollections of what may often be authentic events and others being the product of suggestive therapeutic techniques. More research will be needed to identify factors that might discriminate genuine from false recovered memories. For example, is it possible that the cognitive profiles associated with the two types of recovered-memory experiences go hand in hand with individual differences? More research on cognitive measures like the DRM and FIA tests, in combination with personality tests, could ultimately yield a diagnostic procedure that clinicians might use in treating their patients. Our findings also suggest the existence of stable individual differences in susceptibility to false memories and to FIA effects. These may be traits (or trait dimensions). Further research is needed to explore the generality of, for example, an individual's susceptibility to illusory memories across conditions.

In conclusion, researchers investigating recovered memories and clinicians who treat patients reporting recovered memories of CSA should take care to examine the context of recovery and to consider its implications for the mechanisms underlying such reports. Characterizing the cognitive mechanisms underlying reports of recovered memories in different contexts may be a first step in resolving controversial and often contradictory claims concerning the origins of recovered memories.

Acknowledgments—We thank Michael C. Anderson for comments on a draft of this article. Elke Geraerts was supported by a grant from the Netherlands Organization for Scientific Research (NWO 451 07 004).

REFERENCES

- Anderson, M.C., & Green, C. (2001). Suppressing unwanted thoughts by executive control. *Nature*, 410, 366–369.
- Andrews, B., Brewin, C.R., Ochera, J., Morton, J., Bekerian, D.A., Davies, G.M., & Mollon, P. (1999). Characteristics, context and consequences of memory recovery among adults in therapy. *British Journal of Psychiatry*, 175, 141–146.
- Arnold, M.M., & Lindsay, D.S. (2002). Remembering remembering. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 28, 521–529.
- Beck, A.T., Ward, C., & Mendelson, M. (1961). Beck Depression Inventory (BDI). *Archives of General Psychiatry*, 4, 561–571.
- Bernstein, E.M., & Putnam, F.W. (1986). Development, reliability, and validity of a dissociation scale. *Journal of Nervous and Mental Disease*, 174, 727–735.
- Brewin, C.R. (2007). Autobiographical memory for trauma: Update on four controversies. *Memory*, 15, 227–248.
- Brown, D., Schefflin, A.W., & Whitfield, C.L. (1999). Recovered memories: The current weight of the evidence in science and in the courts. *Journal of Psychiatry & Law*, 27, 5–156.
- Clancy, S.A., Schacter, D.L., McNally, R.J., & Pitman, R.K. (2000). False recognition in women reporting recovered memories of sexual abuse. *Psychological Science*, 11, 26–31.
- Deese, J. (1959). On the prediction of occurrence of particular verbal intrusions in immediate recall. *Journal of Experimental Psychology*, 58, 17–22.

- Geraerts, E., Arnold, M.M., Lindsay, D.S., Merckelbach, H., Jelicic, M., & Hauer, B. (2006). Forgetting of prior remembering in persons reporting recovered memories of childhood sexual abuse. *Psychological Science*, 17, 1002–1008.
- Geraerts, E., Bernstein, D.M., Merckelbach, H., Linders, C., Raymaekers, L., & Loftus, E.F. (2008). Lasting false beliefs and their behavioral consequences. *Psychological Science*, 19, 749–753.
- Geraerts, E., & Jelicic, M. (2008). New insights in trauma and memory: A special issue of Memory. *Memory*, 16, 1–2.
- Geraerts, E., & McNally, R.J. (2008). Forgetting unwanted memories: Directed forgetting and thought suppression methods. *Acta Psychologica*, 127, 614–627.
- Geraerts, E., McNally, R.J., Jelicic, M., Merckelbach, H., & Raymaekers, L. (2008). Linking thought suppression and recovered memories of childhood sexual abuse. *Memory*, 16, 22–28.
- Geraerts, E., Schooler, J.W., Merckelbach, H., Jelicic, M., Hauer, B.J.A., & Ambadar, Z. (2007). The reality of recovered memories: Corroborating continuous and discontinuous memories of childhood sexual abuse. *Psychological Science*, 18, 564–567.
- Geraerts, E., Smeets, E., Jelicic, M., van Heerden, J., & Merckelbach, H. (2005). Fantasy proneness, but not self-reported trauma is related to DRM performance of women reporting recovered memories of childhood sexual abuse. *Consciousness and Cognition*, 14, 602–612.
- Johnson, M.K., Hashtroudi, S., & Lindsay, D.S. (1993). Source monitoring. *Psychological Bulletin*, 114, 3–28.
- Lindsay, D.S. (2008). Source monitoring. In J. Byrne (Series Ed.) & H.L. Roediger, III (Vol. Ed.), *Learning and memory: A comprehensive reference: Vol. 2. Cognitive psychology of memory* (pp. 325–348). Oxford, England: Elsevier.
- Loftus, E.F., & Davis, D. (2006). Recovered memories. *Annual Review of Clinical Psychology*, 2, 469–498.
- McNally, R.J. (2003). *Remembering trauma*. Cambridge, MA: Belknap Press/Harvard University Press.
- Roediger, H.L., III, & McDermott, K.B. (1995). Creating false memories: Remembering words not presented in lists. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 21, 803–814.
- Schooler, J.W. (2001). Discovering memories in the light of meta-awareness. *Journal of Aggression, Maltreatment and Trauma*, 4, 105–136.
- Schooler, J.W., Ambadar, Z., & Bendiksen, M.A. (1997). A cognitive corroborative case study approach for investigating discovered memories of sexual abuse. In J.D. Read & D.S. Lindsay (Eds.), *Recollections of trauma: Scientific research and clinical practices* (pp. 379–388). New York: Plenum.
- Spielberger, C.D., Gorsuch, R.L., & Lushene, R.E. (1970). *The State-Trait Anxiety Inventory: Test manual*. Palo Alto, CA: Consulting Psychologists Press.

(RECEIVED 4/13/08; REVISION ACCEPTED 6/18/08)

Appendix C

Elke Geraerts, et al., *Forgetting of Prior Remembering in Persons Reporting Recovered Memories of Childhood Sexual Abuse*, 17(11) Psychol. Sci. 1002 (2006).

Appendix C

Research Article

Forgetting of Prior Remembering in Persons Reporting Recovered Memories of Childhood Sexual Abuse

Elke Geraerts,¹ Michelle M. Arnold,² D. Stephen Lindsay,³ Harald Merckelbach,^{1,4} Marko Jelacic,¹ and Beatrijs Hauer¹

¹Department of Experimental Psychology, Maastricht University, Maastricht, The Netherlands; ²School of Psychology, University of Southampton, Southampton, United Kingdom; ³Department of Psychology, University of Victoria, Victoria, British Columbia, Canada; and ⁴Faculty of Law, Maastricht University, Maastricht, The Netherlands

ABSTRACT—Case studies of individuals reporting recovered memories of childhood sexual abuse suggest that some overestimate their prior forgetting of the abuse. People reporting recovered or continuous memories of childhood sexual abuse and control subjects reporting no history of abuse participated in two experiments examining this “forgot it all along” phenomenon. Participants in Experiment 1 were more likely to forget that they had previously recalled a studied item if they were cued to think of it differently on two recall tests than if they were cued to think of it in the same way on the two tests. This effect was stronger for recovered-memory participants than for continuous-memory and control participants. In Experiment 2, participants recalled autobiographical events three times over a period of 4 months. Much as in Experiment 1, they underestimated prior remembering when the events had been recalled in a different emotional frame (positive vs. negative) on the previous occasion. This underestimation was more pronounced for recovered-memory participants than for continuous-memory and control participants.

Are individuals able to recall long-forgotten episodes of childhood sexual abuse (CSA)? Over the past 15 years, this issue has

given rise to one of the most intense controversies in psychiatry and psychology (e.g., Loftus, 1997; McNally, 2003; Schacter, 1995). Perspectives in the early years of this debate were highly polarized. For example, many practitioners claimed that amnesia for trauma and subsequent recovery of traumatic memories had been amply demonstrated in clinical populations (e.g., Brown, Schefflin, & Whitfield, 1999). Conversely, many experimental psychologists raised doubts about the accuracy of such memories and challenged concepts such as “repression” (e.g., Kihlstrom, 2004; Loftus, 2003). For example, McNally (2004) noted that traumatic-amnesia theorists (e.g., Brown et al., 1999) often misinterpret various memory problems (e.g., everyday forgetfulness) as amnesia for the trauma itself. Moreover, CSA episodes are not always experienced as terrifying at the time they occur, thereby falling short of traditional conceptions of a traumatic stressor. Also, not thinking about something (e.g., CSA) for a long period of time cannot be considered forgetting.

Over the years, the vehemence of what has been termed the “memory wars” gradually subsided, and authors involved in the debate increasingly emphasized points of consensus (see Lindsay & Read, 2001). Partly with the aim of fostering this middle-ground perspective, Schooler and his coworkers (e.g., Schooler, Ambadar, & Bendiksen, 1997; Shobe & Schooler, 2001) described several case studies of individuals who experienced the “discovery” of apparently long-forgotten memories of abuse. Of particular interest in the current context are two cases in which the partners of the women who reported full-blown recovered-memory experiences said that the women had

Address correspondence to Elke Geraerts, Department of Experimental Psychology, Maastricht University, PO Box 616, 6200 MD, Maastricht, The Netherlands, e-mail: e.geraerts@psychology.unimaas.nl.

talked about the abuse before they had the memory-recovery experience. In both cases, the women seemed to be surprised to hear that they had talked about the abuse prior to their recovered-memory experiences. Schooler et al. proposed that these cases illustrated a “forgot it all along” (FIA) phenomenon, which at its core entails the underestimation of prior recollections of past events.

Arnold and Lindsay (2002, 2005) developed a laboratory analogue that captured some aspects of the FIA mechanism by requiring participants to recall material in qualitatively different ways on two occasions (for other experimental demonstrations of FIA, see Joslyn, Loftus, McNoughton, & Powers, 2001; Merckelbach et al., 2006; Padilla-Walker & Poole, 2002; Parks, 1999). They argued that if the retrieval of CSA memories in qualitatively different ways can lead to the underestimation of previous CSA recollections, then this mechanism should transfer into the lab. In their basic procedure, participants studied a list of homographic target words, each preceded by a biasing context word (e.g., *hand-palm*). In Test 1, participants were tested on a subset of the study list, with some of the target items being cued with the previously studied context word (e.g., *hand-p**m*) and the rest of the items being cued with another context word (e.g., *tree-p**m*). In Test 2, participants were tested on all of the studied items, and the studied-context cues were always given as recall prompts. Additionally, after recalling each word, participants were required to judge whether they had recalled that word on the first test. The key result was that participants forgot their prior recall of target words more often when the words had been cued with the other-context cues than when they had been cued with the studied-context cues on the first test. These results provided compelling evidence that remembering a past event in a different way can result in a failure to remember a prior instance of recalling that event.

The finding that people forget an instance of past remembering more often if it differs from their current recollections than if it matches their current recollections may be relevant to ongoing discussions about the authenticity of recovered CSA memories. For instance, it is possible that some victims of abuse underestimate their prior recollections of the abuse when they recall the abuse in a qualitatively different manner than they did previously, leading to a false impression of having had repressed memories.

There is evidence that individuals reporting recovered memories are more prone to memory distortions than other individuals are (e.g., Clancy, Schacter, McNally, & Pitman 2000; Geraerts, Smeets, Jelicic, van Heerden, & Merckelbach, 2005; McNally, Clancy, Barrett, & Parker, 2005; for an exception, see Clancy, McNally, & Schacter, 1999). Moreover, Melchert (1999) reported an association between reporting recovered memories and tendencies toward dissociation, which in turn appear to be related to susceptibility to memory errors (e.g., Porter, Birt, Yuille, & Lehman, 2000). These findings led us to predict that the underestimation of prior remembering (i.e., the FIA phe-

nomenon) would be greater for individuals reporting previously repressed CSA memories, compared with individuals with no history of abuse and individuals with continuous memories of their abuse. Experiment 1 addressed this question using semantic material, whereas autobiographical events were used in Experiment 2.

EXPERIMENT 1

Method

Participants

As part of an ongoing research project on recovered memories (e.g., Geraerts, Smeets, Jelicic, Merckelbach, & van Heerden, 2006), we recruited participants with recovered and continuous CSA memories, as well as people reporting no history of abuse, through advertisements in local newspapers. Participants were told that the research pertained to CSA and memory. CSA was defined as physical sexual contact, ranging from fondling to penetrative acts, until the age of 12.

A semistructured memory interview was conducted to classify participants into one of the three groups. The recovered-memory group consisted of 57 participants (48 women; mean age = 42.6 years, $SD = 10.8$) who claimed that they had previously forgotten and then subsequently recalled memories of CSA. The continuous-memory group comprised 69 participants (57 women; mean age = 41.4 years, $SD = 11.6$) who said that they had never forgotten their abuse. The control group consisted of 68 participants (47 women; mean age = 38.9 years, $SD = 12.4$) with no history of abuse, either as children or as adults.

Materials

A set of 107 homographs with two dominant meanings (e.g., *palm* in the part-of-hand sense and in the type-of-tree sense) was composed; 4 of these items were used as primacy buffers, and 4 were used as recency buffers. The remaining 99 target words were randomly divided into three test lists of 33 words (*test-list* factor). Across participants, each list appeared equally often in the three different conditions of Test 1 (i.e., with the studied-context cues, with the other-context cues, and not tested). Each target word was assigned two context words, representing the two different meanings of that target word (e.g., *hand* and *tree* for the target *palm*). Further, two study lists were constructed (*study-list* factor) to counterbalance which context word was studied with each target word. Finally, for the study phase, a sentence was constructed for each context-target word pair; in this sentence, the context word was spelled out in full, and a row of asterisks represented the target word.

Procedure

Participants were told that for each study trial, a context word and target word would be displayed on a computer screen for 2 s, and that they were to repeat the words out loud in preparation for a memory test. Immediately after the word

pair was removed from the screen, the study sentence for that pair was presented for 3.5 s, and participants were instructed to read the sentence aloud, filling in the target. Finally, the target word appeared above the sentence for 1 s. Each word pair was studied once.

The study phase was followed immediately by the first cued-recall test (Test 1), in which participants were told that they would be tested on a subset of the targets (cues were presented for two thirds of the studied targets). On each trial, a context word was presented with the first and last letters of a target word. Participants were told that for half of the trials, the context words would correspond to those presented with the targets during the study phase, whereas for the other half of the trials, the context words would not be the same as during the study phase (but would be related to the targets). Participants were warned to respond only with targets that they remembered from the study phase, and that they should say “pass” if they were unable to remember an answer.

The second cued-recall test (Test 2) occurred immediately after the first test. All of the target words were tested, and participants were informed that all of the context words on Test 2 corresponded to those presented with the targets during the study phase. On each trial, participants were given a context word with the first and last letters of the target word and asked to recall the target word from the study phase. If a participant gave an incorrect answer or said “pass,” the experimenter supplied the correct target. Next, participants were required to judge whether they remembered recalling the target word during Test 1. Participants were reminded that many of the items had

not been presented on Test 1, and therefore could not have been recalled on that test.

Results and Discussion

We describe recall performance on Test 1 and Test 2 before presenting the data for judgments of prior remembering. All analyses are collapsed over the counterbalancing factors of test list and study list because initial omnibus analyses of variance (ANOVAs) showed no reliable effects of these factors (all F s < 1; p_{rep} , the probability of replicating the results (Killeen, 2005), is reported.

Recall Performance

The proportion of targets recalled on Test 1 was significantly higher for items cued with studied-context words ($M = .90$, $SD = .08$) than for items cued with other-context words ($M = .75$, $SD = .06$), $t(192) = 8.31$, $p_{\text{rep}} > .99$, Cohen’s $d = 1.19$.

An ANOVA was performed on the proportion of target words recalled on Test 2; participant group (recovered memory vs. continuous memory vs. control) was a between-subjects factor, and context on Test 1 (studied context vs. other context vs. not tested) was a within-subjects factor. As expected, recall performance was near ceiling ($M = .93$, $SD = .07$), and there were no significant main effects or interactions (all F s < 1).

Judgments of Previous Recollection

Table 1 shows the proportion of items judged on Test 2 as having been recalled on Test 1. The analyses reported here were per-

TABLE 1
Mean Proportion of Items Judged as Recalled as a Function of Recall Status on Test 1 and Test 2: Experiment 1

Recall status on Test 1 and Test 2	Group		
	Recovered memory ($n = 57$)	Continuous memory ($n = 69$)	Control ($n = 68$)
Studied-context cue on Test 1			
Not recalled, not recalled	.02 (.07)	.11 (.26)	.04 (.18)
Not recalled, recalled	.10 (.18)	.29 (.35)	.15 (.26)
Recalled, recalled	.81 (.15)	.80 (.16)	.82 (.15)
Recalled, not recalled	.37 (.37)	.27 (.42)	.33 (.44)
Other-context cue on Test 1			
Not recalled, not recalled	.04 (.13)	.08 (.19)	.07 (.17)
Not recalled, recalled	.14 (.18)	.25 (.29)	.18 (.24)
Recalled, recalled	.36 (.24)	.53 (.29)	.51 (.26)
Recalled, not recalled	.20 (.33)	.26 (.37)	.29 (.39)
Not tested on Test 1			
NA, not recalled	.01 (.06)	.04 (.08)	.04 (.09)
NA, recalled	.11 (.13)	.14 (.18)	.13 (.14)

Note. Boldface indicates data for which statistical analyses are reported. Standard deviations are in parentheses. NA = not applicable.

formed on judgment data for items correctly recalled on both tests (shown in boldface in Table 1), although a similar pattern was found when analyses were restricted to items recalled on Test 1. An ANOVA was performed on the proportion of correct “yes” judgments on Test 2, with participant group as a between-subjects factor and context on Test 1 (studied-context cue vs. other-context cue) as a within-subjects factor. Results replicated the findings from Arnold and Lindsay (2002, 2005): Participants were significantly more likely to forget that they had recalled an item on Test 1 if it had been cued with the other-context word on Test 1 than if it had been cued with the studied-context word, $F(1, 190) = 381.56, p_{\text{rep}} > .99, \eta^2 = .64$. As expected, there was a significant difference among the three groups, $F(2, 190) = 3.97, p_{\text{rep}} = .93, \eta^2 = .041$, and the critical interaction between group and context was significant, $F(2, 190) = 7.98, p_{\text{rep}} > .99, \eta^2 = .080$.

Univariate ANOVAs performed to explore further the group differences in prior-remembering judgments followed similar patterns for studied-context items and other-context items. The groups did not differ on the proportion of correct “yes” judgments for the studied-context items, $F(2, 190) < 1$. However, a similar ANOVA performed on the proportion of correct “yes” judgments for the other-context items indicated a significant difference among the three groups, $F(2, 190) = 6.88, p_{\text{rep}} = .99, \eta^2 = .07$. Post hoc analyses (Fisher’s least significant difference) indicated that compared with both participants in the continuous-memory group and control participants, participants in the recovered-memory group were significantly more likely to forget that they had recalled other-context words on Test 1, $t(123) = 3.36, p_{\text{rep}} = .99, d = 0.61$, and $t(122) = 3.27, p_{\text{rep}} > .99, d = 0.59$, respectively. The tendency of recovered-memory participants to underestimate prior remembering cannot be explained by a general bias to respond “no,” because they did not differ significantly from the other two groups in correctly saying “no” to not-tested items, $F_s < 2.05, p_{\text{rep}s} \leq .79$.

Experiment 1 replicated the typical FIA effect (Arnold & Lindsay, 2002). More important, participants who reported recovered CSA memories were more prone than other participants to forget that they had previously recalled a studied item when they had been cued to think of it differently on the two recall tests. This FIA phenomenon may operate in real-life cases; that is, people reporting recovered CSA memories may underestimate their prior recollections of abuse. However, one could counter that a tendency to underestimate prior remembering of neutral words does not necessarily indicate a tendency to underestimate prior remembering of autobiographical material, and therefore the results from Experiment 1 may not generalize to recovered-memory experiences. Experiment 2 tested for a FIA effect with memories of autobiographical events.

EXPERIMENT 2

Experiment 2 was designed to assess whether people reporting recovered memories of CSA would also show a tendency to

underestimate prior remembering of autobiographical material. Participants were requested to recall autobiographical events in an emotionally negative or positive framing, in three test sessions over a period of 4 months.

Method

Participants

Participants with recovered and continuous memories of CSA and control participants were recruited through advertisements in local newspapers. The recovered-memory group consisted of 55 participants (46 women; mean age = 42.2 years, $SD = 10.0$). The continuous-memory group included 65 participants (53 women; mean age = 41.5 years, $SD = 10.3$). The control group comprised 65 participants (43 women; mean age = 39.2 years, $SD = 11.2$).

Materials

Twenty-five cue phrases referring to common childhood experiences (e.g., being home alone, visiting the dentist) were selected. Participants were asked to recall aloud an autobiographical target event related to each cue, in an emotionally positive or negative frame. For example, a participant assigned a positive framing for the event cue “being home alone as a child” might recall enjoying the feeling of freedom of having the house to him- or herself; the same participant, if subsequently assigned a negative framing for that event, might reminisce about feeling lonely after a while. For each event, participants were asked to make an open-ended report. When a report was vague, the experimenter asked the participant to be more specific.

The target events were randomly divided into three test lists (two with eight events and one with nine events; *test-list* factor). Across participants, each list appeared equally often in the three different conditions of Test 1 (i.e., same-frame, other-frame, and not-tested conditions). Additionally, two study lists were constructed (*study-list* factor) to counterbalance the framings of the autobiographical events across participants (i.e., during Test 0, half the participants recalled being home alone as a child in a negative frame, and half recalled this event in a positive frame).

Procedure

All participants were tested three times, with 2 months between sessions. During Test 0 (i.e., first recall of autobiographical events), participants were instructed to recall 25 childhood events, each in response to a cue such as “being home alone as a child.” Participants were asked to concentrate on affectively positive aspects of some of the events and on affectively negative aspects of other events (i.e., we manipulated the emotional framing of events within subjects). If a participant could not remember an autobiographical event related to the selected cue, the test proceeded with the next event cue.

After 2 months, participants were required to recall 16 of the autobiographical target events for a second time (Test 1). They

TABLE 2
Mean Proportion of Items Judged as Recalled as a Function of Recall Status on Test 1 and Test 2: Experiment 2

Recall status on Test 1 and Test 2	Group		
	Recovered memory (<i>n</i> = 55)	Continuous memory (<i>n</i> = 65)	Control (<i>n</i> = 65)
Same-framing condition			
Not recalled, not recalled	.01 (.04)	.06 (.20)	.02 (.07)
Not recalled, recalled	.09 (.15)	.13 (.21)	.07 (.15)
Recalled, recalled	.86 (.13)	.88 (.14)	.89 (.12)
Recalled, not recalled	.36 (.24)	.32 (.29)	.35 (.27)
Other-framing condition			
Not recalled, not recalled	.09 (.22)	.04 (.12)	.06 (.15)
Not recalled, recalled	.17 (.26)	.15 (.18)	.10 (.14)
Recalled, recalled	.38 (.26)	.57 (.26)	.53 (.24)
Recalled, not recalled	.13 (.28)	.20 (.33)	.08 (.19)
Not tested on Test 1			
NA, not recalled	.01 (.06)	.05 (.14)	.03 (.08)
NA, recalled	.11 (.16)	.13 (.20)	.12 (.17)

Note. Boldface indicates data for which statistical analyses are reported. Standard deviations are in parentheses. NA = not applicable.

were instructed that for half of the events, the emotional framing of the event would correspond to the framing used with that event during Test 0, whereas for the remaining events, the framing would be the opposite of that used in Test 0 (i.e., positive framing if the framing on Test 0 had been negative, and vice versa). The experimenter emphasized to participants that their task was to recall the same events that they had recalled in Test 0, regardless of whether the emotional framing was the same as or different from that used in Test 0.

All of the target events were tested on Test 2, which occurred 2 months after Test 1. Participants were informed that the requested framing on Test 2 corresponded to the framing presented with the targets during Test 0. As in Test 1, participants were asked to recall the same autobiographical events that they had described in Test 0. Following each recall attempt, participants were required to judge if they remembered recalling the target event during Test 1.

Results and Discussion

Recall Performance

Raters were given typed transcripts of the memory reports each subject had produced for each event (e.g., being home alone as a child) and assessed whether or not the subject had recalled the same event on each of the occasions. Ratings were made using a 3-point scale, developed by Neisser and Harsch (1992), that evaluates consistency regarding the people, location, and activities described in memory reports. Interrater agreement was .92; disagreements were resolved by discussion. In total, 3% of

events were judged to have changed across occasions; in such cases, the item was treated as a missing value.¹

The proportion correctly recalled on Test 1 was near ceiling and not significantly higher for events recalled in the same-framing condition ($M = .93$, $SD = .09$) than for events recalled in the other-framing condition ($M = .90$, $SD = .07$), $t(184) = 1.18$, $p_{\text{rep}} = .69$, $d = 0.17$.

An ANOVA was performed on the proportion of targets correctly recalled on Test 2; participant group (recovered memory vs. continuous memory vs. control) was a between-subjects factor, and framing on Test 1 (same framing vs. other framing vs. not tested) was a within-subjects factor. As expected, recall performance was near ceiling ($M = .91$, $SD = .11$), and there were no significant main effects or interactions (all F s < 1).

Judgments of Previous Recollection

Table 2 shows the proportion of events judged on Test 2 as having been recalled on Test 1. The analyses reported here were performed on the judgment data for events correctly recalled on both tests (shown in boldface in Table 2). An ANOVA was performed on the proportion of correct “yes” judgments, with the

¹At first glance, this small proportion may seem at odds with prior evidence of inconsistency in autobiographical memory reports across widely separated occasions (e.g., Neisser & Harsch, 1992; Talarico & Rubin, 2003). We speculate that this apparent discrepancy is largely a matter of grain size (Goldsmith, Koriati, & Weinberg-Eliezer, 2002): In our study, participants merely had to talk about the same event, not report the same details, for the reports to be counted as consistent. Also, the stability of the context across recall occasions, and the fact that the intertest interval was no more than 4 months, may have supported consistency (see Rubin, Schrauf, & Greenberg, 2004, for a similar observation).

three participant groups as a between-subjects factor and framing on Test 1 (same frame vs. other frame) as a within-subjects factor. Participants were significantly more likely to forget that they had recalled an event on Test 1 if it had been recalled in the same framing, $F(1, 182) = 411.51, p_{\text{rep}} > .99, \eta^2 = .693$. Additionally, there was a significant difference among the three groups, $F(2, 182) = 7.92, p_{\text{rep}} = .99, \eta^2 = .080$, as well as an interaction between group and framing, $F(2, 182) = 6.20, p_{\text{rep}} > .99, \eta^2 = .064$.

Univariate ANOVAs were performed to inspect group differences in judgments of prior remembering for the two framing conditions. Results for the same-framing events indicated that there were no differences among the groups, $F(2, 182) < 1$. However, for the other-framing events, there was a significant difference among the three groups, $F(2, 182) = 8.87, p_{\text{rep}} > .99, \eta^2 = .089$. Post hoc analyses (Fisher's least significant difference) showed that compared with continuous-memory and control participants, recovered-memory participants were significantly more likely to forget that they had recalled an event on Test 1 if it had been cued in the other-framing context, $t(118) = 3.90, p_{\text{rep}} > .99, d = 0.72$, and $t(118) = 3.34, p_{\text{rep}} = .99, d = 0.61$, respectively.

As in Experiment 1, the tendency of recovered-memory participants to underestimate prior remembering cannot be explained by a general bias toward saying "no," because they did not differ from the other two groups in correctly saying "no" to not-tested items, $F_s < 1.96, p_{\text{rep}} \leq .78$.

Experiment 2 replicated the findings from Experiment 1, but more important, the results demonstrated that the enhanced FIA effect for recovered-memory participants was not restricted to neutral word stimuli. That is, people reporting recovered CSA memories showed an enhanced FIA effect even when mildly emotional autobiographical material was used over a time period of 4 months—conditions that more closely mirror everyday life (if not memories of trauma) than the conditions (i.e., neutral material) in Experiment 1.

GENERAL DISCUSSION

Compared with persons reporting continuous memories of CSA and those reporting no history of CSA, individuals who reported having recovered long-forgotten memories of CSA were especially likely to forget that they had previously recalled words or autobiographical events when they were cued to think about those words or events differently on the different occasions of recall. Hence, our studies provide indirect support for Schooler's (1999) idea that the FIA effect might explain why some individuals reporting recovered CSA memories have the erroneous impression that there was a period in their life during which they were amnesic for the abuse.

The mechanisms that drive forgetting of prior episodes of recalling words or innocuous childhood events are not neces-

sarily the same as those involved in forgetting prior episodes of recalling CSA. For example, when participants in our experiments were judging their prior recollections, they likely did not experience the emotional surprise that is associated with real-world recovered-memory experiences such as those reported by Schooler (2001). Nonetheless, the fact that both of our experiments yielded evidence that persons reporting recovered CSA memories show particularly large FIA effects is consistent with Schooler's (2001) hypothesis that changes in the way an event is thought about on different occasions can contribute to the forgetting of prior episodes of recollection.

Our findings do not imply that the CSA memories reported by our participants are false. To the contrary, one possibility is that these memories are fundamentally accurate, but that their prior accessibility was underestimated by some of our recovered-memory participants because of a FIA mechanism. Alternatively, the large FIA effect in the recovered-memory group may be a manifestation of a source-monitoring problem that makes some people particularly susceptible to pseudomemories and to the FIA effect (Johnson, Hashtroudi, & Lindsay, 1993). From a source-monitoring perspective, the FIA procedure requires participants to differentiate, during the final test, between mental evidence of recalling the target during Test 1 and mental evidence of thinking about the target during Test 1. If individuals with recovered memories tend to have difficulty with source monitoring, that deficit could lead to a particularly large FIA effect (just as it could lead to particular susceptibility to various memory illusions; e.g., Clancy et al., 2000; Geraerts et al., 2005). Of course, it may well be that our recovered-memory participants were accurate both with regard to the abuse and to their prior nonremembering of it, but the strong association between reporting recovered memories and showing a large FIA effect suggests that some individuals reporting recovered memories of CSA have forgotten their prior recollections of the abuse.

Acknowledgments—We thank J. Don Read for comments on a draft of this article. We thank Danny Kostons and Kim Hamers for help with testing.

REFERENCES

- Arnold, M.M., & Lindsay, D.S. (2002). Remembering remembering. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 28, 521–529.
- Arnold, M.M., & Lindsay, D.S. (2005). Remembrance of remembrance past. *Memory*, 13, 533–549.
- Brown, D., Schefflin, A.W., & Whitfield, C.L. (1999). Recovered memories: The current weight of the evidence in science and in the courts. *Journal of Psychiatry & Law*, 27, 5–156.
- Clancy, S.A., McNally, R.J., & Schacter, D.L. (1999). Effects of guided imagery on memory distortion in women reporting recovered memories of childhood sexual abuse. *Journal of Traumatic Stress*, 12, 559–569.

- Clancy, S.A., Schacter, D.L., McNally, R.J., & Pitman, R.K. (2000). False recognition in women reporting recovered memories of sexual abuse. *Psychological Science*, 11, 26–31.
- Geraerts, E., Smeets, E., Jelicic, M., Merckelbach, H., & van Heerden, J. (2006). Retrieval inhibition of trauma-related words in women reporting repressed or recovered memories of childhood sexual abuse. *Behaviour Research and Therapy*, 44, 1129–1136.
- Geraerts, E., Smeets, E., Jelicic, M., van Heerden, J., & Merckelbach, H. (2005). Fantasy proneness, but not self-reported trauma is related to DRM performance of women reporting recovered memories of childhood sexual abuse. *Consciousness & Cognition*, 14, 602–612.
- Goldsmith, M., Koriati, A., & Weinberg-Eliezer, A. (2002). Strategic regulation of grain size memory reporting. *Journal of Experimental Psychology: General*, 131, 73–95.
- Johnson, M.K., Hashtroudi, S., & Lindsay, D.S. (1993). Source monitoring. *Psychological Bulletin*, 114, 3–28.
- Joslyn, S., Loftus, E.F., McNoughton, A., & Powers, J. (2001). Memory for memory. *Memory & Cognition*, 29, 789–797.
- Kihlstrom, J.F. (2004). An unbalanced balancing act: Blocked, recovered, and false memories in the laboratory and clinic. *Clinical Psychology: Science and Practice*, 11, 34–41.
- Killeen, P.R. (2005). An alternative to null-hypothesis significance tests. *Psychological Science*, 16, 345–353.
- Lindsay, D.S., & Read, J.D. (2001). The recovered memories controversy: Where do we go from here? In G.M. Davies & T. Dalgleish (Eds.), *Recovered memories: Seeking the middle ground* (pp. 71–93). Chichester, England: John Wiley & Sons.
- Loftus, E.F. (1997). Dispatch from the (un)civil memory wars. In J.D. Read & D.S. Lindsay (Eds.), *Recollections of trauma: Scientific evidence and clinical practice* (pp. 171–198). New York: Plenum.
- Loftus, E.F. (2003). Make-believe memories. *American Psychologist*, 58, 867–873.
- McNally, R.J. (2003). *Remembering trauma*. Cambridge, MA: Belknap Press/Harvard University Press.
- McNally, R.J. (2004). The science and folklore of traumatic amnesia. *Clinical Psychology: Science and Practice*, 11, 29–33.
- McNally, R.J., Clancy, S.A., Barrett, H.M., & Parker, H.A. (2005). Reality monitoring in adults reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Journal of Abnormal Psychology*, 114, 147–152.
- Melchert, T.P. (1999). Relations among childhood memory, a history of abuse, dissociation, and repression. *Journal of Interpersonal Violence*, 14, 1172–1192.
- Merckelbach, H., Smeets, T., Geraerts, E., Jelicic, M., Bouwen, A., & Smeets, E. (2006). I haven't thought about this for years! Dating recent recalls of vivid memories. *Applied Cognitive Psychology*, 20, 33–42.
- Neisser, U., & Harsch, N. (1992). Phantom flashbulbs: False recollections of hearing the news about Challenger. In E. Winograd & U. Neisser (Eds.), *Affect and consistency in recall: Studies of 'flashbulb' memories* (pp. 9–31). Cambridge, England: Cambridge University Press.
- Padilla-Walker, L.M., & Poole, D.A. (2002). Memory for previous recall: A comparison of free and cued recall. *Applied Cognitive Psychology*, 16, 515–524.
- Parks, T.E. (1999). On one aspect of the evidence for recovered memories. *American Journal of Psychology*, 112, 365–370.
- Porter, S., Birt, A.R., Yuille, J.C., & Lehman, D.R. (2000). Negotiating false memories: Interviewer and rememberer characteristics relate to memory distortion. *Psychological Science*, 11, 507–510.
- Rubin, D.C., Schrauf, R.W., & Greenberg, D.L. (2004). Stability in autobiographical memories. *Memory*, 12, 715–721.
- Schacter, D.L. (1995). Memory wars. *Scientific American*, 272, 135–139.
- Schooler, J.W. (1999). Seeking the core: The issues and evidence surrounding recovered accounts of sexual trauma. In L.M. Williams (Ed.), *Trauma and memory* (pp. 203–216). Thousand Oaks, CA: Sage.
- Schooler, J.W. (2001). Discovering memories in the light of meta-awareness. *Journal of Aggression, Maltreatment, and Trauma*, 4, 105–136.
- Schooler, J.W., Ambadar, Z., & Bendiksen, M.A. (1997). A cognitive corroborative case study approach for investigating discovered memories of sexual abuse. In J.D. Read & D.S. Lindsay (Eds.), *Recollections of trauma: Scientific evidence and clinical practice* (pp. 379–388). New York: Plenum.
- Shobe, K.K., & Schooler, J.W. (2001). Discovering fact and fiction: Case-based analyses of authentic and fabricated memories of abuse. In G.M. Davies & T. Dalgleish (Eds.), *Recovered memories: Seeking the middle ground* (pp. 95–151). Chichester, England: John Wiley & Sons.
- Talarico, J.M., & Rubin, D.C. (2003). Confidence, not consistency, characterizes flashbulb memories. *Psychological Science*, 14, 455–461.

(RECEIVED 12/16/05; REVISION ACCEPTED 2/2/06;
FINAL MATERIALS RECEIVED 2/13/06)

Appendix C

Elke Geraerts, et al., *The Reality of Recovered Memories Corroborating Continuous and Discontinuous Memories of Childhood Sexual Abuse*, 18(7) Psychol. Sci. 564 (2007).

Appendix C

Research Report

The Reality of Recovered Memories

Corroborating Continuous and Discontinuous Memories of Childhood Sexual Abuse

Elke Geraerts,^{1,2} Jonathan W. Schooler,³ Harald Merckelbach,¹ Marko Jelacic,¹ Beatrijs J.A. Hauer,¹ and Zara Ambadar⁴

¹Maastricht University, Maastricht, The Netherlands; ²Harvard University; ³University of British Columbia, Vancouver, British Columbia, Canada; and ⁴University of Pittsburgh

ABSTRACT—Although controversy surrounds the relative authenticity of discontinuous versus continuous memories of childhood sexual abuse (CSA), little is known about whether such memories differ in their likelihood of corroborative evidence. Individuals reporting CSA memories were interviewed, and two independent raters attempted to find corroborative information for the allegations. Continuous CSA memories and discontinuous memories that were unexpectedly recalled outside therapy were more likely to be corroborated than anticipated discontinuous memories recovered in therapy. Evidence that suggestion during therapy possibly mediates these differences comes from the additional finding that individuals who recalled the memories outside therapy were markedly more surprised at the existence of their memories than were individuals who initially recalled the memories in therapy. These results indicate that discontinuous CSA memories spontaneously retrieved outside of therapy may be accurate, while implicating expectations arising from suggestions during therapy in producing false CSA memories.

There are individuals who say that they had completely forgotten their traumatic life experiences, only to recover them years later. How accurate are such discontinuous memories? Over the past 15 years, this issue has given rise to one of the most intense controversies to afflict the fields of psychiatry and psychology

(e.g., Loftus, 1997; McNally, 2003; Schacter, 1995). This debate has focused mainly on the validity of discontinuous memories of childhood sexual abuse (CSA). Whereas some researchers have forcefully argued that such reports should be taken at face value (Brown, Schefflin, & Whitfield, 1999), others have countered with equal vehemence that they are likely to be the product of therapist suggestion (e.g., Kihlstrom, 2004; Loftus, 2003).

A relatively straightforward approach for assessing the authenticity of discontinuous CSA memories is to examine whether such memories can be corroborated independently, by other individuals who were abused by the same perpetrator, learned of the abuse soon after it occurred, or confessed to having participated in the abuse themselves. Although such evidence does not incontrovertibly demonstrate the validity of any single memory report, the existence of independent corroborative evidence certainly increases the likelihood that a memory report corresponds to an actual event. Using this approach, Schooler and his coworkers (e.g., Schooler, Ambadar, & Bendiksen, 1997; Schooler, Bendiksen, & Ambadar, 1997; Shobe & Schooler, 2001) described corroborative evidence for several case studies of individuals who experienced the “discovery” of apparently long-forgotten memories of abuse. These case studies demonstrated that it is possible to find corroborative information for the memories of individuals who report suddenly remembering that they had been victims of abuse. However, these findings do not preclude the possibility that other discontinuous memories are illusory. It is important to bear in mind that none of the discontinuous memories in these cases were recalled in the context of aggressive recovered-memory therapy employing visualization, suggestion, hypnosis, or other techniques in order to facilitate the recall of unknown “memories” of abuse. It has frequently been suggested that such techniques are a major

Address correspondence to Elke Geraerts, Department of Psychology, Harvard University, 1232 William James Hall, 33 Kirkland St., Cambridge, MA 02138, e-mail: e.geraerts@psychology.unimaas.nl.

source of false CSA memories (Lindsay & Read, 1994, 1995; Loftus, 2004; McNally, 2003).

Despite the huge controversy surrounding this issue, no systematic large-scale research has examined the relative likelihood of corroborative evidence for continuous versus discontinuous CSA memories. Accordingly, in the current study, we attempted to determine whether continuous CSA memories (i.e., abuse memories characterized as having been continuously accessible to the individual) differ from discontinuous memories that are alleged to have been forgotten and subsequently recalled (for different approaches, see Andrews et al., 2000; Dalenberg, 1996; Williams, 1995). If discontinuous memories are inherently unreliable, then continuous memories should be more likely to be corroborated than discontinuous memories, regardless of whether the latter are recalled in or out of therapy. If discontinuous memories are inherently reliable, then they should not differ from continuous memories in their likelihood of corroboration. Finally, if discontinuous memories can be the product of therapist suggestions, then discontinuous memories recalled in therapy should be less likely to be corroborated than those recalled out of therapy.

We also examined whether other characteristics of memory descriptions predict the relative likelihood that CSA memories will be corroborated. A systematic comparison of the factors associated with corroborated versus noncorroborated memories can speak to mechanisms that could produce false memories. For example, if deliberate efforts to find suspected CSA memories increase the likelihood of generating false memories, then reported surprise at the discovery of a CSA memory may be predictive of whether or not the memory will be corroborated (Schooler, 2001).

METHOD

For this study, which is part of an ongoing research project on discontinuous memories (Geraerts, Arnold, et al., 2006; Geraerts, Smeets, Jelicic, Merckelbach, & van Heerden, 2006; Geraerts, Smeets, Jelicic, van Heerden, & Merckelbach, 2005), we used advertisements in local newspapers to recruit subjects with discontinuous and continuous CSA memories. Subjects were told that the research pertained to CSA and memory. CSA was defined as physical sexual contact ranging from fondling to penetrative acts until the age of 12. We screened subjects during an initial telephone conversation so as to acquire similar sample sizes for the two groups. After subjects provided written informed consent, a semistructured memory interview was conducted to verify their classification into one of the two groups. The discontinuous-memory group consisted of 57 subjects (mean age = 41.5 years, $SD = 10.3$; 45 women) who responded affirmatively to the question, "Do you believe there was a time when you were completely unaware that you had ever been a victim of abuse, and that you later came to remember that you were abused?" We note that just because these individuals said

they forgot the memory does not mean they necessarily did (Geraerts, Arnold, et al., 2006; Schooler, Ambadar, & Bendiksen, 1997). The continuous-memory group comprised 71 subjects (mean age = 41.2 years, $SD = 11.5$; 55 women) who responded negatively to this question.

Subjects were asked to complete an extensive questionnaire that assessed their memory for the abuse. Additionally, for subjects reporting discontinuous memories, the questionnaire covered the degree of prior memory loss, the context of the memory recovery, and the use of specific techniques during recovered-memory therapy.

After subjects had completed the questionnaire, they were systematically queried regarding their knowledge of potential corroborative evidence for the alleged abuse events. Subsequently, two raters, blind to the type of abuse memories of each subject, interviewed other individuals who could potentially provide corroborative evidence for the abuse. Memories were characterized as corroborated if one or more of the following three criteria were met: (a) another individual reported learning about the abuse soon (i.e., within the next week) after it occurred, (b) another individual reported having also been abused by the alleged perpetrator, or (c) another individual reported having committed the abuse him- or herself. For each subject, these blind raters assessed whether or not the testimonies met these criteria. Interrater agreement was .96; disagreements were resolved by discussion.

RESULTS

To examine whether continuous CSA memories and discontinuous memories recalled outside therapy are more likely to be corroborated than discontinuous memories reported to have been recalled in therapy, we divided the discontinuous-memory group into individuals reporting having recalled CSA memories out of therapy ($n = 41$) and individuals reporting having recalled the abuse events in therapy ($n = 16$). There was relatively little difference in the frequency of corroborative evidence between the continuous-memory group (45%) and the recalled-out-of-therapy group (37%), $\chi^2(1, N = 112) < 1$. Moreover, as Table 1 shows, the type of corroboration did not differ between these two groups, $\chi^2(1, N = 112) = .195$. However, there was a marked difference in the frequency of corroborative evidence for discontinuous memories reported to be recalled out of therapy (37%) and discontinuous memories reported to be recalled in therapy (0%), $\chi^2(1, N = 57) = 7.94, p_{\text{rep}} = .97$. Indeed, no corroborative evidence could be found for any of the abuse events reported by subjects in the recalled-in-therapy group.

We had hypothesized that discontinuous memories recalled in therapy would be less likely to be corroborated than those recalled out of therapy because the therapy context often involves an explicit effort to unearth forgotten memories (Polusny & Follette, 1996) and thereby raises the opportunity for suggestion. To test this hypothesis, we examined how surprised indi-

TABLE 1
Percentage of Continuous Memories and Discontinuous Memories Recovered Out of Therapy That Were Corroborated by Each of the Three Criteria

Memory type	Type of corroborative information		
	Individuals abused by the same perpetrator	Individuals who learned of the abuse soon after it occurred	Perpetrator him- or herself
Continuous	53% (17)	31% (10)	16% (5)
Recovered out of therapy	60% (9)	27% (4)	13% (2)

Note. Frequencies are given in parentheses.

viduals indicated they were when they recalled the memory of abuse. A logistic regression analysis restricted to the discontinuous-memory group revealed that subjects' reported surprise at the existence of the memory significantly predicted the probability of corroborative evidence, $\beta = .84$, $SE = .39$, $p_{\text{rep}} = .91$. Furthermore, subjects whose memories were recalled outside therapy were markedly more surprised at the existence of their memories than were individuals whose memories were recalled in therapy, $t(55) = 7.41$, $p_{\text{rep}} > .99$. This finding is what would be expected if expectations of recovering long-lost memories are shaped during therapy and lead clients to recall unfounded memories. Further support for the claim that therapists' suggestions contributed to the disparity between the corroboration rates of memories recalled in therapy and memories recalled out of therapy comes from the finding that the recalled-in-therapy and recalled-out-of-therapy groups did not differ with respect to a host of other variables that could in principle contribute to differences in corroboration rate (including reported age of abuse, $\beta = .13$, $SE = .08$, $p_{\text{rep}} = .81$; relationship to perpetrator, $\beta = .02$, $SE = .22$, $p_{\text{rep}} = .15$; and severity of abuse, $\beta = .32$, $SE = .52$, $p_{\text{rep}} = .47$).

DISCUSSION

This study made use of a corroborative approach to examine discontinuous memories of abuse. Although the sources of corroboration were initially based on our subjects' self-reports, the corroborative information itself reflects independent corroboration. Admittedly, this corroborative evidence did not reach the "beyond reasonable doubt" threshold necessary for criminal convictions, as false memories could have been independently corroborated with the criteria used in this study. For example, in cases in which other individuals reported being abused by the same perpetrator (i.e., our second criterion), the corroborating source could have generated a false memory after learning of the subject's reported abuse. Notably, however, the proportion of cases corroborated according to this criterion did not differ

between discontinuous memories recalled outside therapy and continuous memories. This result is evidence against the possibility that the corroboration rate for discontinuous memories was unduly biased by this source of evidence. Moreover, our corroboration criteria are consistent with those used in other rigorous investigations of CSA memories (McNally, Ristuccia, & Perlman, 2005), led to very high agreement between independent raters, and powerfully discriminated between discontinuous memories that on a priori grounds were expected to be more versus less likely to be factual. Altogether, it seems appropriate to conclude that the present corroborative approach offers genuine clues regarding the factors that tend to discriminate authentic CSA memory reports from pseudomemories about CSA.

We found that continuous CSA memories and memories recalled unexpectedly out of therapy were comparable in their likelihood of corroborative evidence. This finding indicates that discontinuous memories are not, as has sometimes been suggested, inherently unreliable. This idea is supported by recent research showing that people reporting spontaneously recovered memories show a striking tendency to forget prior incidences of remembering when those prior retrievals have taken place in a different retrieval context. This finding suggests that this group, as a whole, may simply be failing to remember their prior thoughts about a genuine incidence of CSA (Geraerts et al., 2007).

At the same time, discontinuous memories that were recalled in the context of therapy were significantly less likely to be corroborated than were either continuous memories or discontinuous memories recalled outside therapy. Indeed, of the 16 therapy-based discontinuous memories, not a single one could be corroborated.

The difference in the corroboration rate for discontinuous memories recalled in therapy versus out of therapy does not logically require that memories recalled inside therapy were necessarily more likely to be false. It is possible that some other factor associated with individuals recalling memories in therapy led to the failure to corroborate these memories. For example, factors such as age at the time of the event, relationship to the perpetrator, or severity of the abuse could in principle have contributed to the likelihood of corroboration, independently of whether or not the memories were factual. However, none of these variables differed for discontinuous memories recalled in versus out of therapy. In fact, the only factor besides corroboration that discriminated discontinuous memories recovered in therapy from those remembered out of therapy was surprise at the existence of the memory, with memories recalled in therapy being associated with markedly less surprise. Indeed, degree of surprise proved to be a powerful predictor of corroboration.

The general lack of surprise at the existence of uncorroborated memories recovered in therapy is consistent with the view that expectations (that were generated by the therapist or that led the subject to therapy in the first place) contributed to the

generation of false memories. It is possible, however, that some other factor was responsible for the tendency for individuals to be unsurprised by the existence of memories recovered in therapy. For example, the existence of abuse-related symptoms might have increased the likelihood of seeking therapy and also reduced the experience of surprise when a possible source of those symptoms was discovered. Similarly, it is possible that some undetected factor could have both increased the likelihood that subjects sought therapy and decreased the likelihood that their abuse experiences were corroborated. For example, individuals who failed to disclose their abuse might have been more likely to seek therapy (because of their symptoms) and less likely to have experienced abuse that could be corroborated (because there were no other individuals to whom the abuse was disclosed). Such an account could in principle be one reason for the differential corroboration rate for memories recovered in and out of therapy. However, the present data provide no direct evidence for this hypothesis, as there was no relation between whether or not a memory was recovered in therapy and the frequency with which subjects reported talking about the abuse with other people.

A limitation of our study deserves attention. Our findings pertain to adults recruited through advertisements in local newspapers. Corroborative evidence for abuse events might be different in clinical samples. It is important for future research to examine whether the patterns observed in this study generalize to the many abuse survivors who would be unlikely to actively seek out participation in research associated with their experience.

Together, the current findings suggest that expectations regarding the possible existence of a forgotten memory of abuse contributed to the difference in the corroboration rates for memories recalled in versus out of therapy. Given the correlational nature of the data, it is difficult to assess whether such expectations were caused by the therapists, or whether individuals who suspected they possessed forgotten memories of abuse were more likely than others to seek therapy. However, given that therapists are known to use aggressive recovered-memory techniques (for a review, see Andrews, 2001) and that such forms of suggestion can produce false memories (e.g., Mazzoni, Loftus, Seitz, & Lynn, 1999), it seems likely that one reason memories recalled in therapy were not corroborated is that some of these memories were false memories generated from an interaction between expectations induced in therapy and intrinsic source-monitoring difficulties in the clients (Johnson, Hashtroudi, & Lindsay, 1993). Consistent with this idea, a recent study in our lab has shown that as a group, people who come to believe they have recovered a memory of CSA through suggestive therapy generally show a pronounced tendency to incorrectly claim that they have experienced events when they have demonstrably not experienced those events, as measured by simple, well-documented cognitive tests of false-memory formation (Geraerts et al., 2007).

In sum, this study provides support for both sides of the so-called recovered-memory controversy. Evidence that discontinuous memories can be genuine comes from the observation that discontinuous memories recalled outside the context of therapy were not significantly less likely to be corroborated than were continuous memories. Evidence that discontinuous memories can be false comes from the finding that memories recalled in the context of therapy were markedly less likely to be corroborated than were continuous memories or discontinuous memories recalled outside of therapy. The present results also offer an important clue for discerning which discontinuous CSA memories are likely to be factual. Seemingly forgotten memories whose recall was associated with a sense of surprise were much more frequently corroborated than discontinuous memories whose existence was anticipated. This latter finding suggests that whereas deliberately recovered memories are apt to be suspect, spontaneously discovered memories (Schooler, 2001) are more likely to be true.

Acknowledgments—This study was supported in part by a grant from the Netherlands Organization for Scientific Research (NWO Grant 446-06-002) awarded to Elke Geraerts. We would like to thank Danny Kostons and Kim Hamers for their help testing the subjects.

REFERENCES

- Andrews, B. (2001). Recovered memories in therapy: Clinicians' beliefs and practices. In G.M. Davies & T. Dalgleish (Eds.), *Recovered memories: Seeking the middle ground* (pp. 95–151). Chichester, England: John Wiley & Sons.
- Andrews, B., Brewin, C.R., Ochera, J., Morton, J., Bekerian, D.A., Davies, G.M., et al. (2000). The timing, triggers and qualities of recovered memories in therapy. *British Journal of Clinical Psychology*, 39, 11–26.
- Brown, D., Schefflin, A.W., & Whitfield, C.L. (1999). Recovered memories: The current weight of the evidence in science and in the courts. *Journal of Psychiatry & Law*, 27, 5–156.
- Dalenberg, C.J. (1996). Accuracy, timing and circumstances of disclosure in therapy of recovered and continuous memories of abuse. *Journal of Psychiatry & Law*, 24, 229–275.
- Geraerts, E., Arnold, M.M., Lindsay, D.S., Merckelbach, H., Jelicic, M., & Hauer, B. (2006). Forgetting of prior remembering in people reporting recovered memories of childhood sexual abuse. *Psychological Science*, 17, 1002–1008.
- Geraerts, E., Lindsay, D.S., Merckelbach, H., Jelicic, M., Raymaekers, L., Arnold, M.M., & Schooler, J.S. (2007). *Cognitive mechanisms underlying recovered memory experiences of childhood sexual abuse*. Manuscript submitted for publication.
- Geraerts, E., Smeets, E., Jelicic, M., Merckelbach, H., & van Heerden, J. (2006). Retrieval inhibition of trauma-related words in women reporting repressed or recovered memories of childhood sexual abuse. *Behaviour Research and Therapy*, 44, 1129–1136.
- Geraerts, E., Smeets, E., Jelicic, M., van Heerden, J., & Merckelbach, H. (2005). Fantasy proneness, but not self-reported trauma is related to DRM performance of women reporting recovered

- memories of childhood sexual abuse. *Consciousness & Cognition*, 14, 602–612.
- Johnson, M.K., Hashtroudi, S., & Lindsay, D.S. (1993). Source monitoring. *Psychological Bulletin*, 114, 3–28.
- Kihlstrom, J.F. (2004). An unbalanced balancing act: Blocked, recovered, and false memories in the laboratory and clinic. *Clinical Psychology: Science and Practice*, 11, 34–41.
- Lindsay, D.S., & Read, J.D. (1994). Psychotherapy and memories of childhood sexual abuse: A cognitive perspective. *Applied Cognitive Psychology*, 8, 281–338.
- Lindsay, D.S., & Read, J.D. (1995). “Memory work” and recovered memories of childhood sexual abuse: Scientific evidence and public, professional, and personal issues. *Psychology, Public Policy, and Law*, 1, 846–908.
- Loftus, E.F. (1997). Dispatch from the (un)civil memory wars. In J.D. Read & D.S. Lindsay (Eds.), *Recollections of trauma: Scientific evidence and clinical practice* (pp. 171–198). New York: Plenum.
- Loftus, E.F. (2003). Make-believe memories. *American Psychologist*, 58, 867–873.
- Loftus, E.F. (2004). Dispatch from the (un)civil memory wars. *Lancet*, 364, 20–21.
- Mazzoni, G.A.L., Loftus, E.F., Seitz, A., & Lynn, S.J. (1999). Changing beliefs and memories through dream interpretation. *Applied Cognitive Psychology*, 13, 125–144.
- McNally, R.J. (2003). *Remembering trauma*. Cambridge, MA: Belknap Press/Harvard University Press.
- McNally, R.J., Ristuccia, C.S., & Perlman, C.A. (2005). Forgetting trauma cues in adults reporting continuous or recovered memories of childhood sexual abuse. *Psychological Science*, 16, 336–340.
- Polusny, M.A., & Follette, V.M. (1996). Remembering childhood sexual abuse: A national survey of psychologists’ clinical practices, beliefs, and personal experiences. *Professional Psychology: Research and Practice*, 27, 41–52.
- Schacter, D.L. (1995, April). Memory wars. *Scientific American*, 272, 135–139.
- Schooler, J.W. (2001). Discovering memories in the light of meta-awareness. *Journal of Aggression, Maltreatment, and Trauma*, 4, 105–136.
- Schooler, J.W., Ambadar, Z., & Bendiksen, M.A. (1997). A cognitive corroborative case study approach for investigating discovered memories of sexual abuse. In J.D. Read & D.S. Lindsay (Eds.), *Recollections of trauma: Scientific evidence and clinical practice* (pp. 379–388). New York: Plenum.
- Schooler, J.W., Bendiksen, M.A., & Ambadar, Z. (1997). Taking the middle line: Can we accommodate both fabricated and recovered memories of sexual abuse? In M. Conway (Ed.), *False and recovered memories* (pp. 251–292). Oxford, England: Oxford University Press.
- Shobe, K.K., & Schooler, J.W. (2001). Discovering fact and fiction: Case-based analyses of authentic and fabricated memories of abuse. In G.M. Davies & T. Dalgleish (Eds.), *Recovered memories: Seeking the middle ground* (pp. 95–151). Chichester, England: John Wiley & Sons.
- Williams, L.M. (1995). Recovered memories of abuse in women with documented child sexual victimization histories. *Journal of Traumatic Stress*, 8, 649–674.

(RECEIVED 9/4/06; REVISION ACCEPTED 12/14/06;
FINAL MATERIALS RECEIVED 1/4/07)

Appendix C

Simona Ghetti, et al., *What Can Subjective Forgetting Tell Us About Memory for Childhood Trauma?*, 34(5) *Memory & Cognition* 1011 (2006).

Appendix C

What can subjective forgetting tell us about memory for childhood trauma?

SIMONA GHETTI

University of California, Davis, California and National Research Council, Bologna, Italy

ROBIN S. EDELSTEIN

University of California, Davis, California

GAIL S. GOODMAN

University of California, Davis, California and University of Oslo, Oslo, Norway

INGRID M. CORDÒN

University of Minnesota, Minneapolis, Minnesota

JODI A. QUAS

University of California, Irvine, California

KRISTEN WEEDE ALEXANDER

California State University, Sacramento, California

ALLISON D. REDLICH

Policy Research Associates, Delmar, New York

and

DAVID P. H. JONES

Oxford University, Oxford, England

In the present study, we examined the prevalence and predictors of subjective forgetting (i.e., self-reported amnesia) of child sexual abuse (CSA). Adults who, as children, were involved as victims in legal prosecutions were questioned about their CSA experiences, which had been documented in the 1980s, and about lost and recovered memory of those experiences. Males and individuals who experienced more severe abuse were more likely to report forgetting. The majority of individuals attributed their forgetting to active attempts to avoid thinking about the abuse. In contrast, when predictors of subjective forgetting were used to predict objective memory of abuse, more severe abuse and more extended legal involvement were associated with fewer memory errors. The differences between subjective and objective memory underscore the risks of using subjective measures to assess lost memory of abuse.

This article is based on work supported by the National Science Foundation under Grant 9602125. Any opinions, findings, and conclusions or recommendations expressed in this article are those of the authors and do not necessarily reflect the views of the National Science Foundation. We thank Deena Day, Patricia England, Jenny Garfein, Jennifer Noll, Linda Port, Lydia Prado, Juliana Raskauskas, Leslie Rudy, Jennifer Schaaf, Daniel Stroski, Elizabeth Taub, Penelope Trickett, and many undergraduate students who provided their assistance. Thanks are also given to Sally Murphy and her interview team at the National Opinion Research Center for help with data collection. We are grateful to the staff at the Adams, Arapahoe, and Denver County District Attorney Offices. Special thanks go to District Attorneys James Peters, Robert Grant, and William Ritter and Deputy District Attorneys John Jordan, Jill Straus, and Norman Brisson. Gina Gallo and Lois Buckman also offered valuable assistance. Finally, we thank J. Don Read, David Rubin, and one anonymous reviewer for their valuable feedback on a previous version of the manuscript. Correspondence concerning the general project and data set should be addressed to G. S. Goodman, Department of Psychology, University of California, One Shields Avenue, Davis, CA 95616 (e-mail: ggoodman@ucdavis.edu), or J. A. Quas, Department of Psychology and Social Behavior, University of California, 3340 Social Ecology Building II, Irvine, CA 92697 (e-mail: jquas@uci.edu). Requests for materials used in the present research should be sent to these authors. Correspondence concerning this article should be addressed to S. Ghetti, Department of Psychology, University of California, One Shields Avenue, Davis, CA 95616 (e-mail: sghetti@ucdavis.edu).

Note—This article was accepted by the previous editorial team, when Colin M. MacLeod was Editor.

In recent years, the debate over memory for childhood trauma has received extensive scientific and public attention (e.g., McNally, 2003; Read & Lindsay, 1997; Williams & Banyard, 1999). Particularly contentious is the extent to which allegedly recovered memories of trauma result from mere fabrication, or whether they are, in fact, memories of actual traumatic events that had been previously repressed (or had otherwise become temporarily inaccessible) and then later recovered.

Many laboratory studies illustrate that, under certain conditions, small to sizable percentages of children and adults report memories of entirely false events (e.g., Ceci, Huffman, Smith, & Loftus, 1994; Hyman, Husband, & Billings, 1995; Loftus & Pickrell, 1995; Pezdek, Finger, & Hodge, 1997), even of rather emotional and stressful incidents (e.g., Ghetti & Alexander, 2004; Porter, Yuille, & Lehman, 1999; Quas et al., 1999). These findings have been used to argue that recovered memories of child abuse may actually be *false* memories, stemming from repeated attempts to retrieve past experiences, perhaps at the instruction of psychotherapists eager to bring lost memories back into consciousness (e.g., Dawes, 1994; Lindsay & Read, 1995; Loftus, 1993; Qin, Goodman, Bottoms, & Shaver, 1998).

Although these studies clearly indicate that false memory is possible (Bottoms, Shaver, & Goodman, 1995), they do not address the fate of *real* memories of childhood trauma—that is, whether such memories can be lost and later recovered. Because only a few researchers have examined memories of documented childhood trauma prospectively (Goodman et al., 2003; Widom & Morris, 1997; Williams, 1994, 1995), professionals and researchers have relied mainly on retrospective assessments of subjective forgetting (i.e., self-reported amnesia) to investigate the occurrence of lost memory of trauma in clinical and nonclinical samples. The extent to which retrospective reports reflect *actual* forgetting, however, is largely unknown.

In the present article, we report the results of a study of former victims of documented child sexual abuse (CSA) who were involved in criminal prosecutions in the mid-1980s and who participated in previous research on the emotional consequences of testifying in criminal court (Goodman et al., 1992). Twelve to 14 years after their initial participation (12 to 19 years after the target CSA experience), we interviewed these individuals about their victimization and legal experiences. The vast majority of them—81% to 88%, depending on the phase of the study—disclosed the documented CSA (Goodman et al., 2003). Whereas Goodman et al. (2003) focused on the prevalence and predictors of abuse *disclosure*, the present study focuses on self-reported experiences of forgetting and memory accuracy among disclosers.

Upon disclosing the CSA, individuals were prompted for details about the abuse and subsequent legal involvement. The disclosers were also asked about their subjective experiences of forgetting of the CSA incident(s). Thus, we were able to investigate the prevalence of self-reported forgetting of documented CSA, individuals' characterizations of their forgetting experiences, and factors predicting such experiences. We also examined whether objective memory of CSA (operationally defined as the discrepancy between current descriptions of CSA and our documentation) differed for individuals who reported previous forgetting of the CSA, in comparison with those who did not, and the extent to which predictors of subjective forgetting also predict objective memory. This comparison is crucial for determining whether subjective reports of forgetting can be used as a proxy for actual experiences of lost memory of CSA.

Prevalence of Subjective Forgetting

Support for the idea that traumatic memories may be repressed and later recovered has come primarily from retrospective studies (i.e., CSA was reported by participants in adulthood, but the abusive incidents were not documented at the time they had allegedly occurred). In these studies, sizable percentages of self-reported CSA victims indicated that they had forgotten their abusive experiences for some period of time (e.g., Briere & Conte, 1993; Freyd, DePrince, & Zurbriggen, 2001). In retrospective studies of clinical samples, forgetting rates have been found to vary between 19% and 77% (e.g., Briere & Conte, 1993; Herman & Schatzow, 1987; Loftus, Polonsky, & Fullilove,

1994; Roe & Schwartz, 1996); in studies of nonclinical samples, such rates vary between 13% and 42% (Elliott, 1997; Elliott & Briere, 1995; Wilsnack, Wonderlich, Kristjanson, Vogeltanz-Holm, & Wilsnack, 2002).

Retrospective studies are limited in that there is no substantiated evidence that the alleged abuse occurred. To the extent that it is unknown how many of the participants in these studies actually experienced CSA, estimates of forgetting may differ from those obtained among actual CSA victims. In addition, the very nature of retrospective memory assessments may undermine the quality of the information obtained. For example, Henry and colleagues (Henry, Moffitt, Caspi, Langley, & Silva, 1994) demonstrated that the agreement between retrospective and prospective measures was low when reports about psychological states (e.g., behavior problems) were examined.

With respect to subjective forgetting, Read and Lindsay (2000) illustrated that self-reported forgetting increases after active attempts to retrieve details about an event. Participants were asked to remember a number of childhood events (e.g., trips to summer camp) and then rate whether they had ever been unable to recall each event. The participants were then assigned to either a control condition or one of two experimental conditions—*reminiscence* or *enhanced*—both of which, in comparison with the control condition, involved mental activities designed to increase the number of details retrieved about the childhood event. For weeks later, participants in the experimental conditions as opposed to those in the control condition reported more details about the events but were also more likely to report prior periods of amnesia for the events. These results suggest that subjective memory measures can be influenced by deliberate retrieval attempts and, thus, may reflect the operation of processes other than actual forgetting (see also Winkielman, Schwarz, & Belli, 1998). These results are especially relevant if subjective measures are used as evidence of amnesia.

Concerns about the validity of findings from retrospective studies are substantiated by the only other published prospective study (i.e., CSA was documented through official records shortly after the abuse was reported) on adults' rates of self-reported forgetting: Williams (1995) found that only 16% of the participants who disclosed the abuse reported that there was a time when they did not remember the event. This percentage is much lower than that typically reported in retrospective studies (for a review, see Epstein & Bottoms, 1998). Given their far-reaching implications, it is imperative to replicate these results with other samples of documented CSA victims. This is particularly relevant in consideration of some of the characteristics of Williams's sample: All the participants in her study were female, and the majority were African-American (86%). As will be described later, both gender and ethnicity may be important to consider in relation to forgetting.

Predictors of Subjective Forgetting

Extant research, relying primarily on retrospective accounts, is inconsistent regarding predictors of subjective forgetting of CSA. In the following paragraphs, we

discuss potential predictors of this phenomenon. We also discuss predictors of lack of CSA disclosure: Although individuals may elect not to disclose CSA for reasons other than forgetting, failure to disclose documented CSA has been used to indicate a lack of memory for abusive experiences (Goodman et al., 2003; Widom & Morris, 1997; Williams, 1994). When relevant, we also describe predictors identified in our investigation of the impact of post-traumatic stress symptoms and subjective appraisals of abuse on CSA memory accuracy (Alexander et al., 2005). This research was conducted with a subsample of participants from the present study who completed an extensive, in-person interview 12 to 21 years after CSA ended. The interview probed for numerous verifiable details about the abuse incidents.

Individuals' CSA experiences may have implications for forgetting. For one, severity of CSA may affect the phenomenology of lost memory. However, the relation between abuse severity and forgetting is currently under debate. On the one hand, increased severity of trauma may have detrimental effects on memory (Terr, 1991; van der Kolk, 1997). Several researchers have argued that individuals may dissociate while experiencing severe trauma (e.g., DePrince & Freyd, 1999, 2004; Zoellner, Sacks, & Foa, 2003), may later repress the memory of the traumatic experience (Terr, 1991), or may engage in active cognitive avoidance of traumatic memories (Berliner, Hyman, Thomas, & Fitzgerald, 2003; Epstein & Bottoms, 2002). Although such psychological processes could underlie forgetting of traumatic experiences, all of these processes would (arguably) promote higher levels of forgetting as abuse severity increases. On the other hand, insofar as severe abuse is a salient and personally relevant experience, abuse severity may be positively related to memory retention (e.g., Bower & Sivers, 1998; Christianson, 1992).

The results of Williams's (1995) prospective study are consistent with the notion that abuse severity may promote subjective forgetting: Severity (indexed by degree of force) was positively correlated with subjective forgetting of CSA. However, degree of force failed to emerge as a significant predictor of forgetting when the participants' age, which itself was related to force, was examined concurrently. In our study, we had the possibility of investigating the relation between abuse severity and subjective forgetting with a sample in which abuse severity and age at the time of abuse are not significantly correlated.

Of note, our previous findings concerning predictors of disclosure indicate that the relation between abuse severity and objective memory may be in the opposite direction to that suggested by Williams's analyses of subjective forgetting. Specifically, we found that severity (indexed by a composite score of abuse duration, extent of sexual contact, level of force, and extent of injury) was positively related to disclosure of the CSA incident(s) (Goodman et al., 2003). In addition, severity was negatively related to commission errors but was unrelated to omission errors in abuse memory reports (Alexander et al., 2005). Thus, our previous results are consistent with the idea that the persistence of memory for abuse, like that of memory for other events,

is bolstered by such factors as event duration and personal significance, captured in our composite severity measure. Insofar as subjective forgetting reflects actual amnesia for sexual abuse, abuse severity should be related in the same way to both subjective and objective forgetting.

However, discrepancies between subjective and objective memory measures often emerge in the literature (e.g., Koriati, Sheffer, & Ma'ayan, 2002; Leonesio & Nelson, 1990; Mazzoni & Nelson, 1995; Schwartz, Benjamin, & Bjork, 1997). If individuals are disturbed by their memories of abuse and actively avoid thinking about such experiences, subjective forgetting may reflect individuals' attempts to push traumatic memories out of consciousness. The desire to avoid CSA memories may be stronger as abuse severity increases. Hence, higher rates of subjective forgetting may be found for more severe abuse, even when objective memory measures indicate particularly high levels of retention.

Second, the relation between the victim and the perpetrator may also predict forgetting experiences. Freyd and colleagues (e.g., Freyd, 1996; Freyd et al., 2001) proposed that individuals who had been abused by a close family member—for instance, a biological parent—may experience a conflict between the reality of being betrayed by a loved one and the enduring necessity of loving the betrayer. To cope with such a conflict, the victim may block information about the abuse out of awareness. According to this view, forgetting should be higher among individuals who were abused by a closely related perpetrator than among those who were not abused by a closely related perpetrator. In a retrospective study, Freyd et al. found support for this claim: Individuals who reported being sexually abused by a close family member were more likely to report having forgotten the abuse (see also Sheiman, 1999; Schultz, Passmore, & Yoder, 2003). In Williams's (1995) study, this association was not statistically significant, but a trend in the expected direction was observed. Williams (1995) did not report the association between perpetrator closeness and objective memory for the abuse. In our previous research, relationship to the perpetrator failed to predict either CSA disclosure (Goodman et al., 2003) or memory accuracy (Alexander et al., 2005). Thus, it is unclear whether relationship to the perpetrator *per se* is responsible for potential memory deficits.

Third, maternal support may decrease the likelihood of subjective forgetting of CSA. Maternal support and communication are positively related to memory for stressful experiences (Goodman, Quas, Batterman-Faunce, Riddlesberger, & Kuhn, 1994), maintenance of allegations across interviews (Bradley & Wood, 1996; Sorensen & Snow, 1991), and disclosure of abusive experiences (Goodman et al., 2003). Insofar as supportive mothers legitimate their children's allegations or talk more often with them about the abuse, maternal support may reduce subjective forgetting. Consistent with this claim, Williams (1995) found that individuals who received maternal support were less likely to report forgetting.

The fourth variable relevant to CSA memories concerns involvement in the legal system. Although no study thus

far has examined whether extent of legal involvement is related to subjective forgetting, there are reasons to expect such a relation. Participating in a criminal prosecution (e.g., being interviewed about the crime or testifying in court) may serve as a reminder of the abuse and may, thus, prevent objective memory loss. To the extent that individuals consider that they had the opportunity to think and talk about the abuse within the legal context, a negative relation between extent of legal involvement and subjective forgetting would be expected.

In addition to the aforementioned abuse-related variables, we also examined individual-difference variables that may affect forgetting of childhood trauma. Age was of primary interest. Forgetting is likely for events that occur early in life—specifically, before the offset of childhood amnesia (Pillemer & White, 1989; Quas et al., 1999). Williams (1995) found that women who reported having always recalled their documented CSA experience were older than those who described a period of complete forgetting (i.e., 9.5 vs. 6.5 years; see also, e.g., Epstein & Bottoms, 1998; Freyd et al., 2001). Consistent with the latter finding, in our prospective sample, CSA disclosure was predicted by the target abuse having ended after the offset of infantile amnesia (Goodman et al., 2003).

Another individual-difference characteristic with implications for CSA forgetting is gender. Previous research has, at times, highlighted gender differences in how emotional information is processed and remembered: Females, in comparison with males, show enhanced processing of and, consequently, better memory for emotional, in comparison with nonemotional, information (e.g., Canli, Desmond, Zhao, & Gabrieli, 2002; but see Grinshaw, Bulman-Fleming, & Ngo, 2004). In addition, in a study of alleged child victims, males recounted CSA incidents less consistently than did females across two investigative interviews (Ghetti, Goodman, Eisen, Qin, & Davis, 2002), suggesting a difficulty in retrieving a coherent memory representation, as well as a reluctance to discuss the topic. Furthermore, in a subsample of participants in the present study, males tended to commit more omission errors than did females (Alexander et al., 2005). Thus, males may be more likely than females to report forgetting.

However, retrospective studies of CSA generally show that women are *more* likely to report forgetting than are men (see Epstein & Bottoms, 1998, 2002), possibly reflecting the societal belief that repression and recovery of CSA memories occur primarily among women because women are more negatively impacted than men by CSA (Dawes, 1994). If so, women's increased motivation to distance themselves from the abuse would then lead to higher rates of subjective forgetting. The hypothesis that females may be more likely than males to report forgetting has never been tested in a prospective sample.

Finally, we were interested in examining whether subjective forgetting would differ according to ethnicity. Previously, we found that CSA disclosure tended to be higher among European Americans than among African-Americans (Goodman et al., 2003). This difference was not explained by African-Americans' having experienced

a higher number of other traumas, which could make any one particular incident less memorable. In fact, the African-Americans in our CSA sample were not significantly more likely than the European Americans to have experienced additional traumas. Thus, the ethnic differences obtained may reflect differences in the willingness to disclose abuse or in actual memory for the experience. Nevertheless, these differences are consistent with the proposal that CSA sequelae, including disclosure, may vary according to ethnicity (e.g., Kenny & McEachern, 2000). In the only other prospective study available in which subjective forgetting was examined (Williams, 1995), the vast majority of the sample was African American, and ethnic differences in subjective forgetting were not reported.

Subjective Characterizations of Forgetting

Researchers have rightly noted that affirmative answers to general questions about forgetting of abuse do not necessarily imply that the memory was *actually* inaccessible (e.g., Epstein & Bottoms, 1998; McNally, Clancy, & Barrett, 2004; Read, 1997). That is, although individuals may report having forgotten abuse for some period of time, it is difficult to verify that memory of the abuse was in fact completely inaccessible. Nevertheless, examining how individuals describe their "amnesia" experiences can provide valuable insight into their perceptions of the nature and characteristics of forgetting. Thus, participants in the present study were asked to evaluate whether, during the time in which they believed that they had experienced forgetting, they could have remembered the abuse if asked about it.

Participants were also asked to describe the reasons why they had forgotten. We provided response options that emphasized either the *content* of their memory (e.g., "It was so horrible that I pushed it out of my mind") or other factors that could influence memory (e.g., "I was too young to remember"). By analyzing these responses, we can learn how individuals characterize their forgetting experiences regarding traumatic events.

Subjective Forgetting and Discrepancy With the Original Documentation

We were also interested in whether memory accuracy for the CSA differed for victims who indicated previous periods of lost memory versus those who said that they had always remembered the CSA. Researchers have rarely had the opportunity to make this comparison (but see Schooler, Bendiksen, & Ambadar, 1997; Williams, 1995). Williams (1995), for instance, compared the extent to which descriptions provided by two groups of former CSA victims—those who did and did not report a period of amnesia for the abuse—matched the information included in the official hospital records of the incidents. The accuracy of the reported information (i.e., age at the time of the abuse, duration of the abuse, and extent of sexual contact) by these groups of participants was comparable. In the present study, we examined whether Williams's (1995) findings replicate. Furthermore, we investigated how predictors of subjective forgetting compare with

those of objective memory (i.e., discrepancies between current statements and information obtained from the original documentation).

THE PRESENT STUDY

The present study included young adults who, more than a decade earlier, were involved in criminal prosecutions as victims of CSA and had participated in a study on the effects of legal involvement (Goodman et al., 1992). Detailed documentation of the abuse was available for all the cases. The present research goals were to (1) examine rates and identify predictors of subjective forgetting of documented CSA, (2) examine subjective characterizations of complete forgetting, (3) identify CSA cases that reflect recovered memory of CSA, (4) compare objective memory for individuals who reported experiences of complete subjective forgetting with that for those who did not, and (5) compare predictors of subjective forgetting with predictors of objective memory.

Method

Participants and sample characteristics. Between 1985 and 1987, 218 children (167 female), 4 to 17 years of age, participated in the original study (Goodman et al., 1992). At that time, detailed information was collected from multiple sources (e.g., prosecutor files, nonoffending caregivers, and child victims) regarding characteristics of the abuse (e.g., perpetrator identity, sexual acts, and abuse duration) and the legal case (e.g., number of times the children testified). None of the cases involved sensational daycare or satanic ritual abuse allegations. Approximately 13 years later (original study to current interview, $M = 13.09$ years, range = 10.66–16.58 years; end of abuse to current interview, $M = 13.86$ years, range = 11.50–19.00 years), the former participants were located and invited to take part in the present research. Of the 218 original participants, 1 was excluded because the perpetrator was not 4 years older. Thus, her case did not meet the legal definition of CSA (i.e., a 4-year child-perpetrator age difference). Of the 217 eligible participants, 186 (85.7%) were located, and 175 (80.6%) were interviewed. Of those located but not interviewed, 10 (4.6% of the original sample) declined to participate, and 1 was deceased.

Of the 175 participants interviewed, 142 (81%) disclosed the documented sexual abuse experience (Goodman et al., 2003). Four of the disclosers did not respond to our questions related to forgetting and were thus excluded. The present report is based on the 138 remaining individuals. Of these individuals, 80% were females. With respect to ethnic background, 10.4% were African-American, 64.7% were Caucasian-non-Hispanic, 14.6% were Hispanic, 0.7% were Asian-American, 1.5% were of other ethnicity, and 8.1% had a mixed racial background. The participants' age at the time when the abuse ended ranged from 3 to 16 years ($M = 9.51$, $SD = 3.31$). Abuse severity, indexed by a composite of abuse duration, extent of sexual activity, use of force, and extent of injury to the child ranged from 2 to 9 (on a 12-point scale; $M = 4.93$, $SD = 1.74$). The alleged abuse was perpetrated by a parental figure (i.e., parent or stepparent) in 24% of the cases. The majority (89%) of children received maternal support (on the basis of researchers' ratings at the time of legal involvement) following their disclosure of abuse. Legal involvement was assessed on a 3-point scale (1 = *did not go to court*, 2 = *went to court but did not testify*, 3 = *testified*; $M = 2.01$, $SD = 0.81$).

Procedure. For scientific and ethical reasons, the participants were never told that we knew of their past victimization, legal involvement, or original study participation. The research was described as being concerned with experiences shaping individuals' attitudes toward the legal system. Although the study was conducted

in three phases (i.e., a phone interview, a mailed questionnaire, and an in-person interview), this report concerns data collected during the phone interview, for which we have the most complete sample. In all three phases, information about mental health, victimization, legal experiences, and attitudes toward the legal system was elicited. CSA was defined as exhibitionism, sexual touching, rape, oral sex, intercourse, or any type of completed or attempted CSA that occurred when the participant was under age 18 and with a person more than 4 years older. Upon disclosure of CSA during the first phase, additional factual information (e.g., age at the beginning and at the end of the abuse or type of sexual acts) was solicited. In addition, the individuals were asked, "Did you ever temporarily forget or have no memory of these sexual experiences?" If they responded affirmatively, they were asked, "During the time you forgot about the sexual events, or had no memory of them, if someone had asked you if these sexual events had ever happened to you, would you have remembered?" The participants were then asked to select, from among a number of options, reasons why they thought that they had experienced forgetting: (1) "I did not think about it and eventually I forgot"; (2) "I felt afraid, and I did not want to think about it"; (3) "I did not think it was important"; (4) "It was so horrible that I pushed it out of my mind"; (5) "It happened so often that I can't remember it all"; (6) "I was too young to remember"; (7) "I don't know why I forgot." The participants could select more than one reason and were also given the opportunity to indicate reasons other than those provided. Finally, the participants were asked to describe how they had recovered their memories.

Discrepancy coding. Information about four core abuse details (i.e., age at the beginning of the abuse, age at the end of the abuse, type of sexual activity, and frequency of abuse) was elicited from the participants during the phone interview. The participants were given response options corresponding to those used for coding information by Goodman et al. (1992), thus allowing for direct comparison between current reports and the original documentation. Age at the beginning and at the end of abuse was reported in years. Type of sexual activity was reported as 1 (exhibitionism), 2 (nongenital contact; e.g., fondling of the child's breasts), 3 (genital contact including oral sex, but no vaginal or anal penetration), or 4 (vaginal or anal penetration/intercourse). Frequency of abuse was reported as 1 (once), 2 (two or three times), or 3 (more than three times).

Discrepancy scores were calculated by a computer program that compared current reported scale scores with information originally documented, using scales analogous to those described in Goodman et al. (1992). For each detail, the computer program was set to assign a score of 0 if the information currently reported corresponded to that in the original documentation (e.g., if abuse frequency was scored as "2" originally and also was scored as "2" now by the victim) and a score equal to 1 if a discrepancy was detected. For each participant, a mean discrepancy score was created by averaging across scores for each detail. This score was used as our measure of *objective memory*.

Results

Prevalence and predictors of subjective forgetting. Of the 138 participants who answered the question about forgetting, 15% ($n = 21$) reported a prior period of no memory for the documented case. One individual responded "I don't know" and was, thus, excluded from further analyses, leaving a total of 137 participants. We next performed a logistic regression analysis, in which the dichotomous subjective forgetting variable was regressed on the prespecified predictors: age at end of the abuse, victim gender, abuse severity, maternal support, relationship to the perpetrator, extent of legal involvement, and ethnicity. All of the variables were entered simultaneously. Correlations among these variables are presented

in Table 1. Variance inflation factor (VIF) scores for the correlations among the predictors ranged from 1.03 to 1.19, indicating that collinearity was not a problem in this sample. (VIF scores above 10 are typically considered indicative of serious collinearity; Cohen, Cohen, West, & Aiken, 2003.) The results from the logistic regression are presented in Table 2.

The more severe the abuse, the more likely individuals were to report total forgetting of their CSA experiences. Also, males were more likely than females to report forgetting. The effect of extent of legal involvement approached statistical significance: Total forgetting appeared to be less likely for individuals who had experienced more extensive legal involvement. Victim age, maternal support, relationship to the perpetrator, and ethnicity were not significant predictors of subjective forgetting.¹

Previous research has emphasized that the more victims feel betrayed by the perpetrator, the more likely they should be to experience forgetting of abuse (e.g., Freyd, 1996). Insofar as the relationship to the perpetrator (i.e., parental figure vs. nonparental figure) reflects the victim's closeness to the perpetrator, the lack of association between relationship to the perpetrator and subjective forgetting may have important theoretical implications. One could argue that relationship to the perpetrator failed to emerge as a significant predictor, due to a lack of power. However, the zero-order correlation between this variable and subjective forgetting was close to zero (Table 1), indicating that even with sufficient power to measure this relation, its effect size would be extremely small. Furthermore, when we substituted this measure of relationship with the perpetrator with a measure of relationship betrayal, the zero-order correlation was still close to zero [$r(134) = .06, p = .57$]. We acknowledge that these measures may not capture the complexity of the relationship betrayal construct investigated by Freyd (1996).

The two categorical variables used in the regression analyses, gender and ethnicity, were not distributed with 50/50 proportions on the two possible categories. In fact, only a few observations for African-American males were available. Thus, we conducted additional logistic regres-

sions, alternatively excluding the variables of gender and ethnicity. When we excluded gender, the model was significant [$\chi^2(6) = 16.14, p < .05$; Nagelkerke $R^2 = .21$]. As in the regression presented in Table 2, severity was a significant predictor of subjective forgetting ($\beta = 0.38, p < .05$), and legal involvement closely approached statistical significance ($\beta = -0.67, p = .055$). When we excluded ethnicity, the model was significant [$\chi^2(6) = 19.87, p < .01$; Nagelkerke $R^2 = .25$]. Again, severity was a significant predictor of subjective forgetting ($\beta = 0.38, p < .05$), and legal involvement closely approached statistical significance ($\beta = -0.68, p = .057$). Finally, as in the overall equation, gender significantly predicted subjective forgetting ($\beta = -1.41, p < .05$).

Zero-order correlations between subjective forgetting and several additional variables of theoretical importance were also examined in a subset of participants for whom additional data (from later phases of the study) were available. Most of the results did not show significant relations; however, there were some notable exceptions. First, dissociation ($M = 13.74, SD = 13.55$; Dissociative Experience Scale; Bernstein & Putnam, 1986) was significantly associated with subjective forgetting [$r(97) = -.25, p < .05$]: Individuals with more dissociative symptoms were more likely to report forgetting. Second, individuals with higher scores on the intrusive experiences (flashbacks, nightmares, and intrusive thoughts) subscale of the Trauma Symptoms Inventory (TSI; $M = 7.64, SD = 5.94$), a measure of posttraumatic symptomatology (Briere, Elliott, Harris, & Cotman, 1995), tended to be more likely to report forgetting [$r(101) = .18, p = .08$]. Finally, there was a significant correlation between the participants' estimates of the number of months they had spent in therapy ($M = 43.87, SD = 64.49$) and subjective forgetting [$r(77) = .28, p < .05$], so that individuals who reported more time in therapy were more likely to report forgetting.²

However, these additional variables (dissociation, intrusive experiences, and amount of therapy) were highly interrelated. The correlation between levels of dissociative symptoms and intrusive experiences was quite robust [$r(96) = .51, p < .001$], as was the correlation between

Table 1
Correlation Matrix Among Variables of Interest

	1	2	3	4	5	6	7	8	9
1. Subjective forgetting ^a									
2. Objective memory ^b	-.07								
3. Victim age (in years)	-.04	-.12							
4. Victim gender ^c	-.19*	.02	.00						
5. Abuse severity ^d	.20*	-.15	.08	.03					
6. Maternal support ^e	.14	-.15	-.02	-.06	-.11				
7. Relationship to perpetrator ^f	.05	.03	.15	.24**	.17*	.08			
8. Legal involvement ^g	-.13	-.27**	.07	-.02	.02	.11	-.19*		
9. Ethnicity ^h	.11	.18*	-.00	.11	.05	.11	-.08	.03	

^aSubjective forgetting: 0 = did not forget; 1 = forgot. ^bObjective memory: Higher scores indicate higher proportion of discrepancies between original documentation and current reports (range, 0–1).

^c0 = male, 1 = female. ^dHigher scores indicate more severe abuse (range, 2–10). ^e0 = did not receive support, 1 = received support. ^f0 = nonparental figure, 1 = parental figure. ^g1 = went to court, 2 = went to court but did not testify, 3 = testified. ^h0 = non-African-American, 1 = African-American. * $p < .05$. ** $p < .01$.

Table 2
Logistic Regression Predicting Subjective Forgetting

	β	SE	Wald	df
Victim age (in years)	-0.01	0.09	0.001	1
Victim gender ^a	-1.51*	0.64	5.64	1
Abuse severity ^b	0.38*	0.16	5.75	1
Maternal support ^c	8.24	24.84	0.11	1
Relationship to perpetrator ^d	-0.21	0.73	0.08	1
Legal involvement ^e	-0.69 ^t	0.36	3.67	1
Ethnicity ^f	1.21	0.81	2.23	1

Note— $\chi^2(7) = 21.79, p < .01$; Nagelkerke $R^2 = .27$. Dependent measure: 0 = did not forget; 1 = forgot. ^a0 = male, 1 = female. ^bHigher scores indicate more severe abuse (range, 2–10). ^c0 = did not receive support, 1 = received support. ^d0 = nonparental figure, 1 = parental figure. ^e1 = did not go to court, 2 = went to court but did not testify, 3 = testified. ^f0 = non-African-American, 1 = African-American. ^t $p = .055$. * $p < .05$.

intrusive experiences and time spent in therapy [$r(73) = .43, p < .001$]. Finally, the correlation between dissociative symptoms and time spent in therapy was not negligible [$r(73) = .21, p = .07$]. These correlations raise questions about the independence of their associations with subjective forgetting. Thus, partial correlations were examined. The correlation between time spent in therapy and subjective forgetting was substantially reduced when we controlled for intrusive experiences and dissociative symptoms (i.e., this correlation was reduced to .10 with intrusive experiences partialled and to .17 with dissociative symptoms partialled; neither of these correlations was statistically significant). The correlation between dissociative symptoms and subjective forgetting was also largely reduced when we controlled for the other variables (i.e., this correlation was reduced to .05 with scores for intrusive experiences partialled and to .14 with time spent in therapy partialled; neither of these correlations was significant). In contrast, the correlation between intrusive experiences and subjective forgetting did not decrease when partial correlations were examined [i.e., this correlation was equal to .19 ($p = .11$) with amount of time spent in therapy partialled and was equal to .20 ($p = .10$) with dissociative symptoms partialled].

Subjective characterization of forgetting. What reasons did the victims provide for temporarily forget-

ting the documented CSA? Among the individuals who reported periods of complete forgetting ($n = 21$), the most frequently endorsed options were “I felt afraid, and I did not want to think about it” and “It was so horrible that I pushed it out of my mind” (86% and 81%, respectively). These responses clearly reflect individuals’ active attempts to avoid thinking about the trauma. Each of the options “I did not think about it and eventually I forgot” and “It happened so often that I cannot remember it all” was endorsed by 57% of the participants. Each of the options “I was too young to remember” and “I don’t know why I forgot” was endorsed by 38% of the participants. Finally, 14% of the participants endorsed the option “I did not think it was important.”

We were also interested in how these reasons for forgetting related to the victims’ actual experiences regarding the documented CSA. We thus examined (1) the extent to which these reasons (e.g., “It was so horrible that I pushed it out of my mind”) were related to the previously documented abuse characteristics and (2) whether the individuals’ reasons better reflected the abuse characteristics as documented in the original case or as currently described. As is evident from Table 3, endorsement of these options was often significantly correlated with abuse characteristics. These correlations validate, to a certain extent, the victims’ self-report of the reasons why they tried to forget.³ For example, the individuals who experienced more frequent CSA were significantly more likely to endorse the option “It happened so often that I cannot remember it all.” Furthermore, both frequency and extent of sexual contact (at the time of the original study and as currently reported) were significantly associated with increased likelihood of endorsing the option “It was so horrible that I pushed it out of my mind”: The participants who experienced more frequent and invasive sexual abuse were more likely to actively try to forget the abuse. Of note, the magnitude of these correlations was large for both current reports of abuse characteristics and previously documented abuse characteristics but was generally larger for the former than for the latter. There are several possible interpretations of this pattern of correlations. For example, discussing the abuse with the interviewer and having described it with certain characteristics may have influenced the reasons

Table 3
Correlation (r) of Each Reason for Forgetting With Abuse-Related Variables, According to Current Description (Curr) and Previous Documentation (Prev)

Reasons for Forgetting	Age at the End of Abuse		Frequency of Abuse		Extent of Sexual Contacts	
	Curr	Prev	Curr	Prev	Curr	Prev
I did not think about it and eventually I forgot	.09	.07	.30	.10	.09	.12
I felt afraid, and I did not want to think about it	-.17	.06	.54*	.22	.03	.10
It was so horrible that I pushed it out of my mind	-.18	-.07	.65**	.41 ^t	.73**	.47*
I did not think it was important	-.02	-.04	-.24	-.48*	-.51*	-.60*
It happened so often that I can’t remember it all	-.05	-.18	.85*	.47*	.09	.12
I was too young to remember	-.31	-.30	-.07	.16	-.22	-.20
I don’t know why I forgot	-.06	-.17	.04	-.30	-.30	-.31

Note—Options are not mutually exclusive (0 = reason does not apply; 1 = reason applies); $n = 21$. ^t $p = .05$. * $p < .05$. ** $p < .001$.

that individuals provided for forgetting. However, it also is possible that the children's initial reports of the abuse may have somewhat underestimated or overestimated some of the CSA characteristics (e.g., abuse frequency).

Subjective characterization of recovery. To argue that memories of CSA are temporarily *repressed*, one should ideally have proof that these memories were truly lost in the first place. When respondents indicated subjective forgetting (i.e., that there was a time during which they had no memory for the documented CSA), their responses rested on their interpretation of the word *forgetting*. To clarify what the respondents meant, we asked them if they would have remembered the CSA if someone had asked them directly about it. Of the individuals who reported complete forgetting, 24% ($n = 5$; 3 male) indicated that they would not have remembered the forgotten abuse even if someone had asked them directly about it. This self-reported inability to retrieve CSA memories, even when prompted, may be considered the signature of *repressed* CSA memory. Thus, these 5 individuals' explanations of memory recovery are of particular interest, because such explanations may provide information about whether these memories were recovered after long delays (i.e., in early adulthood), as in some of the cases that have captured public and media attention. We will describe these individuals' responses next.

Case 1. This individual (who did not endorse any of the forgetting options we provided) explained that he was sleeping when he was assaulted and that, thus, his memory never fully came back. An eyewitness confirmed the events, and two other children reported being molested by the same man. The perpetrator, a stranger to the child but acquainted with the family, was incarcerated as a result of his acts.

Case 2. This participant reported that he recovered his memory when the perpetrator called his parents to confess; his parents reported the offense to the police (a few years after the last offense) and involved their son in a CSA therapy center. On the basis of the original documentation, the perpetrator, a close family friend, abused the child for several years, ending when the child was 5, whereas the report to the authorities occurred when he was 7, following the perpetrator's admission. The perpetrator, a known child molester, was sentenced to the Department of Corrections. As an adult, the victim reported that participating in the therapy center activities as a child helped him remember and cope with the experience.

Case 3. This individual disclosed the CSA at age 13 while in a residential facility for children with emotional problems. The alleged perpetrator was a female staff member of the facility. The participant attempted suicide after disclosing. He told us that it was after the suicide attempt that he forgot the CSA experience. The memory came back, he explained, when, in court as an adolescent, he saw the perpetrator again. Although implicating testimony was offered at trial (another staff member reported the suspicious nature of the relationship between the victim and the staff member), the defendant was found not guilty.

Case 4. This participant, whose abuse by her mother's live-in partner ended at age 4 according to the original

documentation, currently reported that she remembered details about the abuse when she was about 6 but does not remember those details now, despite her evident awareness of being a CSA victim. Although penetration was alleged, there was no corroborative evidence, and the case was dismissed because the child refused to testify.

Case 5. This final participant did not provide any information about memory recovery. According to our records, the abuse occurred once when she was 8. The perpetrator was her biological father, who had a past record of committing CSA. There was circumstantial evidence in this case, and the perpetrator received probation.

Overall, these case examples indicate that if CSA was forgotten in childhood, it was also likely to be recovered in childhood, rather than later on in adulthood. Thus, we found no evidence of adult recovery of CSA memories. However, recovery descriptions were not fully available for all five cases.

Objective memory: Discrepancy with original documentation. To understand whether subjective forgetting has implications for the accuracy of CSA memory, we entered our measure of objective memory (i.e., mean discrepancy score) as a dependent measure in an ANOVA, with subjective forgetting broken down into three groups. No significant differences in objective memory accuracy emerged: individuals who reported complete forgetting and responded that they would *not* have remembered the abuse even if they had been asked about it during the time of forgetting, $M = .47$, $n = 5$; individuals who reported complete forgetting but responded that they would have remembered the abuse during that time if they had been asked, $M = .47$, $n = 15$; and individuals who did not report forgetting, $M = .50$, $n = 117$ [$F(2,134) = 0.09$, $p = .92$]. Thus, having reportedly experienced complete forgetting does not appear to hinder objective memory for abuse. However, the report of subjective forgetting may not necessarily mean that actual forgetting occurred.

Predictors of objective memory. Finally, we were interested in investigating the extent to which predictors of objective memory corresponded to those of subjective forgetting. Mean discrepancy scores were regressed on the same variables as those used previously to predict subjective forgetting. All of the variables were entered simultaneously in the linear regression model. As is evident from Table 4, abuse severity significantly predicted discrepancy, so that the more severe the abuse, the fewer the discrepancies observed. This finding stands in sharp contrast to that for subjective forgetting: Although individuals who experienced more severe abuse were more likely to report having forgotten CSA, they nevertheless described their target CSA experience more accurately with respect to the original documentation.

Note that one of the indicators of abuse severity (i.e., extent of sexual contact) was also one of the units from which discrepancy scores were calculated. One could argue that the relation between severity and discrepancy is partly due to this overlap. However, the correlation between extent of sexual contact and the discrepancy score about extent of sexual contact was nonsignificant and of

small magnitude [$r(141) = .06, p = .48$]. Gender, which was related to subjective forgetting, was not a significant predictor of discrepancy. Finally, extent of legal involvement significantly predicted discrepancy, so that greater involvement (i.e., having testified) was associated with less discrepant reports. This finding is consistent with the observed negative relation between subjective forgetting and extent of legal involvement.⁴

As was done for subjective forgetting, the zero-order correlations between discrepancy and several additional variables of theoretical importance were examined. The results generally did not reveal significant relations. However, some exceptions are noteworthy because they are in the opposite direction from those observed for subjective forgetting. First, individuals with higher scores on the intrusive experiences subscale of the TSI (Briere, 1995) evinced fewer discrepancies in their recounts [$r(101) = -.21, p < .05$]. Second, higher scores on the posttraumatic defensive avoidance scale were also associated with lower discrepancy scores [$r(99) = -.20, p < .05$]. Individuals who attempt to distance themselves from trauma the most may be more likely to forget the abuse and, thus, report more discrepant information. However, the correlation between intrusiveness and defensive avoidance was positive and quite robust [$r(100) = .71, p < .001$]. Thus, the participants who experienced more intrusive thoughts were also more likely to attempt to defensively avoid those thoughts. However, such attempts may not successfully push away the memory of the abuse, as is suggested by the negative correlation between symptomatology and discrepancy. In fact, such attempts are associated with greater memory accuracy. Finally, there was a nonsignificant tendency for the participants who estimated more time spent in therapy to provide less discrepant information scores [$r(77) = -.19, p = .09$].⁵

To address concerns related to the independence of the relations of intrusiveness, defensive avoidance, and time in therapy to objective memory, we performed partial correlations between each of the three variables and objective memory, controlling for each of the other two variables. Although the correlations generally decreased relative to

the zero-order correlations, the magnitude of the decrease was relatively small (reductions ranged from .02 to .06) and was nonsignificant in all cases, on the basis of the Sobel test, with the exception that the relation between avoidance symptoms and objective memory disappeared when we controlled for intrusive symptoms ($r = -.01, p = .9$).

Discussion

The overarching goal of the present study was to learn more about subjective forgetting and the fate of memories of childhood trauma. We investigated the prevalence of self-reported forgetting of documented CSA, the factors predicting such phenomenological experience, and individuals' characterizations of self-reported forgetting and recovery. In addition, we examined whether indicators of objective CSA memory differed between individuals who experienced subjective forgetting and those who did not. Finally, the extent to which predictors of subjective forgetting also predicted objective CSA memory was investigated.

The rates of self-reported complete forgetting obtained in the present study are similar to previous findings published by Williams (1995)—15% and 16%, respectively—thus confirming that retrospective studies may have overestimated subjective forgetting rates, at least for CSA cases that were reported to the authorities. Also consistent with Williams's (1995) study is the finding that individuals were more likely to report forgetting when they experienced more severe abuse (i.e., increased physical force in Williams's sample) and that objective memory for details of the abuse did not significantly differ between those who reported complete forgetting and those who did not. Replicating some core results of the only other relevant prospective study that is available to date bolsters the solidity of research findings on such a controversial topic. The present study, however, afforded the opportunity to extend previous findings, leading to different conclusions from those previously drawn.

Previous retrospective research implied that subjective assessments of forgetting reflected objective memory states (i.e., actual forgetting). In the present study, we found that subjective forgetting was not necessarily pre-

Table 4
Linear Regression Predicting Objective Memory

	Unstandardized β	SE	β	<i>t</i>
Victim age (in years)	-.008	.01	-0.09	-0.92
Victim gender ^a	-.02	.06	-0.04	-0.46
Abuse severity ^b	-.03	.01	-0.17**	-1.97
Maternal support ^c	-.11	.08	-0.12	-1.37
Relationship to perpetrator ^d	.03	.07	0.04	0.46
Legal involvement ^e	-.09	.03	-0.24*	-2.83
Ethnicity ^f	.14	.08	0.15	1.70

Note.— $F(7,123) = 2.92, p < .01; R^2 = .14$, adjusted $R^2 = .09$. Dependent measure: mean discrepancy score between original documentation and current report, ranging from 0 to 1 (i.e., higher scores indicate greater discrepancy). ^a0 = male, 1 = female. ^bHigher scores indicate more severe abuse (range, 2–10). ^c0 = did not receive support, 1 = received support. ^d0 = nonparental figure, 1 = parental figure. ^e1 = did not go to court, 2 = went to court but did not testify, 3 = testified. ^f0 = non-African-American, 1 = African-American. * $p = .05$. ** $p < .001$.

dicted by the same variables (or in the same direction) as objective memory. First, individuals who experienced more severe abuse were more likely to report complete subjective forgetting. Among those who reported subjective forgetting, those who experienced more severe abuse were also more likely to report that they actively attempted to push the memories out of their mind. These results are consistent with the notion that more extreme forms of trauma are more likely to become unavailable to awareness, perhaps because considerable resources are required to control memory intrusions.

Of interest, however, we also found that abuse severity was negatively related to the discrepancy between original documentation and current reports. That is, individuals who suffered more severe abuse actually had more accurate long-term memories for childhood sexual incidents. Is it plausible to hypothesize that experiencing a lack of memory enhances that memory once it is recovered? Probably not. Recent compelling research on inhibitory processes has demonstrated that active attempts to push memories out of awareness can successfully impair memory for the actively suppressed material (Anderson et al., 2004; Levy & Anderson, 2002). On the basis of this research, we would expect individuals who report complete subjective forgetting to evince lower levels of memory accuracy than do those who do not. In the present study, however, objective memory did not differ according to whether or not the participants reported subjective forgetting. By the same token, if the experience of more severe abuse is associated with higher levels of subjective forgetting, we should expect a similar association between abuse severity and failure to report accurate memories. Our results are also inconsistent with this expectation: Increased severity was associated both with higher probability of reporting forgetting and with lower discrepancy scores.

One viable interpretation of this finding is that the experience of severe abuse is more likely to elicit the *forgot-it-all-along* effect (Schooler et al., 1997). This effect occurs when an individual claims to have completely forgotten an event, although there is evidence (e.g., from family members) that the memory was accessible during the time in which forgetting allegedly occurred. In other words, individuals may forget having previously been able to retrieve a memory (as opposed to forgetting the event entirely), leading to the subjective impression of amnesia. Schooler and colleagues proposed that because memories of abuse are emotionally intense, individuals may assume that recalling such incidents would be a memorable experience in its own right. Thus, they may interpret their failure to recall prior acts of remembering as evidence that the memory had not been retrieved. It is possible that memories of more severe abuse, being more emotionally intense, are more likely than those of less severe abuse to elicit the emotional reaction discussed by Schooler and colleagues, resulting in higher rates of subjective forgetting.

Another variable that was differentially associated with subjective forgetting and objective memory provides insight into the mechanisms that may be involved. Specifi-

cally, results concerning intrusive thoughts, as measured with the TSI (Briere, 1995), support the idea that thinking about an experience may, somewhat paradoxically, lead to higher estimates of forgetting: Individuals who suffered from more intrusive trauma thoughts remembered the abuse better but also tended to be more likely to report having experienced forgetting. This finding is consistent with the results obtained in the laboratory by Read and Lindsay (2000). Recall that in Read and Lindsay's (2000) study, after a first retrieval attempt (and assessment of forgetting), participants were asked to spend time thinking about the previously recalled events and trying to remember as much about them as possible. At a later retrieval attempt, the participants were more likely to report forgetting than they had been previously (and in comparison with participants who had not been instructed to recall the events). Read and Lindsay (2000) argued that reports of forgetting are likely to emerge after periods of sustained attempts to recall past experiences: As more details about the past are retrieved, individuals may become more aware of the difficulty of accessing memories (see also Winkielman et al., 1998). Thus, in our study, the individuals who retrieved more information about the past, or at least did so more accurately, might also have been more aware of the difficulties of accessing memories of the CSA experience and, therefore, indicated that they had had periods in the past with no or less memory of the CSA.

However, there may be an additional interpretation of the finding that individuals who suffered from more intrusive trauma thoughts remembered the abuse better but also tended to be more likely to report having experienced forgetting. Specifically, this finding may indicate that for these individuals, forgetting means being able to keep intrusive thoughts out of mind.

Thus, the more individuals gained (even unwilling) access to accurate memory, the more they appeared to believe that they had previously experienced forgetting. This finding raises the issue of how participants interpret questions concerning subjective forgetting. For example, some people might interpret the question "Did you ever temporarily forget or have no memory of these sexual experiences?" to mean, "Was there ever a time when you were not thinking about the abuse?" or "Was there a time when you had less memory than you do now?" Accordingly, some individuals may use a relative, instead of an absolute, judgment when responding; that is, they may respond about periods in which they had less memory for the event than currently or were going about their lives not thinking of the event, instead of periods in which no memory for the abuse was accessible (i.e., periods of amnesia).

Overall, then, it seems possible that subjective forgetting may reflect more than just memory per se, but also other kinds of cognitive processes, such as assessments of attempts to avoid thinking about the abuse, metacognitive evaluations (e.g., "Is this something I could forget?"), and/or appraisals of some other characteristic of the memory (e.g., valence). Moreover, individuals tend to forget past acts of remembering (Padilla-Walker & Poole,

2002; Schooler et al., 1997), especially when the conditions under which retrieval occurs change across occasions (Arnold & Lindsay, 2002, 2005).

In our study, which was procedurally similar to those conducted by other researchers, individuals were first asked to disclose key information about the abuse (e.g., when it happened and the sexual acts involved). They were then asked to evaluate whether they had experienced complete forgetting and, if so, the reasons for forgetting. Reasons for subjective forgetting were more strongly related to current reports of abuse characteristics than to abuse characteristics documented in the original study, although the relations with the latter were notable as well. Thus, simply discussing the abuse may have influenced the reasons individuals provided for forgetting, as well as increasing the probability of reporting subjective forgetting. In addition, current appraisals of the emotional content of the memories may have further influenced the relations found, in that current appraisal of abuse memories (e.g., their emotionality) may have affected evaluations of past attempts to forget (Levine, 1997; Levine, Safer, & Lench, 2006).

Our findings regarding gender are also consistent with the possibility that the tendency to report periods of complete forgetting increases after attempts have been made to avoid discussing abuse. Males were more likely than females to report subjective forgetting, despite no significant gender differences in objective CSA memory (Goodman et al., 2003; but see Alexander et al., 2005). However, males' increased subjective forgetting may reflect their attempts to avoid such memories or, possibly, their reluctance to portray themselves as ruminating about painful thoughts.

Relatedly, males' tendency to report forgetting may be due to gender differences in motivation to report consequences of abuse: Whereas female victims in our society are encouraged to come forward and heal from CSA sequelae, males may be more motivated to distance themselves from their experiences, especially given the purported relation between early CSA and later homosexuality and/or CSA perpetration among males (Grubman-Black, 1990). It should be noted that women are typically more likely than men to report subjective forgetting in retrospective studies (see Epstein & Bottoms, 1998, 2002). Our results contradict these findings, thus emphasizing the potential misrepresentations that may arise from relying on retrospective samples. We cannot exclude the possibility, however, that the males in our sample are not representative of male CSA victims more generally.

In one instance, there was a correspondence between our measures of subjective forgetting and objective memory. Individuals with greater CSA-related legal involvement, who likely had more opportunities to recount details of the abuse and to discuss the abuse with others, were less likely to report subjective forgetting. Individuals typically know that rehearsing and discussing events enhances retention (e.g., Justice, 1986): When past forgetting is evaluated, retrieving salient experiences, such as testifying in court, may provide valuable evidence that the abuse was remembered. Individuals with more extensive legal involvement

also provided more accurate accounts of the abuse. This finding is consistent with our findings regarding disclosure (Goodman et al., 2003) and suggests that rehearsing and discussing the events in court (or in preparation for court) enhances long-term retention of core details.

The victims' age at the end of the abuse, ethnicity, and relationship to the perpetrator, as well as the provision of maternal support, were not significantly related to either subjective or objective memory measures. With respect to maternal support, CSA cases are more likely to be prosecuted when they involve victims who are supported by their mothers (Freyd, 2003; Murphy, 2003). Thus, a higher proportion of the participants in our study may have received maternal support than in the general population of sexually abused children. Furthermore, individuals who did not receive maternal support, as well as those who were younger when the abuse ended and who were African-American, were less likely to disclose abuse (Goodman et al., 2003). Because nondisclosers were not included in this report, the lack of association between maternal support, age, and ethnicity and our memory measures may reflect the unique characteristics of our sample of disclosers: To the extent that the variables above are truncated in this sample, the probability of detecting significant relations with forgetting is reduced.

With respect to relationship to the perpetrator, our results do not confirm the relation with forgetting found in other research (e.g., Freyd, 1996; Freyd et al., 2001). This relation has been observed primarily in retrospective samples. Given that reports of abuse and measures of forgetting are self-reported and obtained concurrently, it is possible that this association is partly an artifact of the methods used. It is of importance, however, that one of our measures reflects the perpetrator's role in the family and does not explicitly measure the emotional closeness experienced by the victim. Our measure of relationship betrayal is also limited in that it was based on observer report. Both of our measures may not fully capture the complexity of Freyd's (1996) relationship closeness/betrayal construct.

Although the results discussed thus far challenge the notion that subjective assessments of forgetting necessarily reflect true lack of memory (or awareness) of being abused, we do not have direct evidence to rule out the possibility that individuals who reported complete forgetting actually lost and later recovered their memory for the abuse. However, if we take subjective assessments of forgetting at face value, we should also take into account subjective assessments that contradict the possibility that memory was truly unavailable during the time of reported forgetting. In this study, when individuals who reported forgetting were asked whether they would have remembered the abuse if asked about it, only 5 responded negatively (i.e., less than 4% of our sample of disclosers). Furthermore, from the descriptions of the *recovery* triggers, we learned that none of the individuals who provided descriptions of their recovery experiences underwent a long-lasting loss of memory (eventually recovered in adulthood over the course of therapy): Two participants

reported that memory recovery occurred in childhood, before or during the legal case, and another participant stated that she still cannot remember the abuse. From a 4th participant's description, we can infer that the abuse was perhaps never truly encoded (i.e., the victim was awakened by the abusive acts perpetrated while he was sleeping). The 5th respondent provided no relevant information. Thus, paradoxically, if subjective assessments were taken at face value, as far as we know, we did not identify any stereotypical adult *repressed/recovery* case, although one may argue that a few participants experienced memory recovery as children, that some individuals who did not disclose CSA in our larger sample (see Goodman et al., 2003) might someday recover CSA memories as adults, and that two of our cases are ambiguous as to when the recovery took place. Most likely, however, as was previously argued, different processes support subjective and objective memory assessments. Subjective assessments may reflect evaluations of memory based on current information, whereas objective assessments may more directly reflect the current status of abuse memory.

CAVEATS AND CONCLUSIONS

Before concluding, we note four caveats to our research. First, all the CSA cases included in this study were referred for prosecution. Most CSA incidents are not reported to the authorities, and of those that are reported, only a small percentage are ultimately prosecuted (Murphy, 2003). Children in prosecution samples typically receive legitimization of their claims (Freyd, 2003; Goodman et al., 2003) and may be particularly likely to discuss their experiences with others, which may maintain memories over the long term. Furthermore, children whose cases are prosecuted experience more public exposure than do those whose abuse is kept secret (Freyd, 2003). By definition, all individuals whose abuse is not revealed in childhood will be excluded from prospective samples (Cheit, 2003).

Furthermore, some differences between prosecution and nonprosecution samples pertain to criteria used by prosecutors to select cases. For example, cases in which children provide less consistent and detailed allegations are less likely to be prosecuted (Gray, 1993; Putnam, 2003). Selection criteria alone may magnify differences between prosecution and nonprosecution samples with respect to remembering and forgetting of abuse in the long term: Children whose memory displays gaps from the start are less likely to have the opportunity to recount their experiences in court, possibly further hindering memory retention.

Thus, we cannot determine how generalizable our results are to nonreported CSA cases or to cases that are revealed for the first time after long delays (i.e., beyond childhood). Given that individuals in prosecution samples may recount their experiences on numerous occasions, such individuals may generally remember the abuse better than do individuals in nonprosecution samples. It is not clear, however, how and why the variables used in the present research would predict subjective and objective memory measures differently in prosecution and nonpros-

ecution samples, assuming that there is some variability on key variables. In our sample, such variability is present. For example, the finding that extent of legal involvement (i.e., one of the main differences between prosecution and nonprosecution samples) is a reliable predictor of both subjective and objective memory measures indicates that there is sufficient variability in our measure of legal involvement for significant associations to be detected.

Moreover, the prevalence of subjective forgetting in our study is comparable to that reported by Williams (1995) with a nonprosecution sample and substantially lower than that found in retrospective studies (e.g., Roe & Schwartz, 1996; Wilsnack et al., 2002). This correspondence suggests that despite the differences, our sample and Williams's may be similar in important ways. In general, trade-offs are common in research involving difficult-to-obtain samples. Although our prosecution sample may be biased in some ways, it afforded the opportunity to document the CSA experience at a level of detail that is not easily matched with other types of research.

A second caveat concerns statistical power. Reduced power may have affected our ability to detect existing associations, such as that of maternal support with forgetting. Furthermore, our sample size limited the number of variables that could be included at one time in regression analyses. However, this problem is reduced by the small correlations among predictors and lack of suppression effects. Also, the results of the regression analyses match those of zero-order correlations for which power concerns are necessarily reduced. Hence, our failure to detect associations between forgetting and some variables of interest cannot be ascribed simply to lack of power. For example, the correlation between relationship to the perpetrator and forgetting not only is nonsignificant, but also closely approaches zero. Thus, even if we had a much larger sample size to obtain a reliable measure of this relation, the effect size would still be small.

A third caveat concerns our measure of subjective forgetting. Like questions used in other studies, our questions may have been interpreted differently by the participants than by the researchers: For researchers, responses to questions about whether individuals completely forgot abuse have been used to address claims that complete amnesia for abuse was experienced. However, as was mentioned earlier, it is not fully clear whether the participants' interpretations agreed with the researchers' interpretations. The participants may have thought that "forgetting" referred to a variety of cognitive experiences (e.g., not thinking about an event, thinking about the event less than currently, or amnesia for being a CSA victim). To reduce this problem, we adopted a method also used in previous work (e.g., Read, 1997); that is, we asked participants whether they would have remembered the abuse if directly asked about it during the period of alleged forgetting. This question provides insight into the perceived accessibility of abuse memories, although we cannot be sure of exactly what the individuals forgot.

Nevertheless, to the extent that our study examined the prevalence and predictors of subjective forgetting and com-

pared such predictors with those of objective memory, we have begun to elucidate the characteristics of subjective forgetting of CSA. Future studies should attempt to replicate these results and further explore similarities and differences in the nature of the factors affecting subjective and objective memory measures. For the time being, although subjective forgetting is of interest in its own right (e.g., to understand how individuals think about and characterize their memory experiences) and measures of subjective forgetting may, at times, resemble those of objective memory, our findings suggest that this is not always the case. Thus, we suggest that it may be problematic to use subjective forgetting as a proxy for actual amnesia when drawing conclusions about the fate of CSA memory.

REFERENCES

- ACHENBACH, T. M. (1991). *Manual for the Child Behavior Checklist/4-18 and 1991 Profile*. Burlington: University of Vermont, Department of Psychiatry.
- ALEXANDER, K. W., QUAS, J. A., GOODMAN, G. S., GHETTI, S., EDELSTEIN, R. S., REDLICH, A. D., ET AL. (2005). Traumatic impact predicts long-term memory for documented child sexual abuse. *Psychological Science*, **16**, 33-40.
- ANDERSON, M. C., OCHSNER, K., KUHL, B., COOPER, J., ROBERTSON, E., GABRIELI, S. W., ET AL. (2004). Neural systems underlying the suppression of unwanted memories. *Science*, **303**, 232-235.
- ARNOLD, M. M., & LINDSAY, D. S. (2002). Remembering remembering. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, **28**, 521-529.
- ARNOLD, M. M., & LINDSAY, D. S. (2005). Remembrance of remembrance past. *Memory*, **13**, 533-549.
- BECK, A. T., & BEAMESDERFER, A. (1974). Assessment of depression: The Depression Inventory. *Modern Problems of Pharmacopsychiatry*, **7**, 151-169.
- BERLINER, L., HYMAN, I., THOMAS, A., & FITZGERALD, M. (2003). Children's memory for trauma and positive experiences. *Journal of Traumatic Stress*, **16**, 229-236.
- BERNSTEIN, E. W., & PUTNAM, F. W. (1986). Development, reliability, and validity of a dissociation scale. *Journal of Nervous & Mental Disease*, **174**, 727-735.
- BOTTOMS, B. L., SHAVER, P. R., & GOODMAN, G. S. (1995). An analysis of ritualistic and religion-related child abuse allegations. *Law & Human Behavior*, **20**, 1-34.
- BOWER, G., & SIVERS, H. (1998). Cognitive impact of traumatic events. *Development & Psychopathology*, **10**, 625-653.
- BRADLEY, A. R., & WOOD, J. M. (1996). How do children tell? The disclosure process in child sexual abuse. *Child Abuse & Neglect*, **9**, 881-891.
- BRIERE, J. (1995). *Trauma Symptom Inventory (TSI) professional manual*. Odessa, FL: Psychological Assessment Resources.
- BRIERE, J., & CONTE, J. R. (1993). Self-reported amnesia for abuse in adults molested as children. *Journal of Traumatic Stress*, **6**, 21-31.
- BRIERE, J., ELLIOTT, D. M., HARRIS, K., & COTMAN, A. (1995). Trauma symptom inventory: Psychometrics and association with childhood and adult victimization in clinical samples. *Journal of Interpersonal Violence*, **10**, 387-401.
- CANLI, T., DESMOND, J. E., ZHAO, Z., & GABRIELI, J. D. E. (2002). Sex differences in the neural basis of emotional memories. *Proceedings of the National Academy of Sciences*, **99**, 10789-10794.
- CECI, S. J., HUFFMAN, M. L., SMITH, E., & LOFTUS, E. F. (1994). Repeatedly thinking about a non-event: Source misattributions among preschoolers. *Consciousness & Cognition*, **3**, 388-407.
- CHEIT, R. E. (2003). The limitations of a prospective study of memories for child sexual abuse. *Journal of Child Sexual Abuse*, **12**, 105-111.
- CHRISTIANSON, S. A. (1992). Emotional stress and eyewitness memory: A critical review. *Psychological Bulletin*, **112**, 284-309.
- COHEN, J., COHEN, P., WEST, S. G., & AIKEN, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.
- DAWES, R. M. (1994). *House of cards: Psychology and psychotherapy built on myth*. New York: Free Press.
- DEPRINCE, A. P., & FREYD, J. J. (1999). Dissociative tendencies, attention, and memory. *Psychological Science*, **10**, 449-452.
- DEPRINCE, A. P., & FREYD, J. J. (2004). Forgetting trauma stimuli. *Psychological Science*, **15**, 488-492.
- DEROGATIS, L. R., & MELISARATOS, N. (1983). The brief symptom inventory: An introductory report. *Psychological Medicine*, **3**, 595-605.
- ELLIOTT, D. M. (1997). Traumatic events: Prevalence and delayed recall in the general population. *Journal of Consulting & Clinical Psychology*, **65**, 811-820.
- ELLIOTT, D. M., & BRIERE, J. (1995). Posttraumatic stress associated with delayed recall of sexual abuse: A general population study. *Journal of Traumatic Stress*, **8**, 629-647.
- EPSTEIN, M. A., & BOTTOMS, B. L. (1998). Memories of childhood sexual abuse: A survey of young adults. *Child Abuse & Neglect*, **22**, 1217-1238.
- EPSTEIN, M. A., & BOTTOMS, B. L. (2002). Explaining the forgetting and recovery of abuse and trauma memories: Possible mechanisms. *Child Maltreatment*, **7**, 210-225.
- FREYD, J. J. (1996). *Betrayal trauma: The logic of forgetting childhood abuse*. Cambridge, MA: Harvard University Press.
- FREYD, J. J. (2003). Memory for abuse: What can we learn from a prosecution sample? *Journal of Child Sexual Abuse*, **12**, 97-103.
- FREYD, J. J., DEPRINCE, A. P., & ZURBRIGGEN, E. L. (2001). Self-reported memory for abuse depends upon victim-perpetrator relationship. *Journal of Trauma & Dissociation*, **2**, 5-16.
- GHETTI, S., & ALEXANDER, K. W. (2004). "If it happened, I would remember it": Strategic use of event memorability in the rejection of false autobiographical events. *Child Development*, **75**, 542-561.
- GHETTI, S., GOODMAN, G. S., EISEN, M., QIN, J. J., & DAVIS, S. (2002). Consistency in children's allegations of sexual and physical abuse. *Child Abuse & Neglect*, **9**, 977-995.
- GOODMAN, G. S., GHETTI, S., QUAS, J. A., EDELSTEIN, R. S., ALEXANDER, K. W., REDLICH, A. D., ET AL. (2003). A prospective study of memory for child sexual abuse: New findings relevant to the repressed-memory controversy. *Psychological Science*, **14**, 113-118.
- GOODMAN, G. S., QUAS, J. A., BATTERMAN-FAUNCE, J. M., RIDDLEBERGER, M. M., & KUHN, J. (1994). Predictors of accurate and inaccurate memories of traumatic events experienced in childhood. *Consciousness & Cognition*, **3**, 269-294.
- GOODMAN, G. S., TAUB, E. P., JONES, D. P. H., ENGLAND, P., PORT, L. K., RUDY, L., & PRADO, L. (1992). Testifying in criminal court: Emotional effects on child sexual assault victims. *Monographs of the Society for Research in Child Development*, **57**(5, Serial No. 229).
- GRAY, E. (1993). *Unequal justice: The prosecution of child sexual abuse*. New York: Free Press.
- GRIMSHAW, G. M., BULMAN-FLEMING, M. B., & NGO, C. (2004). A signal-detection analysis of sex differences in the perception of emotional faces. *Brain & Cognition*, **54**, 248-250.
- GRUBMAN-BLACK, S. D. (1990). *Broken boys/mending men: Recovery from childhood sexual abuse*. Bradenton, FL: Human Services Institute.
- HENRY, B., MOFFITT, T. E., CASPI, A., LANGLEY, J., & SILVA, P. A. (1994). On the "remembrance of things past": A longitudinal evaluation of the retrospective method. *Psychological Assessment*, **6**, 92-101.
- HERMAN, J. L., & SCHATZOW, E. (1987). Recovery and verification of memories of childhood sexual trauma. *Psychoanalytic Psychology*, **4**, 1-14.
- HYMAN, I. E., HUSBAND, T. H., & BILLINGS, F. J. (1995). False memories of childhood experiences. *Applied Cognitive Psychology*, **9**, 181-197.
- JUSTICE, E. M. (1986). Developmental changes in judgements of relative strategy effectiveness. *British Journal of Developmental Psychology*, **4**, 75-81.
- KENNY, M. C., & MCEACHERN, A. G. (2000). Racial, ethnic, and cultural factors of childhood sexual abuse: A selected review of the literature. *Clinical Psychology Review*, **20**, 905-922.
- KORIAT, A., SHEFFER, L., & MA'AYAN, H. (2002). Comparing objective and subjective learning curves: Judgments of learning exhibit increased underconfidence with practice. *Journal of Experimental Psychology: General*, **131**, 147-162.
- LEONESIO, R. J., & NELSON, T. O. (1990). Do different metamemory judgments tap the same underlying aspects of memory? *Journal of Experimental Psychology: Learning, Memory, & Cognition*, **16**, 464-470.

- LEVINE, L. J. (1997). Reconstructing memory for emotions. *Journal of Experimental Psychology: General*, **126**, 165-177.
- LEVINE, L. J., SAFER, M. A., & LENCH, H. C. (2006). Remembering and misremembering emotions. In L. J. Sanna & E. C. Chang (Eds.), *Judgments over time: The interplay of thoughts, feelings, and behaviors* (pp. 271-290). New York: Oxford University Press.
- LEVY, B. J., & ANDERSON, M. C. (2002). Inhibitory processes and the control of memory retrieval. *Trends in Cognitive Sciences*, **6**, 299-305.
- LINDSAY, D. S., & READ, J. D. (1995). "Memory work" and recovered memories of childhood sexual abuse: Scientific evidence and public, professional, and personal issues. *Psychology, Public Policy, & Law*, **1**, 846-908.
- LOFTUS, E. F. (1993). The reality of repressed memories. *American Psychologist*, **48**, 518-537.
- LOFTUS, E. F., & PICKRELL, J. E. (1995). The formation of false memories. *Psychiatric Annals*, **25**, 720-725.
- LOFTUS, E. F., POLONSKY, S., & FULLILOVE, M. T. (1994). Memories of childhood abuse: Remembering and repressing. *Psychology of Women Quarterly*, **18**, 67-84.
- MAZZONI, G., & NELSON, T. O. (1995). Judgments of learning are affected by the kind of encoding in ways that cannot be attributed to the level of recall. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, **21**, 1263-1274.
- MCNALLY, R. J. (2003). *Remembering trauma*. Cambridge, MA: Belknap Press/Harvard University Press.
- MCNALLY, R. J., CLANCY, S. A., & BARRETT, H. M. (2004). Forgetting trauma? In D. Reisberg & P. Hertel (Eds.), *Memory and emotion* (pp. 129-154). New York: Oxford University Press.
- MURPHY, W. J. (2003). The overlapping problems of prosecution sample bias and systematic exclusion of familial child sex abuse victims from the criminal justice system. *Journal of Child Sexual Abuse*, **12**, 129-132.
- PADILLA-WALKER, L., & POOLE, D. (2002). Memory for previous recall: A comparison between free and cued recall. *Applied Cognitive Psychology*, **16**, 515-524.
- PEZDEK, K., FINGER, K., & HODGE, D. (1997). Planting false childhood memories: The role of event plausibility. *Psychological Science*, **8**, 437-441.
- PILLEMER, D. B., & WHITE, S. H. (1989). Childhood events recalled by children and adults. In H. W. Reese (Ed.), *Advances in child development and behavior* (Vol. 21, pp. 297-340). New York: Academic Press.
- PORTER, S., YUILLE, J. C., & LEHMAN, D. R. (1999). The nature of real, implanted, and fabricated memories for emotional childhood events: Implications for the recovered memory debate. *Law & Human Behavior*, **23**, 517-537.
- PUTNAM, F. W. (2003). Cherish your exceptions. *Journal of Child Sexual Abuse*, **12**, 133-135.
- QIN, J. J., GOODMAN, G. S., BOTTOMS, B. L., & SHAVER, P. R. (1998). Repressed memories of ritualistic and religion-related child abuse. In S. J. Lynn & K. M. McConkey (Eds.), *Truth in memory* (pp. 260-283). New York: Guilford.
- QUAS, J. A., GOODMAN, G. S., BIDROSE, S., PIPE, M.-E., CRAW, S., & ABLIN, D. (1999). Emotion and memory: Children's long-term remembering, forgetting, and suggestibility. *Journal of Experimental Child Psychology*, **72**, 235-270.
- READ, J. D. (1997). Memory issues in the diagnosis of unreported trauma. In J. D. Read & D. S. Lindsay (Eds.), *Recollections of trauma: Scientific evidence and clinical practice* (pp. 79-108). New York: Plenum.
- READ, J. D., & LINDSAY, D. S. (Eds.) (1997). *Recollections of trauma: Scientific evidence and clinical practice*. New York: Plenum.
- READ, J. D., & LINDSAY, D. S. (2000). "Amnesia" for summer camps and high school graduation: Memory work increases reports of prior periods of remembering less. *Journal of Traumatic Stress*, **13**, 129-147.
- ROE, C. M., & SCHWARTZ, M. F. (1996). Characteristics of previously forgotten memories of sexual abuse: A descriptive study. *Journal of Psychiatry & Law*, **24**, 189-206.
- SCHOOLER, J. W., BENDIKSEN, M., & AMBADAR, Z. (1997). Taking the middle line: Can we accommodate both fabricated and recovered memories of sexual abuse? In M. Conway (Ed.), *Recovered memories and false memories* (pp. 251-291). Oxford: Oxford University Press.
- SCHULTZ, T., PASSMORE, J. L., & YODER, C. Y. (2003). Emotional closeness with perpetrators and amnesia for child sexual abuse. *Journal of Child Sexual Abuse*, **12**, 67-88.
- SCHWARTZ, B. L., BENJAMIN, A. S., & BJORK, R. A. (1997). The inferential and experiential bases of metamemory. *Current Directions in Psychological Science*, **6**, 132-137.
- SHEIMAN, J. A. (1999). Sexual abuse history with and without self-report of memory loss: Differences in psychopathology, personality, and dissociation. In L. M. Williams & V. L. Banyard (Eds.), *Trauma and memory* (pp. 139-148). Thousand Oaks, CA: Sage.
- SORENSEN, T., & SNOW, B. (1991). How children tell: The process of disclosure in child sexual abuse. *Child Welfare Journal*, **70**, 3-15.
- TERR, L. C. (1991). Childhood traumas: An outline and overview. *American Journal of Psychiatry*, **148**, 10-20.
- VAN DER KOLK, B. A. (1997). Traumatic memories. In P. S. Appelbaum, L. A. Ueyhara, & M. R. Elin (Eds.), *Trauma and memory: Clinical and legal controversies* (pp. 243-260). New York: Oxford University Press.
- WIDOM, C. S., & MORRIS, S. (1997). Accuracy of adult recollections of childhood victimization: Pt. 2. Childhood sexual abuse. *Psychological Assessment*, **9**, 34-46.
- WILLIAMS, L. M. (1994). Recall of childhood trauma: A prospective study of women's memories of child sexual abuse. *Journal of Consulting & Clinical Psychology*, **62**, 1167-1176.
- WILLIAMS, L. M. (1995). Recovered memories of abuse in women with documented sexual victimization histories. *Journal of Traumatic Stress*, **8**, 649-673.
- WILLIAMS, L. M., & BANYARD, V. L. (Eds.) (1999). *Trauma and memory*. Thousand Oaks, CA: Sage.
- WILSNACK, S. C., WONDERLICH, S. A., KRISTJANSON, A. F., VOGELTANZ-HOLM, N. D., & WILSNACK, R. W. (2002). Self-reports of forgetting and remembering childhood sexual abuse in a nationally representative sample of US women. *Child Abuse & Neglect*, **26**, 139-147.
- WINKIELMAN, P., SCHWARZ, N., & BELLI, R. F. (1998). The role of ease of retrieval and attribution in memory judgments: Judging your memory as worse despite recalling more events. *Psychological Science*, **9**, 124-126.
- ZOELLNER, L. A., SACKS, M. B., & FOA, E. B. (2003). Directed forgetting following mood induction in chronic posttraumatic stress disorder patients. *Journal of Abnormal Psychology*, **112**, 508-514.

NOTES

1. When the same regression was performed only with participants for whom corroborative evidence was originally available ($n = 94$) or only with participants whose perpetrator plea bargained or was recognized guilty in the legal prosecution ($n = 103$), the same pattern of results emerged.

2. We conducted logistic regressions in which the following variables were added to the regression model reported in Table 2: self-reported number of other CSA experiences and self-reported number of childhood traumas (excluding CSA). Memory for these other events could interfere with that of the target event, resulting in higher forgetting rates. Variables were entered one at a time to guarantee that the analyses had sufficient degrees of freedom. From a psychoanalytic perspective, frequency of abuse should be positively related to the probability that defense mechanisms are implemented (Terr, 1991). Thus, one could argue that frequency of abuse should be positively related to forgetting, if repression occurs as a result of frequent abuse. When the two variables were included in the regression, none significantly predicted subjective forgetting, and the relations between the other predictors and forgetting were virtually unchanged. The same was true for other variables of clinical importance: original childhood behavioral adjustment (Child Behavior Checklist internalizing and externalizing scores; Achenbach, 1991), current mental health (Brief Symptom Inventory; Derogatis & Melisaratos, 1983), and originally reported self-blame. These measures were not significantly associated with forgetting even when zero-order correlations were examined. Additional mental health measures of interest (Beck Depression Inventory, Beck & Beamesderfer, 1974; Trauma Symptoms Inventory, Briere, 1995) were available for a subset of the participants. For this reason, we conducted correlations between each measure and subjective forgetting. Except for the relation between the intrusive experiences subscale and subjective forgetting, which ap-

proached statistical significance, all the TSI subscales (Briere, 1995) and diagnosis of posttraumatic stress disorder (PTSD) were not significantly correlated with subjective forgetting [$rs(\geq 100) \leq .13, p \geq .19$].

3. We did not report correlations between reasons for forgetting and abuse severity, because in the phone interview, information concerning the severity of the abusive acts was not collected in the same fashion as in the original study, so the correlations would not be directly comparable.

4. When the same regression was performed only with participants for whom corroborative evidence was originally available ($n = 94$) or only with participants whose perpetrator plea bargained or was recognized guilty in the legal prosecution ($n = 103$), the same pattern of results emerged, with the exception that the effect of age was significant in the latter equation ($\beta = -.23, p < .001$), so that older participants remembered the abuse more accurately.

5. The same set of additional analyses conducted for subjective forgetting (see note 2) was also conducted with respect to our measure of objective memory. None of the additional predictors (i.e., number of additional CSA experiences, total number of non-CSA childhood traumas, and original and current mental health) significantly predicted discrepancy scores. In addition, none of the correlations between discrepancy and depression, dissociation, TSI subscales (except for the intrusive experiences and defensive avoidance subscales), or PTSD diagnosis was significant [$rs(\geq 97) \leq |-.13|, p \geq .13$].

(Manuscript received September 22, 2004;
revision accepted for publication June 2, 2005.)

Appendix C

Deborah Goldfarb, Gail S. Goodman, et al., *Forgetting of Prior Remembering in Persons Reporting Recovered Memories of Childhood Sexual Abuse*, 7(2) Clin. Psychol. Sci. 381 (2019).

Appendix C

Research Article

Forgetting of Prior Remembering in Persons Reporting Recovered Memories of Childhood Sexual Abuse

Elke Geraerts,¹ Michelle M. Arnold,² D. Stephen Lindsay,³ Harald Merckelbach,^{1,4} Marko Jelacic,¹ and Beatrijs Hauer¹

¹Department of Experimental Psychology, Maastricht University, Maastricht, The Netherlands; ²School of Psychology, University of Southampton, Southampton, United Kingdom; ³Department of Psychology, University of Victoria, Victoria, British Columbia, Canada; and ⁴Faculty of Law, Maastricht University, Maastricht, The Netherlands

ABSTRACT—Case studies of individuals reporting recovered memories of childhood sexual abuse suggest that some overestimate their prior forgetting of the abuse. People reporting recovered or continuous memories of childhood sexual abuse and control subjects reporting no history of abuse participated in two experiments examining this “forgot it all along” phenomenon. Participants in Experiment 1 were more likely to forget that they had previously recalled a studied item if they were cued to think of it differently on two recall tests than if they were cued to think of it in the same way on the two tests. This effect was stronger for recovered-memory participants than for continuous-memory and control participants. In Experiment 2, participants recalled autobiographical events three times over a period of 4 months. Much as in Experiment 1, they underestimated prior remembering when the events had been recalled in a different emotional frame (positive vs. negative) on the previous occasion. This underestimation was more pronounced for recovered-memory participants than for continuous-memory and control participants.

Are individuals able to recall long-forgotten episodes of childhood sexual abuse (CSA)? Over the past 15 years, this issue has

given rise to one of the most intense controversies in psychiatry and psychology (e.g., Loftus, 1997; McNally, 2003; Schacter, 1995). Perspectives in the early years of this debate were highly polarized. For example, many practitioners claimed that amnesia for trauma and subsequent recovery of traumatic memories had been amply demonstrated in clinical populations (e.g., Brown, Schefflin, & Whitfield, 1999). Conversely, many experimental psychologists raised doubts about the accuracy of such memories and challenged concepts such as “repression” (e.g., Kihlstrom, 2004; Loftus, 2003). For example, McNally (2004) noted that traumatic-amnesia theorists (e.g., Brown et al., 1999) often misinterpret various memory problems (e.g., everyday forgetfulness) as amnesia for the trauma itself. Moreover, CSA episodes are not always experienced as terrifying at the time they occur, thereby falling short of traditional conceptions of a traumatic stressor. Also, not thinking about something (e.g., CSA) for a long period of time cannot be considered forgetting.

Over the years, the vehemence of what has been termed the “memory wars” gradually subsided, and authors involved in the debate increasingly emphasized points of consensus (see Lindsay & Read, 2001). Partly with the aim of fostering this middle-ground perspective, Schooler and his coworkers (e.g., Schooler, Ambadar, & Bendiksen, 1997; Shobe & Schooler, 2001) described several case studies of individuals who experienced the “discovery” of apparently long-forgotten memories of abuse. Of particular interest in the current context are two cases in which the partners of the women who reported full-blown recovered-memory experiences said that the women had

Address correspondence to Elke Geraerts, Department of Experimental Psychology, Maastricht University, PO Box 616, 6200 MD, Maastricht, The Netherlands, e-mail: e.geraerts@psychology.unimaas.nl.

talked about the abuse before they had the memory-recovery experience. In both cases, the women seemed to be surprised to hear that they had talked about the abuse prior to their recovered-memory experiences. Schooler et al. proposed that these cases illustrated a “forgot it all along” (FIA) phenomenon, which at its core entails the underestimation of prior recollections of past events.

Arnold and Lindsay (2002, 2005) developed a laboratory analogue that captured some aspects of the FIA mechanism by requiring participants to recall material in qualitatively different ways on two occasions (for other experimental demonstrations of FIA, see Joslyn, Loftus, McNoughton, & Powers, 2001; Merckelbach et al., 2006; Padilla-Walker & Poole, 2002; Parks, 1999). They argued that if the retrieval of CSA memories in qualitatively different ways can lead to the underestimation of previous CSA recollections, then this mechanism should transfer into the lab. In their basic procedure, participants studied a list of homographic target words, each preceded by a biasing context word (e.g., *hand-palm*). In Test 1, participants were tested on a subset of the study list, with some of the target items being cued with the previously studied context word (e.g., *hand-p**m*) and the rest of the items being cued with another context word (e.g., *tree-p**m*). In Test 2, participants were tested on all of the studied items, and the studied-context cues were always given as recall prompts. Additionally, after recalling each word, participants were required to judge whether they had recalled that word on the first test. The key result was that participants forgot their prior recall of target words more often when the words had been cued with the other-context cues than when they had been cued with the studied-context cues on the first test. These results provided compelling evidence that remembering a past event in a different way can result in a failure to remember a prior instance of recalling that event.

The finding that people forget an instance of past remembering more often if it differs from their current recollections than if it matches their current recollections may be relevant to ongoing discussions about the authenticity of recovered CSA memories. For instance, it is possible that some victims of abuse underestimate their prior recollections of the abuse when they recall the abuse in a qualitatively different manner than they did previously, leading to a false impression of having had repressed memories.

There is evidence that individuals reporting recovered memories are more prone to memory distortions than other individuals are (e.g., Clancy, Schacter, McNally, & Pitman 2000; Geraerts, Smeets, Jelicic, van Heerden, & Merckelbach, 2005; McNally, Clancy, Barrett, & Parker, 2005; for an exception, see Clancy, McNally, & Schacter, 1999). Moreover, Melchert (1999) reported an association between reporting recovered memories and tendencies toward dissociation, which in turn appear to be related to susceptibility to memory errors (e.g., Porter, Birt, Yuille, & Lehman, 2000). These findings led us to predict that the underestimation of prior remembering (i.e., the FIA phe-

nomenon) would be greater for individuals reporting previously repressed CSA memories, compared with individuals with no history of abuse and individuals with continuous memories of their abuse. Experiment 1 addressed this question using semantic material, whereas autobiographical events were used in Experiment 2.

EXPERIMENT 1

Method

Participants

As part of an ongoing research project on recovered memories (e.g., Geraerts, Smeets, Jelicic, Merckelbach, & van Heerden, 2006), we recruited participants with recovered and continuous CSA memories, as well as people reporting no history of abuse, through advertisements in local newspapers. Participants were told that the research pertained to CSA and memory. CSA was defined as physical sexual contact, ranging from fondling to penetrative acts, until the age of 12.

A semistructured memory interview was conducted to classify participants into one of the three groups. The recovered-memory group consisted of 57 participants (48 women; mean age = 42.6 years, $SD = 10.8$) who claimed that they had previously forgotten and then subsequently recalled memories of CSA. The continuous-memory group comprised 69 participants (57 women; mean age = 41.4 years, $SD = 11.6$) who said that they had never forgotten their abuse. The control group consisted of 68 participants (47 women; mean age = 38.9 years, $SD = 12.4$) with no history of abuse, either as children or as adults.

Materials

A set of 107 homographs with two dominant meanings (e.g., *palm* in the part-of-hand sense and in the type-of-tree sense) was composed; 4 of these items were used as primacy buffers, and 4 were used as recency buffers. The remaining 99 target words were randomly divided into three test lists of 33 words (*test-list* factor). Across participants, each list appeared equally often in the three different conditions of Test 1 (i.e., with the studied-context cues, with the other-context cues, and not tested). Each target word was assigned two context words, representing the two different meanings of that target word (e.g., *hand* and *tree* for the target *palm*). Further, two study lists were constructed (*study-list* factor) to counterbalance which context word was studied with each target word. Finally, for the study phase, a sentence was constructed for each context-target word pair; in this sentence, the context word was spelled out in full, and a row of asterisks represented the target word.

Procedure

Participants were told that for each study trial, a context word and target word would be displayed on a computer screen for 2 s, and that they were to repeat the words out loud in preparation for a memory test. Immediately after the word

pair was removed from the screen, the study sentence for that pair was presented for 3.5 s, and participants were instructed to read the sentence aloud, filling in the target. Finally, the target word appeared above the sentence for 1 s. Each word pair was studied once.

The study phase was followed immediately by the first cued-recall test (Test 1), in which participants were told that they would be tested on a subset of the targets (cues were presented for two thirds of the studied targets). On each trial, a context word was presented with the first and last letters of a target word. Participants were told that for half of the trials, the context words would correspond to those presented with the targets during the study phase, whereas for the other half of the trials, the context words would not be the same as during the study phase (but would be related to the targets). Participants were warned to respond only with targets that they remembered from the study phase, and that they should say “pass” if they were unable to remember an answer.

The second cued-recall test (Test 2) occurred immediately after the first test. All of the target words were tested, and participants were informed that all of the context words on Test 2 corresponded to those presented with the targets during the study phase. On each trial, participants were given a context word with the first and last letters of the target word and asked to recall the target word from the study phase. If a participant gave an incorrect answer or said “pass,” the experimenter supplied the correct target. Next, participants were required to judge whether they remembered recalling the target word during Test 1. Participants were reminded that many of the items had

not been presented on Test 1, and therefore could not have been recalled on that test.

Results and Discussion

We describe recall performance on Test 1 and Test 2 before presenting the data for judgments of prior remembering. All analyses are collapsed over the counterbalancing factors of test list and study list because initial omnibus analyses of variance (ANOVAs) showed no reliable effects of these factors (all F s < 1); p_{rep} , the probability of replicating the results (Killeen, 2005), is reported.

Recall Performance

The proportion of targets recalled on Test 1 was significantly higher for items cued with studied-context words ($M = .90$, $SD = .08$) than for items cued with other-context words ($M = .75$, $SD = .06$), $t(192) = 8.31$, $p_{\text{rep}} > .99$, Cohen’s $d = 1.19$.

An ANOVA was performed on the proportion of target words recalled on Test 2; participant group (recovered memory vs. continuous memory vs. control) was a between-subjects factor, and context on Test 1 (studied context vs. other context vs. not tested) was a within-subjects factor. As expected, recall performance was near ceiling ($M = .93$, $SD = .07$), and there were no significant main effects or interactions (all F s < 1).

Judgments of Previous Recollection

Table 1 shows the proportion of items judged on Test 2 as having been recalled on Test 1. The analyses reported here were per-

TABLE 1
Mean Proportion of Items Judged as Recalled as a Function of Recall Status on Test 1 and Test 2: Experiment 1

Recall status on Test 1 and Test 2	Group		
	Recovered memory ($n = 57$)	Continuous memory ($n = 69$)	Control ($n = 68$)
Studied-context cue on Test 1			
Not recalled, not recalled	.02 (.07)	.11 (.26)	.04 (.18)
Not recalled, recalled	.10 (.18)	.29 (.35)	.15 (.26)
Recalled, recalled	.81 (.15)	.80 (.16)	.82 (.15)
Recalled, not recalled	.37 (.37)	.27 (.42)	.33 (.44)
Other-context cue on Test 1			
Not recalled, not recalled	.04 (.13)	.08 (.19)	.07 (.17)
Not recalled, recalled	.14 (.18)	.25 (.29)	.18 (.24)
Recalled, recalled	.36 (.24)	.53 (.29)	.51 (.26)
Recalled, not recalled	.20 (.33)	.26 (.37)	.29 (.39)
Not tested on Test 1			
NA, not recalled	.01 (.06)	.04 (.08)	.04 (.09)
NA, recalled	.11 (.13)	.14 (.18)	.13 (.14)

Note. Boldface indicates data for which statistical analyses are reported. Standard deviations are in parentheses. NA = not applicable.

formed on judgment data for items correctly recalled on both tests (shown in boldface in Table 1), although a similar pattern was found when analyses were restricted to items recalled on Test 1. An ANOVA was performed on the proportion of correct “yes” judgments on Test 2, with participant group as a between-subjects factor and context on Test 1 (studied-context cue vs. other-context cue) as a within-subjects factor. Results replicated the findings from Arnold and Lindsay (2002, 2005): Participants were significantly more likely to forget that they had recalled an item on Test 1 if it had been cued with the other-context word on Test 1 than if it had been cued with the studied-context word, $F(1, 190) = 381.56, p_{\text{rep}} > .99, \eta^2 = .64$. As expected, there was a significant difference among the three groups, $F(2, 190) = 3.97, p_{\text{rep}} = .93, \eta^2 = .041$, and the critical interaction between group and context was significant, $F(2, 190) = 7.98, p_{\text{rep}} > .99, \eta^2 = .080$.

Univariate ANOVAs performed to explore further the group differences in prior-remembering judgments followed similar patterns for studied-context items and other-context items. The groups did not differ on the proportion of correct “yes” judgments for the studied-context items, $F(2, 190) < 1$. However, a similar ANOVA performed on the proportion of correct “yes” judgments for the other-context items indicated a significant difference among the three groups, $F(2, 190) = 6.88, p_{\text{rep}} = .99, \eta^2 = .07$. Post hoc analyses (Fisher’s least significant difference) indicated that compared with both participants in the continuous-memory group and control participants, participants in the recovered-memory group were significantly more likely to forget that they had recalled other-context words on Test 1, $t(123) = 3.36, p_{\text{rep}} = .99, d = 0.61$, and $t(122) = 3.27, p_{\text{rep}} > .99, d = 0.59$, respectively. The tendency of recovered-memory participants to underestimate prior remembering cannot be explained by a general bias to respond “no,” because they did not differ significantly from the other two groups in correctly saying “no” to not-tested items, $F_s < 2.05, p_{\text{rep}s} \leq .79$.

Experiment 1 replicated the typical FIA effect (Arnold & Lindsay, 2002). More important, participants who reported recovered CSA memories were more prone than other participants to forget that they had previously recalled a studied item when they had been cued to think of it differently on the two recall tests. This FIA phenomenon may operate in real-life cases; that is, people reporting recovered CSA memories may underestimate their prior recollections of abuse. However, one could counter that a tendency to underestimate prior remembering of neutral words does not necessarily indicate a tendency to underestimate prior remembering of autobiographical material, and therefore the results from Experiment 1 may not generalize to recovered-memory experiences. Experiment 2 tested for a FIA effect with memories of autobiographical events.

EXPERIMENT 2

Experiment 2 was designed to assess whether people reporting recovered memories of CSA would also show a tendency to

underestimate prior remembering of autobiographical material. Participants were requested to recall autobiographical events in an emotionally negative or positive framing, in three test sessions over a period of 4 months.

Method

Participants

Participants with recovered and continuous memories of CSA and control participants were recruited through advertisements in local newspapers. The recovered-memory group consisted of 55 participants (46 women; mean age = 42.2 years, $SD = 10.0$). The continuous-memory group included 65 participants (53 women; mean age = 41.5 years, $SD = 10.3$). The control group comprised 65 participants (43 women; mean age = 39.2 years, $SD = 11.2$).

Materials

Twenty-five cue phrases referring to common childhood experiences (e.g., being home alone, visiting the dentist) were selected. Participants were asked to recall aloud an autobiographical target event related to each cue, in an emotionally positive or negative frame. For example, a participant assigned a positive framing for the event cue “being home alone as a child” might recall enjoying the feeling of freedom of having the house to him- or herself; the same participant, if subsequently assigned a negative framing for that event, might reminisce about feeling lonely after a while. For each event, participants were asked to make an open-ended report. When a report was vague, the experimenter asked the participant to be more specific.

The target events were randomly divided into three test lists (two with eight events and one with nine events; *test-list* factor). Across participants, each list appeared equally often in the three different conditions of Test 1 (i.e., same-frame, other-frame, and not-tested conditions). Additionally, two study lists were constructed (*study-list* factor) to counterbalance the framings of the autobiographical events across participants (i.e., during Test 0, half the participants recalled being home alone as a child in a negative frame, and half recalled this event in a positive frame).

Procedure

All participants were tested three times, with 2 months between sessions. During Test 0 (i.e., first recall of autobiographical events), participants were instructed to recall 25 childhood events, each in response to a cue such as “being home alone as a child.” Participants were asked to concentrate on affectively positive aspects of some of the events and on affectively negative aspects of other events (i.e., we manipulated the emotional framing of events within subjects). If a participant could not remember an autobiographical event related to the selected cue, the test proceeded with the next event cue.

After 2 months, participants were required to recall 16 of the autobiographical target events for a second time (Test 1). They

TABLE 2

Mean Proportion of Items Judged as Recalled as a Function of Recall Status on Test 1 and Test 2: Experiment 2

Recall status on Test 1 and Test 2	Group		
	Recovered memory (<i>n</i> = 55)	Continuous memory (<i>n</i> = 65)	Control (<i>n</i> = 65)
Same-framing condition			
Not recalled, not recalled	.01 (.04)	.06 (.20)	.02 (.07)
Not recalled, recalled	.09 (.15)	.13 (.21)	.07 (.15)
Recalled, recalled	.86 (.13)	.88 (.14)	.89 (.12)
Recalled, not recalled	.36 (.24)	.32 (.29)	.35 (.27)
Other-framing condition			
Not recalled, not recalled	.09 (.22)	.04 (.12)	.06 (.15)
Not recalled, recalled	.17 (.26)	.15 (.18)	.10 (.14)
Recalled, recalled	.38 (.26)	.57 (.26)	.53 (.24)
Recalled, not recalled	.13 (.28)	.20 (.33)	.08 (.19)
Not tested on Test 1			
NA, not recalled	.01 (.06)	.05 (.14)	.03 (.08)
NA, recalled	.11 (.16)	.13 (.20)	.12 (.17)

Note. Boldface indicates data for which statistical analyses are reported. Standard deviations are in parentheses. NA = not applicable.

were instructed that for half of the events, the emotional framing of the event would correspond to the framing used with that event during Test 0, whereas for the remaining events, the framing would be the opposite of that used in Test 0 (i.e., positive framing if the framing on Test 0 had been negative, and vice versa). The experimenter emphasized to participants that their task was to recall the same events that they had recalled in Test 0, regardless of whether the emotional framing was the same as or different from that used in Test 0.

All of the target events were tested on Test 2, which occurred 2 months after Test 1. Participants were informed that the requested framing on Test 2 corresponded to the framing presented with the targets during Test 0. As in Test 1, participants were asked to recall the same autobiographical events that they had described in Test 0. Following each recall attempt, participants were required to judge if they remembered recalling the target event during Test 1.

Results and Discussion

Recall Performance

Raters were given typed transcripts of the memory reports each subject had produced for each event (e.g., being home alone as a child) and assessed whether or not the subject had recalled the same event on each of the occasions. Ratings were made using a 3-point scale, developed by Neisser and Harsch (1992), that evaluates consistency regarding the people, location, and activities described in memory reports. Interrater agreement was .92; disagreements were resolved by discussion. In total, 3% of

events were judged to have changed across occasions; in such cases, the item was treated as a missing value.¹

The proportion correctly recalled on Test 1 was near ceiling and not significantly higher for events recalled in the same-framing condition ($M = .93$, $SD = .09$) than for events recalled in the other-framing condition ($M = .90$, $SD = .07$), $t(184) = 1.18$, $p_{\text{rep}} = .69$, $d = 0.17$.

An ANOVA was performed on the proportion of targets correctly recalled on Test 2; participant group (recovered memory vs. continuous memory vs. control) was a between-subjects factor, and framing on Test 1 (same framing vs. other framing vs. not tested) was a within-subjects factor. As expected, recall performance was near ceiling ($M = .91$, $SD = .11$), and there were no significant main effects or interactions (all F s < 1).

Judgments of Previous Recollection

Table 2 shows the proportion of events judged on Test 2 as having been recalled on Test 1. The analyses reported here were performed on the judgment data for events correctly recalled on both tests (shown in boldface in Table 2). An ANOVA was performed on the proportion of correct “yes” judgments, with the

¹At first glance, this small proportion may seem at odds with prior evidence of inconsistency in autobiographical memory reports across widely separated occasions (e.g., Neisser & Harsch, 1992; Talarico & Rubin, 2003). We speculate that this apparent discrepancy is largely a matter of grain size (Goldsmith, Koriati, & Weinberg-Eliezer, 2002): In our study, participants merely had to talk about the same event, not report the same details, for the reports to be counted as consistent. Also, the stability of the context across recall occasions, and the fact that the intertest interval was no more than 4 months, may have supported consistency (see Rubin, Schrauf, & Greenberg, 2004, for a similar observation).

three participant groups as a between-subjects factor and framing on Test 1 (same frame vs. other frame) as a within-subjects factor. Participants were significantly more likely to forget that they had recalled an event on Test 1 if it had been recalled in the same framing, $F(1, 182) = 411.51, p_{\text{rep}} > .99, \eta^2 = .693$. Additionally, there was a significant difference among the three groups, $F(2, 182) = 7.92, p_{\text{rep}} = .99, \eta^2 = .080$, as well as an interaction between group and framing, $F(2, 182) = 6.20, p_{\text{rep}} > .99, \eta^2 = .064$.

Univariate ANOVAs were performed to inspect group differences in judgments of prior remembering for the two framing conditions. Results for the same-framing events indicated that there were no differences among the groups, $F(2, 182) < 1$. However, for the other-framing events, there was a significant difference among the three groups, $F(2, 182) = 8.87, p_{\text{rep}} > .99, \eta^2 = .089$. Post hoc analyses (Fisher's least significant difference) showed that compared with continuous-memory and control participants, recovered-memory participants were significantly more likely to forget that they had recalled an event on Test 1 if it had been cued in the other-framing context, $t(118) = 3.90, p_{\text{rep}} > .99, d = 0.72$, and $t(118) = 3.34, p_{\text{rep}} = .99, d = 0.61$, respectively.

As in Experiment 1, the tendency of recovered-memory participants to underestimate prior remembering cannot be explained by a general bias toward saying "no," because they did not differ from the other two groups in correctly saying "no" to not-tested items, $F_s < 1.96, p_{\text{rep}} \leq .78$.

Experiment 2 replicated the findings from Experiment 1, but more important, the results demonstrated that the enhanced FIA effect for recovered-memory participants was not restricted to neutral word stimuli. That is, people reporting recovered CSA memories showed an enhanced FIA effect even when mildly emotional autobiographical material was used over a time period of 4 months—conditions that more closely mirror everyday life (if not memories of trauma) than the conditions (i.e., neutral material) in Experiment 1.

GENERAL DISCUSSION

Compared with persons reporting continuous memories of CSA and those reporting no history of CSA, individuals who reported having recovered long-forgotten memories of CSA were especially likely to forget that they had previously recalled words or autobiographical events when they were cued to think about those words or events differently on the different occasions of recall. Hence, our studies provide indirect support for Schooler's (1999) idea that the FIA effect might explain why some individuals reporting recovered CSA memories have the erroneous impression that there was a period in their life during which they were amnesic for the abuse.

The mechanisms that drive forgetting of prior episodes of recalling words or innocuous childhood events are not neces-

sarily the same as those involved in forgetting prior episodes of recalling CSA. For example, when participants in our experiments were judging their prior recollections, they likely did not experience the emotional surprise that is associated with real-world recovered-memory experiences such as those reported by Schooler (2001). Nonetheless, the fact that both of our experiments yielded evidence that persons reporting recovered CSA memories show particularly large FIA effects is consistent with Schooler's (2001) hypothesis that changes in the way an event is thought about on different occasions can contribute to the forgetting of prior episodes of recollection.

Our findings do not imply that the CSA memories reported by our participants are false. To the contrary, one possibility is that these memories are fundamentally accurate, but that their prior accessibility was underestimated by some of our recovered-memory participants because of a FIA mechanism. Alternatively, the large FIA effect in the recovered-memory group may be a manifestation of a source-monitoring problem that makes some people particularly susceptible to pseudomemories and to the FIA effect (Johnson, Hashtroudi, & Lindsay, 1993). From a source-monitoring perspective, the FIA procedure requires participants to differentiate, during the final test, between mental evidence of recalling the target during Test 1 and mental evidence of thinking about the target during Test 1. If individuals with recovered memories tend to have difficulty with source monitoring, that deficit could lead to a particularly large FIA effect (just as it could lead to particular susceptibility to various memory illusions; e.g., Clancy et al., 2000; Geraerts et al., 2005). Of course, it may well be that our recovered-memory participants were accurate both with regard to the abuse and to their prior nonremembering of it, but the strong association between reporting recovered memories and showing a large FIA effect suggests that some individuals reporting recovered memories of CSA have forgotten their prior recollections of the abuse.

Acknowledgments—We thank J. Don Read for comments on a draft of this article. We thank Danny Kostons and Kim Hamers for help with testing.

REFERENCES

- Arnold, M.M., & Lindsay, D.S. (2002). Remembering remembering. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 28, 521–529.
- Arnold, M.M., & Lindsay, D.S. (2005). Remembrance of remembrance past. *Memory*, 13, 533–549.
- Brown, D., Schefflin, A.W., & Whitfield, C.L. (1999). Recovered memories: The current weight of the evidence in science and in the courts. *Journal of Psychiatry & Law*, 27, 5–156.
- Clancy, S.A., McNally, R.J., & Schacter, D.L. (1999). Effects of guided imagery on memory distortion in women reporting recovered memories of childhood sexual abuse. *Journal of Traumatic Stress*, 12, 559–569.

- Clancy, S.A., Schacter, D.L., McNally, R.J., & Pitman, R.K. (2000). False recognition in women reporting recovered memories of sexual abuse. *Psychological Science*, 11, 26–31.
- Geraerts, E., Smeets, E., Jelicic, M., Merckelbach, H., & van Heerden, J. (2006). Retrieval inhibition of trauma-related words in women reporting repressed or recovered memories of childhood sexual abuse. *Behaviour Research and Therapy*, 44, 1129–1136.
- Geraerts, E., Smeets, E., Jelicic, M., van Heerden, J., & Merckelbach, H. (2005). Fantasy proneness, but not self-reported trauma is related to DRM performance of women reporting recovered memories of childhood sexual abuse. *Consciousness & Cognition*, 14, 602–612.
- Goldsmith, M., Koriati, A., & Weinberg-Eliezer, A. (2002). Strategic regulation of grain size memory reporting. *Journal of Experimental Psychology: General*, 131, 73–95.
- Johnson, M.K., Hashtroudi, S., & Lindsay, D.S. (1993). Source monitoring. *Psychological Bulletin*, 114, 3–28.
- Joslyn, S., Loftus, E.F., McNoughton, A., & Powers, J. (2001). Memory for memory. *Memory & Cognition*, 29, 789–797.
- Kihlstrom, J.F. (2004). An unbalanced balancing act: Blocked, recovered, and false memories in the laboratory and clinic. *Clinical Psychology: Science and Practice*, 11, 34–41.
- Killeen, P.R. (2005). An alternative to null-hypothesis significance tests. *Psychological Science*, 16, 345–353.
- Lindsay, D.S., & Read, J.D. (2001). The recovered memories controversy: Where do we go from here? In G.M. Davies & T. Dalgleish (Eds.), *Recovered memories: Seeking the middle ground* (pp. 71–93). Chichester, England: John Wiley & Sons.
- Loftus, E.F. (1997). Dispatch from the (un)civil memory wars. In J.D. Read & D.S. Lindsay (Eds.), *Recollections of trauma: Scientific evidence and clinical practice* (pp. 171–198). New York: Plenum.
- Loftus, E.F. (2003). Make-believe memories. *American Psychologist*, 58, 867–873.
- McNally, R.J. (2003). *Remembering trauma*. Cambridge, MA: Belknap Press/Harvard University Press.
- McNally, R.J. (2004). The science and folklore of traumatic amnesia. *Clinical Psychology: Science and Practice*, 11, 29–33.
- McNally, R.J., Clancy, S.A., Barrett, H.M., & Parker, H.A. (2005). Reality monitoring in adults reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Journal of Abnormal Psychology*, 114, 147–152.
- Melchert, T.P. (1999). Relations among childhood memory, a history of abuse, dissociation, and repression. *Journal of Interpersonal Violence*, 14, 1172–1192.
- Merckelbach, H., Smeets, T., Geraerts, E., Jelicic, M., Bouwen, A., & Smeets, E. (2006). I haven't thought about this for years! Dating recent recalls of vivid memories. *Applied Cognitive Psychology*, 20, 33–42.
- Neisser, U., & Harsch, N. (1992). Phantom flashbulbs: False recollections of hearing the news about Challenger. In E. Winograd & U. Neisser (Eds.), *Affect and consistency in recall: Studies of 'flashbulb' memories* (pp. 9–31). Cambridge, England: Cambridge University Press.
- Padilla-Walker, L.M., & Poole, D.A. (2002). Memory for previous recall: A comparison of free and cued recall. *Applied Cognitive Psychology*, 16, 515–524.
- Parks, T.E. (1999). On one aspect of the evidence for recovered memories. *American Journal of Psychology*, 112, 365–370.
- Porter, S., Birt, A.R., Yuille, J.C., & Lehman, D.R. (2000). Negotiating false memories: Interviewer and rememberer characteristics relate to memory distortion. *Psychological Science*, 11, 507–510.
- Rubin, D.C., Schrauf, R.W., & Greenberg, D.L. (2004). Stability in autobiographical memories. *Memory*, 12, 715–721.
- Schacter, D.L. (1995). Memory wars. *Scientific American*, 272, 135–139.
- Schooler, J.W. (1999). Seeking the core: The issues and evidence surrounding recovered accounts of sexual trauma. In L.M. Williams (Ed.), *Trauma and memory* (pp. 203–216). Thousand Oaks, CA: Sage.
- Schooler, J.W. (2001). Discovering memories in the light of meta-awareness. *Journal of Aggression, Maltreatment, and Trauma*, 4, 105–136.
- Schooler, J.W., Ambadar, Z., & Bendiksen, M.A. (1997). A cognitive corroborative case study approach for investigating discovered memories of sexual abuse. In J.D. Read & D.S. Lindsay (Eds.), *Recollections of trauma: Scientific evidence and clinical practice* (pp. 379–388). New York: Plenum.
- Shobe, K.K., & Schooler, J.W. (2001). Discovering fact and fiction: Case-based analyses of authentic and fabricated memories of abuse. In G.M. Davies & T. Dalgleish (Eds.), *Recovered memories: Seeking the middle ground* (pp. 95–151). Chichester, England: John Wiley & Sons.
- Talarico, J.M., & Rubin, D.C. (2003). Confidence, not consistency, characterizes flashbulb memories. *Psychological Science*, 14, 455–461.

(RECEIVED 12/16/05; REVISION ACCEPTED 2/2/06;
FINAL MATERIALS RECEIVED 2/13/06)

Appendix C

Guy R. Holmes, et al., *See No Evil, Hear No Evil, Speak No Evil: Why Do Relatively Few Male Victims of Childhood Sexual Abuse Receive Help for Abuse-Related Issues in Adulthood?*, 17 Clin. Psych. Rev. 69, 79 (1997).

Appendix C



SEE NO EVIL, HEAR NO EVIL, SPEAK NO EVIL: WHY DO RELATIVELY FEW MALE VICTIMS OF CHILDHOOD SEXUAL ABUSE RECEIVE HELP FOR ABUSE-RELATED ISSUES IN ADULTHOOD?

Guy R. Holmes

University of Birmingham

Liz Offen

University of Birmingham

Glenn Waller

Royal Holloway, University of London

ABSTRACT. *This literature review explores the reasons why comparatively few adult males with a history of childhood sexual abuse are seen by professionals for help with difficulties relating to that abuse. Two potential explanations are discounted as myths—that relatively few males are sexually abused, and that abuse has little effect on males. However, it is suggested that society (including professionals and the victims themselves) has given credence to these myths. Male victims are relatively unlikely to disclose their experience of childhood abuse, and (as a coping strategy) they deny the impact of sexual abuse on their lives. Professionals fail to hypothesise that their male clients may have been abused, and do not create the conditions that would enable males to talk about the abuse. Blumer's (1971) model of the social construction of problems is applied to account for these beliefs and behaviours on the part of victims and clinicians. It is argued that*

Correspondence should be addressed to Guy R. Holmes, Psychology Consultancy Service, Chaddeslode House, 130 Abbey, Foregate, Shrewsbury, England, SY2 6AX, United Kingdom.

the childhood sexual abuse of males has not yet acquired legitimacy as a problem recognised by society, thus lagging behind the abuse of females. In short, the 'evil' of childhood sexual abuse in the male population is not being seen or heard by clinicians, and is not being recognised or talked about by victims. Clinical implications are considered. © 1997 Elsevier Science Ltd

ALTHOUGH THE LITERATURE on female victims of childhood sexual abuse has been described as in its infancy, the parallel body of literature on male victims is better conceptualised as at an 'embryonic' stage (Urquiza & Capra, 1990). Apart from a few isolated papers, it is only in the last decade that books and papers on male victims have been published. One of the main themes of this literature is that male victims of childhood sexual abuse are not coming to the attention of professionals during adulthood, and that therefore they are not getting an appropriate service. This review examines reasons for these omissions, including critical analysis of the arguments that few males are sexually abused in childhood and that sexual abuse does not tend to lead to psychopathology in adult males. We go on to consider whether people in western society, including clinicians and the male victims themselves, do not readily conceptualise males as potential victims of childhood sexual abuse.

It is important to note that the central theme of this paper is the experience of adult men who have been sexually abused in childhood. As will become clear, the literature to date on male victims has focused principally on this aspect of the problem. Even when the titles of articles and papers mention boys, it is generally the case that the data are largely self-report by adult males of their childhood experiences (e.g., Finkelhor, 1984; Watkins & Bentovim, 1992). It seems that it is only as the topic of the long-term consequences of childhood abuse gains a firm footing that there is a development of a comprehensive literature on the more immediate effects of such trauma in childhood (or, indeed, of traumatic experiences in adulthood). The same phenomenon can be seen in the early years of the literature on sexually abused women, where an understanding of the immediate impact of sexual abuse upon girls was informed by the preliminary literature on the long-term consequences among adult women.

THE EXTENT OF THE PROBLEM

The first point that needs consideration is the discrepancy between prevalence rates of childhood sexual abuse identified among men in the general population and among men in the clinical population. In order to determine the extent of this discrepancy, it is necessary to determine whether males who have had an abusive sexual experience in childhood are proportionally unlikely to be identified as such during therapy. However, that proportion can only be understood relative to the likelihood that women will discuss an experience of childhood sexual abuse during therapy.

The majority of large-scale prevalence studies have focused on women's experiences of childhood abuse (e.g., Mullen, Martin, Anderson, Romans, & Herbison, 1996). However, a number of major national surveys have described population prevalence rates of childhood sexual abuse for both males and females. For example, Baker and Duncan (1985) found rates of 8% for male compared to 12% for female victims in Britain. Finkelhor, Hotaling, Lewis, and Smith (1990) cited rates of 16% for males and 27% for females in the USA. Finally, in Canada, Badgley et al. (1984) concluded that 13% of males and 34% of females reported sexual abuse. In other words, national surveys show that approximately 30% of all childhood sex abuse victims are male,

while the remainder are female. Studies that emanate from narrower geographical areas yield similar results (see Peters, Wyatt, & Finkelhor, 1986, pp. 20–21). These findings support Watkins and Bentovim's (1992) conclusion—'males are rarely abused' is one of the major myths about victims of childhood sexual abuse.

The prevalence figures yielded by these studies are influenced by a range of methodological factors (e.g., Briere, 1992; Kuyken, 1995). For example, no single definition has been consistently employed across studies, and changing the definition of sexual abuse has been shown to substantially influence the prevalence rate (Fromuth & Burkhart, 1987). The method of data collection (e.g., telephone survey, postal survey, face-to-face interviews) will also affect the readiness of a person to disclose whether they have been abused (Urquiza & Keating, 1990). Sampling is an important consideration, since different samples will yield different rates of abuse. Despite the complexity introduced by such factors, it is difficult to maintain the argument that childhood sexual abuse is an uncommon experience for males. The highest estimates of prevalence suggest a problem of epidemic proportions (Watkins & Bentovim, 1992).

These results from the general population demonstrate that women are twice as likely as men to have a history of childhood sexual abuse. If all else were equal, one could conclude that this pattern of prevalence rates should be reflected among those who come to professional attention. Since overall prevalence of psychiatric morbidity is relatively similar across males and females in the community (Meltzer, Gill, Petticrew, & Hinds, 1995), it appears that one should expect males to represent approximately 30% of the clinical population who report an abusive history in childhood. However, Mendel's review (1995, pp. 48–51) concludes that the majority of studies of adult males in clinical groups report a prevalence rate substantially below that level. For example, between 1979 and 1984, only 9% of referrals to a hospital-based team for evaluation of possible sexual abuse were boys (Spencer & Dunklee, 1986).

Clearly, childhood sexual abuse is not reported proportionally as often among adult males as among females who have taken part in such clinical research. However, the imbalance may be even greater among the broader clinical population. It should be remembered that the studies cited above are generally derived from research where the participants are asked directly about a history of abuse. It is recognised that making such a direct enquiry yields much higher rates of disclosure than simply waiting for the client to raise the issue (e.g., Briere & Zaidi, 1989). Over recent years, many clinicians and researchers have stressed the need for routine enquiry about childhood abuse among female adult clients (e.g., Jacobson & Richardson, 1987; Rosenfeld, 1979), and it is likely that this suggestion has entered the 'culture' of clinical expectations more in work with females than with males. This point is addressed in more detail later in this review (see 'Do clinicians fail to suspect or enquire about histories of sexual abuse in adult male clients?'). Therefore, it is probable that our identification rate for male cases will be even poorer in general clinical practice, where there is less expectation that sexual abuse is a potential factor in the formulation of the case.

To summarise, there is evidence to support Watkins and Bentovim's (1992) conclusion that the rates of childhood sexual abuse in the total population are higher for females than for males, but not as high as the differences in female to male ratios in the adult clinical population would suggest. These discrepancies can be seen as evidence that a history of childhood sexual abuse in adult males is both under-reported and under-identified.

WHY DO PROFESSIONALS IDENTIFY RELATIVELY FEW MEN WITH HISTORIES OF CHILDHOOD SEXUAL ABUSE

From the literature outlined above, it can be seen that there is a marked discrepancy between the ratios of men and women reporting childhood sexual abuse in clinical samples, despite the relative similarity between prevalence rates of male and female cases of such experiences in community samples. There are four distinct hypotheses that might be advanced to explain this pattern. First, such abuse may have a lesser impact on males, thus leading to a much lower referral rate for psychological disturbance in adult life. Second, men with a childhood history of sexual abuse may develop characteristics that lead them to be seen by services other than the helping professions (e.g., the criminal justice system). Third, it may be the case that men tend not to disclose their experiences of childhood sexual abuse. Finally, it is possible that clinicians do not suspect or enquire about histories of sexual abuse in adult male clients. Each of these hypotheses will be considered below.

Does childhood sexual abuse have little effect on men?

The majority of studies of the effects of childhood sexual abuse have focused on its impact upon females. However, theoretical analyses have concluded that the critical factors in the development of social and psychological dysfunction are not directly gender-linked, but that they are much more dependent upon developmental and environmental factors (e.g., Cole & Putnam, 1992). For example, Spaccarelli's (1994) transactional model cites gender as simply one of a number of moderators in the relationship between the stress of being abused and the cognitive and behavioural responses to that stressor. Support resources, developmental level, age and personality are equally likely to be important moderators. These conceptualisations suggest that one is likely to find relatively similar patterns of long-term symptomological response to childhood abuse among adult male and female victims, since gender is only one of a number of moderators that will influence the generalizability of the links. Where there are differences in psychopathology, there is no clear conceptual reason to expect male victims to have levels of symptomatology that are greater or lower than those of female victims. In this review, we will consider the evidence that child sexual abuse has a long-term impact on men, both in clinical and non-clinical samples.

Clinical groups. A number of studies compare men who do and do not report childhood sexual abuse. They indicate a wide-ranging impact on males, both in the short- and the long-term. Reviews of the literature suggest that this impact is not confined to a minority of the victims (e.g., Neilsen, 1983). In a study of 124 adult males sexually abused as children, Mendel (1995) found that all 124 perceived their abuse as severely damaging to most aspects of their lives. Short-term effects on males have been shown to include: anxiety and fear reactions (Conte & Schuerman, 1987; Sebold, 1987); self-worth problems (Rogers & Terry, 1984; Sebold, 1987); shame (Sebold, 1987; Vander Mey, 1988); suicidality and depression (Rogers & Terry, 1984; Spencer & Dunklee, 1986); anger and aggression (Rogers & Terry, 1984; Sebold, 1987); and homophobic reactions and confusion over sexual identity (Sebold, 1987). These difficulties are also common long-term effects, extending into adulthood (Hunter, 1990; Johanek, 1988; Lew, 1990; Mendel, 1995; Olson, 1990; Watkins & Bentovim, 1992). However, there are a number of further long-term consequences, including: drug and alcohol problems (Bruckner & Johnson, 1987; Dimock, 1988; Olson, 1990; Schulte, Dinwiddie, Pribor & Yutzy, 1995); sexual difficulties, including compulsive

sexual behaviour, sexual dissatisfaction and sexual dysfunction (Dimock, 1988; Fromuth & Burkhart, 1989; Hunter, 1990; Johnson & Shrier, 1987); relationship problems (Dimock, 1988; Lew, 1990; Olson, 1990); dissociation (Briere, Evans, Runtz & Wall, 1988; Mendel, 1995; Steele & Colrairie, 1990; Urquiza & Capra, 1990); 'hypermasculine' behavior (Johanek, 1988); criminal behavior (Olson, 1990); and shame and gender shame (Mendel, 1995).

Although the studies cited above are relatively consistent in showing short- and long-term psychological effects of childhood sexual abuse in males, it is important to consider the methodological and sampling issues that limit the generalizability of some of the conclusions. For example, most of the studies do not include female victims or make no direct comparison between males and females (e.g., Dimock, 1988; Fromuth & Burkhart, 1989; Johnson & Shrier, 1987; Olson, 1990; Spencer & Dunklee, 1984), some are based on relatively small samples (e.g., Johnson & Shrier, 1987; Rogers & Terry, 1984; Schulte et al., 1995), and others involve unstandardised measures (e.g., Dimock, 1988) or simple clinical impressions (e.g., Johanek, 1988). There is also little agreement about what psychological consequences should be measured. Some papers are based on psychiatric diagnosis, while others assess psychological functions or behavioural indices. Given these methodological and sampling issues, it is important to place particular emphasis on studies that have overcome these methodological issues (e.g., Mendel, 1995).

There are relatively few studies that have directly compared the impact of childhood sexual abuse upon males and females in adulthood. Those studies that do exist tend to support the proposal that the outcome is similar. In one such study, Roesler and McKenzie (1994) examined the nature and extent of psychological disturbance in adult males and females who had been victims of childhood sexual abuse. They demonstrated that the level of psychopathology was broadly similar across the genders, and that where there was a reliable difference (in the field of sexual dysfunction) it was the males who were less healthy. In another study, Briere, Evans, Runtz, and Wall (1988) studied adult males and females presenting to a crisis counselling service. They found that both males and females who had been abused in childhood reported higher rates of dissociation, anxiety, depression and sleep disturbance than non-abused controls. However, there were no differences between male and female victims.

The findings of these well-controlled and methodologically sound comparison studies clearly support the conclusions that had been reached by the other studies outlined above. Although it is often difficult to make direct comparisons, the profile and levels of psychopathology in adulthood are relatively similar across the genders (Cahill, Llewelyn, & Pearson, 1991; Dimock, 1988; Finkelhor, 1990). Where there is a difference, it tends to be in the subsequent sexual functioning of the male and female victims (e.g., Dimock, 1988; Roesler & McKenzie, 1994). However, such qualitative differences do not allow one to conclude that either gender has a worse outcome per se.

To summarise, there is a growing body of evidence from studies of clinical groups to refute the argument that adult males are not adversely affected by childhood experiences of sexual abuse. There is a need for more research that directly compares clinical populations of abused and non-abused males and females. Such research should consider the importance of controlling for other mediating variables, such as age and family dynamics.

Non-clinical groups. Studies of non-clinical groups (e.g., students) have also suggested that childhood sexual abuse is a risk factor for psychological disturbance in adult males. That disturbance is relatively general, covering many aspects of psychopathology. For example, Collings (1995) has demonstrated that non-clinical men (a sample of South African students) had significantly greater levels of psychopathology on all scales of the Brief Symptom Index if they had been victims of contact childhood sexual abuse. A number of other authors have reached similar conclusions (e.g., Brown, 1990). However, the methodological difficulties in making comparisons across studies makes it difficult to use such data to determine whether males and females are differently affected by childhood sexual abuse. There are relatively few community studies that directly compare the psychological impact of childhood sexual abuse on men and women. However, where the two genders are compared directly, females with such a history of abuse have a different pattern of psychopathology than males. For example, Stein, Golding, Siegel, Burnam and Sorenson (1988) demonstrated that males and females had similar additional lifetime risks of developing a psychiatric disorder if they had a history of childhood sexual abuse, but males were more likely to develop a substance use disorder, whereas women were more likely to develop a depressive or phobic disorder. The abused women's tendency to develop more affective problems than abused men was confirmed in their greater level of a wide range of psychological symptoms (e.g., guilt, anxiety, insomnia).

It can be concluded that non-clinical men and women who report a history of childhood sexual abuse each show a pattern of broad-based psychological disturbance, with relatively high levels of affective symptoms. Where there is a gender difference, it seems to be in the nature of the symptoms that develop. Male victims are more likely to develop problems in substance and alcohol use, while females have greater levels of anxiety and depression. This disparity (which cannot be taken to suggest a poorer outcome for either gender) maps onto the pattern of general population differences in the distribution of psychological and psychiatric disorders among adults (Meltzer et al., 1995).

Are Men who have been Childhood Victims Seen by Services Other than the 'Helping Professions'?

It has been suggested that male victims of childhood sexual abuse are more likely than females to develop externalised, aggressive characteristics in adulthood (Kaufman, 1984). Therefore, men would be more likely to show rage, attempt to reassert their masculinity, and become perpetrators of sexual abuse, all of which would predispose them to come into contact with the criminal justice system rather than psychiatric/psychological care. The criminal justice system is unlikely to enquire whether a person has been a victim as well as a perpetrator of violence. In support of this argument, there is research evidence to indicate high rates of histories of childhood sexual abuse in adult male prisoners (Petrovich & Templer, 1984; Condy, Templer, Brown & Veaco, 1987). It appears that there is a "filtration effect," in which many cases may manifest in ways that lead them to be dealt with outside of traditional psychological and psychiatric services. However, this is unlikely to be the whole story. It has already been shown that male victims of childhood sexual abuse have generally similar levels of psychological disturbance to female victims. The relatively low level of offending behavior in any population (relative to the extent of psychological disturbance) means that this filtration effect cannot completely account for the poor identification of victims of childhood sexual abuse among male clinical cases. Therefore, the filtration

hypothesis may be necessary to explain part of the discrepancy, but it cannot be seen as a sufficient explanation.

Do Adult Males Tend Not to Disclose Their Experiences of Childhood Sexual Abuse?

A number of studies have concluded that male victims of childhood sexual abuse do not readily disclose the fact that they have been abused (e.g., Boyd & Beail, 1994; Dimock, 1988; Finkelhor, 1984; Johanek, 1988; Lew, 1990; Nasjleti, 1980; Struve, 1990). Some evidence comes from a series of patient studies. While some of these studies involve comparatively small numbers of patients or do not report the number of participants (e.g., Nasjleti, 1980), others involve more adequate samples. For example, Dimock (1988) conducted a relatively small-scale study, which showed that only one of a sample of 25 men who had been abused disclosed the experience at the time it was occurring. The larger-scale surveys of non-clinical men tend to support these clinical impressions. For example, in a student sample in South Africa, Collings (1995) found that none of the 82 men who had been abused in childhood had reported the experience to the police or had previously sought counselling for abuse-related issues.

Obviously, the key studies are those which examine whether males are less likely than females to disclose their experience of childhood abuse. There is a moderate level of discrepancy among non-clinical groups. Finkelhor (1984) found that only 25% of male students who had been sexually abused in childhood had told anyone about their abuse, compared to 33% of abused female students. In a national survey, Finkelhor, Hotaling, Lewis and Smith (1990) found that 43% of men and 41% of women had told at least one person within a year of the childhood sexual abuse occurring. However, only 14% of men (compared to 24% of women) said that they went on to tell someone later, and 42% of men (compared to 33% of women) said that they had never told anyone. This discrepancy is even greater among clinical groups. In a direct comparison of male and female victims, Roesler and McKenzie (1994) found that disclosure during childhood was the only sexual abuse variable that differentiated the genders. 61% of adult women had told someone as a child, compared to 31% of men.

Many reasons for non-disclosure (e.g., the long-term effects of having been engaged in the perpetrator's secrecy strategies) are common to both male and female victims of childhood sexual abuse. It is also possible that men are less likely to seek help from their family doctor when they have a psychological problem that arises from childhood sexual abuse, although there are few data that might test such a hypothesis. Researchers have emphasised the following three key areas as offering potential explanations for non-disclosure in the male population. It will be noted that none of the three is unique to male victims in psychological or practical terms. However, there are reasons to see male and female socialization as potentially leading to qualitatively different conclusions (and courses of action).

Men do not define their childhood experiences as abusive, and do not think that their abuse experiences have had a negative impact. Before one can suggest that males have a bias towards defining their experiences as non-abusive, it is important to bear in mind that such self-definitions could be accurate, and that boys might be sexually abused in less severe ways than girls. Therefore, it is necessary to consider whether the sexual

experiences of boys are qualitatively similar to those of girls or whether they are objectively different. There is a body of research that makes direct comparisons of the nature of the experiences of males and females. These studies suggest differences on some indices of severity, but not on others. For example, Pierce and Pierce (1985) found that boys are more likely than girls to experience repeated penetrative acts, oral intercourse and masturbation, but less likely to experience fondling and abuse involving their natural fathers. Faller's (1989) data also indicate that boys are more likely to experience repeated extrafamilial abuse. Baker and Duncan (1985) suggested that boys in Britain have their first experience at a later mean age than girls. However, this age difference is not reliable, probably due to sampling methods (Faller, 1989). Some authors (e.g., Finkelhor, 1984; Pierce & Pierce, 1985) found directly contradictory evidence (boys abused at a younger age than girls) in US samples, and others (e.g., Finkelhor et al., 1990; Roesler & McKenzie, 1994) have found no age differences. To summarise, there are some differences and some similarities between the abusive experiences of male and female children. However, it is not possible to characterise one gender as having an overall profile of more severe abuse, since the direction of severity is a product of the characteristic investigated. For example, boys suffer more frequent, penetrative acts, while girls are more often abused by relatives.

Having established that boys' experiences of abuse cannot be classified generally as less severe than those of girls, it is now necessary to determine whether males have a tendency to describe those experiences as non-abusive. For a boy, a sexual experience with an adult may be culturally defined (by society, his friends, and by the boy himself) as an early introduction to sexual prowess and 'manhood' (Bolton, Morris, & MacEachron, 1989). Male sexual socialisation tends to encourage males to define sexual experiences as desirable provided there is no homosexual involvement (Fromuth & Burkhart, 1987). In keeping with this proposition, Condy, Templer, Brown, and Veaco (1987) found that male victims of sexual abuse by females did not report the experience as traumatic unless coercion was involved.

Early sexual experiences with older boys are sometimes defined as "experimentation." Boyd and Beail (1994) described British cases where abusive experiences in childhood were labelled in ways that made them seem less important. In one such instance, they outlined the case of a man with a 39-year history of severe psychological problems, which dated back to his being repeatedly anally raped and orally penetrated by older boys. He described these incidents to his therapist as "horseplay." In another case, a 22-year-old man (admitted to hospital following a suicide attempt) later admitted in therapy to being "bummed" (anal intercourse) by an older boy when he was 10. The victim labelled this as "mucking about."

The fact that males can have a clear physiological reaction during their abuse (i.e., an erection and possible ejaculation) may also lead some males to rationalise their abuse as something that they desired or invited (Watkins & Bentovim, 1992). Unlike in females, male arousal is markedly visible and this can enhance what Gerber (1990) has called the "myth of complicity." Coupled with this feeling of having been a willing participant may be the fact that boys may have been successfully "groomed" by the abuser—the sexual contact may be preceded by (and coupled with) affectionate real or substitute parenting, attention, and rewards. Males with these experiences may find it hard to acknowledge the abusive nature of the relationship (Watkins & Bentovim, 1992).

The findings from a large-scale survey (conducted in the UK) are important here, as they support the observations from clinical practice that have been reported above. Baker and Duncan (1985) found that men reported being significantly less damaged than women by their experience of childhood sexual abuse. Only 4% of men (com-

pared to 15% of women) felt it had caused permanent damage, while 57% (compared to 34% of women) stated that it had had no effect. Thus, there is evidence to suggest that some males do not define their experiences as abusive or harmful. Such people are not likely to identify themselves as wanting help for abuse-related issues, although that may be the type of help that some of them need.

It cannot be concluded that this self-description as either "damaged" or "not affected" is necessarily valid. Finkelhor (1984) concluded that sexually abused boys rate their experiences as less abusive than a comparable group of girls, even though the long-term effects on boys' self-esteem appears to be as high as (if not higher than) the impact upon girls. Evans (1990) has suggested that when there is no evidence of physical damage, males may be less likely to see their abuse as traumatic and less likely to seek help, but may be more likely to develop psychological problems. In a large-scale study undertaken by Mendel (1995), men were asked about their sexual activity during childhood, and were then asked whether they considered it abusive or not. Sexual activity with parents (of either sex) was associated with negative outcomes, regardless of whether or not it was considered abusive. Similarly, in a study of male college students who had been sexually abused in childhood, Fromuth and Burkhart (1989) found significant negative consequences associated with childhood sexual experiences with older women, despite the fact that these experiences tended not to be considered abusive. This is a particularly significant finding, given that many studies suggest that over 40% of all male victims have had an experience involving a female perpetrator (e.g., Fromuth & Burkhart, 1987, 1989; Johnson & Shrier, 1987; Olson, 1990).

To summarise, there is considerable evidence that some males suffer adverse long-term effects of childhood sexual abuse. However, it is also evident that men often do not disclose the abuse to professionals because they fail to define the experience as abusive or to regard it as significant.

The consequences of disclosure are perceived as worse than the consequences of non-disclosure. Over recent years, professionals have come to see disclosure of childhood sexual abuse as a positive, empowering experience for the client. However, the client has reasons for being reluctant to disclose (particularly fear of disbelief or adverse reactions), and may see the prospect of disclosure as negative and disempowering. Increased societal awareness of childhood sexual abuse among females may have gone some way towards making women less reluctant to disclose than men. In the past decade, there has been a more general public acceptance that a large number of girls are abused, but there has been far less public awareness of boys having had the same experiences. This process of social construction (e.g., Blumer, 1971) of childhood sexual abuse is discussed in more detail below. The greater awareness and acceptance of girls as victims of childhood sexual abuse may make it easier for women to disclose with appropriate support. Males may not have learned that their childhood experiences are far from unique, and hence will have no reason to expect either acceptance or support. Thus, their fears of the consequences of disclosure might be expected to be greater than those of their female peers.

In addition to these processes of social construction, the pattern of masculine socialisation might be expected to contribute to men's reluctance to disclose childhood sexual abuse. Society casts the normal male as sexually active, rather than sexually passive (Finkelhor, 1979). He is knowledgeable, potent, and a successful seducer (Bolton, Morris, & MacEachron, 1989). From early childhood, boys learn that masculinity means not depending on anyone, not being weak or passive, and not being a loser in a confrontation (Nasjleti, 1980). Boys are socialised to be dominant

and in control. These factors are not easily reconciled with the experience of being abused, defining oneself as a victim, and disclosing abuse.

There is evidence that these processes of social construction and masculine socialisation have an impact on men's willingness to disclose childhood sexual abuse. In a study by Dimock (1988), fear of the consequences of disclosure were instrumental in preventing all but one of a sample of 25 men from telling anyone about the abuse at the time it was occurring. Males cite threats from the abuser and fears of reprisal as common reasons for not disclosing (Dimock, 1988; Nasjleti, 1980; Sebold, 1987). Even when the threat is no longer apparent (e.g., when the boy is grown up and no longer in contact with the abuser), the psychological residue of the threat may still provide an effective barrier to disclosure.

There are also issues of shame, stigma and self-blame (McMullen, 1990). There may be shame regarding the inability to prevent what happened. One victim said "Deep down if I were a real man I should have been able to stop the abuse" (Dimock, 1988, p. 209). In other words, "real men" do not get abused. Shame was cited by the majority of adolescent boys in Nasjleti's (1980) study as a reason for non-disclosure. There is shame and guilt over allowing the assault, coupled with guilt about being unable to cope afterwards (Evans, 1990). The masculine ethos of self-reliance, of it being "unmanly" to seek help, also means that males may be less inclined to seek treatment (Struve, 1990). The "ideal man" is silent, strong and in charge of his emotions; such men do not go into therapy to talk about being abused (Mills, 1993). The abuse experience thus undermines many men's concepts of their masculinity. To talk about it would involve further threats to their male self-concept.

Surveys and patient series studies have shown that boys who have been sexually abused by men have fears about other people thinking that they are homosexual, and about becoming homosexual (Dimock, 1988; Finkelhor, 1984; Nasjleti, 1980). Homosexual activity is considered by most Western heterosexual males as abhorrent and shameful (Nasjleti, 1980). Reporting that you have been abused by a man may be seen as tantamount to an admission that you are gay. As well as having to contend with the incest taboo, a sexually abused male has to cope with the homosexuality taboo and with the feeling that his masculinity itself has been undermined by the abuse. Fearing damage to their reputation with peers, many males choose not to disclose (Sebold, 1987).

Many of these issues are brought to life by the comments of Leo, a 19-year-old rape survivor, cited in Evans (1990):

If I had my way I wouldn't have told anybody. When you ask me "Hey did I tell some friend of mine or somebody in my family?" you oughta imagine what's gonna happen if I go sit down with them and say, "Your Leo is still your Leo but his ass belongs to the man who scared him into taking down his pants." You ask some stupid questions for a man. You're lucky I talk to you because nobody else is gonna ever hear this boy's story. (Evans, 1990, p. 198)

These fear, masculinity and shame dynamics are likely to be at their strongest during adolescence. There is evidence to suggest a drop in referrals for male victims of this age group (Watkins & Bentovim, 1992).

In addition, male victims of childhood sexual abuse frequently describe fears about becoming, or being seen as, potential abusers (Mendel, 1995; Nasjleti, 1980). Bruck-

ner and Johnson (1987) describe this as the male survivor's Sword of Damocles. In reviews of the literature, Watkins and Bentovim (1992) and Mendel (1995) both concluded that the risks of cyclical victimization may have been overstated. The fact that some studies have shown high rates of histories of childhood sexual abuse amongst perpetrators of sexual abuse (from 32% (Groth, 1979) to 90% [Carlson, cited in Kasl, 1990]) is not the same as saying that similar proportions of abused men will go on to abuse others. In a rigorous study of cyclical victimization, Kaufman and Zigler (1987) concluded that approximately 70% of families in which parents suffered some form of abuse do not "transmit" the abuse to their children. In another well-conducted study, Briggs and Hawkins (1996) demonstrated that childhood sexual abuse per se does not influence men's subsequent offending behavior, although there may be some impact if the abuse was seen as a normal part of childhood, if more perpetrators were involved, or if the victim enjoyed some part of the experience. Clinicians are more likely to have access to and understand such statistics compared to the victims themselves. It appears that one of the few messages that has got across to male victims of childhood sexual abuse is the inaccurate one that they are highly likely to re-enact their abuse. Such men are unlikely to disclose their abuse to professionals, especially if they are adult males with children of their own.

To summarise, there is an intense cocktail of pressures on males to use the defences of denial and dissociation regarding their childhood abuse. In extreme forms, these pressures will lead to repression and inaccessibility of memories. Even when those memories are available, there may be extreme reluctance among abused males to seek help or to disclose their experiences to other people, including professionals. Whereas disclosure may be gaining acceptance as an empowering experience for female victims of sexual abuse, it still seems to be feared and experienced as disempowering for males. Aspects of disclosure and therapy (e.g., acceptance of the abusive aspects of the experience, seeking help, talking about what happened and the associated feelings) all clash with the male self-concept of physical and emotional invulnerability. Males find themselves enclosed in a tightly pulled knot: "If I was abused, then I am not a man; if I am a man, then I was not abused" (Mendel, 1995, p. 206). The unravelling of the knot necessitates skilled and informed action on behalf of others to facilitate disclosure and start the recovery process.

There is a paucity of services for adult male victims of childhood sexual abuse. Sexually abused males frequently suffer the damaging and isolating effects of believing that they are the only one to have ever been abused (Evans, 1990; Hunter, 1990). Organisations such as Rape Crisis either don't provide a service for men, or are perceived as not doing so (Evans, 1990). The lack of known resources means that men are not able to access help easily. They tend to have inadequate personal support networks within which to disclose and talk about their experiences (Evans, 1990), and when they look around for outside support they find nothing (Singer, 1989). The availability of services for female victims has helped to reduce the stigma of being abused in the female population and has assisted women to come forward and access help. This has not been the case in the male population (Mendel, 1995).

The establishment of services has centred on the proposition that females are victims and males are perpetrators. It might be worth considering whether the development of services for treating female perpetrators lags behind the development of services provided for male abusers (where the lag is measured temporally, as well as in terms of the proportional allocation of resources). Such a disparity in service

provision would be consistent with the hypothesised process of social construction of childhood sexual abuse (see "Conclusions").

Do Clinicians Fail to Suspect or Enquire About Histories of Sexual Abuse in Adult Male Clients?

There are several interrelated processes involved in this question. First, are clinicians less likely to hypothesise that childhood abuse has occurred in adult males than in females? Second, are clinicians less likely to enquire about childhood abuse if the client is a male? Third, if the client does disclose, does the clinician believe him? Finally, assuming that the client has disclosed and been believed, does the clinician respond appropriately? These questions will be addressed in turn.

Clinicians' hypothesising about childhood abuse. It has been suggested that clinicians are more reluctant to suspect childhood sexual abuse in male clients than in females (Finkelhor, 1984). This reluctance reflects cultural norms. Society tends to perceive males as perpetrators of sexual violence and females as victims. Many books refer throughout to perpetrators as "he" and victims as "she" (Bolton, Morris, & MacEachron, 1989). Although it is true that the majority of perpetrators are male and the majority of victims are female, the emphasis on this imbalance may preclude some clinicians from bearing in mind that the opposite can be true (and does occur).

In terms of adult services, our clinical impression is that outside agencies (such as family doctors) increasingly refer to childhood sexual abuse when making referrals of female patients, but this potential aetiological factor is rarely mentioned in referrals of men. Johanek (1988) suggests that such a failure of early identification may be because male victims of childhood sexual abuse are highly likely to come with a disguised presentation, such as anxiety, suicidality, hostility, rage or hypermasculine behaviour (e.g., aggression). It is not clear how well adult male and female victims can be differentiated by such presenting symptoms. However, some of the indicators of sexual abuse considered above (see "Does childhood sexual abuse have little effect on men?") may be particularly gender-congruent with normal male behavior (e.g., anger), and thus may be overlooked in men (Bolton et al., 1989). Therefore, there is a greater onus on the clinician to be alert to the possibility of a history of childhood sexual abuse in a male client.

Unfortunately, there is clear evidence that clinicians are not alert to that possibility, and are less likely to suspect sexual abuse in male clients. Ramsey-Klawnsnik (1990) conducted an archival study of referrals to a child protection service between 1984 and 1989. She found that referrals based solely on the presence of psychosocial indicators of sexual abuse were four times more likely to be made for girls than boys, indicating that when professionals see a child in distress they are more likely to consider the possibility of sexual abuse when that child is female. Boys have been shown to be referred to such services predominantly when their sisters have been found to be abused, rather than as the index case (Finkelhor, 1984; Pierce & Pierce, 1985).

In a study that we conducted on clinical psychologists in Britain (Holmes & Offen, 1996), clinicians were presented with vignettes describing case material. The case material included phenomena that have been associated with a history of sexual abuse in male and female victims (e.g., dissociative symptoms, phobic reactions, anger). Half of the clinicians were told that the client was female, while the other half were told that the client was male. They were then asked to hypothesise about the possible

aetiological factors that they would want to consider in this case. Significantly more clinicians hypothesised a possible history of sexual abuse where the client was female, even though the presenting features were identical.

These findings confirm that professionals are particularly unlikely to hypothesise about a history of childhood sexual abuse if the client is an adult man. More research is needed in this area, to verify whether clinicians' perceptions of their male clients are skewed away from the possibility of thinking that childhood sexual abuse may be an important antecedent to the presenting problems.

Clinicians' enquiries about childhood abuse. Whether or not they hypothesise that males might have been sexually abused, it is clear that few clinicians inquire about a possible history of sexual abuse in their male clients. In a study of men attending a British psychiatric clinic, Mills (1993) found that the majority had not been previously asked about sexual abuse. Dimock (1988) found that 19 men in a sample of 25 had received previous counselling or treatment for psychological problems, and yet had still not disclosed that they had been abused. As well as not hypothesising that their adult client may have been sexually abused, some professionals may be reluctant to enquire about it when it is appropriate to do so, as they perceive themselves as having a lack of knowledge or training about male victims (Hunter & Gerber, 1990,).

In addition, clinicians' models of female sexual abuse are predominantly based around victimization in the family, and may not be applicable to some male victims. For example, recent years have seen an increase in our understanding that many children are abused by professionals working in institutional settings (e.g., Faller, 1989; Kelley, Brant, & Waterman, 1993). There are two reasons why clinicians are less likely to enquire about such a history of abuse. First, there may be a reluctance to contemplate the possibility that other clinicians would be involved in perpetrating sexual abuse, despite the evidence of recent years (e.g., Garrett, 1994; Garrett & Davis, 1994). Second, by definition, such children will be considered as having had extrafamilial experiences. Because many definitions and discussions of childhood sexual abuse have centred on incest, clinicians and researchers have not always treated such individuals as being at risk (Finkelhor, 1984). Since extrafamilial experiences are proportionally more common in boys than in girls (e.g., Faller, 1989; Pierce & Pierce, 1985), it can be hypothesised that boys are at particular risk of abuse in such settings. Thus, a failure by clinicians to enquire will have a disproportionate effect on the number of identified cases of adult male victims of childhood sexual abuse.

Clinicians' belief in male clients' disclosures of childhood sexual abuse. High rates of disbelief have been cited in professionals' reactions to female victims (Frenken & Van Stolk, 1990). No systematic study has been undertaken with mental health clinicians into whether male victims are believed less frequently than female victims. However, it is clear that the nature of the reported abuse contributes to the process whereby clinicians accept that an adult male client has a history of childhood sexual abuse. The perpetrator's identity seems to be particularly important.

Abuse by females has traditionally been considered extremely rare, and only perpetrated by women who are under duress or psychotic (Lawson, 1993). Recent studies, however, have shown the proportion of boys abused by women to be surprisingly high, often over 40% of all male victims (Fromuth & Burkhart, 1987, 1989; Johnson & Shrier, 1987; Olson, 1990). Mendel (1995) speculated that this increase in identified prevalence during the 1980s and 1990s is largely a result of the greater acceptance of women as potential perpetrators and boys as potential victims, leading to the use of

more appropriate questions and methodologies. Underpinning this whole topic is the issue of whether or not male clients make such disclosures. It should be remembered that there is evidence to suggest that it may be only in long-term therapy that adult males will trust their therapist sufficiently to reveal abuse perpetrated by a female (Lawson, 1993).

The process of disbelief is well illustrated by a patient series study by Krug (1989). In a sample of eight males who alleged abuse by their mothers, Krug initially disbelieved the claims as fantasies rather than real memories, before discovering evidence that confirmed the abuse. He found no evidence to suggest that the mothers in that sample were psychotic. In a review of the literature, Lawson (1993) found that mother-son sexual abuse tends not to be reported to the authorities, but when it is reported it is largely ignored or not included in statistics. Although there may be a particular "blind spot" regarding the recognition of possible female-male abuse, there is also anecdotal evidence that males' claims to have been abused by other males are frequently disbelieved (Langsley, Schwartz, & Fairhairn, 1968; Nasjleti, 1980).

Clinicians' responses to disclosure of childhood sexual abuse. Finally, as well as the dangers of disbelieving and discounting claims of being abused, one should consider the clinician's response when a male client discloses a history of childhood sexual abuse. It has been suggested that some clinicians may believe that males are not damaged by that experience. There may be complicity between clinician and client that the abuse was experimentation, or an early entry into manhood (Bolton et al., 1989). Clinicians may too readily accept a male client's denial of his experience as abusive, or denial that it relates to the presenting psychological problems.

There is research evidence to suggest that some clinicians believe childhood sexual abuse is a less damaging experience for males than it is to females. In a study of British nurses, health visitors and medical students, Eisenberg, Owens, and Dewey (1987) found that a substantial minority of clinicians (33%) felt that females would be more affected by sexual abuse than males. Father-daughter incest was ranked as more serious than father-son incest, and mother-daughter incest was ranked as more serious than mother-son incest. In a study of court cases, Pierce and Pierce (1985) found that boy victims were provided with significantly less counselling than girls, even though perpetrators of sexual abuse on males were significantly more likely to be imprisoned. Finally, in a study using vignettes, Broussard and Wagner (1988) found that attribution of responsibility for the abuse was not significantly different for male compared to female victims. However, they did find significant interactions with the gender of the judges (who were students): male judges attributed more blame to male victims and less blame to their abusers. In addition, when a male victim's response was manipulated to appear encouraging of the abuse, perpetrators were seen as less responsible than when the victim's response was resisting or passive. In contrast, this manipulation had no effect where the victim was female. A similar study conducted on clinicians would be valuable as a test of the hypothesis that male clinicians are more likely to collude with male victims in order to deny the impact and abusive nature of the victim's experiences.

CONCLUSIONS

This review has considered the literature on adult males who have been victims of childhood sexual abuse, in order to explain why the number of male clients who report such experiences is low (relative to both the number of males who have been

abused and the identification rate in females). Four possible explanations were considered.

First, it was shown that childhood sexual abuse has a similar psychological impact upon male and female adults, indicating that one cannot conclude that men are referred less often for psychological help because the experience has only a minor impact on them. Therefore, the severity of impact cannot account for the imbalance in identified cases. Second, boys who are sexually abused may go on to develop characteristics that lead them to be seen in adulthood by services other than the helping professions (e.g., the criminal justice system). However, the influence of this factor is not sufficient to explain the imbalance in identified cases in clinical practice. Third, it has been shown that males disclose their experiences of childhood sexual abuse less often than females, a factor that will certainly have some influence upon the relatively low number of males who are identified. Finally, it has been demonstrated that clinicians are less likely to suspect or enquire about histories of childhood sexual abuse in adult male clients. Even where such cases are identified, clinicians are less likely to believe in the disclosure or to treat it as an issue for therapy. The remainder of this review will consider the social processes that might account for these conclusions, and will address their clinical implications.

The Social Construction of the "Problem" of Male Victims of Childhood Sexual Abuse

The social constructionist approach maintains that reality is not self-evident, stable, and waiting to be discovered, but is constructed. Reality is a product of human cognition, and is defined by the ways that people talk about the world (i.e., by discourses) (Von Glaserfeld, 1984). These ideas are not new. In the early 18th century, the Italian philosopher Giambattista Vico made the statement *verum ipsum factum*—"truth is the same as the made" (Von Glaserfeld, 1984). However, it is only in the last 25 years that sociology and (belatedly) psychology have started to apply these ideas to social, personal and interpersonal problems. Blumer (1971) argued that it is an error to locate social problems in objective conditions, saying that:

Social problems have their being in a process of collective definition. This process determines whether social problems will arise, whether they become legitimated, how they are shaped in discussion, how they come to be addressed in official policy, and how they are reconstituted in putting planned action into effect. (Blumer, 1971, p. 298)

He concluded that social problems go through a developmental process, starting with emergence (or recognition) and ending with the implementation of policy decisions aimed at bringing about their alleviation. Of particular relevance to the themes discussed in this paper are his comments on emergence:

A social problem does not exist for a society unless it is recognized by that society to exist. In not being aware of a social problem, a society does not perceive it, address it, discuss it, or do anything about it. The problem is just not there . . . The pages of history are replete with instances of dire social conditions unnoticed and unattended in the societies in which they occurred. (Blumer, 1971, pp. 301-302)

The problem of child sexual abuse undoubtedly has a history dating back centuries, but it did not become noticed and emerge in the field of psychiatry until the late 19th century (van der Kolk & Van der Hart, 1989). Even then, its emergence did not lead to its legitimisation as a problem worthy of the attention of psychiatry, psychology or society in general. Freud's rejection of the seduction theory in favour of theories based on fantasy and the Oedipus complex has been cited as instrumental in this process (Finkelhor, 1984; Masson, 1984).

Spector and Kitsuse (1987) emphasise the role of claims-makers in the identification and social construction of problems. Without the activities of the feminist movement as the claims-makers of the issue of child sexual abuse, it would not have been identified and legitimised as a social problem in the 1970s. Blumer (1971) argued that social legitimacy is acquired when a problem gains recognition through being part of public discussion in arenas such as the press and other media, health and social services, and assembly places of officialdom. The feminist movement enabled this discussion, and in turn permitted policy decisions to be made to address the problem of childhood sexual abuse. However, social constructionism also emphasises the need to study the values of the claims-makers, and the relationship between the claims-makers and the claims made.

It is clear that male victims of childhood sexual abuse have benefitted from society's greater awareness of the general problem of sexual abuse. However, it is also clear that the social construction of the problem of sexual abuse of males has lagged behind the process for female victims. The feminist sponsorship of the movement to increase awareness of sexual violence and abuse focused attention on male perpetrators and female victims. Male victims have not had a lobby group to assist them specifically, or indeed a developed ideology from which to make their claims or from which others might make claims on their behalf. The social construction of males (as people who are competent, dominant, able to protect themselves, invulnerable, and not needing help) does not match the experience of the sexually abused male, and does not lead easily to claims for help. Males have not readily been perceived as victims: their role in the ideology of sexual abuse has been that of victimizers. The dominant ideologies have also precluded contemplation of women as abusers, and of males as suffering adverse effects following sexual activity with older and more powerful females.

Social constructionist models predict that there will be an escalation in the number of identified cases as professionals and members of society increasingly become aware of the existence of a problem. This is what has happened regarding female victims of child sexual abuse. In the US, there has been an increase from 6,000 cases of sexual abuse referred to child protection services in 1976 (3% of all maltreatment cases) to almost 500,000 (17%) in 1992 (Mendel, 1995). Although the identification of male victims is lagging behind, there is also evidence of an increase in reported cases in the male population. Spencer and Dunklee (1986) have noted a year by year increase in the proportion of males evaluated for sexual abuse at a children's hospital, from less than 1% of all referrals in 1979 to 14% in 1984. The ratio of male to female child sexual abuse appears to be decreasingly divergent as new studies are published each year (Mendel, 1995; Watkins & Bentovim, 1992). Improved awareness among health professionals, social services, and society in general regarding male victims of childhood sexual abuse may be the dominant factor in explaining these changes. In order to enable more males to access help, professionals, victims and society in general need to open their eyes, uncover their ears, and speak of the "evil" of male sexual abuse.

Clinical Implications

Of course, recognition of the problem is only the first step. Next, one must consider what action needs to be taken. First, there has been a need to overcome a succession of myths about female victims of childhood sexual abuse in the last century. These have included: girls are not abused; girls' claims of abuse are fantasies rather than realities; girls are only abused by strangers, not by family members; only a very small minority of girls are abused; abuse has no (or only a minor) damaging effect on girls; and abused girls are "no angels." These same myths have been applied to male victims, but have not been challenged so vociferously or successfully. It is incumbent on all of us to challenge our own assumptions, and the assumptions of others, about male victims of sexual abuse. We need models that address the vulnerability and lack of power of all children, not just girls.

Second, the social constructionist approach helps us to recognise that what we observe is influenced by what we think: we see what we expect to see, or are open to seeing. As clinicians, we need to believe in, think about, and feel the horror of sexual abuse and its consequences in boys (Boyd & Beail, 1994). Only then will we be in a position to be of help to the abused boys and men who present to our services. As researchers, we need to be prepared to ask questions of males that have so far been confined to females. Only then will we obtain a fuller picture of the extent and effects of sexual abuse on males.

Third, we need to be aware of the indicators of possible sexual abuse in adult male clients, particularly as many cases involve a disguised presentation and the men do not readily disclose their abuse. In conjunction with this awareness, we need to think about how to facilitate disclosure of childhood sexual abuse in male clients. Addressing issues of masculinity appears to be of key importance to this process. We need to ensure that we have the skills and confidence to enable issues of masculinity to be a focus for therapy, both as a prelude and conjoint to discussion about the abuse. A lack of enquiry about early sexual experiences risks reinforcement of the victim's denial and shame. Therapists should model a willingness to listen to and talk about early abusive sexual experiences (Hunter & Gerber, 1990; Johaneck, 1988). A negative response to disclosure, such as disbelief and minimalisation, has been associated with increased disturbance in female victims (Browne & Finkelhor, 1986; Waller & Ruddock, 1993). It is likely to be similarly damaging for male victims. Overall, we need to utilise our knowledge and expertise with female victims in our efforts to help male victims, but we also need to be aware of gender differences and to adapt our techniques as appropriate.

Finally, whereas the issue of female child sexual abuse has gone through the various stages of becoming a collectively defined social problem, the issue of male victims is still at the stage of acquiring social legitimacy. Clinicians can assist this process through incorporating the issue of male victims into academic and public debate (through the publication and dissemination of research findings, through lobbying, and through access to the media and other means of mass communication). The claims-makers for male victims of sexual abuse are unlikely to be the victims themselves, due to the multi-faceted aspects of the stigma associated with being a male victim. If we are unwilling to take this role, the problem may not acquire social legitimacy or attract the funding and services needed to address it. In addition, the stigma, taboo and feeling of being "the only one" will continue, and will prevent males from coming forward to

access help. Myths such as "males are not abused" or "males are not affected by their abuse experiences" can only flourish in such an environment.

REFERENCES

- Badgley, R., Allard, H., McCormick, N., Proudfoot, P., Fortin, D., Ogilvie, D., Rae-Grant, Q., Gelinas, P., Pepin, L., & Sutherland, S. (1984). *Sexual offences against children (Vol. 1)*. Ottawa: Canadian Government Publishing Centre.
- Baker, A. W., & Duncan, S. P. (1985). Child sexual abuse: a study of prevalence in Great Britain. *Child Abuse and Neglect*, 9, 457-467.
- Blumer, H. (1971). Social problems as collective behaviour. *Social Problems*, 18, 298-306.
- Bolton, F. G., Morris, L. A., & MacEachron, A. E. (1989). *Males at risk: The other side of child sexual abuse*. Beverly Hills, CA: Sage.
- Boyd, J., & Beail, N. (1994). Gender issues in male sexual abuse. *Clinical Psychology Forum*, 64, 35-38.
- Briere, J. (1992). Methodological issues in the study of sexual abuse effects. *Journal of Consulting and Clinical Psychology*, 60, 196-203.
- Briere, J., Evans, D., Runtz, M., & Wall, T. (1988). Symptomatology in men who were molested as children: A comparison study. *American Journal of Orthopsychiatry*, 58, 457-461.
- Briere, J., & Zaidi, L. Y. (1989). Sexual abuse histories and sequelae in female psychiatric emergency room patients. *American Journal of Psychiatry*, 146, 1602-1606.
- Briggs, F., & Hawkins, R. M. F. (1996). A comparison of the childhood experiences of male child molesters and men who were sexually abused in childhood and claimed to be non-offenders. *Child Abuse and Neglect*, 20, 221-233.
- Broussard, S. D., & Wagner, W. G. (1988). Child sexual abuse: Who is to blame? *Child Abuse and Neglect*, 12, 563-569.
- Brown, J. (1990). The treatment of male victims with mixed-gender short-term psychotherapy. In M. Hunter (Ed.), *The sexually abused male: Vol 2. Application and treatment strategies* (pp. 135-169). Lexington, MA: Lexington.
- Browne, A., & Finkelhor, D. (1986). Impact of sexual abuse: A review of the research. *Psychological Bulletin*, 99, 66-77.
- Bruckner, D. F., & Johnson, P. E. (1987). Treatment for adult male victims of childhood sexual abuse. *Social Casework: The Journal of Contemporary Social Work*, 68, 81-87.
- Cahill, C., Llewelyn, S. P., & Pearson, C. (1991). Long-term effects of sexual abuse which occurred in childhood: A review. *British Journal of Clinical Psychology*, 30, 117-130.
- Cole, P. M., & Putnam, F. W. (1992). Effect of incest on self and social functioning: A developmental psychopathology perspective. *Journal of Consulting and Clinical Psychology*, 60, 174-184.
- Collings, S. J. (1995). The long-term effects of contact and noncontact forms of child sexual abuse in a sample of college men. *Child Abuse and Neglect*, 19, 1-6.
- Condy, S. R., Templer, D. I., Brown, R., & Veaco, L. (1987). Parameters of sexual contact of boys with women. *Archives of Sexual Behaviour*, 16, 379-394.
- Conte, J. R., & Schuerman, J. R. (1987). Factors associated with an increased impact of child sexual abuse. *Child Abuse and Neglect*, 11, 201-211.
- Dimock, P. T. (1988). Adult males sexually abused as children. *Journal of Interpersonal Violence*, 3, 203-221.
- Eisenberg, N., Owens, R. G., & Dewey, M. E. (1987). Attitudes of health professionals to child sexual abuse and incest. *Child Abuse and Neglect*, 11, 109-116.
- Evans, M. C. (1990). The needs of a blue-eyed Arab: Crisis intervention with male sexual assault survivors. In M. Hunter (Ed.), *The sexually abused male: Vol. 1. Prevalence, impact and treatment* (pp. 193-225). Lexington, MA: Lexington.
- Faller, K. C. (1989). Characteristics of a clinical sample of sexually abused children: How boy and girl victims differ. *Child Abuse and Neglect*, 13, 281-291.
- Finkelhor, D. (1979). *Sexually victimized children*. New York: Free Press.
- Finkelhor, D. (1984). *Child sexual abuse: New theory and research*. New York: Free Press.
- Finkelhor, D. (1990). Early and long-term effects of child sexual abuse: An update. *Professional Psychology: Research and Practice*, 21, 325-330.
- Finkelhor, D., Hotaling, G., Lewis, I. A., & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence, characteristics and risk factors. *Child Abuse and Neglect*, 14, 19-28.
- Frenken, J., & Van Stolk, B. (1990). Incest victims: Inadequate help by professionals. *Child Abuse and Neglect*, 14, 253-263.

- Fromuth, M. E., & Burkhart, B. R. (1987). Childhood sexual victimization among college men: Definitional and methodological issues. *Violence and Victims*, 2, 241-253.
- Fromuth, M. E., & Burkhart, B. R. (1989). Long-term correlates of childhood sexual abuse in two samples of college men. *Child Abuse and Neglect*, 13, 533-542.
- Garrett, T. (1994). Epidemiology in the USA. In D. Jehu (Ed.), *Patients as victims: Sexual abuse in psychotherapy and counselling* (pp. 27-35). Chichester: Wiley.
- Garrett, T., & Davis, J. (1994). Epidemiology in the UK. In D. Jehu (Ed.), *Patients as victims: Sexual abuse in psychotherapy and counselling* (pp. 37-57). Chichester: Wiley.
- Gerber, P. N. (1990). Victims becoming offenders: A study of ambiguities. In M. Hunter (Ed.), *The sexually abused male: Vol 1. Prevalence, impact and treatment* (pp. 153-176). Lexington, MA: Lexington.
- Groth, A. N. (1979). Sexual trauma in the life histories of rapists and child molesters. *Victimology: An International Journal*, 4, 10-16.
- Holmes, G. R. & Offen, L. (1996). Clinicians' hypotheses regarding clients' problems: Are they less likely to hypothesise sexual abuse in male compared to female clients? *Child Abuse and Neglect*, 20, 493-501.
- Hunter, M. (1990). *Abused boys: The neglected victims of sexual abuse*. Lexington, MA: Lexington.
- Hunter, M., & Gerber, P. N. (1990). Use of the terms victim and survivor in the grief stages commonly seen in recovery from sexual abuse. In M. Hunter (Ed.), *The sexually abused male: Vol 2. Application and treatment strategies* (pp. 79-89). Lexington, MA: Lexington.
- Jacobson, A., & Richardson, B. (1987). Assault experiences of 100 psychiatric inpatients: Evidence of the need for routine enquiry. *American Journal of Psychiatry*, 144, 908-913.
- Johanek, M. F. (1988). Treatment of male victims of child sexual abuse in military service. In S. M. Sgroi (Ed.), *Vulnerable populations: Vol 1. Evaluation and treatment of sexually abused children and adult survivors* (pp. 103-114). Lexington, MA: Lexington.
- Johnson, R. L., & Shrier, D. (1987). Past sexual victimization by females of male patients in an adolescent medicine clinic population. *American Journal of Psychiatry*, 144, 650-652.
- Kasl, C. D. (1990). Female perpetrators of sexual abuse: A feminist view. In M. Hunter (Ed.), *The sexually abused male: Vol 1. Prevalence, impact and treatment* (pp. 259-274). Lexington, MA: Lexington.
- Kaufman, A. (1984). Rape of men in the community. In I. R. Stuart & J. G. Greer (Eds.), *Victims of sexual aggression: Treatment of children, women and men*. New York: Van Nostrand Reinhold.
- Kaufman, J., & Zigler, E. (1987). Do abused children become abusive parents? *American Journal of Orthopsychiatry*, 57, 186-192.
- Kelley, S. J., Brant, R., & Waterman, J. (1993). Sexual abuse of children in day care centres. *Child Abuse and Neglect*, 17, 71-89.
- Krug, R. S. (1989). Adult male report of childhood sexual abuse by mothers: Case descriptions, motivations and long-term consequences. *Child Abuse and Neglect*, 13, 111-119.
- Kuyken, W. (1995). The psychological sequelae of childhood sexual abuse: A review of the literature and implications for treatment. *Clinical Psychology and Psychotherapy*, 2, 108-121.
- Langsley, D. G., Schwartz, M. N., & Fairbairn, R. H. (1968). Father-son incest. *Comprehensive Psychiatry*, 9, 218-226.
- Lawson, C. (1993). Mother-son sexual abuse: Rare or underreported? A critique of the research. *Child Abuse and Neglect*, 17, 261-269.
- Lew, M. (1990). *Victims no longer: Men recovering from incest and other childhood sexual abuse* (2nd ed.). New York: Harper and Row.
- Masson, J. M. (1984). *The assault on truth: Freud's suppression of the seduction theory*. New York: Farrar, Straus & Giroux.
- McMullen, R. J. (1990). *Male rape: Breaking the silence of the last taboo*. London: GMP.
- Meltzer, H., Gill, B., Petticrew, M., & Hinds, K. (1995). *The prevalence of psychiatric morbidity among adults living in private households*. London: Office of Population Censuses and Surveys/HMSO.
- Mendel, M. P. (1995). *The male survivor: The impact of sexual abuse*. London: Sage.
- Mills, A. (1993). Helping male victims of sexual abuse. *Nursing Standard*, 7, 36-39.
- Mullen, P. E., Martin, J. L., Anderson, J. C., Romans, S. E., & Herbison, G. P. (1996). The long-term impact of the physical, emotional, and sexual abuse of children: A community study. *Child Abuse and Neglect*, 20, 7-21.
- Nasjleti, M. (1980). Suffering in silence: The male incest victim. *Child Welfare*, 59, 269-275.
- Neilsen, T. (1983). Sexual abuse of boys: Current perspectives. *Personnel and Guidance Journal*, 62, 139-142.
- Olson, P. E. (1990). The sexual abuse of boys: A study of the long-term psychological effects. In M. Hunter (Ed.), *The sexually abused male: Vol. 1. Prevalence, impact and treatment* (pp. 137-152). Lexington, MA: Lexington.

- Peters, S., Wyatt, G., & Finkelhor, D. (1986). Prevalence. In D. Finkelhor (Ed.), *A sourcebook on child sexual abuse* (pp. 15-59). Newbury Park: Sage.
- Petrovich, M., & Templer, D. I. (1984). Heterosexual molestation of children who later become rapists. *Psychological Reports*, 54, 810-811.
- Pierce, R., & Pierce, L. H. (1985). The sexually abused child: A comparison of male and female victims. *Child Abuse and Neglect*, 9, 191-199.
- Ramsey-Klawnsnik, H. (1990). *Sexually abused boys: Indicators, abusers and impact of trauma*. Paper presented at the Third National Conference on the Male Survivor, Tucson.
- Roesler, T. A., & McKenzie, N. (1994). Effects of childhood trauma on psychological functioning in adults sexually abused as children. *Journal of Nervous and Mental Disease*, 182, 145-150.
- Rogers, C. M., & Terry, T. (1984). Clinical interventions with boy victims of sexual abuse. In I. Stewart & J. Greer (Eds.), *Victims of sexual aggression* (pp. 91-104). New York: Van Nostrand Reinhold.
- Rosenfeld, A. A. (1979). Incidence of a history of incest among 18 female psychiatric patients. *American Journal of Psychiatry*, 136, 791-795.
- Sebold, J. (1987). Indicators of child sexual abuse in males. *Social Casework*, 68, 75-80.
- Schulte, J. G., Dinwiddie, S. H., Pribor, E. F., & Yutzy, S. H. (1995). Psychiatric diagnoses of adult male victims of childhood sexual abuse. *Journal of Nervous and Mental Disease*, 183, 111-113.
- Singer, K. J. (1989). Group work with men who experience incest in childhood. *American Journal of Orthopsychiatry*, 59, 468-472.
- Spaccarelli, S. (1994). Stress, appraisal and coping in child sexual abuse: A theoretical and empirical review. *Psychological Bulletin*, 116, 340-362.
- Spector, M., & Kitsuse, J. I. (1987). *Constructing social problems*. New York: Aldine de Gruyter.
- Spencer, M. J., & Dunklee, P. (1986). Sexual abuse of boys. *Pediatrics*, 78, 133-137.
- Stein, J. A., Golding, J. M., Siegel, J. M., Burnam, M. A., & Sorenson, S. B. (1988). Long-term psychological sequelae of child sexual abuse: The Los Angeles Epidemiologic Catchment Area Study. In G. E. Wyatt & G. J. Powell (Eds.), *Lasting effects of child sexual abuse* (pp. 135-154). Newbury Park: Sage.
- Steele, K., & Colrain, J. (1990). Abreactive work with sexual abuse survivors: Concepts and techniques. In M. Hunter (Ed.), *The sexually abused male: Vol. 2. Application and treatment strategies* (pp. 1-55). Lexington, MA: Lexington.
- Struve, J. (1990). Dancing with the patriarchy: The politics of sexual abuse. In M. Hunter (Ed.), *The sexually abused male: Vol. 1. Prevalence, impact and treatment* (pp. 3-46). Lexington, MA: Lexington.
- Urquiza A. J., & Capra, M. (1990). The impact of sexual abuse: Initial and long-term effects. In M. Hunter (Ed.), *The sexually abused male: Vol. 1. Prevalence, impact and treatment* (pp. 105-136). Lexington, MA: Lexington.
- Urquiza, A. J., & Keating, L. M. (1990). The prevalence of sexual victimization of males. In M. Hunter (Ed.), *The sexually abused male: Vol. 1. Prevalence, impact and treatment* (pp. 89-104). Lexington, MA: Lexington.
- van der Kolk, B. A., & van der Hart, O. (1989). Pierre Janet and the breakdown of adaptation in psychological trauma. *American Journal of Psychiatry*, 146, 1530-1540.
- Vander Mey, B. J. (1988). The sexual victimization of male children: A review of previous research. *Child Abuse and Neglect*, 12, 61-72.
- Von Glaserfeld, E. (1984). An introduction to radical constructivism. In P. Watzlawick (Ed.), *The invented reality* (pp. 17-40). London: Norton.
- Waller, G., & Ruddock, A. (1993). Experiences of disclosure of childhood sexual abuse and psychopathology. *Child Abuse Review*, 2, 185-195.
- Watkins, B., & Bentovim, A. (1992). The sexual abuse of male children and adolescents: A review of current research. *Journal of Child Psychology and Psychiatry*, 33, 197-248.

Appendix C

Maxwell R. Hong and Sue D. Hobbs, *Simulated Memory Error and Blame Attribution in Cases of Child Sexual Abuse*, 27(5) Psychol., Crime & Law 494 (2021).

Appendix C



Simulated memory error and blame attribution in cases of child sexual abuse

Maxwell R. Hong^a and Sue D. Hobbs^b

^aDepartment of Psychology, University of Notre Dame, Notre Dame, IN, USA; ^bChild and Adolescent Development, California State University, Sacramento, Sacramento, CA, USA

ABSTRACT

The present study utilized simulated memory error and blame attributions to investigate the effects of variations in rehearsal on memory. Specifically, 222 undergraduates read a story about child sexual abuse (CSA) while role-playing as the main character. After reading the story, participants were prompted to blame different characters for the abuse (perpetrator, mother, self, or no one) and rehearse the story (to write out the story while incorporating their blame attributions or to write out the story without adding blame attributions), or not rehearse (to not write out the story). Due to prior research on simulated memory error and memory for CSA, we collected data on participant depression, posttraumatic stress disorder, dissociative tendencies, emotion regulation strategies, and attachment orientation. After a 2-week delay, participants were asked to write out the entire story exactly as they had read it. We found that rehearsal resulted in fewer omission errors, and blame attribution predicted more omission errors. Cognitive reappraisal was associated with more commission errors and fewer omission errors. Males and participants with higher psychopathology scores also made more omission errors. There was also an interaction between different attachment systems when predicting commission errors.

ARTICLE HISTORY

Received 20 November 2019
Accepted 9 August 2020

KEYWORDS

Memory; abuse; simulated memory error; blame-attribution; eye-witness testimony

Accurate victim testimony is important in the legal system, especially in cases of child-sexual-abuse (CSA). This is because CSA is often committed clandestinely (Bala et al., 2001). Moreover, there is often no visible injury to indicate sexual abuse (Myers, 1993). In such cases, legal professionals and fact finders must make life-altering decisions based fully or in part on victim testimony (see e.g. Corder & Whiteside, 1988; Johnson et al., 2017). Therefore, it is imperative for members of the legal system understand and recognize factors that can influence the accuracy of such testimony.

In cases of CSA, some victims delay disclosure and refuse to talk or think about the abuse (Goodman-Brown et al., 2003; Walsh et al., 2010). Victims may also attempt to reframe abuse experiences to minimize the psychological impact (Walsh et al., 2010). Additionally, victims may blame themselves (Goodman-Brown et al., 2003; Mokma et al., 2016) or other nonoffending family members (Hunter et al., 1992). It is possible that avoiding thoughts or speaking of abuse, reframing abuse, or blaming nonoffenders

(the victims themselves or others) may negatively affect later memory and decrease the accuracy of testimony. Coping mechanisms and blame attributions can result in the lack of memory rehearsal for the actual event or even rehearsal of incorrect information.

In the current study, we utilized the simulated memory error paradigm (SMEP; Christianson & Bylin, 1999; McWilliams et al., 2014) to examine variations of rehearsal and blame-attribution and how they affect memory. SMEP involves adults reading a fictional story while role-playing as the main character, then retelling the story while consciously making errors. Although the study focuses on adults role-playing fictional CSA events, contributions from this research may add to the existing knowledge base about factors that can affect memory for traumatic events.

Potential contributors to memory error

There are a number of factors that can affect memory accuracy. These include rehearsal, suppression, reframing, misinformation, and confabulation. For example, it is well established that, in general, rehearsal supports accurate memory, whereas lack of rehearsal is associated with forgetting (Baddeley et al., 2009). Suppression involves actively avoiding thinking about something (essentially avoiding rehearsal) or by substituting thoughts about something different (Benoit & Anderson, 2012). Both processes decrease later recall for negative stimuli presented in laboratory experiments (Küpper et al., 2014; Noreen & MacLeod, 2013). In instances of CSA, victims may engage in suppression and try to avoid thinking about their memories of abuse and disclose at a later time to a family member, friend, psychologist, or social worker (Dammeyer et al., 1997; Goodman-Brown et al., 2003). This avoidance can negatively affect later memory of the event.

Emotion regulation strategies and coping mechanisms, such as emotion expression suppression and cognitive reappraisal can also negatively affect memory for traumatic events (Gross & John, 2003; Richards & Gross, 2000). During emotion expression suppression, individuals avoid expressing emotions surrounding a negative event. In cognitive reappraisal, individuals attempt to reframe negative experiences and think about these experiences in ways that are less distressing (Cutuli, 2014; Gross & John, 2003). Both emotion regulation methods may result in decreased rehearsal of and negatively affect memory for traumatic events (Dillon et al., 2007; Engen & Anderson, 2018).

Besides emotion regulation, misinformation may also be associated with memory error. Misinformation introduced after an event can alter memory (see Loftus, 2005 for review). Research on misinformation often involves a three-step approach. First the participant is presented with stimuli (e.g. photos or stories). Second, the participant is presented with incorrect information about the previously presented stimuli, often in the form of a suggestive question. Third, the participant is tested for memory about the original stimuli (Frenda et al., 2011). The resulting error in memory is termed the 'misinformation effect'. The misinformation effect has been demonstrated in research with benign (e.g. an event at school, Poole & Lindsay, 2001) and distressing stimuli (e.g. murder; Paz-Alonso & Goodman, 2008). Misinformation can result in source monitoring errors and errors in recall (Mitchell & Johnson, 2000). Distress experienced during the to-be-remembered event is related to increased susceptibility to misinformation (Monds et al., 2013).

In addition to information supplied by others, individuals can provide misinformation to themselves, as is evidenced in studies on choice blindness (Stille et al., 2017). In choice blindness research, a participant makes a choice between two or more stimuli (e.g. photos), and the researcher manipulates the stimuli, so it appears the participant actually made a different choice. In the research by Stille et al. (2017) researchers combined misinformation and choice blindness. After the choice blindness manipulation, the researchers asked participants to justify their choices (including the ones they did not actually make). In effect, participants supplied their own misinformation, which resulted in incorrect memories of the stimuli when participants did not notice the choice blindness manipulation. In cases of CSA or other traumatic events, victims may experience self-supplied misinformation if they try to minimize the seriousness of the experience by reframing the experience in a more positive light.

Discussing or thinking about (e.g. rehearsing) false details that did not occur during an event may also negatively affect subsequent memory recall (Dark & Loftus, 1968; Johnson, 1975). For example, forced confabulation, wherein individuals are pressured to provide false information, has an adverse effect on later memory (Zaragoza et al., 2001). Such confabulations may occur during suggestive therapy (Geraerts et al., 2009) or police induced confessions (Kassin et al., 2010) during which individuals may be pressured to agree with interviewers' preconceived perceptions, and suggestive interviewing (Garven et al., 2000). Rehearsal, suppression, reframing, misinformation, and confabulation are related constructs. For instance, reframing and confabulation can result in misinformation and rehearsal of inaccurate details. Expressive suppression and reframing can result in decreased rehearsal of traumatic event memories.

Simulated memory error

As outlined by Christianson and Bylin (1999), SMEP (the simulated memory error paradigm) examines the effects of feigning amnesia for a crime during questioning. Participants in the original studies took the position of the criminal who committed a crime (e.g. murder). Specifically, participants played the role of a murderer by reading a story from the murderer's perspective. Immediately afterwards, participants were asked to recall the scenario accurately or to recall it while feigning memory impairment. A week later, participants are asked to correctly recall the original story truthfully. Feigning memory error resulted in memory error when participants were asked to recall the story later. Findings suggest that feigning memory impairment can reduce recall of the original story. That is, the process of omitting and reconstructing information at an earlier time reduces one's ability to recall the crime truthfully at a later time (van Oorsouw & Merckelbach, 2004).

The effects of generating false information may work differently in CSA cases compared to non-sexual crimes, such as burglary or murder. Role-playing a traumatic event from the perspective of a victim may make it easier to remember the event (Nairne & Pandey, 2008). The severity of the crime may elicit 'survival processing', that is, the tendency to fixate on information for survival. Research on taking the role of the victim combined with self-generating information about abuse led to an extension of SMEP (see e.g. McWilliams et al., 2014; Newton & Hobbs, 2015). Specifically, instead of simulating amnesia for perpetrating a crime (as in the simulated amnesia paradigm), SMEP has a

wide variety of extensions in general, including simulating being a victim who suppresses or confabulates information about a sexual assault.

Consider McWilliams et al. (2014), in which researchers evaluated the memories of adults who read a story about CSA from the perspective of a victim. Researchers sought to answer if simulated memory error of a CSA story would have detrimental effects later on true memory for the CSA story, and whether individual differences are related to memory for CSA information. To test this hypothesis, in Session 1, participants read a narrative about a fictional CSA incident. Participants were then randomly assigned to one of four rehearsal conditions: (1) report the entire incident truthfully, (2) report the incident, while omitting details related to the CSA, (3) report the incident while adding details to create an alternate story, or (4) do not report the incident at all (no rehearsal control group). After a week, in Session 2, participants were prompted to recall the story truthfully. Researchers found that untruthful rehearsal (i.e. omitting details or creating an alternate story) or no rehearsal at Session 1, compared to telling the truth, had negative consequences on memory for CSA at Session 2. However, untruthful rehearsal resulted in better memory than no rehearsal. Researchers suggested that mental work required to omit or err about the abuse information resulted in selected rehearsal of it, thus resulting in better memory compared to no rehearsal at all.

Research on blame

In the McWilliams et al. (2014) study, participants were asked whom they blamed for the abuse, but blame itself was not manipulated. Participants' blame attributions did not significantly predict loss or gain of memory accuracy. Researchers argued that simulating memory error for CSA might not activate sufficient blame attributions to affect memory performance. However, solely measuring blame attributions may not be sufficient evidence that varied blame-attribution processes had occurred. This can be because the majority of nonabused individuals blamed the perpetrator in this particular study. This is consistent with the literature, in which blaming the perpetrator of a crime is common amongst victims of CSA (Feiring & Cleland, 2007). However, there are cases in which individuals blame themselves or their mothers for allowing the abuse to occur (Hunter et al., 1992; Quas et al., 2003). Self-blame can be common in cases of CSA, especially when there is a repeated or prolonged abuse (Filipas & Ullman, 2006; Melville et al., 2014; Mokma et al., 2016). Researchers also have found that the general public, such as news outlets, blame the victim's parents, specifically the mother, for CSA (Miller et al., 2014). Mother-blame is a common outlet for externalizing fault (McGuffey, 2005).

Inappropriate blame attribution could affect a victim's memory of abuse at a later time. A study conducted by Pizarro et al. (2006) found that blame could distort one's memory. In particular, participants read a story about an individual, 'Frank', who committed a crime (walking out on a restaurant bill). Researchers then manipulated the kinds of information participants received concerning Frank's character. For instance, some of the participants were told that Frank is an immoral being who enjoys committing crimes; others were told that Frank is a good person who simply forgot to pay his bill. One week later participants were asked to recall information regarding the event. Compared to a control group that had not received any additional information about Frank, only when Frank was framed in a negative light did participants report false information. In particular, participants

believed Frank walked out on a larger bill rather than what he actually did. These results suggest that inaccuracies in memory can occur when individuals are deemed to be morally at fault.

In the context of CSA, individuals who believe a particular person is at fault may confabulate and rehearse false information about the person or the event due to cognitive biases. Moreover, the seriousness of a crime can elicit more blame for perpetrators, which could potentially augment other deleterious effects found in the literature (Remijn & Crombag, 2007). In terms of false blame, forced fabrications are remembered better when a participant provides a causal explanation that supports the false memory (Chrobak & Zaragoza, 2012). Thus, in the current study, we expanded upon the research by McWilliams et al. (2014) and other simulated memory error research by asking participants to assign blame to a character in the story and to write out confabulations about why that character was to blame for the CSA. Evaluating moral blame in an experimental design in the context of SMEP has never been investigated before and is the focus of this study.

Participant gender

In addition to evidence that suppression tendencies and blame attributions may affect memory for CSA, it is important to consider gender differences, as well. There are gender differences in how males and females define (Fontes & Plummer, 2010; Widom & Morris, 1997) and disclose (Alaggia, 2005; Alaggia et al., 2019; Alexander et al., 2005) sexual abuse. For example, because of gender stereotypes and sexual scripts, males may be expected to constantly desire sexual activity (Fontes & Plummer, 2010). Thus, some males may not consider sexual abuse to truly be abuse. This misconception can create a barrier to disclosure. Indeed, males are less likely than females to disclose sexual abuse (Alaggia, 2005). When they do disclose, males are more likely than females to omit information (Alexander et al., 2005). In SMEP research about CSA, males disclose less information than females (McWilliams et al., 2014; Newton & Hobbs, 2015).

Depression, PTSD, and dissociation

Depression, Posttraumatic Stress Disorder (PTSD), and dissociation predict impaired memory for certain types of information (Özdemir et al., 2015; Vanderveren et al., 2017). For example, both depression and PTSD are associated with overgeneral autobiographical memory (see e.g. Moore & Zoellner, 2007; Vanderveren et al., 2017). Compared to control groups, individuals with depression and/or PTSD are less likely to recall specific details about personally experienced events. Although some research shows an association between PTSD symptoms and improved memories of traumatic events (see e.g. Alexander et al., 2005). PTSD also predicts disorganized autobiographical memories for traumatic events (Jelinek et al., 2009) and decreased complexity and consistency in reporting traumatic events (Miragoli et al., 2017). Dissociation is associated with information processing difficulties and decreased general memory performance (Özdemir et al., 2015). PTSD and dissociation predict false memories due to source monitoring and recall errors (Zoellner et al., 2000; see Giesbrecht et al., 2008 for review).

Methodology in the research noted above included the use of psychometric memory tests (Özdemir et al., 2015) word lists (Zoellner et al., 2000), recall for personally experienced events (Jelinek et al., 2009), and forensic interviews (Miragoli et al., 2017). In the context of SMEP, depression and PTSD symptoms have been associated with greater abuse-related memory error for individuals while role-playing a victim (McWilliams et al., 2014; but see Newton & Hobbs, 2015). Due to the complex relation between PTSD and memory of CSA, it is of interest to shed light to see how PTSD is related in a SMEP paradigm.

Attachment

The attachment system, which is activated in response to perceived or actual threat, may also be activated by reading a scenario about CSA, especially when mentally taking the role of the child victim. Attachment theory was first developed by Bowlby (1969) as a way to explain parent–child relationships. Researchers expanded the theory to include adult relationships with close others (Mikulincer & Shaver, 2003). Adult attachment orientation is measured on two dimensions (anxiety and avoidance) and explains adults' relationships with close others, especially when they are distressed and in need of comfort. Individuals with anxious attachment orientations experience anxiety over the possibility of being abandoned by close others when in need. Individuals with avoidant attachment orientations experience discomfort about being emotionally close with others (Brennan et al., 1998). Anxious attachment is associated with hypervigilance to threat cues, whereas avoidant attachment is associated with avoidance of threat cues (Mikulincer & Shaver, 2003). Edelstein et al. (2005) assessed the association between attachment orientation and adults' long-term memory for CSA. Participants who scored high in attachment avoidance evinced decreased memory accuracy for severe abuse. There was no association between attachment anxiety and memory for abuse.

The present study

The current study extends the literature by using SMEP to vary participant rehearsal in the form of blame attributions for CSA. Specifically, in Session 1, we asked participants to read a story about CSA and then attribute blame for the assault to one of three persons (themselves [as the victim], the perpetrator, or the mother) or to blame no one, and either report or abstain from reporting the event in this state of mind. After a 2-week delay, in Session 2, we asked participants to report the CSA story truthfully as they read it in Session 1. The study conformed to a 2 (rehearsal condition: rehearsal vs. no rehearsal) $\times$ 4 (blame condition: self, perpetrator, mother, no one) factorial design, with all factors varied between subjects. There were about 28 participants per condition.

The following hypotheses were generated:

- (1) Males would provide fewer correct responses compared to females (Alexander et al., 2005; McWilliams et al., 2014).
- (2) Higher scores in depression, PTSD, and dissociation, (McWilliams et al., 2014; Moore & Zoellner, 2007; Özdemir et al., 2015; Zoellner et al., 2000) emotion regulation (both expressive suppression and cognitive reappraisal; Dillon et al., 2007; Engen &

Anderson, 2018) and attachment avoidance (Edelstein et al., 2005) would be negatively associated with participant memory accuracy.

- (3) Participants who simulated memory error at Session 1 (that is, who rehearsed the story inaccurately) would make more omission errors (leave out information) and more commission errors (add incorrect information) at Session 2 compared to those who did not simulate memory error and reported the story truthfully (McWilliams et al., 2014; Newton & Hobbs, 2015).
- (4) Participants who were prompted to blame themselves or a parent at Session 1 would make more omission and commission errors compared to participants who at Session 1 were prompted to blame the perpetrator or who were not prompted to blame anyone (Chrobak & Zaragoza, 2012; Pizarro et al., 2006).
- (5) A Blame $\times$ Rehearsal interaction was hypothesized. Specifically, participants who made blame attributions at Session 1 and rehearsed the blame attributions would make the most memory errors compared to participants in other conditions (Chrobak & Zaragoza, 2012)

Method

Participants

A power analysis was first conducted using GPower, which specified 207 participants were required to detect a small to moderate effect in a single sample. Participants were 279 university students who were attending a large Western university. Before preliminary analyses were conducted, 57 participants were removed for failing to complete Part 2 of the experiment. Eleven participants completed Session 2 twice and the first attempt was kept for analysis. The remaining participants were 222 adults (68% female), aged 18 to 42 years old, $M = 19.91$ ($SD = 2.51$). The sample was diverse, (1% African American, 35% Asian, 26% Caucasian, 21% Hispanic, 3% Middle Eastern, 8% Mixed Race, 6% 'Other/Decline'). Participants varied in socioeconomic level from lower to upper status.

Participants who felt as though they could not complete the experiment due to the explicit content were allowed to opt out of the study. To our knowledge, no individual declined to participate in the study due to the warning about sensitive information. The specific instructions read:

"Some of the stories and questionnaires may involve sensitive information, such as crime or sexuality. If reading about such topics would be upsetting for you, you may stop now or at any other time. You may also skip any of the questions or questionnaires if you would prefer not to answer them."

Materials

Demographics. A demographic questionnaire included a series of questions concerning participant age, date of birth, gender, annual income, ethnicity, and highest obtained level of education.

Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). The CES-D uses a 20-item self-report measure for depression with an internal reliability of .85. Participants self-report their depressive symptoms by rating each item (1 = rarely or

none of the time to 4 = most or all of the time); higher scores are associated with higher levels of depression.

Dissociative Experience Scale (DES; Bernstein & Putnam, 1986). The DES consists of 28 statements about dissociation. Participants rate each statement on how much it applies to them, such as 'Some people have the experience of finding themselves in a place and having no idea how they got there'. Response options range from 0% = never to 100% = always. The split half reliability of DES ranges from .83 to .93. A higher score indicates greater tendency toward dissociation.

Emotion Regulation Questionnaire (ERQ; Gross & John, 2003). The ERQ consists of 10 items that measure emotion regulation using two strategies: cognitive reappraisal and expressive suppression. Reappraisal items include 'I control my emotions by changing the way I think about the situation I'm in'. Suppression questions include items such as 'I keep my emotions to myself'. Participants rated each item on a 7-point scale (1 = strongly disagree and 7 = strongly agree). The average alpha reliability level for reappraisal is .79 and for suppression it is .73. A higher score represents greater habitual use of the respective emotion regulation strategy.

Experience in Close Relationships (ECR; Mikulincer & Shaver, 2003). The ECR contains 36 items that assess avoidant ('I prefer not to show a partner how I feel deep down') and anxious ('I worry about being abandoned') attachment orientations. Participants rate each item on a 7-point scale (1 = strongly disagree and 7 = strongly agree). The ECR provides separate attachment avoidance and attachment anxiety scores, with higher scores indicating more avoidant and anxious attachment, respectively.

Posttraumatic Diagnostic Scale (PTDS; Foa et al., 1997). The PTDS includes 12 items that measure trauma related psychopathology. Respondents provide information if any of the 12 traumatic events occurred and describe in depth the severity of the most traumatic event. The full scale was administered, but the authors used one item that pertains to the participant's histories of sexual abuse for analysis ('sexual assault by a family member or someone you knew').

Abuse narrative. A fictional abuse narrative was created based on the that used in the McWilliams et al. (2014) study. The narrative was written in the second person, matched the gender of the participant, and contained these instructions, 'Please read the following story, role playing as the main character (you). This story occurs when you are 12-years-old'. In previous SMEP research on child sexual abuse (McWilliams et al., 2014; Newton & Hobbs, 2015), the main character is 7-years-old. However, older children are considered more culpable for sexual abuse compared to younger children (see e.g. Back & Lips, 1998; Davies & Rogers, 2009). Thus, the age increase was necessary for the self-blame manipulation (described next).

Blame Manipulation. Blame manipulation involved blaming either the self, the child's mother, or the perpetrator for the abuse. It consisted of a short narrative stating that the participant blamed a certain story character (themselves [as the victim], the perpetrator, or the mother) and instructions to generate reasons why this character was to blame.¹

Procedure

Participants were randomly assigned to experimental conditions. The study was conducted in two parts that were separated by a 2-week delay. Session 1 took place in a

computer laboratory. After consent, participants completed questionnaires, which included the demographics, CES-D, DES, ERQ, ECR, and PTSD measures. Participants then read the fictional story about CSA, mentally role playing as the main character. The main character in the participants' stories matched the genders they identified with most (e.g. participants who identified as male read the story about a boy).

After reading the stories, participants' blame attributions were manipulated; for three of the blame groups, participants were prompted to generate a list of reasons why a character in the story (themselves [as the victim], the perpetrator, or the mother) caused the abuse. A control group (the no blame condition) did not generate a list of blame; they instead completed a filler task (math problems) unrelated to the study. The filler task took a comparable time to complete as the blame task that it replaced.

Participants then rehearsed the CSA story or did not rehearse the story. Participants in the blame conditions who rehearsed were instructed to incorporate their blame attributions into their new stories. For example, in the blame mom condition, participants were instructed to

exaggerate the experience and make it worse than it was, so that it is really clear that your mom is to blame. . . . Your story should include additional details about how your mom is to blame. Incorporate the items in the list you just made.

In the no blame condition, participants were told to 'tell the story as accurately, and honestly as possible'. The participants who did not rehearse were given a filler task unrelated to the study. At the end of Session 1, participants were asked to indicate how much they agreed with three statements about blame attributions. They answered one question for the perpetrator, one for themselves, and one for the child's mother (e.g. I blame [character] for the sexual abuse). Participants indicated their agreement on a scale of 1 (Strongly disagree) to 5 (Strongly agree). After Session 1, participants were given resource sheets that listed researcher contact information and psychological services available on campus.

After 2 weeks, participants were emailed a link for Session 2. In the second session, all participants were told to retell the abuse story completely and truthfully. At the end of the session, they were asked the same three blame attribution questions that they were asked in Session 1 (e.g. I blame [character] for the abuse). Resource sheets were again provided along with debriefing information.

Plan of analysis

Our analysis consisted of three stages. First, we evaluated the construct validity of each predictor and outcome variable. We checked each predictor for extreme outliers and multicollinearity to evaluate the need of possible data reduction methods. For the outcome variables, we checked interrater reliability of our coders. Second, we conducted preliminary analysis to verify our internal validity of our study. This stage consisted of a series of ANOVAs to evaluate the manipulation checks we have for each condition in our study. In the final stage, we conducted a series of multiple linear regressions to examine the effects of our predictor variables (and interactions of interest) on participant memory and to answer our research questions.

Results

Coding

For correct details and omission errors (details omitted from participant narratives), a list was generated of 156 facts relevant to the CSA story. One point (correct) was assigned for each fact reported. For example, one key fact relevant to the story was, 'You watched cartoons'. If a participant reported watching cartoons, they received one point correct. Any key facts omitted from participant stories were coded as omission errors. Thus, if participants did not report watching cartoons, this was counted as one omission error. Two coders, who were blind to the experimental conditions and hypotheses, coded 35 of participants' correct and omission-error responses together. Then each coder individually coded half of the remaining participant stories. Interrater reliability was high ($\kappa = .81$ for correct and $.99$ for omission errors). Due to the nature of the correct and omission error coding, the correlation between correct information and omission errors was significantly correlated at $-.99$. Therefore, main analyses were conducted on omission and commission errors.

For commission errors (details added to participant stories), unit coding was used. For example, if a participant reported watching cartoons and a game show, the added detail, 'game show' was coded as one commission error. Two primary coders blind to study hypotheses and/or study conditions independently scored 152 participant stories for commission errors. Interrater reliability was high ($\kappa = .87$). The remaining 70 stories were divided between the two primary coders. For additional quality assurance, a third coder independently scored 95 stories (46 with both of the primary coders and 49 with one of the two primary coders). Interrater reliability between the third coder each primary coder was high ($\kappa_s = .86$ to $.89$). Disagreements were resolved with discussion.

Gender was coded 0 (female) and 1 (male). Rehearsal was coded 0 no rehearsal and 1 for rehearsal at time 1. Dummy variables were created to contrast the perpetrator, mother, and self-blame groups against the no blame group.

Preliminary analysis

Means and standard deviations for correct responses, omission errors, and commission errors across blame and rehearsal conditions are provided in [Table 1](#). Means and correlations among predictor variables and outcome variables are shown in [Tables 2](#) and [3](#). The depression (CES-D) and dissociation (DES) scores were correlated at $.31$. To avoid multicollinearity effects, the two measures were z-scored and averaged to create a mean psychopathology score per participant.

Table 1. Mean units of correct information, omission errors, and commission errors in free recall for the experimental conditions.

	Rehearsal			No Rehearsal		
	Correct	Commission	Omission	Correct	Commission	Omission
Blame condition						
No Blame	30.97 (17.23)	14.93 (17.34)	125.07 (17.16)	23.64 (15.66)	13.18 (11.26)	132.45 (15.68)
Self	23.21 (13.85)	12.14 (12.89)	133.14 (13.69)	17.61 (11.68)	12.90 (14.72)	138.45 (11.62)
Mother	20.00 (12.91)	10.41 (10.38)	136.10 (12.76)	25.35 (19.06)	10.48 (10.15)	130.65 (19.06)
Perpetrator	24.48 (12.95)	17.14 (15.98)	131.62 (12.87)	15.00 (10.22)	11.33 (11.00)	140.97 (10.24)

Note: Standard deviations are in parentheses.

Table 2. Means and intercorrelations among experimental conditions and individual difference variables.

	<i>M</i> (<i>SD</i>)	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender	0.33 (0.47)	1	-.10	-.18**	.01	.05	.18**	-.07	-.16*	-.14*	.07	.06	-.02	.01
2. Psychopathology	0 (0.82)		1	.81**	.81**	-.05	.27**	.18**	.41**	-.02	.04	.16*	.01	-.04
3. Depression	0 (1)			1	.31**	-.13*	.20**	.12	.37**	-.02	.00	.18**	.04	-.09
4. Dissociation	0 (1)				1	.03	.25**	.02**	.31**	-.01	.05	.09	-.02	.03
5. Reappraisal	4.98 (1.03)					1	.12	.03	-.15*	.04	.00	.03	-.07	-.03
6. Suppression	3.86 (1.28)						1	.46**	.09	.03	-.02	.11	-.13	.05
7. Avoidance	3.15 (1.12)							1	-.01	-.03	.01	-.06	.08	-.04
8. Anxiety	3.77 (1.11)								1	.17*	.04	-.08	.04	.05
9. PTSD	.037 (.19)									1	-.04	-.02	.05	.03
10. Rehearsal	0.53 (0.50)										1	-.03	.05	-.07
11. Perp. Blame	0.27 (0.45)											1	-.34**	-.37**
12. Mother Blame	0.22 (0.42)												1	-.33**
13. Self-Blame	0.26 (0.44)													1

Note: Gender (0 = female; 1 = male). Depression, PTSD, cognitive reappraisal, emotion suppression, attachment avoidance, attachment anxiety, and Psychopathology (higher scores = higher values). The rehearsal variable reflects dummy coding against the no rehearsal group. The PTSD (0 = No, 1 = Yes). The perpetrator, mother, and self-blame variables reflect dummy coding against the no blame group.

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

Table 3. Means and standard deviations (in parentheses) of blame attribution by blame condition.

Condition	Blame attributions: All participants						Blame Attributions: Participants who rehearsed story					
	Blame self		Blame perpetrator		Blame mom		Blame self		Blame perpetrator		Blame mom	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
Self	2.18 (1.55)	1.88 (1.20)	4.27 (1.23)	4.64 (0.84)	3.22 (1.22)	3.07 (1.03)	2.57 (1.77)	1.82 (1.28)	3.82 (1.54)	4.50 (1.14)	2.93 (1.36)	3.02 (1.14)
Perpetrator	1.57 (0.87)	1.47 (0.81)	4.79 (0.41)	4.71 (0.64)	3.11 (1.10)	3.00 (1.09)	1.79 (.94)	1.62 (.86)	4.72 (.45)	4.62 (.82)	3.00 (.85)	2.97 (.98)
Mom	1.42 (0.75)	1.63 (0.86)	4.59 (0.72)	4.63 (0.76)	3.61 (1.24)	3.37 (1.09)	1.52 (.87)	1.76 (1.02)	4.45 .83	4.52 .95	3.79 (1.21)	3.41 (1.12)
No blame	1.86 (1.15)	1.78 (1.07)	4.82 (0.38)	4.71 (0.75)	3.38 (1.11)	3.15 (0.96)	1.97 (1.13)	1.80 (1.06)	4.83 (.38)	4.63 (.81)	3.17 (1.05)	3.07 (.94)

Note: Blame self, blame perpetrator, blame mom – correspond to participants' answers to the questions 'I blame myself for the abuse', 'I blame Tom (the perpetrator) for the abuse', and 'I blame my mom for the abuse' respectively. Answers range from 1 (strongly disagree) to 5 (strongly agree). Condition: Self, perpetrator, Mom, and No Blame correspond to participant instructions to attribute blame to a character in the story.

Four sets of one-way Analyses of Variance (ANOVAS) and planned contrasts were conducted to test the efficacy of our manipulation (that is, the effect of blame instructions on how much participants reported blaming themselves, the perpetrator, or the mother). Specifically, we analyzed differences in blame attributions in the different blame conditions and no blame condition. Two sets included all participants (those who wrote out the story at Time 1 and those who did not). The second set included only participants who wrote out the story at Time 1 because these were the participants who had the opportunity to narrate their blame attributions in their stories. It is possible that the blame manipulation was stronger when participants assign blame and write a story to support that blame. In both sets of ANOVAS, we analyzed blame attributions at Time 1 and Time 2 separately. Table 3 presents the average blame attribution at each time point per blame condition for all participants and for only those participants who wrote their stories at Time 1. Larger numbers reflect more blame for an individual in the fictional narrative.

The first set of ANOVAS and contrasts tested blame attributions at Times 1 and 2 for all participants. Only two ANOVAs for Time 1 were statistically significant [blame self condition $F(3, 218) = 4.94, p = .02$, and blame perpetrator condition $F(3, 218) = 6.25, p < .001$]. In responses to 'I blame myself for the abuse', participants blamed themselves significantly more in the self condition compared to the perpetrator condition, $t(91.25) = -2.62, p = .01$, or the mom condition $t(85.74) = -3.35, p = .001$. However, there was not a statistical difference in how much participants blamed themselves in the blame-self condition compared to the no blame condition. 'I blame Tom for the abuse' (Tom was the perpetrator in the story), participants blamed the perpetrator significantly more in the perpetrator condition compared to the self condition, $t(70.50) = -3.12, p = .003$. However, there was no statistical differences in how much participants blamed the perpetrator in the perpetrator condition versus the blame mom condition or the no blame condition. None of the ANOVAS for Time 2 blame attributions were statistically significant.

The second set of ANOVAS and contrasts tested blame attributions at Times 1 and 2 for participants who wrote out the story. All three ANOVAs for Time 1 were statistically significant [blame self condition $F(3, 112) = 5.65, p = .01$; blame perpetrator condition $F(3, 112) = 7.06, p < .001$; and the blame mom condition $F(3, 111) = 3.51, p = .02$]. In responses to 'I blame myself for the abuse', participants blamed themselves significantly more in the self condition compared to the perpetrator condition, $t(40.76) = -2.60, p = .05$, or the mom condition $t(39.01) = -2.83, p = .01$. However, there was not a statistical difference in how much participants blamed themselves in the blame self condition compared to the no blame condition.

In responses to 'I blame Tom for the abuse', participants blamed the perpetrator significantly more in the perpetrator condition compared to the self condition $t(31.52) = 2.98, p = .01$. However, there was no statistical differences in how much participants blamed the perpetrator in the perpetrator condition versus the blame mom condition or the no blame condition.

In responses to 'I blame my mom for the abuse', participants blamed the mother significantly more in the mother condition compared to the perpetrator condition, $t(111) = -2.68, p = .01$, the self condition, $t(111) = 2.88, p = .01$, or the no blame condition $t(111) = 2.14, p = .04$. Similar to the first set of analysis, none of the ANOVAS for Time 2 blame attributions were statistically significant. Our findings suggest, to some extent, participants placed blame as they were instructed, but this blame diminished by Time 2.

Regression analyses

Data were analyzed with a series of multiple linear regressions. Model 1 investigated the relation between the dependent variables regressed on the covariates: gender, psychopathology, cognitive reappraisal, PTSD and suppression and attachment avoidance and anxiety. Model 2 examined a linear interaction term between two variables, attachment avoidance and anxiety. Therefore, Models 1 and 2 answer our first two hypotheses. To examine the unique contributions of rehearsal and blame, Model 3 included one dummy coded variable for the rehearsal condition and three dummy coded variables for the blame conditions. Model 3 answers our third and fourth hypotheses. In Model 4, interactions between the rehearsal and blame conditions were added to the model. Model 4 answers our fifth hypothesis.

Commission analyses

For Commission errors (Table 4) Model 2 was significant, $F(8, 213) = 2.14, p < .05$. This finding provides evidence for hypothesis 2, cognitive reappraisal was associated with more commission errors. However, we found no evidence supporting our other hypotheses.

Omission analyses

For Omission errors (Table 5) all four models were significant, Model 1, $F(7, 214) = 2.71, p = .01$; Model 2, $F(8, 213) = 2.90, p < .005$; Model 3, $F(12, 209) = 3.36, p < .001$; Model 4, $F(15, 206) = 3.14, p < .001$. Considering hypotheses 1 and 2, males and participants with higher psychopathology scores also made more omission errors. Cognitive reappraisal was negatively associated with omission errors. For hypothesis 3, rehearsal was negatively associated with omission errors. Considering hypothesis 4, participants who either blamed the perpetrator or themselves also made more omission errors. There were no significant interactions between treatment conditions, which provides little evidence for hypothesis 4.

The interaction term between attachment and anxiety significantly predicted omission errors. Given a significant interaction, we probed the interaction as outlined by Aiken and West (1991). We fixed attachment avoidance at the mean one standard deviation above and below the mean and reestimated the model to graphically represent the dependency between the two variables. Afterwards, the slope for all the models were tested for statistical significance. In all three models, covariates were included and were fixed to their average values for interpretable results. Conditioning on +1 standard deviation of avoidance there was a significant linear relation between attachment avoidance and anxiety, $t(212) = -2.10, p = .037$. There was a non-significant slope for the mean, $t(212) = 1.02, p = 0.60$, and -1 standard deviation for avoidance, $t(212) = 0.82, p = 0.41$. The interaction term is displayed in Figure 1. Participants with high avoidance and anxiety made significantly more omission errors.

Discussion

Victims may not report the entire truth during a forensic interview. Adults may leave out details and/or change fundamental information in their narratives about past CSA. Victim

Table 4. Predictors of commission errors during free recall.

Variable	Model 1		Model 2		Model 3		Model 4	
	<i>B</i> (<i>SE</i>)	β	<i>B</i> (<i>SE</i>)	β	<i>B</i> (<i>SE</i>)	β	<i>B</i> (<i>SE</i>)	β
Intercept	3.28 (6.6)	0	2.98 (6.56)	0	2.87 (7.04)	0	3.52 (7.39)	0
Gender	−3.44 (2.02)	−0.12	−3.26 (2.01)	−0.11	−3.35 (2.02)	−0.12	−3.49 (2.05)	−0.12
Psychopathology	−2.15 (1.28)	−0.13	−1.97 (1.28)	−0.12	−1.98 (1.32)	−0.12	−2.16 (1.33)	−0.13
Reappraisal	2.14 (0.86)	0.17*	2.37 (0.87)	0.19**	2.30 (0.87)	0.18**	2.19 (0.89)	0.17*
Suppression	0.73 (0.84)	0.07	0.62 (0.83)	0.06	0.46 (0.86)	0.04	0.63 (0.88)	0.06
Avoidance	−0.94 (0.91)	−0.08	−0.97 (0.9)	−0.08	−0.78 (0.93)	−0.07	−0.89 (0.94)	−0.08
Anxiety	0.07 (0.92)	0.01	−0.04 (0.91)	0	−0.04 (0.93)	0	−0.03 (0.94)	0
PTSD	−2.91 (4.62)	−0.04	−3.33 (4.6)	−0.05	−2.78 (4.64)	−0.04	−2.74 (4.67)	−0.04
Avoidance × Anxiety			−1.20 (0.66)	−0.12	−1.21 (0.66)	−0.13	−1.08 (0.67)	−0.11
Rehearsal					1.97 (1.78)	0.07	1.28 (3.76)	0.05
Perp. Blame					0.97 (2.58)	0.03	−1.21 (3.78)	−0.04
Mother Blame					−2.28 (2.64)	−0.07	−2.32 (4.03)	−0.07
Self Blame					−0.98 (2.53)	−0.03	−0.16 (3.75)	−0.01
Perp. × Rehearsal							4.32 (5.08)	0.11
Mother × Rehearsal							0.20 (5.38)	0.01
Self × Rehearsal							−1.87 (5.2)	−0.05
R^2	.06		.08*		.09		.10	
ΔR^2	.06		.02		.01		.01	

Note: Gender (0 = female; 1 = male). Rehearsal (0 = no rehearsal; 1 = yes rehearsal). Depression, PTSD, cognitive reappraisal, emotion suppression, attachment avoidance, attachment anxiety, and psychopathology (higher scores = higher values).

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

Table 5. Predictors of omission errors during free recall.

Variable	Model 1		Model 2		Model 3		Model 4	
	<i>B</i> (<i>SE</i>)	β	<i>B</i> (<i>SE</i>)	β	<i>B</i> (<i>SE</i>)	β	<i>B</i> (<i>SE</i>)	β
Intercept	138.77 (7.21)		139.13 (7.16)		133.99 (7.46)		136.14 (7.74)	
Gender	5.83 (2.2)	0.18**	5.61 (2.19)	0.18*	5.95 (2.14)	0.19	5.92 (2.15)	0.19**
Psychopathology	3.00 (1.4)	0.17*	2.78 (1.4)	0.15*	2.02 (1.39)	0.11	2.12 (1.39)	0.12
Reappraisal	−1.80 (0.94)	−0.13	−2.08 (0.95)	−0.15*	−1.94 (0.93)	−0.14	−1.64 (0.93)	−0.12
Suppression	0.37 (0.91)	0.03	0.50 (0.91)	0.04	0.15 (0.91)	0.01	−0.22 (0.92)	−0.02
Avoidance	0.97 (0.99)	0.07	1.00 (0.99)	0.08	1.45 (0.99)	0.11	1.49 (0.98)	0.11
Anxiety	−0.65 (1)	−0.05	−0.52 (1)	−0.04	0.03 (0.99)	0	−0.22 (0.99)	−0.02
PTSD	1.74 (5.05)	0.02	2.25 (5.02)	0.03	0.95 (4.91)	0.01	1.75 (4.9)	0.02
Avoidance × Anxiety			1.43 (0.72)	0.13*	1.50 (0.7)	0.14*	1.48 (0.71)	0.14**
Rehearsal					−4.73 (1.89)	−0.16***	−7.20 (3.94)	−0.24
Perp.-Blame					6.92 (2.74)	0.21**	7.65 (3.96)	0.23
Mother Blame					4.26 (2.79)	0.12	−1.86 (4.23)	−0.05
Self Blame					6.90 (2.68)	0.21*	5.92 (3.93)	0.18
Perp. × Rehearsal							−1.79 (5.32)	−0.04
Mom × Rehearsal							10.86 (5.64)	0.25
Self × Rehearsal							1.72 (5.45)	0.04
R^2	.08**		.10***		.16***		.19***	
ΔR^2	.08 **		.02*		.06***		.02	

Note: Gender (0 = female; 1 = male). Rehearsal (0 = no rehearsal; 1 = yes rehearsal). Depression, PTSD, cognitive reappraisal, emotion suppression, attachment avoidance, attachment anxiety, and psychopathology (higher scores = higher values).

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

reports may be subject to variability due to blame attributions. As a result, the relation between misrepresenting abuse and later recall may be more complex than previously anticipated. Despite the fact that role-playing a victim is clearly different from being an actual victim, this study builds on previous laboratory research that captures principal concepts of simulated memory error for CSA information in an experimental study (e.g. McWilliams et al., 2014). In the present research, we aimed to achieve three major goals: (a) reaffirm that rehearsal leads to better memory; (b) establish a connection between rehearsal of misattribution of blame and its deleterious effects on memory; (c) consider individual differences that relate to memory for CSA information.

Rehearsal

Consistent with previous findings, rehearsal was shown to affect memory for CSA information. Participants who rehearsed by writing out the story (whether or not they simulated memory error) omitted less information compared to participants who did not rehearse. Findings are consistent with previous studies, in which participants who simulated memory error for a story or event recalled more correct units of information compared to participants who do not rehearse the story (e.g. McWilliams et al., 2014; Sun et al., 2009). Rehearsing a CSA story, regardless of whether participants simulated memory error or told the truth predicted fewer omission errors. However, rehearsal did not significantly predict the number of commission errors made by the participants.

Although no significant interaction was found between blame attributions and rehearsal, blame attributions influenced participants' memories. Our prediction regarding misattribution of blame (blame for the mother or self) was partially supported. Participants who either blamed themselves or the perpetrator made significantly more omission errors compared to participants who did not blame anyone. This may be because the perpetrator and victim are the most central characters in the story, whereas others, such as the mother, played a peripheral role. One can also speculate that the underlying cause for this effect may be related to the current controversy for realistic blame attributions in actual CSA cases. Several people, including assault workers, believe that mother blame does occur (Breckenridge & Baldry, 1997; Miller et al., 2014). However, some researchers argue that a mother's role in CSA has no bearing on why the abuse occurred and that past findings may be spurious (Birns & Meyer, 1993; McNamara et al., 2012). Our research contributes to this cumulative body of literature in providing a conceptual replication in a

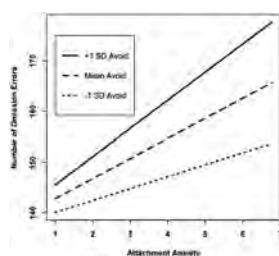


Figure 1. Interaction of attachment anxiety and avoidance for units of omission errors. Avoid = Attachment Avoidance.

laboratory setting. Future researchers could endeavor to incorporate the mother more centrally in the story and more rigorously investigate if mother blame is a true effect.

Source misattribution would be expected to cause blame attributions to result in errors in later memory. When a person recollects a memory, they need to parse through specific details regarding the event and identify the source of the memory (M. K. Johnson et al., 1993). The inability to specify a source can be disruptive, as in delusions and confabulation. After long delays, victims may identify false information as true occurrences due to source misattribution. In regard to CSA, adults may be unable to correctly remember information regarding abuse when they fail to accurately monitor sources of available information. A victim's blame attributions can potentially cause such source monitoring error. The ability to distinguish between the actual CSA and the exaggerated blame information could explain why blame attributions can potentially affect memory. Similarly, simulating blame attributions could cause individuals to confuse a fabricated story with an actual story. The low level commission errors found in our study precludes comment on such possibilities for the present experiment.

Individual differences

In terms of individual differences, previous literature suggests that males provide fewer units of correct information than females. Males may have greater difficulty considering themselves as victims and activate defenses that interfere with memory. If this explanation accounts for our findings, it is a testament to the use of SMEP to capture some of the psychological processes involved for actual victims of CSA. In any case, our findings replicate previous research in which male victims show memory deficiencies for sexual abuse information and confirms our hypothesis (Alexander et al., 2005).

Psychopathology also predicted more omitted information. This finding confirms our original hypothesis and is supported by previous research, in which individuals with mental health problems have difficulty remembering abuse information (McWilliams et al., 2014). PTSD, however, did not significantly relate to more commission or omission errors. This is contradictory to other evidence, where McWilliams et al., 2014 found that more symptoms of PTSD predicted worse memory for CSA information. However, our findings are consistent with Newton and Hobbs (2015), who found that PTSD was not predictive of better or worse memory for CSA details. This may be a sampling issue artifact, in which only a few participants reported PTSD symptoms. With unequal groups, detecting any size effect would be challenging.

Cognitive reappraisal also predicted fewer omission errors, and more commission errors. As cognitive reappraisal involves actively reconstructing how one thinks about an upsetting event, participants may have rehearsed false details while employing this emotion regulation strategy. However, it is surprising that cognitive reappraisal predicted fewer omission errors and suppression did not predict any memory errors. It is possible that rehearsal prevented effective use of suppression strategies.

Neither attachment avoidance nor anxiety predicted any of our outcome variables. However, we found a significant interaction between avoidance and anxiety. Participants who exhibit heightened levels of both avoidance and anxiety made more omission errors. Participants high in both dimensions are considered to be the least secure and are categorized as 'fearful avoidant'. These participants may have coped with the traumatic

content of the stories by avoiding thinking about it. It is possible that this coping strategy was not a specific conscious effort, as participants' scores on suppression as an emotion regulation strategy were not predictive of memory errors.

Conclusion

Although the findings of the present study provide new and intriguing information about the use of SMEP, several limitations of the study much be acknowledged. First, the blame manipulations may not have sufficiently indoctrinated blame attributions. ANOVAS and planned contrasts suggested some success in the blame manipulation, such that for the most part, participants blamed the character they were instructed to blame. However, this effect was only apparent at Time 1 and was inconsistent. In addition, when asked an open-ended question about who was to blame for the abuse, 87% of participants at Time 1 and 91% of participants at Time 2 of all participants blamed the perpetrator. Participants who were not instructed to blame anyone (understandably) blamed the perpetrator, who legally and morally was truly responsible for the abuse, as did most of the participants who were asked to blame others. This ceiling effect in which the perpetrator is frequently blamed may have confounded the other blame manipulations. To circumvent this problem, researchers should develop a model to investigate a dynamic relation between different forms of blame. In addition, future research on blame attribution and memory would benefit from manipulating each scenario to specifically integrate information victims would consider when making blame attributions for CSA.

Second, the low level of commission errors in the present study suggests that the delay may not have been long enough to produce sufficient forgetting that would lead to memory errors (e.g. source misattributions). Moreover, free recall is just one source of self-report that may be asked of a participant. Other directed questions may be used as a follow up to elicit more information. Finally, the paradigm was restricted to a laboratory setting and is obviously different from a real-life CSA event. For instance, an adult role-playing as a child may be a difficult task, which cannot fully capture the feelings of child victims. Research on memory for CSA is difficult to conduct, considering the majority of abuse occurs in secret making it impossible to assess memory accuracy. Using role-playing is one method that researchers can use to tap into mechanisms that affect memory for childhood negative experiences (see e.g. McWilliams et al., 2014; Newton & Hobbs, 2015). Our method gave us the opportunity to manipulate event rehearsal and blame attributions and examine possible interactions between the two.

Overall, the current study has shown that memory for CSA information in a laboratory setting can reveal important individual differences in memory. Further research is needed on the ways in which rehearsal combined with blame attributions can affect memory for the highly emotional topic of child sexual assault.

Note

1. For a copy of the abuse narrative or blame manipulation, please contact the corresponding author.

Acknowledgements

The authors would like to thank Gail S. Goodman, Ph.D. for her invaluable feedback and consultation.

Disclosure statement

No potential conflict of interest was reported by the author(s).

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Sage.
- Alaggia, R. (2005). Disclosing the trauma of child sexual abuse: A gender analysis. *Journal of Loss and Trauma*, 10(5), 453–470. <https://doi.org/10.1080/15325020500193895>
- Alaggia, R., Collin-Vezina, D., & Lateef, R. (2019). Facilitators and barriers to child sexual abuse (CSA) disclosures: A research update (2000–2016). *Trauma, Violence, & Abuse*, 20(2), 260–283. <https://doi.org/10.1177/1524838017697312>
- Alexander, K. W., Quas, J. A., Goodman, G. S., Ghetti, S., Edelstein, R. S., Redlich, A. D., Córdon, I. M., & Jones, D. P. H. (2005). Traumatic impact predicts long-term memory for documented child sexual abuse. *Psychological Science*, 16(1), 33–40. <https://doi.org/10.1111/j.0956-7976.2005.00777.x>
- Back, S., & Lips, H. M. (1998). Child sexual abuse: Victim age, victim gender, and observer gender as factors contributing to attributions of responsibility. *Child Abuse & Neglect*, 22(12), 1239–1252. [https://doi.org/10.1016/S0145-2134\(98\)00098-2](https://doi.org/10.1016/S0145-2134(98)00098-2)
- Baddeley, A., Eysenck, M. W., & Anderson, M. C. (2009). *Memory*. Psychology Press.
- Bala, N., Lee, J., & McNamara, E. (2001). Children as witnesses: Understanding their capacities, needs, and experiences. *Journal of Social Distress and the Homeless*, 10(1), 41–68. <https://doi.org/10.1023/A:1009429602266>
- Benoit, R. G., & Anderson, M. C. (2012). Opposing mechanisms support the voluntary forgetting of unwanted memories. *Neuron*, 76(2), 450–460. <https://doi.org/10.1016/j.neuron.2012.07.025>
- Bernstein, E. M., & Putnam, F. W. (1986). Development, reliability, and validity of a dissociation scale. *The Journal of Nervous and Mental Disease*, 174(12), 727–735. <https://doi.org/10.1097/00005053-198612000-00004>
- Birns, B., & Meyer, S.-L. (1993). Mothers' role in incest: Dysfunctional women or dysfunctional theories? *Journal of Child Sexual Abuse*, 2(3), 127–136. https://doi.org/10.1300/J070v02n03_13
- Bowlby, J. (1969). *Attachment and loss*. Vol. 1. Attachment. New York: Basic Books.
- Breckenridge, J., & Baldry, E. (1997). Workers dealing with mother blame in child sexual assault cases. *Journal of Child Sexual Abuse*, 6(1), 65–80. https://doi.org/10.1300/J070v06n01_04
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In *Attachment theory and close relationships*.
- Christianson, S.-A., & Bylin, S. (1999). Does simulating amnesia mediate genuine forgetting for a crime event? *Applied Cognitive Psychology*, 13(6), 495–511. [https://doi.org/10.1002/\(SICI\)1099-0720\(199912\)13:6<495::AID-ACP615>3.0.CO;2-0](https://doi.org/10.1002/(SICI)1099-0720(199912)13:6<495::AID-ACP615>3.0.CO;2-0)
- Chrobak, Q. M., & Zaragoza, M. S. (2012). When forced fabrications become truth: Causal explanations and false memory development. *Journal of Experimental Psychology: General*, 142(3), 824–844. <https://doi.org/10.1037/a0030093>
- Corder, B. F., & Whiteside, R. (1988). A survey of jurors' perception of issues related to child sexual abuse. *American Journal of Forensic Psychology*, 6(3), 37–43.
- Cutuli, D. (2014). Cognitive reappraisal and expressive suppression strategies role in the emotion regulation: An overview on their modulatory effects and neural correlates. *Frontiers in Systems Neuroscience*, 19(8), 1–6. <https://doi.org/10.3389/fnsys.2014.00175>
- Dammeyer, M. D., Nightingale, N. N., & McCoy, M. L. (1997). Repressed memory and other controversial origins of sexual abuse allegations: Beliefs among psychologists and clinical social workers. *Child Maltreatment*, 2(3), 252–263. <https://doi.org/10.1177/1077559597002003007>

- Dark, V. J., & Loftus, G. R. (1968). The role of rehearsal in long-term memory performance. *Journal of Verbal Learning and Verbal Behavior*, 15(4), 479–490. [https://doi.org/10.1016/S0022-5371\(76\)90043-8](https://doi.org/10.1016/S0022-5371(76)90043-8)
- Davies, M., & Rogers, P. (2009). Perceptions of blame and credibility toward victims of childhood sexual abuse: Differences across victim age, victim-perpetrator relationship, and respondent gender in a depicted case. *Journal of Child Sexual Abuse*, 18(1), 78–92. <https://doi.org/10.1080/10538710802584668>
- Dillon, D. G., Ritchey, M., Johnson, B. D., & LaBar, K. S. (2007). Dissociable effects of conscious emotion regulation strategies on explicit and implicit memory. *Emotion*, 7(2), 354–365. <https://doi.org/10.1037/1528-3542.7.2.354>
- Edelstein, R. S., Ghetti, S., Quas, J. A., Goodman, G. S., Alexander, K. W., Redlich, A. D., & Córdón, I. M. (2005). Individual differences in emotional memory: Adult attachment and long-term memory for child sexual abuse. *Personality & Social Psychology Bulletin*, 31(11), 1537–1548. <https://doi.org/10.1177/0146167205277095>
- Engen, H. G., & Anderson, M. C. (2018). Memory control: A fundamental mechanism of emotion regulation. *Trends in Cognitive Sciences*, 22(11), 982–995. <https://doi.org/10.1016/j.tics.2018.07.015>
- Feiring, C., & Cleland, C. (2007). Childhood sexual abuse and abuse-specific attributions of blame over 6 years following discovery. *Child Abuse and Neglect*, 31(11-12), 1169–1186. <https://doi.org/10.1016/j.chiabu.2007.03.020>
- Filipas, H. H., & Ullman, S. E. (2006). Child sexual abuse, coping responses, self-blame, posttraumatic stress disorder, and adult sexual revictimization. *Journal of Interpersonal Violence*, 21(5), 652–672. <https://doi.org/10.1177/0886260506286879>
- Foa, E. B., Cashman, L., Jaycox, L., & Perry, K. (1997). The validation of a self-report measure of post-traumatic stress disorder: The Posttraumatic Diagnostic Scale. *Psychological Assessment*, 9(4), 445–451. <https://doi.org/10.1037/1040-3590.9.4.445>
- Fontes, L. A., & Plummer, C. (2010). Cultural issues in disclosures of child sexual abuse. *Journal of Child Sexual Abuse*, 19(5), 491–518. <https://doi.org/10.1080/10538712.2010.512520>
- Frenda, S. J., Nichols, R. M., & Loftus, E. F. (2011). Current issues and advances in misinformation research. *Current Directions in Psychological Science*, 20(1), 20–23. <https://doi.org/10.1177/0963721410396620>
- Garven, S., Wood, J. M., & Malpass, R. S. (2000). Allegations of wrongdoing: The effects of reinforcement on children's mundane and fantastic claims. *Journal of Applied Psychology*, 85(1), 38–49. <https://doi.org/10.1037/0021-9010.85.1.38>
- Geraerts, E., Lindsay, S., Merckelbach, H., Marko, J., Raymaekers, L., Arnold, M. M., & Schooler, J. (2009). Cognitive mechanisms underlying recovered-memory experiences of childhood sexual abuse. *Psychological Science*, 20(1), 92–98. <https://doi.org/10.1111/j.1467-9280.2008.02247.x>
- Giesbrecht, T., Lynn, S. J., Lilienfeld, S. O., & Merckelbach, H. (2008). Cognitive processes in dissociation: An analysis of core theoretical assumptions. *Psychological Bulletin*, 134(5), 617–647. <https://doi.org/10.1037/0033-2909.134.5.617>
- Goodman-Brown, T. B., Edelstein, R. S., Goodman, G. S., Jones, D. P. H., & Gordon, D. S. (2003). Why children tell: A model of children's disclosure of sexual abuse. *Child Abuse & Neglect*, 27(5), 525–540. [https://doi.org/10.1016/S0145-2134\(03\)00037-1](https://doi.org/10.1016/S0145-2134(03)00037-1)
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348–362. <https://doi.org/10.1037/0022-3514.85.2.348>
- Hunter, J. A., Goodwin, D. W., & Wilson, R. J. (1992). Attributions of blame in child sexual abuse victims: An analysis of age and gender influences. *Journal of Child Sexual Abuse*, 1(3), 75–89. https://doi.org/10.1300/J070v01n03_06
- Jelinek, L., Randjbar, S., Seifert, D., Kellner, M., & Moritz, S. (2009). The organization of autobiographical and nonautobiographical memory in posttraumatic stress disorder (PTSD). *Journal of Abnormal Psychology*, 118(2), 288–298. <https://doi.org/10.1037/a0015633>
- Johnson, R. E. (1975). Rehearsal of associations stored in long-term memory. *Memory & Cognition*, 3(5), 536–540. <https://doi.org/10.3758/BF03197527>

- Johnson, M. K., Hashtroudi, S., & Lindsay, D. S. (1993). Source monitoring. *Psychological Bulletin*, 114 (1), 3–28. <https://doi.org/10.1037/0033-2909.114.1.3>
- Johnson, J. L., Hobbs, S. D., Chae, Y., Goodman, G. S., Shewstowsky, D., & Block, S. D. (2017). “I didn’t do that!” Event valence and child age influence adults’ discernment of children’s true and false statements. *Journal of Interpersonal Violence*. Online first publication. <https://doi.org/10.1177/0886260517736276>
- Kassin, S. M., Drizin, S. A., Grisson, T., Gudjonsson, G. H., Leo, R. A., & Redlich, A. D. (2010). Police-induced confessors: Risk factors and recommendations. *Law and Human Behavior*, 34(1), 3–38. <https://doi.org/10.1007/s10979-009-9188-6>
- Küpper, C. S., Benoit, R. G., Dagleish, T., & Anderson, M. C. (2014). Direct suppression as a mechanism for controlling unpleasant memories in daily life. *Journal of Experimental Psychology: General*, 143 (4), 1443–1449. <https://doi.org/10.1037/a0036518>
- Löftus, E. F. (2005). Planting misinformation in the human mind: A 30-year investigation of the malleability of memory. *Learning & Memory*, 12(4), 361–366. <https://doi.org/10.1101/lm.94705>
- McGuffey, C. S. (2005). Engendering trauma: Race, class, and gender reaffirmation after child sexual abuse. *Gender & Society*, 19(5), 621–643. <https://doi.org/10.1177/0891243205277310>
- McNamara, L., Tolliday, D., & Spangaro, J. (2012). Are mothers still to blame for child sexual abuse? *Australian and New Zealand Journal of Psychiatry*, 46(6), 582–583. <https://doi.org/10.1177/0004867411433971>
- McWilliams, K., Goodman, G. S., Lyons, K. E., Newton, J., & Avila-Mora, E. (2014). Memory for child sexual abuse information: Simulated memory error and individual differences. *Memory & Cognition*, 42(1), 151–163. <https://doi.org/10.3758/s13421-013-0345-2>
- Melville, J. D., Kellogg, N. D., Perez, N., & Lukefahr, J. L. (2014). Assessment for self-blame and trauma symptoms during the medical evaluation of suspected sexual abuse. *Child Abuse and Neglect*, 38 (5), 851–857. <https://doi.org/10.1016/j.chiabu.2014.01.020>
- Mikulincer, M., & Shaver, P. R. (2003). The attachment behavioral system in adulthood: Activation, psychodynamics, and interpersonal processes. *Advances in Experimental Social Psychology*, 35, 53–152. [https://doi.org/10.1016/S0065-2601\(03\)01002-5](https://doi.org/10.1016/S0065-2601(03)01002-5)
- Miller, S. L., Hefner, M. K., & Leon, C. S. (2014). Diffusing responsibility: A case study of child sexual abuse in popular discourse. *Children and Youth Services Review*, 37, 55–63. <https://doi.org/10.1016/j.childyouth.2013.12.005>
- Miragoli, S., Camisasca, E., & Blasio, P. D. (2017). Narrative fragmentation in child sexual abuse: The role of age and post-traumatic disorder. *Child Abuse & Neglect*, 73, 106–114. <https://doi.org/10.1016/j.chiabu.2017.09.028>
- Mitchell, K. J., & Johnson, M. K. (2000). Source monitoring: Attributing mental experiences. In E. Tulving & F. I. M. Craik (Eds.), *The Oxford handbook of memory* (pp. 179–195). Oxford University Press.
- Mokma, T. R., Eshelman, L. R., & Messman-Moore, T. L. (2016). Contributions of child sexual abuse, self-blame, posttraumatic stress symptoms, and alcohol use to women’s risk for forcible and substance-facilitated sexual assault. *Journal of Child Sexual Abuse*, 25(4), 428–448. <https://doi.org/10.1080/10538712.2016.1161688>
- Monds, L. A., Patterson, H. M., Kemp, R. I., & Bryant, R. A. (2013). Do distress responses to a traumatic film predict susceptibility to the misinformation effect. *Journal of Trauma & Dissociation*, 14(5), 562–575. <https://doi.org/10.1080/15299732.2013.804475>
- Moore, S. A., & Zoellner, L. A. (2007). Overgeneral autobiographical memory and traumatic events: An evaluative review. *Psychological Bulletin*, 133(3), 419–437. <https://doi.org/10.1037/0033-2909.133.3.419>
- Myers, J. E. B. (1993). A call for forensically relevant research. *Child Abuse and Neglect*, 17(5), 573–579. [https://doi.org/10.1016/0145-2134\(93\)90079-K](https://doi.org/10.1016/0145-2134(93)90079-K)
- Nairne, J. S., & Pandeirada, J. N. S. (2008). Adaptive memory: Is survival processing special? *Journal of Memory and Language*, 59(3), 377–385. <https://doi.org/10.1016/j.jml.2008.06.001>
- Newton, J. W., & Hobbs, S. D. (2015). Simulating memory impairment for child sexual abuse. *Behavioral Sciences & the Law*, 33(4), 407–428. <https://doi.org/10.1002/bsl.2197>

- Noreen, S., & MacLeod, M. D. (2013). It's all in the detail: Intentional forgetting of autobiographical memories using the autobiographical thik/no-think task. *Journal of Experimetal Psychology*, 39(2), 375–393. <https://doi.org/10.1037/a0028888>
- Özdemir, O., Güzel Özdemir, P., Boysan, M., & Yilmaz, E. (2015). The relationships between dissociation, attention, and memory dysfunction. *Nöropsikiyatri Arşivi, Archives of Neuropsychiatry*, 52(1), 36–41. <https://doi.org/10.5152/npa.2015.7390>
- Paz-Alonso, P. M., & Goodman, G. S. (2008). Trauma and memory: Effects of post-event misinformation, retrieval order, and retention interval. *Memory*, 16(1), 58–75. <https://doi.org/10.1080/09658210701363146>
- Pizarro, D. A., Laney, C., Morris, E. K., & Loftus, E. F. (2006). Ripple effects in memory: Judgments of moral blame can distort memory for events. *Memory & Cognition*, 34(3), 550–555. <https://doi.org/10.3758/BF03193578>
- Poole, D. A., & Lindsay, D. S. (2001). Children's eyewitness reports after exposure to misinformation from parents. *Journal of Experimental Psychology*, 7(1), 127–150. <https://doi.org/10.1037//1076-898X.7.1.27>
- Quas, J. A., Goodman, G. S., & Jones, D. P. H. (2003). Predictors of attributions of self-blame and internalizing behavior problems in sexually abused children. *Journal of Child Psychology and Psychiatry*, 44(5), 723–736. <https://doi.org/10.1111/1469-7610.00158>
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1(3), 385–401. <https://doi.org/10.1177/014662167700100306>
- Remijn, C. A. C., & Crombag, H. F. M. (2007). Heuristics in causal reasoning and their influence on eyewitness testimony. *Psychology, Crime and Law*, 13(2), 201–211. <https://doi.org/10.1080/10683160600711688>
- Richards, J. M., & Gross, J. J. (2000). Emotion regulation and memory: The cognitive costs of keeping one's cool. *Journal of Personality and Social Psychology*, 79(3), 410–424. <https://doi.org/10.1037/0022-3514.79.3.410>
- Stille, L., Norin, E., & Sikström, S. (2017). Self-delivered misinformation – Merging the choice blindness and misinformation effect paradigms. *PLoS One*, 12(3), 1–18. <https://doi.org/10.1371/journal.pone.0173606>
- Sun, X., Punjabi, P. V., Greenberg, L. T., & Seamon, J. G. (2009). Does feigning amnesia impair subsequent recall? *Memory & Cognition*, 37(1), 81–89. <https://doi.org/10.3758/MC.37.1.81>
- Vanderveren, E., Bijttebier, P., & Hermans, D. (2017). The importance of memory specificity and memory coherence for the self: Linking two characteristics of autobiographical memory. *Frontiers in Psychology*, 8, 1–13. <https://doi.org/10.3389/fpsyg.2017.02250>
- van Oorsouw, K., & Merckelbach, H. (2004). Feigning amnesia undermines memory for a mock crime. *Applied Cognitive Psychology*, 18(5), 505–518. <https://doi.org/10.1002/acp.999>
- Walsh, K., Fortier, M. A., & DiLillo, D. (2010). Adult coping with childhood sexual abuse: A theoretical and empirical review. *Aggression and Violent Behavior*, 15(1), 1–13. <https://doi.org/10.1016/j.avb.2009.06.009>
- Widom, C. S., & Morris, S. (1997). Accuracy of adult recollections of childhood victimization: Part 2. Childhood sexual abuse. *Psychological Assessment*, 9(1), 34–46. <https://doi.org/10.1037/1040-3590.9.1.34>
- Zaragoza, M. S., Payment, K. E., Ackil, J. K., Drivdahl, S. B., & Beck, M. (2001). Interviewing Witnesses: Forced confabulation and confirmatory feedback increase false memories. *Psychological Science*, 12(6), 473–477. <https://doi.org/10.1111/1467-9280.00388>
- Zoellner, L. A., Foa, E. B., Brigidi, B. D., & Przeworski, A. (2000). Are trauma victims susceptible to “false memories”? *Journal of Abnormal Psychology*, 109(3), 517–524. <https://doi.org/10.1037/0021-843X.109.3.517>

Appendix C

Patrick O’Leary & James Barber, *Gender Differences in Silencing Following Childhood Sexual Abuse*, 17(2) J. Child Sexual Abuse 133 (2008).

Appendix C

Gender Differences in Silencing Following Childhood Sexual Abuse

Patrick J. O'Leary
James Barber

ABSTRACT. The clinical literature commonly asserts that males are less likely than females to disclose child sexual abuse at the time it occurs and take longer to discuss their experiences. These hypotheses were tested in this study. This study included 145 men and 151 women. Participants were asked about disclosure at the time of the abuse and the length of time it took for them to discuss the experience. Comparison across these two

Patrick J. O'Leary, PhD, is Associate Professor in the School of Social Work and Social Policy at the University of South Australia and Senior Lecturer in the Department of Social and Policy Sciences at the University of Bath United Kingdom.

James Barber, PhD, is Professor and Deputy Vice-Chancellor (Academic) at RMIT University in Victoria, Australia.

The authors are grateful to all men, women, and organizations that participated in this research. Special acknowledgement also goes to Margaret Darcy of CASA House Carlton for making the phone-in data available and Judith Saebel who provided statistical advice.

Submitted for publication 12/05/06; revised 5/20/07; accepted 5/20/07.

Address correspondence to: Patrick J. O'Leary, Department of Social and Policy Sciences, University of Bath, Bath, BA2 7AY, UK. (E-mail: pol20@bath.ac.uk).

Journal of Child Sexual Abuse, Vol. 17(2) 2008

Available online at <http://jcsa.haworthpress.com>

© 2008 by The Haworth Press. All rights reserved.

doi:10.1080/10538710801916416

studies found that boys were significantly less likely than girls to disclose the abuse at the time it occurred and also took significantly longer to discuss their childhood experiences later in life.

KEYWORDS. Child sexual abuse, disclosure, gender differences, male victims

It is frequently asserted that sexual abuse during childhood is accompanied by a reluctance or fear to disclose and, at its worst, no acknowledgment of the victimization to oneself (Paine & Hansen, 2002). We term this phenomenon as "silencing." Underlying the victim's silence can be feelings of shame, guilt, or confusion, and sometimes a false belief that the behavior is socially acceptable (Tyler, 2002). These feelings can arise from the perpetrator's efforts to normalize the experience or to manipulate or coerce the victim into concealing the abuse (Cairns, 1999; Conte, 2002; Fergusson & Mullen, 1999; Finkelhor, 1990). Whatever the explanation, however, the available evidence suggests that many children, both male and female, do not disclose sexual abuse at the time it occurs, and may take many years to discuss the experience at all (Bell & Belicki, 1998; Finkelhor, Hotaling, Lewis, & Smith, 1990; Hunter, Goodwin, & Wilson, 1992; Weingarten & Cobb, 1995). It has also been suggested that silencing is more of a problem for male than female victims of sexual abuse, but much of this literature is based on the practice wisdom of clinicians working with small and probably unrepresentative samples (see, for example, Dorais, 2002; Etherington, 1995; Hunter, 1991; Lew, 1994, 1999; O'Leary, 2001; Preble & Groth, 2002).

A review of research in developed countries by Fergusson and Mullen (1999) estimated that approximately 30% of childhood victims of sexual abuse are male. Reviews of prevalence research have estimated that anywhere between 2.5 and 36.9% of males, and between 6 and 62% of females may have been subjected to sexual abuse in childhood (Dhaliwal, Gauzas, Antonowicz, & Ross, 1996; Finkelhor, 1986). Furthermore, retrospective self-reports show a much higher proportion of male victims than official reports do, suggesting significant underreporting by male victims (Cermak & Molitor, 1996; Etherington, 1995). Not surprisingly, then, a key finding of the Queensland Crime Commission and Queensland Police Service (2000) report on child sexual abuse was the low level of disclosure, especially by boys, resulting in a recommendation by the Commission for a survey of male victims and survivors of childhood sexual abuse to uncover the impediments to disclosure.

A recent review of research by Paine and Hansen (2002) showed that the rate of nondisclosure among boys increases with age, leading these and other authors to suggest that boys may be reluctant to disclose because of factors related to male socialization, such as an overemphasis on self-reliance, contempt for victims and homosexuals, sexual prowess, and masculine obsession with heterosexuality and independence (Black & De Blassie, 1993; Cermak & Molitor, 1996; Dhaliwal et al., 1996; Finkelhor et al., 1990; Nasjleti, 1980; Nelson & Oliver, 1998; Paine & Hansen, 2002; Roane, 1992; Sebold, 1987; Spataro, Moss, & Wells, 2001; Watkins & Bentovim, 1992, 2000). The implication of a study by Fondacaro, Holt, and Powell (1999) is that some male victims may be confused about what precisely constitutes sexual abuse. In that study of male prison inmates, 41% of the men who reported childhood experiences met criteria for contact sexual abuse but they did not consider their experiences to be abusive. This same study also found that when the men who did classify the experience as abusive were compared with those who did not, the groups differed on measures of psychological functioning. Men who did not consider themselves to be abused had higher rates of alcohol problems, while those who did consider themselves abused showed higher rates of post-traumatic stress disorder and obsessive-compulsive disorder.

Steever, Follette, and Naugle (2001) have also examined the relationship between acknowledgment of abuse and long-term psychological functioning. In that study, one group of men identified themselves as survivors of sexual abuse, another group did not consider themselves this way but would be classified as such under most definitions, and a third group reported noncoercive childhood sexual experiences with peers. The results showed that men who self-identified as survivors reported nearly twice the level of psychological distress as the men in the other two groups (Steever et al., 2001). It may be, then, that nondisclosure is actually more adaptive for males than is disclosure. If so, there is an added psychological incentive to silencing.

Another contributor to silencing may be the attitudes and perceptions of professionals. It is known, for example, that psychologists are significantly less likely to consider sexual abuse in males than in females, even when identical case histories are reported (Holmes & Offen, 1996; Richey-Suttles & Remer, 1997). Spencer and Tan (1999) compared the responses of male and female undergraduates to a hypothetical 30-year-old male victim who disclosed sexual abuse. Details about age at the time of the assault were varied (5, 15, or 25 years), and the sex of the offender was matched with the age of the victim. The results showed that as the age of the victim increased, the level of blame attributed to him increased. Spencer and Tan (1999) also found that male respondents were signifi-

cantly more likely than female respondents to attribute blame to male victims of any age. Negative attitudes toward male victims clearly have the potential to discourage boys from disclosing and men from discussing their experiences as abused children.

Furthermore, it has been noted by practitioners in the field that adult males can be reluctant to discuss experiences of child sexual abuse even though they experience high levels of distress (Lew, 1999). Research by King and Woollett (1997) found among a clinical sample that men were reluctant to seek assistance and took in excess of 17 years to seek assistance about being sexually abused. This highlights further a strongly held assumption concerning male survivors of child sexual abuse that has not been adequately supported by research.

In view of these apparent differences in responsiveness to male and female sexual victimization, this study examined gender differences in disclosure rates and time taken to discuss the experience. This distinction between disclosure and discussion is important because disclosure is likely to be a necessary but insufficient precondition for healing (Bass, 2000; Lew, 1994, 1999). If a child or adult does come forward, most will need counselling or at least some form of debriefing if they are to recover fully.

METHOD

Participants

Data were collected by service agencies via phone and face-to-face interviews. This was facilitated by agencies that work with victims of sexual violence. Female respondents were recruited from Victoria, Australia. Male respondents were recruited from all mainland capital cities in Australia in order to recruit an adequate sample. The sample consisted of a total of 296 respondents (145 males and 151 females) who were sexually abused exclusively while under the age of 18 years. Perpetration of the sexual abuse was committed solely by males in 94.7% of female cases and 84.4% of male cases. The mean age for the first incident of abuse was 7.85 years for females and 8.14 years for males. The majority of the respondents were aged between 30 and 39 years. There was no significant gender difference in age. Almost all of the respondents had attended secondary school, and there were no significant differences between male and female education levels. More males compared to females were in paid employment (62.3% vs. 30.3%), yet 41.7% of females described their occupation as student or home duties. The majority of respondents were born in Australia.

Materials

The survey data included demographic variables as well as a section that examined any action the respondent took at the time of or following the sexual assaults. The present study examined whether respondents told anyone at the time of the sexual assaults and responses to the question: "how long after the sexual assaults was it before you talked to anyone about your experience?" This question was asked irrespective of whether the respondent had or had not disclosed at the time of the abuse. Some respondents declined to answer some of these questions.

Procedure

In Victoria, the survey was advertised using a pamphlet the size of a post-card with the words "no more" in a number of different languages; on the reverse side, there was information detailing the purpose of the research and contact details. The pamphlets were distributed to community organizations, human service organizations, and sexual assault services. The primary strategy for recruiting male participants was referrals from the limited number of organizations in mainland Australian cities that provide clinical services to men who have been sexually abused in childhood. Therefore, the sample is reasonably representative of men who seek clinical services.

Interviewers consisted primarily of counsellors, trained volunteers, and the first author. Questionnaires also carried detailed instructions about what interviewers should say at each point in the questionnaire. Information and instructions were also given to participants regarding their participation. Most female participants responded by phone and were read the questions. Most male participants were approached by the organizations and given the choice of either completing the questionnaire in the presence of a worker from the organization or in the presence of the first author (P. J. O'L.), or taking the questionnaire with them and returning it in a prepaid envelope addressed to the senior author. Research conducted for the survey was approved by the University ethics committee.

RESULTS

Table 1 summarizes the findings of the survey data. Over 26% ($n = 73$) of the males and 63.6% ($n=96$) of the females told someone at or around the time that the abuse occurred. Analysis of this showed that males were

TABLE 1. Comparison of men and women
for disclosure at the time of the abuse
and discussion of the abuse

	Men	Women
Disclosure at the time of the abuse	<i>n</i> = 122	<i>n</i> = 151
Disclosed	26.2%	63.6%
No disclosure	73.8%	36.4%
Time taken to discuss abuse	<i>n</i> = 145	<i>n</i> = 138
Less than 1 year	9.7%	14.5%
Less than 10 years	17.2%	36.2%
Less than 20 years	28.3%	23.9%
More than 20 years	44.9%	25.4%

significantly less likely than females to disclose at the time of the abuse, $\chi^2(1, N = 273) = 40.28, p < .001$.

In order to compare length of time to discuss the experience, data from the survey were analyzed in the same fashion as disclosure data. Next, an independent samples *t*-test was conducted, which showed that males took longer to discuss their experiences of sexual assault than females, $t(175) = -2.97, p < .01$. The effect of gender was confirmed in a 2 (gender) $\times$ 2 $\times$ (disclosure, nondisclosure) factorial analysis of variance. This procedure revealed two significant main effects on "time to discuss": one of "disclosure at the time of the abuse," $F(1,173) = 8.12, p < .01$; and the other of "gender," $F(1,173) = 6.63, p < .05$. There was no interaction. In short, females and those who disclosed at the time of the abuse, were quicker to discuss the abuse.

The relationships between gender (1 = females, 2 = males), age category (1 = under 15 years, 2 = 15–19 years, 3 = 20–24 years, 4 = 25–29 years, 5 = 30–39 years, 6 = 40–49 years, 7 = 50–59, 8 = 60+ years), and time taken to discuss sexual abuse (1 = less than one year, 2 = less than 10 years, 3 = less than 20 years, 4 = more than 20 years) variables were then examined via hierarchical log-linear (HILOG) modelling. Even after collapsing some age categories, however, there were still too many empty cells or cells with small expected values (i.e., < 5). Therefore, three new models with only the two largest age categories (5 and 6) were fitted to the data. Model 1 was a saturated model; Model 2 included the three main effects (age, gender, and time taken to discuss), interactions of time taken to discuss with gender, and interactions of time taken to discuss with age,

TABLE 2. Results of partial association tests, gender, age, and time taken to discuss ($N=154$)

Effect	df	Partial χ^2	p	Parameter	Coefficient	z-Value
Interactions						
Gender X: Time taken to discuss sexual abuse	3	3.65	>.30	1	-.10	-0.51
				2	.27	1.82
				3	-.01	-0.08
Age X: Time taken to discuss sexual abuse	3	13.12	<.01	1	.30	1.45
				2	.32	2.16
				3	-.09	-0.57
Main						
Gender	1	9.47	<.01	1	-.28	-2.71
Time taken to discuss sexual abuse	3	19.22	<.001	1	-.58	-2.83
				2	.44	3.01
				3	.26	1.60
Age	1	31.09	<.001	1	-.46	-4.39

Likelihood χ^2 (4, $N = 154 = .49$), $p > .95$; and Model 3 contained main effects only, Likelihood χ^2 (10, $N = 154$) = 17.42, $p > .05$.

Follow-up tests of partial associations showed that the interaction effect between age category and discussion was significant (see Table 2), but all three main effects were significant when the interaction was removed. These results indicate that men took significantly longer to discuss experiences of childhood sexual abuse than females, even when age was controlled.

DISCUSSION

In sum, this study supports the hypothesis that males are more likely to feel silenced following childhood sexual abuse than are females. In the first place, males were significantly less likely than females to disclose at or around the time that sexual abuse occurred. The present study also confirmed the prediction that males would take significantly longer to discuss experiences of sexual abuse, and this finding remained significant even when time since abuse was controlled (see Table 2).

It was not uncommon in this study for men to report taking in excess of 20 years to talk about their experiences. Recently, there has been considerable attention concerning complaints of sexual abuse arising from incidences decades earlier; this has been especially evident in institutions

such as faith communities and residential facilities for vulnerable children. Based on this and the results of this study, consideration needs to be given to sexual abuse victims taking a substantial amount of time to make a complaint and seek assistance. Research on the effects of childhood sexual abuse also indicates that many of these men are likely to have experienced considerable distress without ever specifically seeking assistance regarding their child sexual victimization (Ferguson & Mullen, 1999; Tyler, 2002).

The results also support numerous clinicians hypotheses that males find it more difficult to disclose and later discuss or seek assistance regarding childhood sexual victimization (Dorais, 2002; Etherington, 1995; Hunter, 1991; Lew, 1994, 1999; O'Leary, 2001; Preble & Groth, 2002). This also poses questions regarding community education strategies and counselling services that may better account for the substantial delay in disclosure. Of course, more research is needed to ascertain the benefits and costs of men disclosing sexual abuse after such a substantial time lapse. While seeking specialist assistance may offer relief, pursuing legal charges may present particular challenges because of the time delay.

These results are consistent with the findings of King and Woollett (1997), who found that males delayed seeking assistance for experiences of sexual abuse by 17 years or more. Results also showed that those who had disclosed the abuse during childhood took less time to discuss the experience. The results beg important questions, such as why men take significantly longer, what prompts them to eventually discuss their experiences, and whether the delay impairs or facilitates coping. These are all crucial areas for further research. To start with, qualitative research could help to gain greater insight into the inner processes of male victims of child sexual abuse in relation to disclosure and silencing.

An important limitation of the present study concerns the different methods used for obtaining data from males and females. Whereas all female data were drawn from Victoria and mostly via the phone, most male data were derived nationally through face-to-face interviews or return post surveys. These different methods were necessary to obtain an adequate sample of males. As a result, gender comparisons are confounded with methodological differences. For this reason, this study needs to be replicated using identical survey methods for male and female respondents.

When interpreting these results, it is also important to take account of our respondents' demographic profile and the fact that this study relied on the accuracy of memory. In particular, respondents in this study had

experienced childhood sexual abuse in many cases over 20 years ago when the issue of male sexual victimization was rarely acknowledged. As a result, the findings may not apply to today's children.

CONCLUSION

The results of this study are consistent with the commonly held belief that boys and men have difficulty disclosing childhood sexual abuse and may take many years to discuss this victimization. Such findings should prompt professionals in the child protection field and those working with men with psychological or social problems to consider the possibility of childhood sexual victimization. At the very least, professionals need to examine their own assumptions about male victims of sexual abuse to ensure that they are not complicit in silencing this under-recognized and under-reported population.

REFERENCES

- Bass, E. (2000). *A guide for women survivors of child sexual abuse, featuring "Honoring the truth: A response to the backlash."* New York: Harper Perennial.
- Bell, D., & Belicki, K. (1998). A community-based study of well-being in adults reporting childhood abuse. *Child Abuse & Neglect*, 22(7), 681–685.
- Black, C. A., & DeBlassie, R. R. (1993). Sexual abuse in male children and adolescents: Indicators, effects, and treatments. *Adolescence*, 28(109), 123–133.
- Cairns, K. (1999). *Surviving paedophilia: Traumatic stress after organised and network child sexual abuse*. Staffordshire: Trentham Books Limited.
- Cermak, P., & Molitor, C. (1996). Male victims of child sexual abuse. *Child and Adolescent Social Work Journal*, 13(5), 385–400.
- Conte, J. R. (2002). *Critical issues in child sexual abuse: Historical, legal and psychological perspectives*. London: Sage Publications.
- Dhaliwal, G. K., Gauzas, L., Antonowicz, D. H., & Ross, R. R. (1996). Adult male survivors of childhood sexual abuse: Prevalence, sexual abuse characteristics, and long-term effects. *Clinical Psychology Review*, 16(7), 619–639.
- Dorais, M. (2002). *Don't tell: The sexual abuse of boys*. Montreal: McGill-Queen's University Press.
- Etherington, K. (1995). Adult male survivors of childhood sexual abuse. *Counselling Psychology Quarterly*, 8(3), 233–241.
- Ferguson, D. M., & Mullen, P. E. (1999). *Childhood sexual abuse: An evidence based perspective* (Vol. 40). Thousand Oaks, CA: Sage Publications.
- Finkelhor, D. (1990). Early and long-term effects of child sexual abuse: An update. *Professional Psychology: Research and Practice*, 21, 325–330.

- Finkelhor, D. (1986). *A sourcebook on child sexual abuse*. Thousand Oaks, CA: Sage.
- Finkelhor, D., Hotaling, G., Lewis, I. A., & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence, characteristics, and risk factors. *Child Abuse & Neglect*, 14, 19–28.
- Fondacaro, K. M., Holt, J. C., & Powell, T. A. (1999). Psychological impact of childhood sexual abuse on male inmates: The importance of perception child abuse & neglect. *Child Abuse & Neglect*, 23(4), 361–369.
- Holmes, G., & Offen, L. (1996). ‘Clinicians’ hypotheses regarding clients’ problems: Are they less likely to hypothesize sexual abuse in male compared to female clients? *Child Abuse & Neglect*, 20(6), 493–501.
- Hunter, J. A. (1991). A comparison of the psychosocial maladjustment of adult males and females sexually molested as children. *Journal of Interpersonal Violence*, 6, 205–217.
- Hunter, J. A., Goodwin, D. W., & Wilson, R. J. (1992). Attributions of blame in child sexual abuse victims: An analysis of age and gender influences. *Journal of Child Sexual Abuse*, 1(3), 75–89.
- King, M., & Woollett, E. (1997). Sexually assaulted males: 115 men consulting a counseling service. *Archives of Sexual Behavior*, 26(6), 579–580.
- Lew, M. (1994). *Victims no longer: A guide for men recovering from sexual child abuse*. New York: Nevraumont Publishing Co.
- Lew, M. (1999). *Leaping upon the mountains: Men proclaiming victory over sexual child abuse*. Jamaica Plain: Small Wonder Books.
- Nasjleti, M. (1980). Suffering in silence: The male incest victim. *Child Welfare Child Welfare League of America*, LIX(5), 269–275.
- Nelson, A., & Oliver, P. (1998). Gender and the construction of consent in child-adult sexual contact: beyond gender neutrality and male monopoly. *Gender & Society*, 12(5), 554–557.
- O’Leary, P. (2001). Working with males who have experienced childhood sexual abuse. In B. Pease & P. Camilleri (Eds.), *Working with men in the human services* (pp. 80–92). Sydney: Allen and Unwin.
- Paine, M., L., & Hansen, D., J. (2002). Factors influencing children to self-disclose sexual abuse. *Clinical Psychology Review*, 22(2), 271–295.
- Preble, J. M., & Groth, A. N. (2002) *Male victims of same-sex abuse: Addressing their sexual response*. Baltimore, MD: Sidran Press.
- Queensland Crime Commission, & Queensland Police Service. (2000). *Child sexual abuse in Queensland: The nature and extent*. Brisbane: Project AXIS, Queensland State Government.
- Richey-Suttles, S., & Remer, R. (1997). Psychologists’ attitudes toward adult male survivors of sexual abuse. *Journal of Child Sexual Abuse*, 6(2), 43–61.
- Roane, T. H. (1992). Male victims of sexual abuse: A case review within a child protective team. *Child Welfare League of America*, LXXI(3), 231–239.
- Sebold, J. (1987). Indicators of child sexual abuse in males. *Social Casework: The Journal of Contemporary Social Work Family Service America*, 68(2), 75–80.
- Spataro, J., Moss, S. A., & Wells, D. L. (2001). Child sexual abuse: A reality for both sexes. *Australian Psychologist*, 26(3), 177–183.
- Spencer, T., D., & Tan, J., C. H. (1999). Undergraduate students’ reactions to analogue male disclosure of sexual abuse. *Journal of Child Sexual Abuse*, 8(4), 73–90.

- Steever, E., Follette, V., & Naugle, A. E. (2001). The correlates of male adults' perceptions of their early sexual experiences. *Journal of Traumatic Stress, 14*(1), 189–204.
- Tyler, K. A. (2002). Social and emotional outcomes of childhood sexual abuse: A review of recent research. *Aggression and Violent Behavior, 7*, 567–589.
- Watkins, B., & Bentovim, A. (1992). The sexual abuse of male children and adolescents: A review of current research. *Journal of Child Psychology and Psychiatry, 33*(1), 197–248.
- Watkins, B., & Bentovim, A. (2000). Male children and adolescents as victims: a review of current knowledge. In G. C. Mezey & M. B. King (Eds.), *Male victims of sexual assault* (pp. 35–77). London: Oxford University Press.
- Weingarten, K., & Cobb, S. (1995). Timing disclosure sessions: Adding a narrative perspective to clinical work with adult survivors of childhood sexual abuse. *Family Process, 34*, 257–269.

Appendix C

Heather B. MacIntosh, et al., “*As Time Went On, I Just Forgot About It*”: *Thematic Analysis of Spontaneous Disclosures of Recovered Memories of Childhood Sexual Abuse*, 25(1) J. Child Abuse 56 (2016).

Appendix C

“As Time Went On, I Just Forgot About It”: Thematic Analysis of Spontaneous Disclosures of Recovered Memories of Childhood Sexual Abuse

Heather B. MacIntosh, Kara Fletcher, and Delphine Collin-Vézina

School of Social Work, McGill University, Montreal, Quebec, Canada

ABSTRACT

This study was a thematic analysis of transcripts of interviews of child sexual abuse survivors discussing their experiences of recovered memories. This study included 27 English-speaking participants from 3 major Canadian cities: Montreal, Toronto, and Ottawa. Seven participants identified as male and 20 as female. Participants ranged in age from 31 to 69 with a mean age of 47. The educational background of participants ranged from 9th grade to doctoral levels. Out of the sample of 27, 21 participants reported some period of amnesia for their CSA experiences. Three primary global themes emerged in the transcripts of participants describing adult emergent recovered memories: flashbacks, triggers, and denial. Three global themes emerged in the transcripts of participants describing partially discontinuous memories: dreams/nightmares as the “how” of memory recovery, triggers, and active processes of forgetting.

ARTICLE HISTORY

Received 3 June 2014
Revised 10 October 2014
Accepted 20 November 2014

KEYWORDS

Abuse; childhood trauma;
child sexual abuse;
qualitative methods;
recovered memories

A vast literature has grown up over the past 20 years examining recovered memories of childhood trauma. This literature has focused predominantly on the nature of traumatic memory (Freyd, 1996; Haaken & Reavey, 2010; Kristiansen, Felton, & Hovdestad, 1996; van der Kolk, Hopper, & Osterman, 2001; Williams, 1995), the process of memory recovery (Belli, 2012; Brewin, 2012; Epstein & Bottoms, 2002; Geraerts, Raymaekers, & Merckelbach, 2010; Raymaekers, Smeets, Peters, & Merckelbach, 2010; van der Kolk, Burbridge, & Suzuki, 1997), and the content of recovered traumatic memories (Bottoms, Najdowski, Epstein, & Badanek, 2012; Crowley, 2007; Stoler, 2001; Van Koppen & Merckelbach, 1999). The majority of these studies have been quantitative in nature. However, those that have been more qualitative have still focused on the process and content of recovered memories. Very little research has emphasized the experience of survivors in the conversation about recovered memories. This article comprises a secondary analysis of the transcripts of child sexual abuse survivors (CSA) discussing their experiences of disclosing their CSA. As subjects described their

experiences of disclosing their abuse, their narratives included, unbidden, stories of memories lost and found. Through these transcripts, we will explore thematically the content of these spontaneous disclosures of recovered memories of CSA. This article then explores how survivors spontaneously discussed their experiences of recovering traumatic memories of sexual abuse.

While between 15% and 78% of survivors of childhood trauma reported that there were times when they did not remember their abuse (DePrince et al., 2012; Fivush & Edwards, 2004; Goodman, Quas, & Ogle, 2010; Raymaekers et al., 2010), the majority of research on this topic has focused on the frequency and mechanisms underlying the process of recovering memories of trauma.

This extensive literature has identified that few differences exist between corroborated recovered memories and continuous memories of CSA in terms of numbers of discrepancies and levels of accuracy (Dalenberg, 1996; Williams, 1995). In a comprehensive review of studies examining the prevalence of recovered memories of CSA, in clinical samples percentages of survivors reporting recovered memories are higher (DePrince et al., 2012). In a review of a program of research examining “ordinary forgetting,” authors conceptually extrapolated a number of factors that may be associated with the likelihood of forgetting CSA experiences, including those relating to the neural and cognitive processes that integrate traumatic experiences (Anderson, 2001). The immense stress of early childhood trauma (such as CSA) can change memory functioning (Raymaekers et al., 2010; van der Kolk & van der Hart, 1995) and interfere with both memory encoding and memory retrieval (Brewin, 2012). For example, Bottoms and colleagues (2012) in a study of 1,679 college students found that individuals who reported more severe CSA experiences were more likely to report having experienced “temporary forgetting” of their abuse. These changes in functioning may be adaptive (DePrince et al., 2012). What researchers call delayed memory recovery or motivated forgetting could serve as a protective factor for children who have experienced CSA until they are able to consciously integrate the traumatic experience (Anderson & Huddleston, 2012). The majority of this research has been quantitative in nature, using predominantly cross-sectional survey approaches to explore the topic of recovered memories in aggregate form across large groups of survivors.

To date, the qualitative literature exploring this topic with CSA survivors has focused on the content of recovered memories or on the process of remembering recovery (Dale & Allen, 1998; Dorado, 1999; Gold, Hughes, & Swingle, 1999). Dale and Allen (1998) carried out a grounded theory study exploring the memories of childhood abuse in 37 survivors who identified as current therapy clients and therapists abused as children. They identified that over 46% of their sample reported recovered memories of abuse. They

identified three main types of recovered memories: those that were always known, those that were partially known, and those that had never been known, with the majority of the survivors reporting that they had some knowledge that they had experienced abuse but had “kept it out of mind” (p. 808). Similarly, Gold and colleagues (1999) interviewed 160 female survivors currently in trauma focused therapy and identified three similar “degrees” of memory, including those that had been known consistently, those that had been forgotten and then recovered, and a group that fell somewhere in the middle. Dorado (1999) studied a small clinical sample of 7 CSA survivors to explore the experiences of recovering memories. Within this analysis, a number of phenomena were identified as precursors or triggers to recovered memories, including sensory stimuli, intrusive reexperiencing, and dissociation from time and place. Fivush and Edwards (2004) explored differences in the narratives of 12 CSA survivors recruited from medical and clinical settings. They compared the narratives of survivors reporting recovered memories with those whose memories of abuse were continuous. They identified significant variations in how survivors discussed their memories, including the level of continuity in these memories. They noted that survivors with discontinuity in memory reported that there were times when they “actively tried to forget the memories” and that this might go on for protracted periods of time. In addition, the narratives of those who claimed to have completely forgotten their abuse were less coherent, and those who reported discontinuity reported uncertainty about these memories. They suggested that a continuum is a better way of looking at recovered memories, from always remembered to those who report having forgotten and then remembered.

Crowley (2007) interviewed a sample of 30 female CSA survivors, the majority of whom were in therapy in relation to the impact of CSA on their current lives, with the goal of identifying factors associated with reporting recovered memories. They identified that a large proportion of survivors in previous studies appeared to fall into a “hazy middle ground” (p. 1098) between survivors with continuous memories and those whose memories were recovered in whole at a later part in life. Specific questions focused on the process through which memories were recovered. She categorized the responses into experiences associated with the recovery of memory that included cumulative reactions (responses to people, sensations, or events), atypical reactions (a response to an otherwise normative event such as childbirth or the topic of sexual abuse), and atypical experiences (such as revictimization and siblings disclosing their own CSA). She concluded that further phenomenological study of the experience of memory recovery in CSA survivors, using their language and understanding of the experience, is recommended. She further suggests that researchers need to work on

developing common definitions of typologies of recovered memories to allow for further comparative research.

These qualitative studies of predominantly clinical samples do provide important insights into the extent and nature of recovered memories. However, the voices of survivors in describing their own experiences of memory recovery continue to be muffled behind analyses. The objective of this secondary analysis was to analyze the themes that emerged in adult CSA survivors' narrative accounts of their first person experiences of recovering memories of CSA.

Method

Participants

The data for this secondary analysis was drawn from transcripts of a multisite study on the process of disclosing CSA. This study featured 27 English-speaking participants recruited from agencies providing mental health services to CSA survivors in three major Canadian cities: Montreal, Toronto, and Ottawa. All participants were engaged in or had recently ended a psychotherapy process focused on CSA. Seven participants identified as male and 20 as female. Participants ranged in age from 31 to 69 with a mean of 47 ($\bar{x} = 47$, males; $\bar{x} = 49$, females). The educational background of participants ranged from 9th grade to PhD levels for both male and female participants. Results of an open-ended question regarding ethnicity did not yield consistent categories and, as a result, are not coherently reportable. Twenty-six of the 27 participants reported CSA by someone they knew; only one participant reported CSA by a stranger.

Interview methodology

For the original study, the telephone interview focused on participants' experiences of disclosing their history of CSA. Participants were asked why they were seeking help about their abuse at that time, what had recently changed, was it a positive experience, and whether this was the first time they had disclosed their abuse. If yes, participants were asked what might have helped them to disclose earlier, did they make earlier attempts to disclose, had they sought help in the past, and whether there was anyone they had wished that they had told. If no, participants were asked about other disclosures, to whom those disclosures were made, what was different at this time, what led to their disclosures, were these experiences positive, and whether there were other attempts at disclosure. Interviews concluded with the questions of whether there was anything else the participant would like the interviewer to know and how comfortable they were currently feeling. No

questions were asked about continuity of traumatic memories or the recovery of traumatic memories.

Data analysis

The disclosure study was approved by the Research Ethics Board of McGill University, and all participants gave informed consent to participate. As the participant transcripts were reviewed, the widespread discussion of recovered memory proved a clear and unexpected result; therefore, new researchers, who had not participated in earlier stages of the study, were brought in to analyze these transcripts.

The initial analysis reviewed all transcripts ($N = 27$) for the mention of discontinuity in memories of CSA. In view of the paucity of first person narrative analytic studies on CSA survivors' experiences of the recovery of traumatic memories, qualitative methods were used. Specifically, thematic analysis has proven appropriate for research topics where no established theories exist or the theories are not specific enough or relevant to the area one is investigating (e.g., Fereday & Muir-Cochrane, 2006). Interviews are used to gather data, and global themes emerge through multiple comparisons rather than from preformulated hypotheses.

As the literature has inconsistencies in the definitions of what constitutes a "recovered memory," it was our decision to utilize the following operational definitions. The first group was defined as the *adult emergent* recovered memory group. This group comprised those participants who indicated that they did not have any memory or sense of having experienced CSA until a specific memory emerged, spontaneously, in adulthood. The second group was defined as the *partially discontinuous* recovered memory group. This group comprised those participants who indicated that at times in their lives they felt that they "knew" about their abuse but that it receded from their waking consciousness to emerge later.

Two independent raters (first and second author) carried out the initial screening for global themes and subthemes. These raters were doctoral level researchers with extensive experience in the research of trauma and clinical practice with trauma survivors. This process was inductive and transcripts were rated, line by line, and prominent patterns and concepts were identified. These patterns emerged from this microanalysis, and a list of global themes was developed first with subthemes following. One additional independent rater was asked to read the transcripts and identify themes for reliability. All three raters met and discussed these independent findings and discussed their general global themes. There was 100% agreement identified, independently, of these global themes. While one global theme was labeled differently between raters, in discussion it became clear that the theme being described was the same. In some cases,

independent raters further broke down these global themes into sub-themes. Agreement at 100% was obtained between raters in terms of the existence of the six subthemes. For two of the six subthemes, raters gave different labels to the subthemes and, again, upon discussion, it was determined that both raters were referring to the same phenomenon and agreed on the label to use to describe the subtheme. Each theme is described in the following sections with representative quotes reflecting representative ideas and thoughts from participants that led to the thematic characterizations.

Results

Out of a sample of 27, 21 (78%) participants spontaneously reported some period of amnesia for their CSA experiences. Six (22%) participants did not report any discontinuity in their traumatic memories. Seven (26%) were categorized as having adult recovered memories. These participants reported that they had no memory of their CSA history until a sudden emergence in adulthood. Fourteen participants (52%) were categorized as having partially discontinuous recovered memories of CSA. These participants included those who reported a history of discontinuity in their memories of CSA, remembering and forgetting at different points in their lives before a final experience of emergence. No statistically significant differences were identified based on group membership between current age and education level. Six of the 7 participants (86%) in the adult emergent memory group reported having more than one perpetrator of CSA. The age of onset for this group ranged from 2 to 15 years old. Reports of age of onset and number of events were less clear in the partially discontinuous group. The age of onset for this group ranged between before 1 and 17 years old; however, 6 of the 14 participants ($N = 6$, 43%) were unclear about the exact age of onset. Five of the 14 participants (36%) reported multiple perpetrators. In terms of gender, the group that reported continuous memories was made up of 2 male and 4 female participants, the emergent memories group was made up of 1 male and 6 females, and the partially discontinuous group was made up of 4 males and 10 females.

Group 1: Survivors reporting adult emergent recovered memories of CSA

Three primary global themes emerged in the transcripts of this group of participants describing the experience of adult emergent recovered memories: flashbacks, triggers, and denial.

Flashbacks: the “how” of memory recovery

All 7 participants who reported a history of adult emergent recovered memories of CSA described their experiences by discussing how their memories emerged through sudden and debilitating flashbacks. These participants indicated they experienced these flashbacks as intrusions on their waking, conscious experience. Within this global theme, two subthemes emerged: fear/terror and loss of functioning.

In discussing the experience of flashbacks, 6 of 7 participants (86%) indicated feelings of terror and fear. They described the sudden and overwhelming emergence of their memories of CSA to be terrifying: “I became afraid and worried, I’m on the stress lines night and day. I just thought, oh no, I was shaking and crying, overwhelmed by terror” (female, age 42). “The fear of it happening still bothers me ... it has a mind of its own, you can’t know when it’s going to happen ... I just lie there, completely terrified, frozen and alone” (female, age 69).

In addition, 5 of 7 participants (71%) discussed significant loss of functioning at the time of the emergence of CSA memories. The inability to parent, engage in relationships, and work was highlighted. “It sent me back ... I felt physically faint after the flashbacks” (male, age 55). “My husband told me I wasn’t well, that I couldn’t see my son” (female, age 42). “I lost about fifteen pounds, the panic attacks and memories just started flooding in ... even though I was like walking around a store or whatever, the memories just started coming, it was so horrible” (female, age 53).

Triggers

All of the participants discussed the experience of having adult emergent recovered memories triggered by stimuli and life events that suddenly brought CSA memories to consciousness. They all indicated that before these triggering events, they had no memory or knowledge of their history of CSA. Some participants described a series of triggers that resulted in cascading and escalating memories, bringing more and more informational and vivid sensory details about the CSA. Participants indicated, “I always knew there was something, but I couldn’t pinpoint it,” or, “I’ve always had panic attacks,” but before these triggering events, they had no conscious knowledge of having been sexually abused. This theme broke down into three specific subthemes: television/media, sensory reminders, and intimacy.

The impact of television and media on the emergence of CSA memories was discussed by 4 of 7 (57%) emergent memories participants. They indicated that exposure to media appeared to trigger their CSA memories; these media portrayals were not necessarily portrayals of trauma or CSA but were often television shows that the person might have watched as a child or activities or products the participants associated with their CSA experience: “I was watching a commercial on TV

for ivory soap and it was a mother putting her little boy into the bathtub with his dad, and that's what brought everything back, 'cause a lot of my abuse happened in the bathtub with my dad" (female, age 41). "There was something on TV, it triggered, it triggered something and, I had, uh, my first flashback" (female, age 69).

In 3 of 7 participants (42%) in this group, specific sensory reminders of their CSA experiences appeared to trigger emergence of CSA memories for which they had previously been amnesic. For some this included visual triggers such as going somewhere that reminded them of a place in which the participant had been abused or smelling scents reminiscent of CSA: "It was set off by my wife taking me to [place name], and seeing some old bars. It was very visual ... I saw the same bars that were in the old barn that had the same white paint that was aged that it ... oh boy, the flashbacks" (male, age 55).

Experiences of intimacy such as parenting and couple intimacy (not all sexual) appeared to act as triggers for the emergence of flashbacks of CSA memories in 4 of 7 participants in this group. "So it was my first real relationship and flashbacks became very vivid, and they, they tend to happen mostly in sexual situations" (female, age 31). "I was twenty-one when I had my son and um ... right after I had him I started having memories coming back" (female, age 34).

Denial

The third global theme that emerged in these transcripts was denial. Feelings and thoughts of denial in relation to their recovered memories were discussed in 5 of 7 participants in this group. This denial appeared to break down into subthemes: self-referenced denial and other-referenced denial. These survivors discussed emerging memories as shameful and something they imagined no one could possibly believe.

Self-referenced denial, or participants who could not believe their own minds when these memories emerged, was discussed in 5 of 7 participants in this group. They described feeling crazy, betrayed by their own minds. These survivors reportedly experienced significant distress that these horrific things could have happened to them without remembering: "The flashbacks were awhile ago, but I only accepted that it was not my imagination about a year ago. It was horrible, you feel deceived by your body when you forget, and your mind, like what happened, why don't I remember... . It was horrible because you feel like you're crazy" (female, age 31). "Okay, like you use denial number one, you don't want to believe that your father did this or your uncle or whatever and then it has a mind of its own ... the flashbacks happen" (female, age 69).

Other-referenced denial, or terror that others would not believe them or would think that they were going crazy, was discussed by 3 of 7

participants in this group. None of these participants made any reference to the recovered memory debate or to any self-help or professional literature they might have read—they simply feared that others would believe it to be impossible to forget traumatic experiences of CSA. “I was afraid that somebody would say that ... you can’t block that out. If something that bad happened to you, there’s no way you can forget about it” (female, age 41).

Group 2: Survivors reporting partially discontinuous recovered memories of CSA

Discontinuity in memories of CSA was reported by 14 of 27 participants (52%). In the descriptions of these experiences of discontinuity, 3 global themes emerged: dreams/nightmares as the “how” of memory recovery, triggers, and active processes of forgetting.

Dreams/nightmares: the “how” of memory recovery

The “mechanism” of memory recovery was discussed by 11 of the 14 participants ($N = 11$, 76%) in this group. For the partially discontinuous group these participants reported dreams as a primary vehicle for memory recovery. Many indicated that while they had some sense that “something was wrong,” it was through persistent and vivid dreams that memories began to surface. Survivors reported feelings of dread, vague recollections, and confusion that accompanied these revealing dreams and nightmares. There were no subthemes to this global theme. “I woke up in the midst of this dream that I recognized I had had many, many ... many times for years and years, but it, it threw me into a full flashback situation ... I realized that that was the time when the memories surfaced in my mind” (female, age 58). “I used to have nightmares all the time, wake up screaming and, you know...” (female, age 46). “In my dreams they were coming up a lot, so it was like reliving it again, ya’ know, because when you are in a dream state you don’t realize that it’s a dream, you feel it’s reality” (female, age 42).

Triggers

All of the participants in the partially discontinuous group discussed triggers to the reemergence of CSA memories. While dreams were the reported mechanism for 11 of the 14 participants’ (79%) memory recovery, these dreams were triggered by events in their waking lives. While “triggers” was also a global theme for the adult emergent recovered memory group, the subthemes within this global theme were different. These subthemes included (a) reminders of the trauma through childhood exposure to CSA, both later experiences of sexual violence in childhood or exposure to information about

CSA, and (b) adult sexuality, both later experiences of sexual assaults or sexual intimacy in adulthood.

Multiple experiences of sexual violation in childhood or exposure to information about CSA during childhood that triggered the recovery of CSA memories was reported by 7 of the 14 participants (50%) in this group. These participants reported that they had “forgotten” previous sexual abuse until a later experience of sexual violation or exposure to information about CSA appeared to trigger the emergence of memories of earlier CSA experiences. “I was at a summer camp, a Christian summer camp, and, um, a female camp counselor raped me one night ... that was the leading edge actually of my awareness” (female, age 58). “I didn’t remember what happened to me at five ... it was only when I was in elementary school and some people came to the school to speak about like, touching—good touch, bad touch and then I had flashbacks and I ran home and I let my mom know ... I only remembered at 10” (female, age 32).

Six of 14 participants (43%) indicated that they did not remember having been sexually abused in childhood until they experienced a sexual assault in adulthood or were attempting to engage in sexual intimacy with their partners. “I was um, sexually assaulted about, by a stranger, in August ... last year. So it brought everything back after that... I had nightmares all the time, wake up screaming” (female, age 46). Another participant stated,

I can remember my ex-husband came up behind me. I was doing the dishes. You know, he was being loving, just putting his arms around my waist. I closed my fist in the kitchen sink, turned around, and hit him so hard. I said, “Don’t you ever, ever touch me like that again.” It triggered, you see ... he used to come up behind me ... but I think he took that from me. He got so many things in my brain that you know, a gesture can trigger me (female, age 65).

Active process of forgetting

An active process of forgetting was described by 10 of the 14 participants (71%) in this group. Many of these participants described processes of “suppression,” “blocking,” “burying,” and otherwise actively engaging in not remembering their traumatic experiences. In this study, these active processes appeared to have left participants feeling as though they were missing parts of themselves and their autobiography during periods of amnesia. “I had blocked it off and put it down inside me ... I just sort of made it like it didn’t happen ... after putting it down, and burying it for all those years” (female, age 48). “Nope, I just, as time went on I just forgot about it... I just put it all out of my mind ... as I got older things in my mind started to change” (male, age 67).

Discussion

Of 27 participants, 6 ($N = 6$, 22%) reported having never had a period of forgetting their CSA, 7 (26%) reported experiences of adult emergent recovered memories, and 14 ($N = 14$, 52%) reported experiences of partially discontinuous recovered memories. This represents 63% of the sample spontaneously reporting partial discontinuity in memory and over 25% reporting spontaneous adult emergence of CSA memories. These rates are higher than those of 15% to 64% reported by Bottoms and colleague (2012) in their review of empirical studies on recovered memories of CSA, from both clinical and community samples. This may be explained by the clinical nature of the participants who were recruited from mental health centers, as percentiles have been reportedly higher in clinical samples (DePrince et al., 2012). However, this pattern is very much in line with other research that indicates that a majority of survivors report discontinuity in their memories of childhood trauma rather than having never forgotten or spontaneous adult emergence, thus falling into the “hazy middle ground” Crowley (2007, p. 1098).

It is notable that each group's transcripts contained the global theme relating to “how” memories were recovered, yet the mechanisms described diverged between the groups. The adult emergent group focused their narratives on the conscious, waking experience of sudden and overwhelming flashbacks, while the partially discontinuous group focused theirs on the emergence of recovered memories through dreams and nightmares.

Similarly, while both groups' transcripts contained the global theme of “triggers,” the subthemes within this global theme differed. While the adult emergent group emphasized television/media, sensory reminders, and intimacy, the partially discontinuous group emphasized experiences of CSA or exposure to information about sexual abuse in childhood or sexual assaults or sexual intimacy in adulthood as triggers for the resurgence of memories of CSA. In the literature, other qualitative studies utilizing clinical samples with childhood sexual abuse survivors have similarly identified that reading abuse-focused literature, experiencing psychological distress, sexual experiences, sensory reminders, parenting experiences (including childbirth), and revictimization experiences are triggers to memory recovery (Crowley, 2007; Dale & Allen, 1998). These studies did not, however, distinguish between adult emergent and partially discontinuous memories when discussing triggers.

Denial, either self- or other-referenced, did not emerge as a theme in the group reporting discontinuity in their memories of CSA, though it was a theme in the adult emergent recovered memory group. Similarly, in Fivush and Edwards (2004), four of six participants who reported adult emergent recovered memories experienced uncertainty about their memories. In addition, while definitions differed regarding the nature of recovered memories,

in Dale and Allen (1998) participants evidenced lower levels of denial when their memories were vivid (in intensity and sensation) and helped them interpret confusing, unexplained feelings.

The global theme of an active process of forgetting did not emerge in the transcripts of participants who reported adult emergent recovered memories. Such processes of forgetting have been discussed in the cognitive memory literature as active, inhibitory processes that allow the trauma survivor selective memory retrieval (Anderson, 2001). In particular, it is argued that an active processes of forgetting may provide an important defense resource for survivors whose CSA was perpetrated by a trusted caregiver (Anderson & Huddleston, 2012). Interestingly, Dale and Allen's (1998) phenomenological study of a clinical sample of 30 CSA survivors articulated that survivors who evidenced discontinuity in their memories appeared to utilize an active approach to keeping these memories out of their minds and experienced significant distress when these memories returned. There is an extensive body of research on active processes of forgetting (see Anderson & Huddleston, 2012; DePrince et al., 2012; Freyd, 1996; Wylie, Foxe, & Taylor, 2008).

Observationally, there were also differences in the ways that the two groups talked about their experiences. The adult emergent group's transcripts were more detailed, contained more expletives and more questions to the interviewers, and evidenced higher levels of reported distress about recovered memories. The partially discontinuous group's transcripts were sparser and contained fewer affectively heightened statements and very few questions directed toward the interviewers. These transcripts may suggest that discontinuous, as opposed to emergent, survivors evidence higher levels of acceptance of their memories and lower levels of emotional distress about the experience of traumatic memory recovery.

In terms of narrative detail, Lindblom and Gray (2010), in their study of 93 nonclinical, college student participants who endorsed items reflective of having experienced accidental or perpetrated traumas, explored factors associated with the likelihood of forgetting a trauma. These authors noted that the narratives of participants who had experienced higher levels of betrayal were less detailed—as closeness to the perpetrator increased, detail of trauma narrative decreased. In our study, 26 of 27 participants reported knowing their abuser, suggesting that proximity to abuser and betrayal may not have been a factor in the differences between our groups. However, the specific relationship between victim and abuser was not specified due to the nature of the qualitative data collection. Fivush and Edward's (2004) qualitative study of a clinical sample of 12 female CSA survivors abused by a family member explored experiences of memory recovery and found that survivors with continuous memories of CSA utilized more words and were more coherent in their narratives of their CSA experiences than those with partially discontinuous

memories. Unfortunately, as ours is a secondary analysis and these CSA survivors were not asked any direct questions about their traumatic memories or the process of memory recovery, we were not able to obtain demographic details that might assist in assessing the level of betrayal in these CSA experiences or levels of psychological distress associated with membership in any of the three groups.

These findings raise the question: what does it mean that different themes emerged between these two groups of survivors reporting recovered memories? Observationally, the narratives appear to suggest that CSA memories in the adult emergent recovered memories group erupted in sudden and overwhelming floods into the waking consciousness of the survivors. This group appeared to be highly distressed by the recovery of these memories, and many experienced periods of loss of functioning. This group also reported high levels of denial. On the other hand, the narratives in the partially discontinuous group appeared to suggest that these survivors had some sense of actively avoiding full awareness of their CSA histories. This group described persistent and distressing experiences of memories emerging in dreams, as though the memories had been lurking in the background. In addition, this group appeared to evidence less distress and denial about the recovery of their memories and acceptance of their historic traumas.

While our analyses allowed for the differences in the narratives of these two groups of survivors to be explored, it is difficult to make any statements as to the cause of these differences. One of the greatest strengths of the data is also one of its greatest weaknesses. As the participants were not asked any specific questions about recovered memories, the narratives related to their experiences of memory recovery are likely to be unbiased and unaffected by researcher effects. This suggests that these narratives may be inferred to be honest and unmotivated descriptions of their experiences of the recovery of traumatic memories of CSA. However, we do not know whether more of the participants might have, similarly, had experiences of memory recovery that they did not share, having not been asked, or whether some of these participants may have responded differently had they been asked direct questions about memory discontinuity.

In addition, in trying to understand the differences between the participants who reported continuous, adult emergent, and partially discontinuous memories of CSA, demographic data can only be tentatively extracted from the narrative interview transcripts. Based on the demographic data that was collected, we did not identify any statistically significant differences between groups in terms of age or education level, and the gender makeup of each group appeared to be similar with between 25% and 30% of the participants being male. Although findings are inconsistent, it is clear that developmental factors may play an important role in the impact of trauma on memory (Cordon, Pipe, Sayfan, Melinder, & Goodman, 2004). The fact that we do not

have the information about age of onset and length of abuse means that we cannot correlate these findings with another important variable. Information such as age of onset, length of periods of partial or complete amnesia, severity, chronicity, specific relationship to perpetrator, degree of dissociation and trauma symptoms, number of perpetrators, and other variables related to their traumatic experiences were not collected in this qualitative study that utilized a semistructured interview format geared to obtain information about disclosure experiences and might well have helped to paint a clearer picture of how to understand these differences (Belli, 2012; Bottoms et al., 2012; Crowley, 2007; DePrince et al., 2012).

For a subgroup of these participants, exposure to educational discussions about CSA in school settings appeared to act as triggers for the resurgence of traumatic memories. While studies (Davis & Gidycz, 2000; Hébert, Lavoie, Piché, & Poitras, 2001; Plummer, 2001) have emphasized the importance of educating and creating awareness in children about the risks of sexual victimization, few authors (Boney-McCoy & Finkelhor, 1995; Finkelhor & Strapko, 1992) mention the potential of these programs to trigger traumatic memories. Our findings suggest that for participants with partially discontinuous memories of CSA, these types of programs may lead to the emergence of distressing memories of CSA. Future research might well consider the potential risks of these kinds of programs in assessing their implementation, effectiveness, and follow up supports that may be required.

Conclusions

Researchers continue to explore the phenomenon of recovered memories from the perspectives of the cognitive and neuropsychological mechanisms underlying recovered memories, demographic and trauma related variables associated with forgetting and remembering, and the clinical impact and implications for survivors who experience periods of amnesia and later memory recovery. At the same time, it is important that the voices of survivors are not lost in the crowd of inquiry. This study further suggests the importance of developing a uniform language of typologies, given the proportion of survivors who report discontinuity of memories of CSA. Utilizing a continuum of never remembered to always remembered may well be an important way forward for this research area (Fivush & Edwards, 2004). In addition, beginning to utilize mixed methodologies in which survey data of demographics, trauma history, and current psychological status is partnered with in-depth qualitative inquiries into the phenomenological experience of the recovery of CSA memories may be one way to begin to make the bridge between cross-sectional surveys and qualitative studies on the nature and process of memory recovery. Until we begin to utilize these mixed methods it will be difficult to further understand the differences that have been noticed in this study in terms of the

thematic differences between the adult emergent and partially discontinuous groups as well as other differences such as narrative detail, continuity, levels of distress, types of triggers, and the nature of the process (Crowley, 2007; Dorado, 1999; Fivush & Edwards, 2004; Gold et al., 1999).

This study utilized a thematic analysis approach to explore the narratives of a group of CSA survivors who spontaneously reported discontinuity in their memories of CSA. We identified similar patterns in terms of the proportions of survivors reporting never remembering and partial remembering as other authors. We further articulated themes such as the “how” of memory recovery and aspects such as triggers, denial, and an active process of forgetting. While this study highlights many unanswered questions, this analysis forms one more step in the important process of understanding not just the process and content of recovered memories but also the first person experience of survivors in their memory recovery and healing processes.

Notes on contributors

Heather B. MacIntosh, PhD, is a clinical psychologist and assistant professor in the School of Social Work at McGill University. Her research and clinical practice focuses on the impact of childhood trauma on couple relationships and the process of therapy.

Kara Fletcher, MSW, is a doctoral candidate in the School of Social Work at McGill University. Her doctoral research aims to develop and pilot a couple therapy for couples dealing with addictions and trauma.

Delphine Collin-Vézina, PhD, is a clinical psychologist and associate professor in the School of Social Work at McGill University. Dr. Collin-Vézina holds a Tier II Canada Research Chair in Child Welfare.

References

- Anderson, M. C. (2001). Active forgetting: Evidence for functional inhibition as a source of memory failure. *Journal of Aggression, Maltreatment & Trauma*, 4(2), 185–210. doi:10.1300/J146v04n02_09
- Anderson, M. C., & Huddleston, E. (2012). Towards a cognitive and neurobiological model of motivated forgetting. *Nebraska Symposium of Motivation*, 58, 53–120.
- Belli, R. (2012). Introduction: In the aftermath of the so-called memory wars. In R. F. Belli (Ed.), *True and false recovered memories* (Vol. 58, pp. 1–13). New York, NY: Springer.
- Boney-McCoy, S., & Finkelhor, D. (1995). Prior victimization: A risk factor for child sexual abuse and for PTSD-related symptomatology among sexually abused youth. *Child Abuse & Neglect*, 19(12), 1401–1421. doi:10.1016/0145-2134(95)00104-9
- Bottoms, B. L., Najdowski, C. J., Epstein, M. A., & Badanek, M. J. (2012). Trauma severity and defensive emotion-regulation reactions as predictors of forgetting childhood trauma. *Journal of Trauma & Dissociation*, 13(3), 291–310. doi:10.1080/15299732.2011.641497
- Brewin, C. R. (2012). A theoretical framework for understanding recovered memory experiences. In R. F. Belli (Ed.), *True and false recovered memories: Towards a reconciliation* (pp. 149–173). Nebraska Symposium on Motivation. New York, Springer.

- Cordon, I. M., Pipe, M., Sayfan, L., Melinder, A., & Goodman, G. S., (2004). Memory for traumatic experiences in early childhood. *Developmental Review*, 24, 101–132.
- Crowley, M. (2007). Memories of childhood sexual abuse: Narrative analyses of types, experiences, and processes of remembering. *Journal of Interpersonal Violence*, 22(9), 1095–1113. doi:[10.1177/0886260507302879](https://doi.org/10.1177/0886260507302879)
- Dale, P., & Allen, J. (1998). On memories of childhood abuse: A phenomenological study. *Child Abuse & Neglect*, 22(8), 799–812. doi:[10.1016/S0145-2134\(98\)00057-X](https://doi.org/10.1016/S0145-2134(98)00057-X)
- Dalenberg, C. J. (1996). Accuracy, timing and circumstances of disclosure in therapy of recovered and continuous memories of recovered and continuous memories of abuse. *Journal of Psychiatry & Law*, 24, 229–275.
- Davis, M. K., & Gidycz, C. A. (2000). Child sexual abuse prevention programs: A meta-analysis. *Journal of Clinical Child Psychology*, 29(2), 257–265. doi:[10.1207/S15374424jccp2902_11](https://doi.org/10.1207/S15374424jccp2902_11)
- DePrince, A. P., Brown, L. S., Cheit, R. E., Freyd, J. J., Gold, S. N., Pezdek, K., & Quina, K. (2012). Motivated forgetting and misremembering: Perspectives from betrayal trauma theory. In R. F. Belli (Ed.), *True and false recovered memories: Toward a reconciliation of the debate* (pp. 193–237). Newbraska Symposium on Motivation. New York, Springer.
- Dorado, J. S. (1999). Remembering incest: The complexities of this process and implications for civil statutes of limitations. In L. M. Williams, & V. L. Banyard (Eds.), *Trauma and memory* (pp. 93–111). Thousand Oaks, CA: Sage.
- Epstein, M. A., & Bottoms, B. L. (2002). Explaining the forgetting and recovery of abuse and trauma memories: Possible mechanisms. *Child Maltreatment*, 7(3), 210–225. doi:[10.1177/1077559502007003004](https://doi.org/10.1177/1077559502007003004)
- Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, 5(1), March 2006.
- Finkelhor, D., & Strapko, N. (1992). *Sexual abuse prevention education: A review of evaluation studies in child abuse prevention*. New York, NY: Wiley.
- Fivush, R., & Edwards, V. J. (2004). Remembering and forgetting childhood sexual abuse. *Journal of Child Sexual Abuse: Research, Treatment, & Program Innovations for Victims, Survivors, & Offenders*, 13(2), 1–19. doi:[10.1300/J070v13n02_01](https://doi.org/10.1300/J070v13n02_01)
- Freyd, J. J. (1996). *Betrayal trauma: The logic of forgetting childhood abuse*. Cambridge, MA: Harvard University Press.
- Geraerts, E., Raymaekers, L., & Merckelbach, H. (2010). *Mechanisms underlying recovered memories Current issues in applied memory research* (pp. 101–118). New York: Psychology Press.
- Gold, S. N., Hughes, D. M., & Swingle, J. M. (1999). Degrees of memory of childhood sexual abuse among women survivors in therapy. *Journal of Family Violence*, 14, 35–46. doi:[10.1023/A:1022813925852](https://doi.org/10.1023/A:1022813925852)
- Goodman, G. S., Quas, J. A., & Ogle, C. M. (2010). Child maltreatment and memory. *Annual Review of Psychology*, 61, 325–351. doi:[10.1146/annurev.psych.093008.100403](https://doi.org/10.1146/annurev.psych.093008.100403)
- Haaken, J., & Reavey, P. (2010). *Memory matters: Contexts for understanding sexual abuse recollections memory matters: Contexts for understanding sexual abuse recollections* (pp. xiii, 234). New York, NY: Routledge/Taylor & Francis Group.
- Hébert, M., Lavoie, F., Piché, C., & Poitras, M. (2001). Proximate effects of a child sexual abuse prevention program in elementary school children. *Child Abuse & Neglect*, 25(4), 505–522. doi:[10.1016/S0145-2134\(01\)00223-X](https://doi.org/10.1016/S0145-2134(01)00223-X)
- Kristiansen, C. M., Felton, K. A., & Hovdestad, W. E. (1996). Recovered memories of child abuse: Fact, fantasy or fancy? *Women & Therapy*, 19(1), 47–59. doi:[10.1300/J015v19n01_05](https://doi.org/10.1300/J015v19n01_05)

- Lindblom, K. M., & Gray, M. J. (2010). Relationship closeness and trauma narrative detail: A critical analysis of Betrayal Trauma Theory. *Applied Cognitive Psychology*, 24, 1–19. doi:[10.1002/acp.v24:1](https://doi.org/10.1002/acp.v24:1)
- Plummer, C. A. (2001). Prevention of child sexual abuse: A survey of 87 programs. *Journal of Violence and Victims*, 16(5), 575–588.
- Raymaekers, L., Smeets, T., Peters, M. J. V., & Merckelbach, H. (2010). Autobiographical memory specificity among people with recovered memories of childhood sexual abuse. *Journal of Behavior Therapy and Experimental Psychiatry*, 41, 338–344. doi:[10.1016/j.jbtep.2010.03.004](https://doi.org/10.1016/j.jbtep.2010.03.004)
- Stoler, L. R. (2001). Recovered and continuous memories of childhood sexual abuse: A quantitative and qualitative analysis. [Dissertation]. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 61(10–B), 5582.
- van der Kolk, B. A., Burbridge, J. A., & Suzuki, J. (1997). *The psychobiology of traumatic memory. Clinical implications of neuroimaging studies Psychobiology of posttraumatic stress disorder* (pp. 99–113). New York, NY: New York Academy of Sciences.
- van der Kolk, B. A., Hopper, J. W., & Osterman, J. E. (2001). Exploring the nature of traumatic memory: Combining clinical knowledge with laboratory methods. *Journal of Aggression, Maltreatment & Trauma*, 4(2), 9–31. doi:[10.1300/J146v04n02_02](https://doi.org/10.1300/J146v04n02_02)
- van der Kolk, B. A., & van der Hart, O. (1995). The intrusive past: The flexibility of memory and the engraving of trauma. In C. Caruth (Ed.), *Trauma: Explorations in memory* (pp. 158–182). Baltimore, MD: The John Hopkins University Press.
- Van Koppen, P. J., & Merckelbach, H. (1999). Characteristics of recovered memories: A Dutch replication of Gudjonsson's (1997) British survey. *Applied Cognitive Psychology*, 13(5), 485–489. doi:[10.1002/%28SICI%291099-0720%28199910%2913:5%3C485::AID-ACP627%3E3.0.CO;2-](https://doi.org/10.1002/%28SICI%291099-0720%28199910%2913:5%3C485::AID-ACP627%3E3.0.CO;2-)
- Williams, L. M. (1995). Recovered memories of abuse in women with documented child sexual victimization histories. *Journal of Traumatic Stress*, 8(4), 649–673. doi:[10.1002/jts.2490080408](https://doi.org/10.1002/jts.2490080408)
- Wylie, G., Foxe, J. J., & Taylor, T. L. (2008). Forgetting as an Active Process: An fMRI investigation of item-method-directed forgetting. *Cerebral Cortex*, 18, 670–682. doi:[10.1093/cercor/bhm101](https://doi.org/10.1093/cercor/bhm101)

Appendix C

Richard L. McNally, et al., *Clinical Characteristics of Adults Reporting Repressed, Recovered, or Continuous Memories of Childhood Sexual Abuse*, 74(2) J. Consul. & Clinical Psychol. 237 (2006).

Appendix C

Clinical Characteristics of Adults Reporting Repressed, Recovered, or Continuous Memories of Childhood Sexual Abuse

Richard J. McNally, Carol A. Perlman, Carel S. Ristuccia, and Susan A. Clancy
Harvard University

The authors assessed women and men who either reported continuous memories of their childhood sexual abuse (CSA, $n = 92$), reported recovering memories of CSA ($n = 38$), reported believing they harbored repressed memories of CSA ($n = 42$), or reported never having been sexually abused ($n = 36$). Men and women were indistinguishable on all clinical and psychometric measures. The 3 groups that reported abuse scored similarly on measures of anxiety, depression, dissociation, and absorption. These groups also scored higher than the control group. Inconsistent with betrayal trauma theory, recovered memory participants were not more likely to report abuse by a parent or stepparent than were continuous memory participants. Rates of depression and posttraumatic stress disorder did not differ between the continuous and recovered memory groups.

Keywords: sexual abuse, repressed memory, traumatic amnesia, dissociation, betrayal trauma theory

The controversy concerning reports of repressed (or dissociated) and recovered memories of childhood sexual abuse (CSA) has been among the most bitter in the history of psychology (Brewin, 2003; McNally, 2003b). It has become increasingly intense as hundreds of new cases have recently surfaced, many involving reportedly repressed and recovered memories of CSA committed by priests (e.g., Investigative Staff of *The Boston Globe*, 2003; Wypijewski, 2004). Although legal actions against parents based on allegedly repressed and recovered memories of CSA have sharply declined since the mid-1990s (Lipton, 1999), legal actions against large institutions, such as the Catholic Church, have increased.

The controversy is partly attributable to the fact that corroborated traumatic events—those experienced as overwhelmingly terrifying and perceived as life threatening—are seldom forgotten by victims (e.g., McNally, 2003b; Pope, Oliva, & Hudson, 1999). Indeed, for trauma survivors with posttraumatic stress disorder (PTSD), memories of their terrifying experiences are intrusive and difficult to dispel even when survivors try their best not to think about them. As behavioral neuroscientists have shown (e.g., McGaugh, 2003), release of stress hormones during intensely negative emotional events strengthens memory for the experience, and this process may underlie the memorability of trauma.

Accordingly, putatively forgotten CSA seemingly differs from the otherwise notable memorability of trauma, perhaps implying the operation of additional cognitive inhibitory mechanisms that come into play and block access to these memories. However, if the child failed to understand the CSA as abuse and failed to experience it as terrifying when it occurred, then the CSA would

not count as traumatic in the first place, despite its being morally reprehensible. In fact, we have found that individuals who report having remembered long-forgotten episodes of CSA are often more psychologically traumatized after recalling the episodes as adults and finally realizing that what had happened to them was sexual abuse than they were when the molestation was occurring during childhood (Clancy & McNally, in press). Finally, people who report recovering memories of long-forgotten CSA might be mistaken about the authenticity of their abuse recollections. If so, then this implies the operation of cognitive mechanisms that foster false memories (or beliefs) of CSA.

Because laboratory research on adults reporting repressed and recovered memories of CSA has been nearly nonexistent, our group has conducted studies testing hypotheses about cognitive mechanisms implicated in an individual's tendency either to forget and then remember his or her CSA or to develop false memories of CSA (Clancy, McNally, & Schacter, 1999; Clancy, Schacter, McNally, & Pitman, 2000; McNally, 2003a; McNally & Clancy, 2005; McNally, Clancy, Barrett, & Parker, 2004, 2005; McNally, Clancy, & Schacter, 2001; McNally, Clancy, Schacter, & Pitman, 2000a; McNally et al., in press; McNally, Ristuccia, & Perlman, 2005; see also Geraerts, Smeets, Jelicic, van Heerden, & Merckelbach, 2005). We have studied four groups of individuals. The *repressed memory* group comprised adults who believed that they harbored inaccessible memories of CSA. Participants in this group did not have any explicit, autobiographical memories of abuse, possibly because they were never abused in the first place. Instead, they cited a diversity of indicators, often seemingly inexplicable symptoms (e.g., nightmares, sexual dysfunction) as evidence of their having been sexually abused. We do not know whether they were abused. The *recovered memory* group comprised adults who reported recalling CSA memories after long periods of not having thought about their abuse. Assuming that these recollections were accurate, we did not know whether the memories were inaccessible—repressed or dissociated—during the period of time when they never came to mind. Not thinking about something for a long time is not the same thing as amnesia—the inability to remember

Richard J. McNally, Carol A. Perlman, Carel S. Ristuccia, and Susan A. Clancy, Department of Psychology, Harvard University.

This research was supported by National Institute of Mental Health Grant MH61268 awarded to Richard J. McNally.

Correspondence concerning this article should be addressed to Richard J. McNally, Department of Psychology, Harvard University, 33 Kirkland Street, Cambridge, MA 02138. E-mail: rjm@wjh.harvard.edu

it. The *continuous memory* group comprised individuals who reported never having forgotten their CSA. Finally, the *control* group comprised individuals who said that they were never sexually abused as children.

In addition to the aforementioned laboratory experiments, we conducted a study on our first wave of participants and characterized them on questionnaires that tapped psychological distress and personality (McNally, Clancy, Schacter, & Pitman, 2000b). Women who had never forgotten their abuse were indistinguishable from women who had never been abused on measures of depression, posttraumatic stress, and dissociation. They were also indistinguishable on personality measures of negative emotionality. Moreover, women who believed that they harbored repressed memories of CSA tended to report more distress than those who reported recovered memories of CSA, who, in turn, tended to score higher than those who had always remembered their abuse.

The purpose of the study reported here was to replicate and extend this line of inquiry on a new and larger cohort of participants. Men, as well as women, who reported either continuous, recovered, or repressed memories of CSA, or who reported no abuse history, completed measures of anxiety, depression, dissociation, absorption, imagery ability, and intelligence. They also participated in interviews designed to elucidate the character of their abuse memories (e.g., kind of abuse, relationship to perpetrator) and to determine whether they qualified for PTSD or depression.

Additionally, we tested specific hypotheses arising from the controversy regarding repressed and recovered memories of sexual abuse. For example, individuals reporting repressed and recovered memories of CSA should score higher on measures of dissociation than those reporting continuous memories, if this trait predicts ability to keep distressing recollections at bay. However, if the former two groups are mistaken about their abuse histories, then they should score higher than the continuous memory group on measures relevant to fantasy proneness (i.e., absorption) and to potential difficulty discriminating between fantasy and reality (i.e., imagery ability).

Other hypotheses concerned the character of the abuse itself. Thus, according to Freyd's (1996) betrayal trauma theory, children abused by a caretaker are more likely than those abused by a noncaretaker to experience amnesia for their CSA. Freyd has maintained that children abused by caretakers are confronted with a seemingly senseless situation: The perpetrators are the same individuals on whom they must rely for shelter, food, and clothing. To resolve this conflict, the children maintain the necessary bond to the perpetrators by blocking out memories of the abuse. Freyd's theory was designed to explain, for example, why a woman who had been raped throughout her childhood and adolescence by her stepfather would be entirely unaware of having been victimized until encountering reminders of the crimes many years later. If we assume that participants were more dependent for caregiving on parental perpetrators than on other perpetrators (e.g., priests, neighbors, uncles), then Freyd's theory predicts that parents and stepparents should be identified as perpetrators more often in the recovered memory group than in the continuous memory group.

Method

Participants

Participants had responded to newspaper advertisements that read as follows:

Were you sexually abused as a child?

Do you think you might have been sexually abused?

Do you have no history of childhood sexual abuse?

The first question in the above advertisement recruited both those who reported either recovered or continuous memories of CSA; the second question recruited those who reported repressed memories of CSA; the third question recruited control participants who reported no history of CSA.

Respondents received a phone screen that determined their eligibility for the study and the group for which they qualified. *Sexual abuse* involved physical sexual contact ranging from fondling to penetration (e.g., anal, oral, vaginal) occurring prior to the participant's sixteenth birthday. The perpetrator had to be at least 5 years older than the participant. After the phone screen determined their suitability, participants received questionnaires by mail that they completed before arriving for their first visit to the laboratory.

During their first of three visits to our laboratory, participants provided written informed consent and underwent a semistructured memory interview, conducted by one of us (either Carol A. Perlman or Susan A. Clancy). Those qualifying for either the continuous or recovered memory group were asked whether they could furnish corroboration of their abuse memories. Finally, using the Structured Clinical Interview for *DSM-IV* (First, Spitzer, Gibbon, & Williams, 1996) and the PTSD Symptom Scale Interview (Foa & Tolin, 2000), one of us (either Carol A. Perlman or Susan A. Clancy) assessed for current Axis I mental disorders. To estimate interrater reliability for the two diagnoses of theoretical interest (PTSD and major depression), we randomly selected 10 audiotaped interviews and had another clinical psychologist score them. Diagnostic agreement was 100% for the presence (or absence) of both disorders.

The continuous memory group comprised 92 adults (67 women) who reported always having remembered their CSA. Nineteen furnished the name of an informant who corroborated the abuse during a telephone interview with either Susan A. Clancy or Carol A. Perlman, and another participant provided entries from a diary, which were dated from the time of the abuse and recounted her abuse. Of the 20 corroborated cases, 15 were women.

Continuous memory participants reported a mean age of onset of abuse of 8.9 years ($SD = 3.1$). Thirty-five participants reported penetrative abuse (vaginal or anal), 56 reported fondling, 24 reported oral sex, and 19 reported other (e.g., sexual kissing). Among continuous memory participants, 24 reported one to three instances of abuse, 4 reported four to six instances, 62 reported an unspecified number of instances (but more than one), and 1 reported more than 10 instances.

The ethnic/racial composition was as follows: White (50%), Black (38%), Hispanic (9%), Asian (2%), and other (1%). The proportion of occupational categories was as follows: unemployed/on disability (36%), student (11%), blue collar (e.g., waitress, construction worker; 28%), and white collar/professional (e.g., psychologist, accountant; 25%). Their mean age was 38.0 years ($SD = 9.9$), and their mean years of education was 14.9 ($SD = 2.3$).

The recovered memory group comprised 38 adults (22 women) who reported having recovered long-forgotten memories of CSA. We defined a recovered memory of CSA as one that did not enter awareness for years. In line with previous research (e.g., Russell, 1999, pp. 92–101), we did not require that the abuse was traumatic (i.e., overwhelmingly terrifying or perceived as life threatening), and we did not assume that the memory was inaccessible (i.e., dissociated or repressed) during the period when the person did not think about it. Participants who reported having recovered long-forgotten CSA memories and who also reported never-forgotten memories of CSA were assigned to the continuous memory group. That is, to qualify for the recovered memory group, participants had to have entirely forgotten their abuse. It is possible that some participants had forgotten having remembered their abuse during the long period of time when they believed the memories never came to mind (see Schooler, Bendiksen, & Ambadar, 1997). Unfortunately, we were unable to discrim-

inate between individuals who had never thought about their abuse during this period and those who had forgotten their previous rememberings. One participant provided the name of an informant who corroborated the abuse.

Recovered memory participants reported a mean age of onset of abuse of 8.0 years ($SD = 2.7$). Twenty-two participants reported penetrative abuse (vaginal or anal), 20 reported fondling, 17 reported oral sex, and six reported other (e.g., sexual kissing). Of this group, 12 reported one to three instances of abuse, one reported four to six instances, 24 reported an unspecified number of instances (but more than one), and 1 reported more than 10 instances.

The ethnic/racial composition was as follows: White (61%), Black (29%), Hispanic (5%), Asian (5%), and other (0%). The proportion of occupational categories was as follows: unemployed/on disability (39%), student (25%), blue collar (14%), and white collar/professional (22%). Their mean age was 39.3 years ($SD = 14.0$), and their mean years of education was 14.1 ($SD = 4.2$).

The repressed memory group comprised 42 adults (35 women) who believed that they harbored inaccessible memories of CSA. Lacking autobiographical memories of CSA, they inferred their abuse history from diverse indicators when asked why they thought they had been abused. Some participants mentioned more than one indicator, and the percentage of participants who mentioned the following indicators were as follows: dreams/nightmares (32%), visions (29%), sexual problems (15%), "body memories" (e.g., pains; 12%), mood problems (e.g., depression; 10%), relationship problems (7%), inexplicable fears (7%), panic attacks (5%), and other (e.g., insomnia; 10%). We could not determine whether these individuals were abused, and they had no memories for us to try to corroborate. That is, no participant in this group cited external evidence of abuse (e.g., confession of a perpetrator) when he or she lacked memory of the abuse. The ethnic/racial composition was as follows: White (83%), Black (14%), Hispanic (3%), Asian (0%), and other (0%). The proportion of occupational categories was as follows: unemployed/on disability (40%), student (9%), blue collar (17%), and white collar/professional (34%). Their mean age was 42.2 years ($SD = 11.3$), and their mean years of education was 16.0 ($SD = 2.0$).

The control group comprised 36 adults (23 women) who reported never having been sexually abused as children. To our knowledge, none of these individuals had been abused. The ethnic/racial composition was as follows: White (86%), Black (8%), Hispanic (0%), Asian (6%), and other (0%). The proportion of occupational categories was as follows: unemployed/on disability (11%), student (31%), blue collar (31%), and white collar/

professional (27%). Their mean age was 34.0 years ($SD = 13.8$), and their mean years of education was 15.5 years ($SD = 1.4$).

We compared the groups on several demographic variables: age, education, percentage in white-collar occupations, and percentage of ethnic minority. An analysis of variance (ANOVA) revealed a significant age effect, $F(3, 205) = 3.3$, $p = .02$, and post hoc contrasts (least-significant differences method; $p < .05$) showed that this was attributable to the repressed memory group being older than the control group. The ANOVA for education was also significant, $F(3, 204) = 4.1$, $p = .007$, and this was attributable to the repressed memory group having more years of education than all other groups and the control group having more years of education than the recovered memory group. The groups did not differ significantly in the proportion of participants who held white collar/professional jobs, $\chi^2(3, N = 177) = 1.82$, $p = .61$. However, the proportion of ethnic minority participants was greater in the continuous memory group than in the other groups, $\chi^2(3, N = 208) = 22.66$, $p = .001$.

Questionnaires

Participants completed (a) the Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986), which tapped dissociative symptoms; (b) the Absorption Scale (Tellegen & Atkinson, 1974), which tapped proneness to become engaged in imaginative experiences—a correlate of fantasy proneness; (c) the Vividness of Visual Imagery Questionnaire (VVIQ; Marks, 1973), which served as a measure of imagery ability; (d) the Beck Depression Inventory (Beck & Steer, 1987), which measured depressive symptoms; (e) the short form of the Manifest Anxiety Scale (Bendig, 1956), which measured trait anxiety; and (f) the Shipley measures of verbal and nonverbal cognitive ability (Zachary, 1991).

Results

The means and standard deviations for these variables are depicted in Table 1. We first conducted 2 (Sex) $\times$ 4 (Memory Group) ANOVAs on each variable. Because no effect involving sex was significant ($ps > .05$), we collapsed across sex for later analyses.

As indicated by one-way ANOVA, the groups did not differ ($p > .05$) in terms of imagery ability (VVIQ). Significant effects emerged for the other variables, and we conducted post hoc con-

Table 1
Means for Psychometric Data

Variable	Group								F	p
	Control		Continuous		Recovered		Repressed			
	M	SD	M	SD	M	SD	M	SD		
DES (3, 195)	7.2 _b	6.8	17.7 _a	13.6	16.7 _a	14.6	19.1 _a	14.3	6.8	.0001
DES-Am (3, 195)	2.6 _b	4.8	9.8 _a	11.9	8.9 _a	11.4	9.5 _a	11.9	4.0	.008
DES-Ab (3, 195)	11.5 _b	10.5	25.2 _a	18.3	22.0 _a	14.8	25.6 _a	18.8	6.5	.0001
DES-DD (3, 195)	2.4 _b	4.7	10.5 _a	14.6	9.2 _a	12.8	13.1 _a	16.9	4.4	.005
Absorption (3, 193)	14.1 _b	7.6	18.3 _a	7.3	18.4 _a	7.6	17.7 _a	6.5	3.2	.02
BDI (3, 154)	6.9 _b	7.4	14.5 _{ac}	10.4	11.4 _{bc}	7.3	16.5 _a	10.3	6.1	.001
MAS (3, 154)	5.4 _c	5.0	9.4 _b	5.4	8.5 _b	4.6	12.5 _a	4.8	10.2	.0001
Shipley-V (3, 203)	34.2 _{ac}	3.7	30.8 _b	6.5	32.0 _{bc}	6.1	33.6 _{ac}	6.2	3.8	.011
Shipley-NV (3, 204)	17.2 _a	2.3	13.3 _b	4.5	13.6 _b	4.5	16.1 _a	4.2	10.5	.0001
VVIQ (3, 155)	65.2 _a	8.4	61.7 _a	9.6	62.0 _a	12.0	59.0 _a	12.0	1.8	.19

Note. Because of missing data, degrees of freedom vary. The degrees of freedom for each analysis of variance are in parentheses besides the variable. Means sharing a subscript do not differ significantly from one another ($p > .05$). DES = Dissociative Experiences Scale (Am = Amnesia subscale; Ab = Absorption subscale; DD = Derealization/Depersonalization subscale); BDI = Beck Depression Inventory; MAS = Manifest Anxiety Scale, short form; V = verbal; NV = nonverbal; VVIQ = Vividness of Visual Imagery Questionnaire.

trasts (least-significant differences method) to investigate these further. We report only significant contrasts ($p < .05$).

The repressed memory group reported more anxiety symptoms than the recovered and continuous memory groups did, and the continuous, recovered, and repressed memory groups reported more anxiety symptoms than the control group did.

For verbal intelligence, the control and repressed memory groups scored higher than did the continuous memory group. For nonverbal intelligence, the control and repressed memory groups also scored higher than did the continuous and recovered memory groups.

The continuous, recovered, and repressed memory groups reported more dissociative symptoms than did the control group. This pattern held for the total score and all three subscale (Amnesia, Absorption, Derealization/Depersonalization) scores.

The continuous, recovered, and repressed memory groups scored higher than the control group did on the measure of absorption. The repressed memory group reported more depression symptoms than did the recovered memory group and the control group, and the continuous memory group also reported more depression symptoms than did the control group.

From the memory interview data, we identified the participants who reported having been abused by either a father, a mother, or a stepfather (i.e., a primary caretaker; no participant mentioned having been abused by a stepmother or a foster parent). We then tested whether the recovered memory group had a larger proportion of participants who reported having been abused by a caretaker relative to the proportion in the continuous memory group. In fact, only 8 of 38 recovered memory participants mentioned a primary caretaker as their abuser, whereas 18 of 91 continuous memory participants did so (missing data for one participant). The rate of reported caretaker abuse was indistinguishable between the continuous versus recovered memory group (20% vs. 21%), $\chi^2(1, N = 129) = 0.27, p = .87$. Contrary to Freyd's (1996) theory, parents and stepparents were not more likely to be cited as abusers among participants who reported having forgotten their abuse than among those who reported never having forgotten their abuse.

The proportion of recovered memory participants (39%) with PTSD did not differ from the proportion of continuous memory participants (45%) with PTSD, $\chi^2(1, N = 120) = 0.41, p = .52$. The proportion of recovered memory participants (8%) with major depression did not differ from the proportion of continuous memory participants (15%) with major depression, $\chi^2(1, N = 123) = 1.1, p = .29$ (see Table 2).

Discussion

Several conclusions are apparent. First, men and women did not differ on any of our measures regardless of whether they reported continuous, recovered, or repressed memories of abuse.

Second, as in our previous study (McNally et al., 2000b), the repressed memory group tended to score highest on measures of psychological distress (e.g., anxiety, depression). However, unlike our previous study, the continuous memory group scored higher than the control group on these measures. Some of the individuals who reported continuous memories of CSA in our previous study had received counseling, and this may explain why they scored lower on measures of distress than their counterparts in the current study.

Table 2

Percentage of Participants in Each Group Qualifying for a Current DSM-IV Diagnosis

Diagnosis	Group							
	Control		Continuous		Recovered		Repressed	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Depression	0	0	15	13	8	3	13	5
Bipolar	0	0	1	1	3	1	0	0
Panic	3	1	1	1	3	1	3	1
Agoraphobia	0	0	1	1	0	0	5	1
Social phobia	8	3	7	6	3	1	5	1
Specific phobia	6	2	4	3	5	2	5	1
OCD	0	0	1	1	0	0	0	0
GAD	3	1	9	8	11	4	5	2
PTSD	3	1	45	38	39	14	14	5

Note. The *n* value indicates the number of participants in the group qualifying for the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; DSM-IV; American Psychiatric Association, 1994) diagnosis, whereas the percentage figure indicates the proportion of the group meeting criteria for the DSM-IV diagnosis. OCD = obsessive-compulsive disorder; GAD = generalized anxiety disorder; PTSD = posttraumatic stress disorder.

Third, the "false memory perspective" implies that participants reporting either repressed or recovered memories of CSA should score higher than those reporting continuous memories on measures empirically or theoretically linked to false memory formation. Inconsistent with this hypothesis, there were no differences among the groups on the measure of vividness of visual imagery. Moreover, the repressed and recovered memory groups did not score higher than the continuous memory group on measures of dissociation. Yet these three groups scored higher than the control group on dissociation. Finally, inconsistent with the prediction that the repressed and recovered memory groups would score higher than the continuous memory group on absorption (related to fantasy proneness), all three of these groups were statistically indistinguishable; however, they did score higher than the control group. It is unclear how strongly these data count against the false memory perspective. That is, their probative weight rests partly on how well the measures tap the relevant constructs (e.g., the extent to which VVIQ is a good measure of imagery ability). For example, we recently found that none of these measures correlated with the ability to distinguish between images and percepts in a signal detection study (McNally, Clancy, et al., 2005).

Fourth, inconsistent with Freyd's (1996) betrayal trauma theory, the proportion of individuals in the recovered memory group who cited sexual abuse by a caretaker was nearly identical to that in the continuous memory group. That is, parents and stepparents were no more likely to be cited as the abuser in the recovered memory group than in the continuous memory group. In fact, the majority of participants in both groups named other known adults as the perpetrator (e.g., neighbor, camp counselor, priest, uncle, cousin).

It could be argued, however, that we did not test betrayal trauma theory because we did not directly measure the degree of dependence that participants had on the perpetrator. According to betrayal trauma theory, *dependence* is exemplified by depending on another for "food or shelter" (Freyd, DePrince, & Zurbriggen, 2001, p. 7), and we did not ask our participants whether they had

depended on the perpetrator for these things. Instead, we assumed that our participants were more dependent on their parents for food and shelter than on their coaches, priests, cousins, uncles, and so forth. Because it is possible that some participants might have been just as dependent on nonparental as parental perpetrators, an independent measure of dependence would have enabled us to test whether participants were more dependent for food and shelter on their parental perpetrators than on other perpetrators. For example, the Betrayal Trauma Inventory asks participants reporting a history of childhood abuse "Was the person [perpetrator] responsible for caring for you (e.g., providing you with food or shelter)?" (Freyd et al., 2001, p. 7).

Research relevant to betrayal trauma theory has been growing (for a positive assessment, see Sivers, Schooler, & Freyd, 2002; for a less positive one, see McNally, in press). Most experiments have concerned comparisons between college students who scored either high or low on a dissociation questionnaire (DES) on cognitive tasks, not comparisons between CSA survivors who had been abused either by caretakers or noncaretakers, or who reported either having forgotten or always remembering their abuse (e.g., Stroop task, DePrince & Freyd, 1999; directed forgetting task, DePrince & Freyd, 2001). In one nonexperimental (questionnaire) study, college students who reported either physical or sexual abuse by caretakers reported having experienced more "memory impairment" for their abuse than did those victimized by noncaretakers (Freyd et al., 2001, p. 12). However, the meaning of this is unclear. For example, does an affirmative response to the question about memory impairment mean that the participant had been unable to remember any of the abuse? Does it mean that a participant who had experienced multiple beatings as a child, for example, believes that he or she has forgotten at least some of these episodes? Finally, although a recent directed forgetting experiment showed that high-DES college students (DePrince & Freyd, 2004), some with reported abuse histories, exhibited memory impairments for trauma words encoded under divided attention, this finding did not replicate in a study on high-DES college students (Deville, Ciorciari, Piesse, Sherwell, & Zammit, 2005) or in a study on adults who reported having recovered memories of CSA (McNally, Ristuccia, & Perlman, 2005).

Our conclusions must be tempered by several considerations. First, we found it difficult to corroborate abuse reports, even in the continuous memory group. Second, some psychologists may hold that our abused participants were atypical because they identified themselves as abuse survivors. However, we are unaware of any research that has shown that most sexually abused people do not consider themselves as having been sexually abused. Moreover, our participants were diverse in age, ethnicity/race, education, and occupational type. Some were impoverished inner city residents with limited education, whereas others were relatively affluent individuals with a doctoral-level education. (There were occasional differences among the groups of uncertain relevance, such as the greater proportion of ethnic minorities in the continuous memory group.) Accordingly, they are more likely to be representative of people reporting CSA than those recruited solely from college populations (e.g., Silvern, Waelde, Baughan, Karyl, & Kaersvang, 2000), psychiatric clinics (e.g., Herman & Harvey, 1997), or women enlisted in the U.S. Navy (e.g., Stander, Olson, & Merrill, 2002). As with any research study, our self-identified abuse survivors must be willing to participate, and hence they may

not be representative of abuse victims who are unwilling to volunteer for research studies advertised in the newspaper.

Our control participants said they had not been sexually abused. Although it is conceivable that some of these individuals might have been false negatives (i.e., had been abused, their self-report notwithstanding), it is impossible to document this with certainty because one cannot prove the null hypothesis. The fact that they scored significantly lower than the other groups on measures of psychological distress (e.g., anxiety, depression) seems consistent with their claim of not having been abused.

Because our newspaper advertisement explicitly mentioned sexual abuse, potential participants who qualified as having been sexually abused, but who did not label themselves as abuse survivors, would not have volunteered to participate. It is difficult to ascertain what the effect of this might be. In some studies, those who failed to self-identify as victims have reported more problems than those who did (e.g., Silvern et al., 2000), whereas the opposite has occurred in other studies (e.g., Conoscenti & McNally, in press). Individuals who meet researcher-defined criteria for having been sexually abused may reject the label of sexual abuse survivor because they regard it as stigmatizing. However, members of our repressed memory group embraced the label of abuse survivor despite not having any memories of abuse. Finally, rejection of the victim identity may signify psychological resilience (e.g., Bonanno, 2004; Sommers & Satel, 2005) rather than stigma avoidance.

References

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Beck, A. T., & Steer, R. A. (1987). *Beck Depression Inventory manual*. San Antonio, TX: Psychological Corporation.
- Bendig, A. W. (1956). The development of a short form of the Manifest Anxiety Scale. *Journal of Consulting Psychology*, 20, 384.
- Bernstein, E. M., & Putnam, F. W. (1986). Development, reliability, and validity of a dissociation scale. *Journal of Nervous and Mental Disease*, 174, 727-735.
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, 59, 20-28.
- Brewin, C. R. (2003). *Posttraumatic stress disorder: Malady or myth?* New Haven, CT: Yale University Press.
- Clancy, S. A., & McNally, R. J. (in press). Who needs repression? Normal memory processes can explain "forgetting" of childhood sexual abuse. *Scientific Review of Mental Health Practice*.
- Clancy, S. A., McNally, R. J., & Schacter, D. L. (1999). Effects of guided imagery on memory distortion in women reporting recovered memories of childhood sexual abuse. *Journal of Traumatic Stress*, 12, 559-569.
- Clancy, S. A., Schacter, D. L., McNally, R. J., & Pitman, R. K. (2000). False recognition in women reporting recovered memories of sexual abuse. *Psychological Science*, 11, 26-31.
- Conoscenti, L. M., & McNally, R. J. (in press). Health complaints in acknowledged and unacknowledged rape victims. *Journal of Anxiety Disorders*.
- DePrince, A. P., & Freyd, J. J. (1999). Dissociative tendencies, attention, and memory. *Psychological Science*, 10, 449-452.
- DePrince, A. P., & Freyd, J. J. (2001). Memory and dissociative tendencies: The roles of attentional context and word meaning in a directed forgetting task. *Journal of Trauma and Dissociation*, 2, 67-82.
- DePrince, A. P., & Freyd, J. J. (2004). Forgetting trauma stimuli. *Psychological Science*, 15, 488-492.
- Deville, G. J., Ciorciari, J., Piesse, A., Sherwell, S., & Zammit, S. (2005). *The influence of dissociative tendencies and trauma history on memory*

- performance in a directed forgetting task. Manuscript submitted for publication.
- First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. (1996). *Structured Clinical Interview for DSM-IV Axis I disorders*. New York: New York State Psychiatric Institute, Biometrics Research Department.
- Foa, E. B., & Tolin, D. F. (2000). Comparison of the PTSD Symptom Scale-Interview Version and the Clinician-Administered PTSD Scale. *Journal of Traumatic Stress, 13*, 181–191.
- Freyd, J. J. (1996). *Betrayal trauma: The logic of forgetting childhood abuse*. Cambridge, MA: Harvard University Press.
- Freyd, J. J., DePrince, A. P., & Zurbriggen, E. L. (2001). Self-reported memory for abuse depends upon victim–perpetrator relationship. *Journal of Trauma and Dissociation, 2*, 5–16.
- Geraerts, E., Smeets, E., Jelicic, M., van Heerden, J., & Merckelbach, H. (2005). Fantasy proneness, but not self-reported trauma, is related to DRM performance of women reporting recovered memories of childhood sexual abuse. *Consciousness and Cognition, 14*, 602–612.
- Herman, J. L., & Harvey, M. R. (1997). Adult memories of childhood trauma: A naturalistic clinical study. *Journal of Traumatic Stress, 10*, 557–571.
- Investigative Staff of *The Boston Globe*. (2003). *Betrayal: The crisis in the Catholic Church* (Rev. ed.). Boston: Little, Brown & Company.
- Lipton, A. (1999). Recovered memories in the courts. In S. Taub (Ed.), *Recovered memories of child sexual abuse: Psychological, social, and legal perspectives on a contemporary mental health controversy* (pp. 165–210). Springfield, IL: Charles C Thomas.
- Marks, D. F. (1973). Visual imagery differences in the recall of pictures. *British Journal of Psychology, 64*, 17–24.
- McGaugh, J. L. (2003). *Memory and emotion: The making of lasting memories*. New York: Columbia University Press.
- McNally, R. J. (2003a). Recovering memories of trauma: A view from the laboratory. *Current Directions in Psychological Science, 12*, 32–35.
- McNally, R. J. (2003b). *Remembering trauma*. Cambridge, MA: Belknap Press/Harvard University Press.
- McNally, R. J. (in press). Betrayal trauma theory: A critical appraisal. *Memory*.
- McNally, R. J., & Clancy, S. A. (2005). Sleep paralysis in adults reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Journal of Anxiety Disorders, 19*, 147–152.
- McNally, R. J., Clancy, S. A., Barrett, H. M., & Parker, H. A. (2004). Inhibiting retrieval of trauma cues in adults reporting histories of childhood sexual abuse. *Cognition and Emotion, 18*, 479–493.
- McNally, R. J., Clancy, S. A., Barrett, H. M., & Parker, H. A. (2005). Reality monitoring in adults reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Journal of Abnormal Psychology, 114*, 147–152.
- McNally, R. J., Clancy, S. A., Barrett, H. M., Parker, H. A., Ristuccia, C. S., & Perlman, C. A. (in press). Autobiographical memory specificity in adults reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Cognition and Emotion*.
- McNally, R. J., Clancy, S. A., & Schacter, D. L. (2001). Directed forgetting of trauma cues in adults reporting repressed or recovered memories of childhood sexual abuse. *Journal of Abnormal Psychology, 110*, 151–156.
- McNally, R. J., Clancy, S. A., Schacter, D. L., & Pitman, R. K. (2000a). Cognitive processing of trauma cues in adults reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Journal of Abnormal Psychology, 109*, 355–359.
- McNally, R. J., Clancy, S. A., Schacter, D. L., & Pitman, R. K. (2000b). Personality profiles, dissociation, and absorption in women reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Journal of Consulting and Clinical Psychology, 68*, 1033–1037.
- McNally, R. J., Ristuccia, C. S., & Perlman, C. A. (2005). Forgetting trauma cues in adults reporting continuous or recovered memories of childhood sexual abuse. *Psychological Science, 16*, 336–340.
- Pope, H. G., Jr., Oliva, P. S., & Hudson, J. I. (1999). Repressed memories: The scientific status. In D. L. Faigman, D. H. Kaye, M. J. Saks, & J. Sanders (Eds.), *Modern scientific testimony: The law and science of expert testimony* (Vol. 1, pocket part, pp. 115–155). St. Paul, MN: West Publishing.
- Russell, D. E. H. (1999). *The secret trauma: Incest in the lives of girls and women* (Rev. ed.). New York: Basic Books.
- Schooler, J. W., Bendiksen, M., & Ambadar, Z. (1997). Taking the middle line: Can we accommodate both fabricated and recovered memories of sexual abuse? In M. A. Conway (Ed.), *Recovered memories and false memories* (pp. 251–292). Oxford, England: Oxford University Press.
- Silvern, L., Waelde, L. C., Baughan, B. M., Karyl, J., & Kaersvang, L. L. (2000). Two formats for eliciting retrospective reports of child sexual and physical abuse: Effects on apparent prevalence and relationships to adjustment. *Child Maltreatment, 5*, 236–250.
- Sivers, H., Schooler, J., & Freyd, J. J. (2002). Recovered memories. In V. S. Ramachandram (Ed.), *Encyclopedia of the human brain* (pp. 169–184). San Diego, CA: Academic Press.
- Sommers, C. H., & Satel, S. (2005). *One nation under therapy: How the helping culture is eroding self-reliance*. New York: St. Martin's Press.
- Stander, V. A., Olson, C. B., & Merrill, L. L. (2002). Self-definition as a survivor of childhood sexual abuse among Navy recruits. *Journal of Consulting and Clinical Psychology, 70*, 369–377.
- Tellegen, A., & Atkinson, G. (1974). Openness to absorbing and self-altering experiences (“absorption”), a trait related to hypnotic susceptibility. *Journal of Abnormal Psychology, 83*, 268–277.
- Wypijewski, J. (2004, September/October). The passion of Father Paul Shanley. *Legal Affairs, 3*(5), 34–41.
- Zachary, R. A. (1991). *Shipley Institute of Living Scale (Revised)*. Los Angeles: Western Psychological Services.

Received February 11, 2005

Revision received August 24, 2005

Accepted September 16, 2005 ■

Appendix C

Sarah Miragoli, et al., *Narrative Fragmentation in Child Sexual Abuse: The Role of Age and Post-Traumatic Stress Disorder*, 73 *Child Abuse & Neglect* 106 (2017).

Appendix C



Research Article

Narrative fragmentation in child sexual abuse: The role of age and post-traumatic stress disorder

Sarah Miragoli^{a,*}, Elena Camisasca^{a,b}, Paola Di Blasio^a^a C.R.I.d.e.e., Psychology Department, Catholic University of the Sacred Heart, Largo Gemelli 1, 20123 Milan, Italy^b e-Campus University, Via Isimbardi 10, 22060 Novedrate (CO), Italy

ARTICLE INFO

Keywords:

Fragmentation
Child sexual abuse
Age
Post-traumatic stress disorder
Disclosure

ABSTRACT

The present study aimed to assess the effects of age and PTSD on the narrative fragmentation in memories for child sexual abuse. Lexical complexity, cohesion and coherence were analyzed within a group of 86 allegations of children ($M = 10$ years; $SD = 3.7$; range: 4–17) who were victims of sexual abuse. Results illustrated that age played an important role in establishing narrative coherence and predicted the level of orientation, the sequence of events and the level of evaluation of the event. Instead, PTSD was related to narrative coherence and cohesion. Therefore, in children, the narrative fragmentation could be an effective diagnostic tool for understanding the effects of PTSD. Moreover in a legal setting the traumatic effects of PTSD on the narrative coherence and cohesion could be significant indices in the evaluation of child testimony.

1. Introduction

The nature of trauma narratives is under considerable debate. Some researchers (e.g., Harvey & Bryant, 1999; van der Kolk & Fisler, 1995) suggest that traumatic experiences associated with personal salience and pervasive arousal, particularly in clinical populations, prevent the ability to produce a cohesive and consistent narrative. Many studies illustrate that traumatic memories are evaluated as more fragmented and disorganized in their narrative structure than memories of non-traumatic events (Byrne, Hyman, & Scott, 2001; Tromp, Koss, Figueredo, & Tharan, 1995) and that traumatized individuals are predicted to tell more fragmented narratives about their traumatic event (Amir, Stafford, Freshman, & Foa, 1998; Koss, Figueredo, Bell, Tharan, & Tromp, 1996; Neimeyer, 2004).

In literature, various definitions of trauma memory fragmentation exist (Bedard-Gilligan & Zoellner, 2012), including increased sensory components (Hopper & van der Kolk, 2001), abnormal chronology (Byrne, Hyman, & Scott, 2001), and memory confusion (Foa, Molnar, & Cashman, 1995; Halligan, Michael, Clark, & Ehlers, 2003). In particular, Foa et al. (1995) distinguish between fragmentation and disorganization by defining fragmentation as unnecessary repetitions and disorganization as confused or disjointed thoughts in the narrative. However, in our study we primarily use fragmentation to refer to disjointed thoughts in the narrative and to refer to both fragmentation and disorganization for simplicity and because in literature the terms are not well distinguished.

In terms of causal mechanisms, some authors (Halligan et al., 2003; Harvey & Bryant, 1999; van der Kolk & Fisler, 1995) interpret the narrative fragmentation as a result of the lack of elaboration of the memory due to high emotion and dissociation during the traumatic experience. Dissociation is generally conceived as a defensive response to intense stress or trauma. Dissociative adults and

* Corresponding author at: Catholic University of Milan, Department of Psychology, L.go Gemelli 1, 20123–Milano (MI), Italy.

E-mail address: sarah.miragoli@unicatt.it (S. Miragoli).

children have been shown to have less confidence in their memory (Camisasca & Miragoli, 2014; Cordon et al., 2004; Kenardy et al., 2007; Putnam, 1997; Quas et al., 1999). Peritraumatic dissociation would be able to prevent memory processing and organization during encoding, which disrupts both memory storage and retrieval (Halligan et al., 2003; Marshall & Shell, 2002). Starting from this assumption, some scholars (e.g. Camisasca, Miragoli, & Di Blasio, 2014; Ehlers & Clark, 2000; Halligan, Clark, & Ehlers, 2002; O'Kearney & Perrott, 2006; Zoellner & Bittenger, 2004) consider the dissociative response as a key mechanism underlying the development and persistence of post-traumatic stress disorder (PTSD) symptoms. Trauma victims, who develop PTSD symptoms, are assumed to experience difficulties in organizing their traumatic memory into a coherent narrative with an ordered sequence of events (Esterling, Abate, Murray, & Pennebaker, 1999). Horowitz (1986) argued that PTSD symptoms are maintained due to the trauma memory not being integrated within the individual's pre-trauma schemas. In particular, "disjointedness" of trauma memories is crucial in understanding re-experiencing of PTSD (Ehlers, Hackmann, & Michael, 2004; Evans, Ehlers, Mezey, & Clark, 2007). Therefore, dissociation may lead to fragmentation of the traumatic memory, which in turn may contribute to the PTSD symptoms (e.g., Brewin, Dalgleish, & Joseph, 1996; Ehlers & Clark, 2000; Ozer, Best, Lipsey & Weiss, 2003; Laposa & Alden, 2003).

Considerable research has examined the relations between PTSD and memory fragmentation in adults, with mixed results. Several studies have shown memory disorganization to be related to Acute Stress Disorder (Harvey & Bryant, 1999; Moulds & Bryant, 2005) and PTSD (e.g., Buck, Kindt, van den Hout, Steens, & Linders, 2006; David, Akerib, Gaston, & Brunet, 2010; Murray, Ehlers, & Mayou, 2002; O'Kearney, Hunt, & Wallace, 2011). For example, by measuring the degree of organization/fragmentation in the trauma narratives of individuals with PTSD, Foa et al. (1995) found that the trauma narratives became more organized and less fragmented as PTSD symptoms decreased throughout exposure to therapy. Moreover, Halligan et al. (2003) found that narrative disorganization predicted unique variance in PTSD symptoms six months after the trauma.

Conversely, several studies have failed to find a relationship between memory disorganization and PTSD symptoms. For example, van Minnen, Wessel, Dijkstra, and Roelofs (2002) compared PTSD patients who improved and did not improve through exposure to therapy. All patients showed significant decreases in disorganized thoughts over the course of therapy and these changes did not differ between the two groups even when using Foa et al.'s (1995) analysis of memory fragmentation. Similarly, Berntsen, Willert, and Rubin (2003) assessed traumatic memories associated with PTSD versus those that were not linked to PTSD. Overall, memories recalled by the PTSD group were no more fragmented than the non-PTSD group. Finally, Peace, Porter, and Brinke (2008) found that high levels of traumatic impact did not cause subsequent memory deficits and that memories for sexual trauma were not impaired or fragmented but were "superior" to other emotional memories.

The characteristics of children's memory fragmentation have received less attention. Developmental research showed that age certainly plays an important role in the organization of the stories. By the age of 6, children provide appropriate setting information and begin to include personal evaluations of the events (Stein, 1988). Instead, the inclusion of internal states and motivations is rare in children's narratives before the age of 8 (Kemper, 1984; Stein & Glenn, 1982) and corresponds to the improvement in children's ability to produce more sophisticated event sequences, which are causally related and integrated (Applebee, 1978; Peterson & McCabe, 1983; Shapiro & Hudson, 1991; Stein & Glenn, 1982). Moreover, some studies report that children provide more organized reports of negative events than neutral or emotionally positive events (Ackil, Van Abbema, & Bauer, 2003; Fivush, Hazzard, Sales, Sarfati, & Brown, 2003). However, findings about the narratives of traumatic events are less homogeneous. Berliner, Hyman, Thomas and Fitzgerald (2003) illustrated that children's memories for trauma have less sensory details and are less coherent than memories for positive events. These results are consistent with those reported by Fivush et al. (2003), in which the narrative disorganization was associated to the disconnections from the traumatic event. Conversely, Eisen, Goodman, Davis, and Qin (1999) reported that children who are victims of maltreatment with higher scores on measures of dissociation, were rated as having more (not less) detailed and cohesive memories of their abuse experiences.

Moreover, relatively few studies exist on memory in children who have been diagnosed with PTSD. O'Kearney, Speyer and Kenardy (2007) examined the connection between the quality of children's trauma memory (in terms of organization and structure) and their post-traumatic adjustment. Results illustrated a strong relationship between the attempts at making the event coherent and causally meaningful and intrusive symptoms in the process of children's adaptation to traumatic event. In order to identify individual differences in how youth process their experience of sexual abuse (occurred when they were between 8 and 15 years old) and to assess associations between processing strategies and adjustment, Simon, Feiring, and Kobielski McElroy (2010) detected that the meaning of the abuse was associated with narrative organization and to lesser psychopathological symptoms. In particular, youth with more PTSD and depressive symptoms produced narratives that reflected a rigid conceptualization of the sexual abuse with problems in maintaining a perspective on past traumatic experiences and in regulating their current emotional reactions. Another study (Moradi, Doost, Taghavi, Yule, & Dalgleish, 1999) suggested that children with PTSD have poorer overall memory on measures primarily tapping some aspects of long-term memory. Moreover, Kenardy et al. (2007) reported that disorganization of narratives was related to post-traumatic stress reactions among 7–15-year-olds who had been admitted to hospital. Instead, in a study of memory for a real-life stressful event (an ano-genital examination), Eisen, Qin, Goodman, and Davis (2002) found that, for maltreated 3- to 17-year-old children, PTSD symptoms were not a consistent predictor of event memory, but were associated with more commission errors to specific and misleading questions and with more correct information to free recall questions.

2. The present study

Although consistency is an important indicator of believability for jurors, relatively little is known about the factors connected with children's consistency (Ghetti, Goodman, Eisen, Qin, & Davis, 2002) and the existing results are controversial. On the basis of the considerations set out above, the present study aimed to explore the narrative fragmentation (in terms of features of lexical

complexity, cohesion and coherence) in memories for child sexual abuse. Specifically, this study aimed to: 1) investigate age and PTSD differences in the narrative fragmentation and 2) explore the predictive effects of age and PTSD in the organization of the traumatic narratives.

According to existing literature on children's eyewitness memory, we hypothesized that (H1) age may play an important role in structuring the traumatic narratives and that the accuracy generally increases with age (e.g., Brown et al., 1999; Eisen et al., 2002). In particular, we expected the accounts of younger children (preschool age children), compared to older children (school age children and adolescents) to be characterized by lower lexical complexity, simpler coordination between the propositions, and less narrative coherence (e.g. Allen, Kerroy, Sherblom, & Pettit, 1994; Applebee, 1978; Karmiloff-Smith, 1985; Hudson & Shapiro, 1991). Moreover, according to studies on PTSD, we hypothesized that (H2) the presence of post-traumatic symptoms may have a negative impact on the lexical complexity, cohesion and coherence of the traumatic narratives. In particular, we awaited the accounts of children with PTSD, compared to those without PTSD, to be lexically less complex, less cohesive and less consistent (Moradi et al., 1999). Finally, we presumed that (H3) age and PTSD are predictive of organization of traumatic narratives of children. In particular, we assumed that age may play a role of greater importance than the PTSD (Di Blasio, Miragoli, & Procaccia, 2012; Miragoli, Procaccia, & Di Blasio, 2014).

3. Method

3.1. Participants

The study analyzed the autobiographical narratives within a group of 86 Italian children who were victims of sexual abuse and were involved in criminal proceedings concluding in the conviction of the accused at the Criminal Court of Milan. At the time of the deposition, the mean age of the victims (55 female and 31 male) was 10 years ($SD = 3.7$ years; range: 4–17 years): 14% of children ($n = 12$) were preschool aged (4–6 years old), 50% ($n = 43$) school-aged (7–10 years old), and 36% ($n = 31$) were adolescents (11–17 years old). All children were considered to have average intelligence, without diagnosis of mental retardation and/or of learning disabilities.

We assessed the Socio-Economic Status (SES) of children's families by considering the parents' qualifications and jobs: 34.9% of children ($n = 30$) were from low class, 57% ($n = 49$) from middle class, and 8.1% ($n = 7$) from upper class. All the children were Italian and properly Italian speaking.

Regarding the characteristics of traumatic experiences, 45.3% of the cases were domestic sexual abuse, 33.7% occurred outside the family, and 20.9% occurred both within and outside the family. 59.3% of the acts of violence ($n = 51$) was committed with acts of penetration (genital, anal, and/or oral). In most cases (90.7%, $n = 78$), the sexual abuse was serial (with a minimum duration of one year), in the other cases (9.3%, $n = 8$) it referred to a single incident.

In this study 33 children (38.4%) presented all the symptoms required for a PTSD diagnosis (symptoms of re-experiencing the trauma, of avoidance/emotional numbing, and of increased arousal) and 53 (61.6%) did not present any symptoms. Table 1 shows direct comparisons between the proportion of children in each PTSD condition (with versus without PTSD) and sexual abuse characteristics (severity, duration and relationship with the perpetrator).

The information about the sexual abuse and about the PTSD profile were derived from the legal documentation of criminal proceedings.

3.2. Procedure

At the Criminal Court of Milan, forensic interviews were conducted with the aim of initiating a criminal investigation into the sexual abuse allegations. All interviews were conducted by skilled personnel trained in evaluating the cases of child sexual abuse. In line with the literature (Melinder et al., 2010), each interview was collected through a semi-structured protocol divided into four phases (relationship building, free narrative, questioning, and closure), audio-recorded, and transcribed verbatim. The abuse incident

Table 1
PTSD condition and sexual abuse characteristics.

	Without PTSD%	With PTSD%	Chi ²
<i>Severity of the Abuse</i>			18.12**
Without Penetration	88.6	11.4	
With Penetration	43.1	56.9	
<i>Duration of the Abuse</i>			0.67
Single Incident	75.0	25.0	
Serial Abuse	60.3	39.7	
<i>Relationship with the Perpetrator</i>			11.69**
Intrafamilial Abuse	59.0	41.0	
Extrafamilial Abuse	82.8	17.2	
Intrafamilial and Extrafamilial Abuse	33.3	66.7	

Notes: * $p < 0.05$, ** $p < 0.01$.

was explored as much as possible using non-suggestive and open-ended prompts and invitations. Only the content referred to sexual abuse was analyzed and it could be reported by the victim to open-ended prompts and invitations (free narrative) and to specific questions (questioning). The interviewer's questions were not included. The interviews covered a wide range of themes concerning the abusive experience (e.g., severity, duration, type of abusive action, relationship to the perpetrator, and interactions with the perpetrator) as well as the child's thoughts and feelings about the traumatic experience.

3.3. Measures

3.3.1. Post-traumatic stress disorder

In the legal report phase, in order to investigate PTSD profile and to verify participants' diagnostic status, a structured interview was administered. A PTSD profile was defined as a specific pattern of mental effects from a traumatic experience, which matched the formal criteria for PTSD in the DSM IV–TR (APA, 2000).

3.3.2. Lexical complexity

In this study children's narratives were analyzed for percentage of words longer than 6 letters as a measure of the child's lexical complexity and as an appropriate index of language ability (O'Kearney & Perrott, 2006; Pennebaker & Francis, 1996).

3.3.3. Cohesion

Cohesion in a narrative is achieved through linguistic devices (i.e., interclausal connectives) that express the relationships between sentences and clauses, which create a narrative (Cain, 2003; Halliday & Hasan, 1976). In this study children's narratives were analyzed in their use of the conjunctions, which include connectives (such as and, but, then, because, so, etc.). The cohesive function of these markers can be classified as *Coordination* (coordinating conjunctions to combine short independent clauses into a single sentence), *Subordination* (subordinating conjunctions to transform independent clauses – main clauses – into dependent clauses – subordinate clauses), *Temporal* or *Causal* (Tomassello, 2003). Numbers of references in each category were converted into a percentage of the total number of cohesive markers and the narrative context was used to determine the function.

3.3.4. Coherence

Coherence represents how various parts of a narrative are interrelated in a meaningful way, sequencing the events within a temporal or causal framework (Cain, 2003; Hudson & Shapiro, 1991; Shapiro & Huston, 1991, 1997). This study used the classification of narrative coherence developed by Peterson and McCabe (1983) and by O'Kearney et al. (2007). As well as global ratings of coherence, this study assessed three elements for each narrative:

- 1) *Level of orientation*, which considers the stage for the narrated events and includes orientation to people, place(s), time(s) and behavior(s). On the bases of criteria developed by O'Kearney et al. (2007), narratives were rated in the following way: 0 = the narrative includes no orientation comments or only minimal information such as one statement referring to the setting or context of the events; 1 = the narrative provides enough orientation information to gain a general sense of who, when and where the events took place (or at least two of these pieces of information); 2 = the narrative provides precise information about the time of day, location, people involved, general conditions, etc.;
- 2) *Sequence of events*, which considers whether the events were narrated in chronological order or whether there were repetitions or disorganization in the temporal sequence. On the bases of criteria developed by O'Kearney et al. (2007), narratives were rated in the following way: 0 = the narrative contained no apparent sequence of events or the events appeared so disorganized that the order of events in the narrative was difficult to follow; 1 = the narrative appeared to be structured in chronological order but there was some evidence of disorganization or repetition of events; 2 = the events of the narrative were organized in chronological order;
- 3) *Level of evaluation*, which consists in explanations, judgements, emotional states, intentions and inferences in order to explain one's own point of view about the narrated event. On the bases of criteria developed by O'Kearney et al. (2007), narratives were rated in the following way: 0 = the narrative contained none or very little evaluation and consisted mainly of facts or a series of actions; 1 = the narrative contained some evaluative comments usually in the form of internal emotional states or intentions; 2 = the narrative contained detailed evaluative comments telling the reader what to think about the event being narrated.

Three judges knowledgeable of the coding system co-rated 25% of the narratives in order to ensure reliability. There was strong agreement between the raters for the cohesive measures (r to 0.72–.83) and for what the coherence measures were concerned, ratings were high for the criteria of orientation (96%), sequence (96%), and evaluation (82%). All discrepancies between the coders were resolved through discussions among the coders and a fourth experienced coder. Coding was carried out by coders who were blind to age of children and the presence/absence of the PTSD symptoms.

4. Results

4.1. Descriptive characteristics of the narratives

Narratives ranged in length from 111 to 8412 words ($M = 1430$; $SD = 1257$). The characteristics of the narratives measures

Table 2
Characteristics of the Narrative Measures.

	Total Sample	4–6 years	7–10 years	11–17 years
	M (SD)	M (SD)	M (SD)	M (SD)
Narrative Length (Word Count)	1450 (1257)	540 (417)	1298 (809)	1959 (1694)
Lexical Complexity	0.139 (0.026)	0.134 (0.037)	0.136 (0.026)	0.146 (0.021)
Cohesive Markers				
Coordination	0.021 (0.011)	0.020 (0.016)	0.021 (0.011)	0.022 (0.011)
Subordination	0.064 (0.018)	0.052 (0.020)	0.062 (0.016)	0.070 (0.017)
Temporal	0.012 (0.006)	0.008 (0.006)	0.013 (0.007)	0.011 (0.004)
Causal	0.012 (0.006)	0.018 (0.009)	0.011 (0.005)	0.011 (0.005)
Coherence Ratings				
Orientation	1.37 (0.76)	0.33 (0.49)	1.42 (0.73)	1.71 (0.46)
Sequence	1.24 (0.75)	0.17 (0.39)	1.30 (0.71)	1.58 (0.50)
Evaluation	0.92 (0.77)	0.17 (0.32)	0.86 (0.71)	1.29 (0.74)

(lexical complexity, cohesion and coherence) are presented in Table 2 for the total sample and for the three age groups.

On average, the narratives were grammatically structured on good levels of subordinating conjunction ($M = 0.064$; $SD = 0.018$) and were considered to be rather well organized in terms of orientation (*Level of orientation*: $M = 1.37$; $SD = 0.75$) and of temporal sequence (*Sequence of events*: $M = 1.24$; $SD = 0.75$). However, the narratives were less adequate in respect to the evaluation of the event through the children's judgments, states of mind, and intentions (*Level of evaluation*: $M = 0.92$; $SD = 0.77$).

The narrative length was not associated with PTSD ($r = -0.08$, $p = 0.46$) or the characteristics of traumatic event (severity: $r = 0.12$, $p = 0.27$; duration: $r = 0.06$, $p = 0.58$; relationship with the perpetrator (intrafamilial versus extrafamilial abuse): $r = 0.81$, $p = 0.46$), but it was only associated with age of child ($r = 0.37$, $p < 0.001$).

Gender differences were not observed with respect to PTSD and narrative measures (lexical complexity, cohesion and coherence).

4.2. Age and PTSD differences

In order to examine initial bivariate associations and to identify possible covariates, the correlations among age, PTSD and the narratives measures (lexical complexity, cohesion and coherence) were calculated (Table 3). Second, to explore age differences into three age groups (4–6, 7–10 and 11–17 years old) and PTSD differences (with versus without PTSD) Analyses of Variance (ANOVA) and Student's *t* test were respectively conducted.

The correlation analyses showed the positive associations between age and lexical complexity ($r = 0.22$, $p < 0.05$), subordinating conjunction ($r = 0.33$, $p < 0.01$), level of orientation ($r = 0.50$, $p < 0.01$), sequence of events ($r = 0.54$, $p < 0.01$), and level of evaluation ($r = 0.52$, $p < 0.01$). In particular, older children produced more complex narratives than younger children from a lexical and grammatical point of view (with a larger number of subordinate clauses). Moreover, the narratives of older children appeared to be more consistent, as they provided more precise information about time, location and people involved in the abusive event, they were in chronological order and had a higher number of evaluative comments referring to the traumatic experience.

This bears the ANOVA's findings, where significant differences in the three age groups (4–6, 7–10, and 11–17 years old) with regard to subordinating conjunction ($F_{(2,85)} = 5.10$, $p < 0.01$), temporal cohesion ($F_{(2,85)} = 4.79$, $p < 0.01$), level of orientation ($F_{(2,85)} = 21.82$, $p < 0.01$), sequence of events ($F_{(2,85)} = 24.10$, $p < 0.01$), and level of evaluation ($F_{(2,85)} = 11.88$, $p < 0.01$) were revealed. Specifically, children of preschool age (4–6 years), compared with school-age children and adolescents, were less able to provide structured narratives with subordinating and temporal conjunction. Instead, with regard to narrative coherence, significant differences were found in all three age groups: in fact, the level of orientation, the sequence of events, and the level of

Table 3
Age, PTSD and Narrative Measures (Lexical Complexity, Cohesion and Coherence).

	1	2	3	4	5	6	7	8	9	10
1. Age	–									
2. PTSD	–0.40 ^{***}	–								
3. Lexical Complexity	0.22 [*]	–0.04	–							
4. Coordination	0.02	–0.14	0.08	–						
5. Subordination	0.33 ^{**}	–0.41 ^{***}	0.05	0.07	–					
6. Temporal Markers	–0.06	–0.14	–0.01	0.10	0.40 ^{***}	–				
7. Causal Markers	–0.09	0.06	–0.19	0.05	0.22 [*]	–0.14	–			
8. Orientation	0.50 ^{**}	–0.39 ^{**}	0.23 [*]	0.09	0.43 ^{***}	0.09	–0.16	–		
9. Sequence	0.54 ^{**}	–0.35 ^{**}	0.29 ^{**}	0.15	0.41 ^{***}	0.23 [*]	0.31 [*]	0.80 ^{***}	–	
10. Evaluation	0.52 ^{**}	–0.26 [*]	0.26 [*]	0.11	0.30 ^{**}	0.00	–0.06	0.54 ^{**}	0.46 ^{**}	–

Notes: ^{*} $p < 0.05$, ^{**} $p < 0.01$.

Table 4
PTSD Differences.

	With PTSD	Without PTSD	<i>t</i> (84)	<i>p</i>
	Media (DS)	Media (DS)		
Subordination	0.06 (0.02)	0.07 (0.01)	3.81	0.000
Orientation	1.00 (0.83)	1.60 (0.60)	3.91	0.000
Sequence	0.91 (0.81)	1.45 (0.66)	3.29	0.002
Evaluation	0.67 (0.74)	1.08 (0.76)	2.48	0.016

evaluation were found to be considerably different between preschool children and school age children, and between the latter and adolescents.

For what the PTSD is concerned, the correlation analyses showed the negative associations between PTSD and subordinating conjunction ($r = -0.41$, $p < 0.01$), level of orientation ($r = -0.39$, $p < 0.01$), sequence of events ($r = -0.35$, $p < 0.01$), and level of evaluation ($r = -0.26$, $p < 0.01$). Specifically, children with PTSD symptoms were less able to provide grammatically complex (with less use of the subordinating conjunctions) and consistent (with less details of orientation, more disorganization of the temporal sequence, and less evaluative comments of the traumatic experience) narratives. These aspects were validated by the findings of the Student's test (Table 4).

4.3. Predictive effects of age and PTSD

Hierarchical multiple regression analyses were employed to determine if age and PTSD were predictor variables of for the organization of the traumatic narratives (through the features of lexical complexity, cohesion and coherence). Table 4 displays the unstandardized regression coefficients (B), standard error estimates (SEB), the standardized regression coefficients (β), and R^2 statistics. Only significant models for cohesion and coherence are presented. Age was significantly related to narrative coherence. In particular, age was the single predictor of the sequence of events ($\beta = 0.47$, $p < 0.01$) and of the level of evaluation ($\beta = 0.50$, $p < 0.01$), and together with the PTSD, age predicted the level of orientation ($\beta = 0.41$, $p < 0.01$). Instead, the PTSD was significantly related to both cohesion and coherence. In particular, it was the single predictor of the subordinating conjunction ($\beta = -0.33$, $p < 0.01$) and, together with age, it predicted the level of orientation ($\beta = -0.23$, $p < 0.05$) (Table 5).

5. Discussion

This study sought to investigate the narrative fragmentation in memories for child sexual abuse. Specifically, we explored the effects of age and PTSD on lexical complexity, cohesion and coherence in children who were sexually abused.

As we expected, age played an important role in organizing the traumatic memory of children (Di Blasio, Miragoli, & Procaccia, 2012; Miragoli, Procaccia, & Di Blasio, 2014; Miragoli, Procaccia, & Di Blasio, 2016). In particular, in our study age was significantly

Table 5
Predictors of the Narrative Measures.

	B	SEB	β
Outcome: Subordination			
$R^2 = 0.20$			
$F = 10.23^{**}$			
Age	0.001	0.001	0.20
PTSD	-0.012	0.004	-0.33**
Outcome: Level of Orientation			
$R^2 = 0.29$			
$F = 17.22^{**}$			
Age	0.083	0.021	0.41**
PTSD	-0.350	0.155	-0.23*
Outcome: Sequence of Events			
$R^2 = 0.30$			
$F = 18.81^{**}$			
Age	0.096	0.020	0.47**
PTSD	-0.251	0.153	-0.16
Outcome: Level of Evaluation			
$R^2 = 0.27$			
$F = 15.63^{**}$			
Age	0.103	0.021	0.50**
PTSD	-0.093	0.161	-0.06

Notes: * $p < 0.05$, ** $p < 0.01$.

related to the coherence of the traumatic narratives in terms of level of orientation, sequence of events, and level of evaluation. In establishing coherence, children had to draw on a shared knowledge in order to temporally and causally organize a narrative into a sequence that was meaningful to themselves and their listeners. School-age children and adolescents, compared to preschool age children, were more competent in this aspect. Namely, their narratives were more linguistically cohesive (with a larger number of subordinate clauses), more consistent in terms of temporal and space dimensions, and presented an overall evaluation of the traumatic event. Therefore, they were more able to use connectives with consistency and without incongruence, not impairing the comprehension of the discourse (Bamberg, 1987; Hudson & Shapiro, 1991; Karmiloff-Smith, 1985; Peterson & McCabe, 1991). These findings were in line with the research evaluating children's ability to tell stories, which explains how young children are less able to construct coherent or cohesive narratives, which are frequently in lack of basic constituent units (Allen, Kertoy, Sherblom, & Pettit, 1994; Applebee, 1978; Berman & Slobin, 1994; Karmiloff-Smith, 1985; Hudson & Shapiro, 1991). Another aspect to note is that in the traumatic narratives age was related to the linguistic cohesion, but it was not a significant predictor as we had supposed. In fact, in the narratives of ordinary events, children use the interclausal connectives to provide cohesion between the different sentences and clauses became more sophisticated in children between 5 and 10 years of age (Shapiro & Hudson, 1991; Stenning & Michell, 1985). Our findings described this trend in traumatic narratives, although age did not represent the most explanatory factor.

With regard to the PTSD, our findings illustrated that children with PTSD symptoms, compared with children without PTSD symptoms, were less able to provide complex and consistent narratives. From a structural point of view, their narratives were simply organized, were characterized by less details of orientation (less information about time, location, and people involved in the abusive event), were not in chronological order and had scant evaluative comments. Our findings illustrated that PTSD correlated with the coherence, but above all with the cohesion of the traumatic narratives. In particular, PTSD was associated with the subordinating conjunction among the clauses and the amount of orientation information to gain a general sense of who, when and where the events took place. From an organizational and structural point of view, the recall of traumatic experiences appeared generally fragmented, poor and disjointed in children with post-traumatic symptomatology. Indeed, cohesion creates connectivity and clarity both within and between sentences and it plays a fundamental role in introducing and maintaining references to actors, places, and events (Schneider, Dubé, & Hayward, 2005). In this sense, cohesion is more than a linguistic measure since it organizes the narrative so that the meanings are communicated effectively (Horton-Ikard, 2009; Manhardt & Rescorla, 2002) and concerns the semantic relations between different sentences and events in terms of causality and temporal sequence (Cain, 2003; Karmiloff-Smith, 1985; Peterson & McCabe, 1991; Shapiro & Hudson, 1991, 1997). Cohesive connectives may be crucial to the construction of a coherent integrated representation of an event and may indicate how the individuals integrate information into memories (Gernsbacher, 1997). The fact that, in our study, PTSD was the only significant predictor of cohesion in traumatic narratives, is an interesting aspect. These results were in line with the clinical impression that traumatized children exhibit poor autobiographical memory and they supported the view that reduced specificity of autobiographical memory extends beyond the episodic domain to include semantic aspects of recollection (Meesters, Merckelbach, Muris, & Wessel, 2000; Moradi et al., 1999). When asked to recall an autobiographical memory, individuals with PTSD tend to exhibit difficulties in recalling unique memories that took place on a specific time and day, often producing the "overgeneralized" autobiographical memories (Brown et al., 2013, 2014). Conway and Pleydell-Pearce (2000) propose a hierarchical representation of autobiographical memory based on the temporal specificity. In traumatic memories of individuals with PTSD, retrieval does not progress beyond the level of general events and its narrative appears lacking in details (people, places, time and behaviors), little cohesive and fragmented in its causal and temporal connections (Williams et al., 2007).

We believe that the present study could lead to reflections in both the clinical and legal settings. Indeed, in a clinical setting, these findings further illustrate how episodic specificity may differ between children with or without PTSD, and how less cohesive and more fragmented narratives may be an important predictor of symptoms' severity and a useful indicator of prognosis for children too (Foa et al., 1995; Miragoli et al., 2014; O'Kearney & Perrott, 2006). This consideration underlines the importance of evaluating the narrative fragmentation in the treatment of stress disorders in children (Smith et al., 2007). On the other hand, in a legal setting, the role of PTSD on narrative coherence and cohesion is important to be considered in the evaluation of child testimony. The psychological assessment of trauma may assist the interpretation of allegations provided by children (O'Donohue et al., 2013) and could assess how some apparently inconsistent elements may instead support the hypothesis that a traumatic event has occurred (Procaccia, Miragoli, & Di Blasio, 2013) and that the child is still so traumatized as not to be able to provide a linear testimony of the facts.

The results of this study are suggestive, but a number of limitations should be considered. First, the sample size was rather small and with children involved in different types of sexual traumatic experiences, which had occurred at varying periods in the past. More recent episode of abuse could be expected to yield greater details while more distant episode of abuse might be expected to yield a more structured account. Second, in this study, we used dichotomous categories rather than continuous measures for the assessment of PTSD, while more objective indexes of PTSD severity would be useful. In particular, it would be important to separate the specific post-traumatic clusters (re-experiencing, avoidance and numbing, and increased arousal symptoms) to better understand their connections with the narrative fragmentation. Especially with regard to the effects of re-experiencing symptoms and of dissociation, which the literature indicates as key mechanisms of PTSD and of the memory fragmentation in traumatized individuals (e.g., Brewin, Dalgleish, & Joseph, 1996; Ehlers & Clark, 2000; Laposa & Alden, 2003; Ozer, Best, Lipsey & Weiss, 2003). Third, this study considered age of the child and PTSD as the only factors related to quality of narration. However, children's memory for events may also be influenced by other important aspects. For instance, narratives may be influenced by a reluctance to discuss the trauma or by the interviewing procedure (e.g. poor or haphazard interviewing). Moreover, it is important to underline that analyzing only children's responses can produce narratives that could be more fragmentary and lacking in cohesion, compared to extended free narratives. Finally, although developmental research shows that children provide more organized reports of negative events than of neutral or emotionally positive events (Ackil et al., 2003; Fivush et al., 2003), this study did not include a comparison narrative in order to

determine the specificity of any traumatic narrative characteristics.

In future studies, researchers should consider larger and more homogenous samples (compared to the characteristics of the traumatic experience), assessing different clusters of PTSD symptoms (dissociation, re-experiencing, avoidance and numbing, and increased arousal symptoms). Moreover, it would be interesting to compare traumatic narratives of sexual abuse with ordinary memories and to analyze extended free narratives of child sexual abuse, without the influence of questioning.

Despite these limitations, we believe that these findings could contribute to the scientific understanding of childhood trauma and autobiographical memory functioning and underscore the importance of considering the important role of age and degree of traumatization in children within the study of autobiographical memory and the legal witness.

References

- Ackil, J. K., Van Abbema, D. L., & Bauer, P. J. (2003). After the storm: Enduring differences in mother-child recollections of traumatic and non-traumatic events. *Journal of Experimental Child Psychology*, 84, 286–309. [http://dx.doi.org/10.1016/S0022-0965\(03\)00027-4](http://dx.doi.org/10.1016/S0022-0965(03)00027-4).
- Allen, M., Kertoy, M., Sherblom, J., & Pettit, J. (1994). Children's narrative productions: A comparison of personal event and fictional stories. *Applied Psycholinguistics*, 15, 149–176. <http://dx.doi.org/10.1017/S014216400005300>.
- American Psychiatric Association (2000). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.). Washington, DC: American Psychiatric Association.
- Amir, N., Stafford, J., Freshman, M. S., & Foa, E. B. (1998). Relationship between trauma narratives and trauma pathology. *Journal of Traumatic Stress*, 11, 385–392. <http://dx.doi.org/10.1023/A:1024415523495>.
- Applebee, A. N. (1978). *The child's concept of story: Ages two to seventeen*. Chicago: University of Chicago Press.
- Bamberg, M. (1987). *The acquisition of narratives: Learning to use language*. Berlin: Mouton Gruyter.
- Bedard-Gilligan, M., & Zoellner, L. A. (2012). Dissociation and memory fragmentation in post-traumatic stress disorder: An evaluation of the dissociative encoding hypothesis. *Memory*, 20(3), 277–299. <http://dx.doi.org/10.1080/09658211.2012.655747>.
- Berliner, L., Hyman, I., Thomas, A., & Fitzgerald, M. (2003). Children's memory for trauma and positive experiences. *Journal of Traumatic Stress*, 16, 229–236. <http://dx.doi.org/10.1023/A:1023787805970>.
- Berman, R. A., & Slobin, D. I. (1994). *Relating events in narrative: A cross-linguistic development study*. Mahwah, NJ: Erlbaum.
- Berntsen, D., Willert, M., & Rubin, D. C. (2003). Splintered memories or vivid landmarks? Qualities and organization of traumatic memories with and without PTSD. *Applied Cognitive Psychology*, 17, 675–693. <http://dx.doi.org/10.1002/acp.894>.
- Brewin, C. R., Dalgleish, T., & Joseph, S. (1996). A dual representation theory of posttraumatic stress disorder. *Psychological Review*, 103, 670–686.
- Brown, D. A., Salmon, K., Pipe, M.-E., Rutter, M., Craw, S., & Taylor, B. (1999). Children's recall of medical experiences: The impact of stress. *Child Abuse & Neglect*, 23, 209–216. [http://dx.doi.org/10.1016/S0145-2134\(98\)00127-6](http://dx.doi.org/10.1016/S0145-2134(98)00127-6).
- Brown, A. D., Root, J. C., Romano, T. A., Chang, L. J., Bryant, R. A., & Hirst, W. (2013). Overgeneralized autobiographical memory and future thinking in combat veterans with posttraumatic stress disorder. *Journal of Behavior Therapy and Experimental Psychiatry*, 44, 129–134. <http://dx.doi.org/10.1016/j.jbtep.2011.11.004>.
- Brown, A. D., Addis, D. R., Romano, T. A., Marmar, C. R., Bryant, R. A., Hirst, W., et al. (2014). Episodic and semantic components of autobiographical memories and imagined future events in post-traumatic stress disorder. *Memory*, 22(6), 595–604. <http://dx.doi.org/10.1080/09658211.2013.807842>.
- Buck, N., Kindt, M., van den Hout, M., Steens, L., & Linders, C. (2006). Perceptual memory representations and memory fragmentation as predictors of post-trauma symptoms. *Behavioural and Cognitive Psychotherapy*, 35, 259–272. <http://dx.doi.org/10.1017/S1352465806003468>.
- Byrne, C. A., Hyman, I. R. A. E., & Scott, K. L. (2001). Comparisons of memories for traumatic events and other experiences. *Applied Cognitive Psychology*, 15, 119–133. <http://dx.doi.org/10.1002/acp.837>.
- Cain, K. (2003). Text comprehension and its relation to coherence and cohesion in children's fictional narratives. *British Journal of Developmental Psychology*, 21(3), 335–351. <http://dx.doi.org/10.1348/02615100332277739>.
- Camisasca, E., & Miragoli, S. (2014). Stress post-traumatico in esperienze di violenza cronica (Post-traumatic stress in chronic violence experiences). *Maltrattamento e abuso all'infanzia*, 16(2), 7–11. <http://dx.doi.org/10.3280/MAL2014-002001>.
- Camisasca, E., Miragoli, S., & Di Blasio, P. (2014). La disorganizzazione dell'attaccamento spiega i sintomi post-traumatici nei bambini vittime di violenza? (Does disorganization of attachment explains the post-traumatic symptoms in children who are victims of violence?). *Maltrattamento e abuso all'infanzia*, 16(2), 35–55. <http://dx.doi.org/10.3280/MAL2014-002003>.
- Conway, M. A., & Pleydell-Pearce, C. W. (2000). The construction of autobiographical memories in the self-memory system. *Psychological Review*, 107, 261–288. <http://dx.doi.org/10.1037/0033-295X.107.2.261>.
- Cordon, I. M., Pipe, M.-E., Sayfan, L., Cord, I. M., Melinder, A., & Goodman, G. S. (2004). Memory for traumatic experiences in early childhood. *Developmental Review*, 24, 101–132. <http://dx.doi.org/10.1016/j.dr.2003.09.003>.
- David, A.-C., Akerib, V., Gaston, L., & Brunet, A. (2010). Consistency of retrospective reports of peritraumatic responses and their relation to PTSD diagnostic status. *Journal of Traumatic Stress*, 23(5), 599–605. <http://dx.doi.org/10.1002/jts>.
- Di Blasio, P., Miragoli, S., & Procaccia, R. (2012). The role of PTSD in understanding child allegation of sexual abuse. In V. Ardino (Ed.), *Post-traumatic syndromes in childhood and adolescence: A handbook of research and practice* (pp. 177–198). London: Wiley and Sons Publications.
- Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, 38, 319–345. [http://dx.doi.org/10.1016/S0005-7967\(99\)00123-0](http://dx.doi.org/10.1016/S0005-7967(99)00123-0).
- Ehlers, A., Hackmann, A., & Michael, T. (2004). Intrusive re-experiencing in post-traumatic stress disorder: Phenomenology, theory, and therapy. *Memory*, 12, 403–415. <http://dx.doi.org/10.1080/09658210444000025>.
- Eisen, M. L., Goodman, G. S., Davis, S. L., & Qin, J. (1999). Individual differences in maltreated children's memory and suggestibility. *Trauma and Memory*, 15, 31–46.
- Eisen, M. L., Qin, J., Goodman, G. S., & Davis, S. L. (2002). Memory and suggestibility in maltreated children: Age, stress arousal, dissociation, and psychopathology. *Journal of Experimental Child Psychology*, 83, 167–212. [http://dx.doi.org/10.1016/S0022-0965\(02\)00126-1](http://dx.doi.org/10.1016/S0022-0965(02)00126-1).
- Esterling, B. A., Abate, L., Murray, E. J., & Pennebaker, J. W. (1999). Empirical foundations for writing in prevention and psychotherapy: Mental and physical health outcomes. *Clinical Psychology Review*, 19, 79–96. [http://dx.doi.org/10.1016/S0272-7358\(98\)00015-4](http://dx.doi.org/10.1016/S0272-7358(98)00015-4).
- Evans, C., Ehlers, A., Mezey, G., & Clark, D. M. (2007). Intrusive memories in perpetrators of violent crime: Emotions and cognitions. *Journal of Consulting and Clinical Psychology*, 75, 134–144. <http://dx.doi.org/10.1037/0022-006X.75.1.134>.
- Fivush, R., Hazzard, A., Sales, J. M., Sarfati, D., & Brown, T. (2003). Creating coherence out of chaos? Children's narratives of emotionally negative and positive events. *Applied Cognitive Psychology*, 16, 1–19. <http://dx.doi.org/10.1002/acp.854>.
- Foa, E. B., Molnar, C., & Cashman, L. (1995). Change in rape narratives during exposure therapy for posttraumatic stress disorder. *Journal of Traumatic Stress*, 8, 675–690. <http://dx.doi.org/10.1002/jts.2490080409>.
- Gernsbacher, M. A. (1997). Coherence cues mapping during comprehension. In J. Costermans, & M. Fayol (Eds.), *Processing interclausal relationships: studies in the production and comprehension of text* (pp. 3–21). Mahwah, NJ: Erlbaum.
- Ghetti, S., Goodman, G. S., Eisen, M. L., Qin, J., & Davis, S. L. (2002). Consistency in children's reports of sexual and physical abuse. *Child Abuse & Neglect*, 26, 977–995. [http://dx.doi.org/10.1016/S0145-2134\(02\)00367-8](http://dx.doi.org/10.1016/S0145-2134(02)00367-8).
- Halliday, M. A., & Hasan, R. (1976). *Cohesion in*. London: Longman.
- Halligan, S. L., Clark, D. M., & Ehlers, A. (2002). Cognitive processing, memory, and the development of PTSD symptoms: Two experimental analogue studies. *Journal of Behavior Therapy and Experimental Psychiatry*, 33, 73–89. [http://dx.doi.org/10.1016/S0005-7916\(02\)00014-9](http://dx.doi.org/10.1016/S0005-7916(02)00014-9).
- Halligan, S. L., Michael, T., Clark, D. M., & Ehlers, A. (2003). Posttraumatic stress disorder following assault: The role of cognitive processing, trauma memory, and appraisals. *Journal of Consulting and Clinical Psychology*, 71(3), 419–431. <http://dx.doi.org/10.1037/0022-006X.71.3.419>.
- Harvey, A. G., & Bryant, R. A. (1999). A qualitative investigation of the organization of traumatic memories. *British Journal of Clinical Psychology*, 38, 401–405. <http://dx.doi.org/10.1348/014466599162999>.

- Hopper, J. W., & van der Kolk, B. A. (2001). Retrieving, assessing, and classifying traumatic memories. *Journal of Aggression, Maltreatment & Trauma*, 4(2), 33–71. <http://dx.doi.org/10.1300/J146v04n02>.
- Horowitz, M. J. (1986). Stress-response syndromes: A review of posttraumatic and adjustment disorders. *Hospital and Community Psychiatry*, 37, 241–249. <http://dx.doi.org/10.1176/ps.37.3.241>.
- Horton-Ikard, R. (2009). Cohesive adequacy in the narrative samples of school-age children who use African American English. *Language, Speech, and Hearing Services in Schools*, 40(4), 393–402.
- Hudson, J. A., & Shapiro, L. R. (1991). From knowing to telling: Children's scripts, stories, and personal narratives. In A. McCabe, & C. Peterson (Eds.). *Developing narrative structure*. Hillsdale, NJ: Erlbaum.
- Karmiloff-Smith, A. (1985). Language and cognitive processes from a developmental perspective. *Language and Cognitive Processes*, 1, 61–85. <http://dx.doi.org/10.1080/01690968508402071>.
- Kemper, S. (1984). The development of narrative skills: Explanations and entertainments. In S. A. Kuczaj (Ed.). *Discourse development: Progress in cognitive development research* (pp. 99–124). New York: Springer-Verlag.
- Kenardy, J., Smith, A., Spence, S. H., Lilley, P., Newcombe, P., Dob, R., et al. (2007). Dissociation in children's trauma narratives: An exploratory investigation. *Journal of Anxiety Disorders*, 21, 456–466. <http://dx.doi.org/10.1016/j.janxdis.2006.05.007>.
- Koss, M. P., Figueredo, A. J., Bell, I., Tharan, M., & Tromp, S. (1996). Traumatic memory characteristics: A cross-validated mediational model of response to rape among employed women. *Journal of Abnormal Psychology*, 105, 421–432. <http://dx.doi.org/10.1037/0021-843X.105.3.421>.
- Laposa, J. M., & Alden, L. E. (2003). Posttraumatic stress disorder in the emergency room: Exploration of a cognitive model. *Behaviour Research and Therapy*, 41, 49–65. [http://dx.doi.org/10.1016/S0005-7967\(01\)00123-1](http://dx.doi.org/10.1016/S0005-7967(01)00123-1).
- Manhardt, J., & Rescorla, L. (2002). Oral narrative skills of late talkers at ages 8 and 9. *Applied Psycholinguistics*, 23(1), 1–21. <http://dx.doi.org/10.1017/S0142176402000012>.
- Marshall, G. N., & Shell, T. L. (2002). Reappraising the link between peritraumatic dissociation and PTSD symptom severity: Evidence from a longitudinal study of community violence survivors. *Journal of Abnormal Psychology*, 111, 626–636. <http://dx.doi.org/10.1037/0021-843X.111.4.626>.
- Meesters, C., Merckelbach, H., Muris, P., & Wessel, I. (2000). Autobiographical memory and trauma in adolescents. *Journal of Behavior Therapy and Experimental Psychiatry*, 31(1), 29–39. [http://dx.doi.org/10.1016/S0005-7916\(00\)00006-9](http://dx.doi.org/10.1016/S0005-7916(00)00006-9).
- Melinder, A., Alexander, K., Cho, Y., Goodman, G. S., Thoresen, C., Lonnum, K., et al. (2010). Children's eyewitness memory: A comparison of two interviewing strategies as realized by forensic professionals. *Journal of Experimental Psychology*, 105, 157–177. <http://dx.doi.org/10.1016/j.jecp.2009.04.004>.
- Miragoli, S., Procaccia, R., & Di Blasio, P. (2014). Language use and PTSD symptoms: Content analyses of allegations of child sexual abuse. *Journal of Forensic Psychology Practice*, 14(5), 355–382. <http://dx.doi.org/10.1080/15228932.2014.970423>.
- Miragoli, S., Procaccia, R., & Di Blasio, P. (2016). Analisi comunicativa dell'audizione del minore vittima di abuso sessuale: il ruolo dell'età (Communicative analysis of the allegations of child sexual abuse: The role of age). *Maltrattamento e Abuso all'infanzia*, 18(2), 51–69. <http://dx.doi.org/10.3280/MAL2016-002004>.
- Moradi, A. R., Doosti, H. T. N., Taghavi, M. R., Yule, W., & Dalgleish, T. (1999). Everyday memory deficits in children and adolescents with PTSD: Performance on the Rivermead Behavioural Memory Test. *Journal of Child Psychology and Psychiatry*, 40, 357–361.
- Moulds, M. L., & Bryant, R. A. (2005). Traumatic memories in acute stress disorder: An analysis of narratives before and after treatment. *Clinical Psychologist*, 9, 10–14. <http://dx.doi.org/10.1080/13284200500116971>.
- Murray, J., Ehlers, A., & Mayou, R. A. (2002). Dissociation and post-traumatic stress disorder: Two prospective studies of road traffic accident survivors. *British Journal of Psychiatry*, 180, 363–368. <http://dx.doi.org/10.1192/bjp.180.4.363>.
- Neimeyer, R. A. (2004). Fostering posttraumatic growth: A narrative elaboration. *Psychological Inquiry*, 15(1), 53–59.
- O'Donohue, W., Benuto, L. T., Fondren, R. N., Tolle, L., Vijay, A., & Fanetti, M. (2013). Dimensions of child sexual abuse allegations: What is unusual and what is not? *Journal of Forensic Psychology Practice*, 13, 456–475. <http://dx.doi.org/10.1080/15228932.2013.838103>.
- O'Kearney, R. O., & Perrott, K. (2006). Trauma narratives in posttraumatic stress disorder: A review. *Journal of Traumatic Stress*, 19, 81–93. <http://dx.doi.org/10.1002/jts.20099>.
- O'Kearney, R. O., Speyer, J., & Kenardy, J. (2007). Children's narrative memory for accidents and their post-traumatic distress. *Applied Cognitive Psychology*, 838, 821–838. <http://dx.doi.org/10.1002/acp>.
- O'Kearney, R. O., Hunt, A., & Wallace, N. (2011). Integration and organization of trauma memories and posttraumatic symptoms. *Journal of Traumatic Stress*, 24(6), 716–725. <http://dx.doi.org/10.1002/jts>.
- Ozer, E. J., Best, S. R., Lipsey, T. L., & Weiss, D. S. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis. *Psychological Bulletin*, 129(1), 52–73.
- Peace, K. A., Porter, S., & Brinke, L. (2008). Are memories for sexually traumatic events 'special'? A within-subjects investigation of trauma and memory in a clinical sample. *Memory*, 16(1), 10–21. <http://dx.doi.org/10.1080/09658210701363583>.
- Pennebaker, J. W., & Francis, M. (1996). Cognitive, emotional, and language processes in disclosure. *Cognition and Emotion*, 10, 601–626. <http://dx.doi.org/10.1080/026999396380079>.
- Peterson, C., & McCabe, A. (1983). *Developmental psycholinguistics: Three ways of looking at a child's narrative*. New York: Plenum Press.
- Peterson, C., & McCabe, A. (1991). Linking children's connective use and narrative macro-structure. In A. McCabe, & C. Peterson (Eds.). *Developing narrative structure* (pp. 29–53). Hillsdale, NJ: Erlbaum.
- Procaccia, R., Miragoli, S., & Di Blasio, P. (2013). L'utilizzo del Blacky Pictures' Test nella valutazione dei minori vittime di abuso sessuale (Blacky Pictures' Test in the evaluation of child sexual abuse). *Maltrattamento e abuso all'infanzia*, 15(3), 109–130. <http://dx.doi.org/10.3280/MAL2013-003006>.
- Putnam, F. W. (1997). *Dissociation in children and adolescents: A developmental perspective*. New York: Guilford.
- Quas, J., Goodman, G. S., Bidrose, S., Pipe, M.-E., Craw, S., & Ablin, D. (1999). Emotion and memory: Children's remembering, forgetting, and suggestibility. *Journal of Experimental Child Psychology*, 72, 235–270. <http://dx.doi.org/10.1006/jecp.1999.2491>.
- Schneider, P., Dubé, R. V., & Hayward, D. V. (2005). *The Edmonton narrative norms instrument (ENNI)*. Edmonton, Alberta, Canada: University of Alberta.
- Shapiro, L. R., & Hudson, J. A. (1991). Tell me a make-believe story: Coherence and cohesion in young children's picture-elicited narratives. *Developmental Psychology*, 27, 960–974. <http://dx.doi.org/10.1037/0012-1649.27.6.960>.
- Shapiro, L. R., & Hudson, J. A. (1997). Coherence and cohesion in children's stories. In J. Costermans, & M. Fayol (Eds.). *Processing interclausal relationships: Studies in the production and comprehension of text* (pp. 23–48). Mahwah, NJ: Erlbaum.
- Simon, V. A., Feiring, C., & Kobielski McElroy, S. (2010). Making meaning of traumatic events: Youths' strategies for processing childhood sexual abuse are associated with psychosocial adjustment. *Child Maltreatment*, 15, 229–241. <http://dx.doi.org/10.1177/1077559510370365>.
- Stein, N. L., & Glenn, C. G. (1982). Children's concept of time: The development of a story schema. In W. J. Friedman (Ed.). *The developmental psychology of time* (pp. 255–282). New York: Academic Press.
- Stein, N. L. (1988). The development of children storytelling skill. In M. B. Franklin, & S. Barten (Eds.). *Child language: a book of readings*. New York: Oxford University Press.
- Stenning, K., & Michell, L. (1985). Learning how to tell a good story: The development of content and language in children's telling of one tale. *Discourse Processes*, 8, 261–279. <http://dx.doi.org/10.1080/01638538509544617>.
- Tomasello, M. (2003). *Constructing a language – A usage-based theory of language acquisition*. England: Harvard: University Press.
- Tromp, S., Koss, M. P., Figueredo, A. J., & Tharan, M. (1995). Are rape memories different? A comparison of rape, other unpleasant and pleasant memories among employed women. *Journal of Traumatic Stress*, 8, 607–627. <http://dx.doi.org/10.1002/jts.2490080406>.
- van Minnen, A., Wessel, I., Dijkstra, T., & Roelofs, K. (2002). Changes in PTSD patients' narratives during prolonged exposure therapy: A replication and extension. *Journal of Traumatic Stress*, 15, 255–258. <http://dx.doi.org/10.1023/A:1015263513654>.
- van der Kolk, B. A., & Fisler, R. (1995). Dissociation and the fragmentary nature of traumatic memories: Overview and expolatory study. *Journal of Traumatic Stress*, 8, 505–525. <http://dx.doi.org/10.1002/jts.2490080402>.
- Williams, J. K. G., Barnhofer, T., Crane, C., Hermans, D., Raes, F., & Watkins, E. (2007). Autobiographical memory specificity and emotional disorder. *Psychological Bulletin*, 133, 122–148. <http://dx.doi.org/10.1037/0033-2909.133.1.122>.
- Zoellner, L. A., & Bittenger, J. N. (2004). On the uniqueness of trauma memories in PTSD. In G. M. Rosen (Ed.). *Post-traumatic stress disorder: Issues and controversies* (pp. 147–162). New York, NY: John Wiley & Sons.

Appendix C

Linsey Raymaejers, et al., *Autobiographical Memory Specificity Among People with Recovered Memories of Childhood Sexual Abuse*, 41 J. of Behavior Therapy and Experimental Psych. 338 (2010).

Appendix C



Autobiographical memory specificity among people with recovered memories of childhood sexual abuse

Linsey Raymaekers*, Tom Smeets, Maarten J.V. Peters, Harald Merckelbach

Department of Clinical Psychological Science, Faculty of Psychology and Neuroscience, Maastricht University, P. O. Box 616, 6200 MD Maastricht, The Netherlands

ARTICLE INFO

Article history:

Received 2 June 2009

Received in revised form

12 March 2010

Accepted 13 March 2010

Keywords:

Autobiographical memory specificity

Childhood abuse

Depression

Amnesia

Posttraumatic stress disorder

ABSTRACT

Individuals who report to have recovered memories of childhood sexual abuse (CSA) almost by definition believe that these memories were previously inaccessible for them. We examined whether poor autobiographical memory specificity for all kinds of events (i.e., events not necessarily related to CSA) may underlie such impressions of amnesia. Thus, we examined whether people who report recovered memories of CSA ($n = 44$) would exhibit more difficulty retrieving specific autobiographical memories compared to people who never forgot their abuse experiences (continuous memory group; $n = 42$) and people without a history of abuse (controls; $n = 26$). The standard Autobiographical Memory Test (AMT) was administered to these 3 groups along with measures of depression and posttraumatic stress disorder symptomatology. Controls were significantly better at retrieving specific autobiographical memories relative to individuals with continuous and recovered CSA memories, who did not differ from each other. Thus, reduced autobiographical memory specificity was not particularly pronounced in people with recovered memories of CSA. Poor autobiographical memory specificity is unlikely to explain the impression of amnesia reported by this group.

© 2010 Elsevier Ltd. All rights reserved.

1. Introduction

While conducting a study on mood-congruent memory in suicidal patients, Williams and Broadbent (1986) accidentally discovered that many of their participants tended to produce overgeneral autobiographical memories. An individual is said to have such overgeneral memories if he/she experiences difficulties in retrieving specific autobiographical memories, i.e., memories of personally experienced events happening at a particular place and lasting less than a day (Williams & Broadbent, 1986). Research addressing this phenomenon is important because the relative inability to retrieve specific autobiographical memories has been found to be associated with a poor problem-solving ability in clinical patients (e.g., Pollock & Williams, 2001; Sutherland & Bryant, 2008), poor ability to imagine future events (for review, see Williams et al., 1996), and poor long-term outcome in clinically depressed patients (e.g., Peeters, Wessel, Merckelbach, & Boon-Vermeeren, 2002).

Many clinicians have suggested that a history of trauma, particularly during childhood, leads to changes in memory functioning (e.g., Van der Kolk & Van der Hart, 1995). These changes are

believed to serve a protective role in that they reduce the emotional impact associated with traumatic experiences. According to Williams (1996), poor autobiographical memory specificity would also serve a regulatory function. The idea here is that retrieving autobiographical memories in a less specific way minimizes their negative connotations. Traumatized individuals, who experience this, would therefore adopt a less specific retrieval style (see for further details Raes, Hermans, de Decker, Eelen, & Williams, 2003).

Empirical support for the idea that trauma history is critical for poor autobiographical memory specificity is, however, mixed. Indeed, there appears to be no consistent relationship between trauma exposure and a less specific retrieval style, implying that a mere history of trauma is not a sufficient condition for this style. Rather, psychopathological symptoms often associated with a trauma history (e.g., posttraumatic stress disorder, depression) appear to be the driving force behind this phenomenon (for review, see Moore & Zoellner, 2007; see also Kleim & Ehlers, 2008). For example, McNally, Litz, Prassas, Shin, and Weathers (1994) observed reduced autobiographical memory specificity in Vietnam combat veterans with posttraumatic stress disorder (PTSD) relative to well-adjusted veterans without PTSD (for similar results in people suffering from acute stress disorder see Harvey, Bryant, & Dang, 1998). Another study by McNally et al. on veterans with PTSD further supports this link (McNally, Lasko, Macklin, & Pitman, 1995). Additionally, studies have documented a relationship between

* Corresponding author. Tel.: +31 43 3884029; fax: +31 43 3884196.

E-mail address: Linsey.raymaekers@maastrichtuniversity.nl (L. Raymaekers).

a less specific autobiographical retrieval style and depression (e.g., Wessel, Meeren, Peeters, Arntz, & Merckelbach, 2001).

One particular group that has received only little research attention when it comes to autobiographical memory specificity is the group of patients who say they have recovered memories of childhood sexual abuse (CSA). According to Schooler (1999; p. 205), “An individual who reports recovering a memory for trauma is really indicating two sentiments: (a) that abuse occurred and (b) that there was a period of time in which the memory was not available.” It is interesting to speculate about the second part of Schooler’s definition. More specifically, the question arises why people have the sentiment that autobiographical details are not available to them, i.e., why they have an *impression* of amnesia (Loftus, Joslyn, & Polage, 1998).

Some authors have speculated that a less specific retrieval style may underlie the subjective experience of amnesia typically reported by people who recover CSA memories (e.g., Dalenberg, 1996; Rassin, Merckelbach, & Muris, 2000). To the best of our knowledge, only one study has looked at autobiographical memory specificity in people with recovered memories (McNally et al., 2006). McNally and colleagues tested people without a history of abuse and people with continuous memories, recovered memories or repressed memories of CSA. The people with recovered memories reported to have recovered long-forgotten memories of CSA, while the repressed group consisted of adults who believed they had been sexually abused during childhood, but had no memories of CSA. Although McNally et al. (2006) did not find a clear-cut pattern of a less specific retrieval style in their groups, there were indications that the repressed group tended to experience the greatest difficulty in retrieving specific memories.

Using the Autobiographical Memory Test (AMT; Williams & Broadbent, 1986), we examined to what extent people reporting continuous memories of CSA, people with recovered CSA memories, and controls experience difficulties retrieving specific memories from their past. We tested the idea that people reporting recovered CSA memories would display a less specific retrieval style relative to the other two groups. Finding such a pattern would account for the impression of amnesia that people with recovered memories have.

2. Method

2.1. Participants

We recruited individuals with a history of CSA through advertisements in local newspapers. The advertisements invited people to participate in our research when they had a history of CSA that had never been forgotten or had *recovered* memories of being sexually abused as a child. CSA was defined as presence of “hand/mouth to genital” and “genital to genital” contact. People who thought to qualify for one of these groups were invited to come to our lab. In order to control for issues such as childhood sexual curiosity, only individuals who reported a reasonable age gap (i.e., >10 years) between themselves and the perpetrator(s) at time of the events, were included. Controls were recruited by means of internet advertisements and flyers distributed in several public places. The study was approved by the standing ethical committee of the Faculty of Psychology and Neuroscience, Maastricht University.

Based on a semi-structured memory interview (e.g., Geraerts et al., 2009), participants were assigned to one of the three groups: (a) the *continuous group* consisting of participants who stated that they had never forgotten about their abuse ($n = 42$), (b) the *recovered memory group* consisting of people who claimed there was a period in their life in which they apparently

had no memory for the abuse ($n = 44$). This group entailed both participants who claimed that they had spontaneously recalled CSA memories outside a therapeutic context ($n = 28$) and participants who stated that they had gradually recovered their memories of abuse during treatment, provoked by therapeutic techniques or as a result of actively attempting to reconstruct the “empty holes” in their memory ($n = 16$), and finally (c) the *control group* consisting of participants who reported no history of abuse in either childhood or adulthood ($n = 26$). Participants who could not be properly classified into one of the three groups due to a mixed profile, were excluded from the study ($n = 8$). An example of a mixed profile would be someone who is reporting continuous memories for event A (e.g., abuse by an uncle) in combination with recovered memories for event B (e.g., abuse by the father). Importantly, given that we were interested in whether reduced autobiographical memory specificity might account for the impression of amnesia reported by people with recovered memories, we examined whether our participants had a history of traumatic brain injury which might provide an organic reason for the amnesia (see McNally, 2005). None of the participants with recovered CSA memories reported to have experienced traumatic brain injury in the past.

During the semi-structured memory interview, people were inquired about the nature and duration of their CSA experiences. We explored whether our CSA groups differed in terms of self-reported age at onset and ending of their abuse. In case of multiple CSA experiences (i.e., different abusive experiences caused by different perpetrators starting at different ages), we decided to focus on the self-reported beginning and ending of the *first* (earliest) CSA experience reported.

Twelve % of the people in the continuous group, 11% of the people in the spontaneously recovered memory group, and 0% of the people in the recovered in therapy group failed to provide information about the age at onset of the abuse. Moreover, 14% of the people in the continuous group, 11% of the people in the spontaneously recovered memory group and 19% of the people in the recovered in therapy group failed to provide information about how old they were when the abuse ended. Mean ages at beginning of the first CSA experience in people reporting continuous memories, spontaneously recovered memories, and memories recovered in therapy were 8.5 years ($SD = 3.7$), 9 years ($SD = 3.4$), and 6.2 years ($SD = 3.8$), respectively. Mean ages at ending of the first CSA experience in people reporting continuous memories, spontaneously recovered memories, and memories recovered in therapy were 13.8 years ($SD = 4.6$), 12.5 years ($SD = 3.8$) and 8.2 years ($SD = 4.6$), respectively. A borderline significant group effect was found with respect to the age at onset of CSA, $F(2,75)^1 = 3.01$, $p = 0.06$, $\eta_p^2 = 0.07$. Post-hoc analyses (LSD) showed that people with in therapy recovered memories of abuse differ from people with continuous and spontaneously recovered memories of abuse (all $ps < 0.05$). No significant difference between people with continuous and spontaneously recovered memories of abuse was found ($p = 0.60$).

With respect to the age at the ending of the CSA, a significant effect of group was found, $F(2,73)^1 = 8.09$, $p = 0.00$, $\eta_p^2 = 0.18$. Post-hoc analyses (LSD) showed that people with in therapy recovered memories of abuse differ from people with continuous and people with spontaneously recovered memories of abuse (all $ps < 0.01$). No significant difference between people with continuous and spontaneously recovered memories of abuse was found ($p = 0.24$).

¹ Due to missing values, these degrees of freedom fluctuate and deviate from the total subsample of continuous and recovered memories.

The final sample consisted of 112 participants: 42 (30 women) in the continuous memory group (mean age = 47.5 years, $SD = 1.7$), 44 (32 women) in the recovered memory group (mean age = 48.7 years, $SD = 1.6$), and 26 (18 women) in the control group (mean age = 43.2 years, $SD = 2.9$). There were no significant age differences between the groups, $F(2,109) = 1.84$, $p = 0.16$. Neither were there significant differences with respect to education level between the groups, $F(2,109) = 0.02$, $p = 0.98$. Furthermore, there were no group differences in the proportion of women, $\chi^2(2) = 0.10$, $p = 0.95$.

2.2. Materials

2.2.1. The Autobiographical Memory Test (AMT)

The AMT requires participants to retrieve a specific personal memory in response to positive and negative cue words (e.g., *happy*, *lonely*). We used a Dutch version (Geraerts, Hauer, & Wessel, 2010; Wesselet al., 2001) of the AMT (Williams & Broadbent, 1986). This version consists of 10 emotional cue words, five of them being positive cue words (*happy*, *satisfied*, *safe*, *successful*, *interested*) and five of them being negative cue words (*lonely*, *hurt*, *grief*, *rejected*, *awful*). Each cue word appeared in capital letters on a separate 10×25 cm card, and was additionally read aloud by the experimenter. Positive and negative cue words were presented in an alternated fashion. A stopwatch was activated as soon as the experimenter showed the word to the participant. Participants were allowed one minute to respond. The trial was ended whenever a participant came up with a specific memory or until one minute elapsed. Response times were recorded.

A specific memory was defined as the recollection of an event from one's life pertaining to a certain context and taking place within one day (Williams & Broadbent, 1986). Despite the instruction to recollect specific memories, some participants tended to come up with overgeneral memory responses. Such responses can involve *categorical* responses referring to groups of events sharing common elements (e.g., "When I go dancing") or *extended* responses comprising events lasting longer than one day (e.g., "My holiday to Spain last year"; for more examples, see Williams & Broadbent, 1986).

Indices of memory specificity vary across studies. Some studies focus on the generality rate – often collapsing across general categorical and general extended memories – whereas others focus on the specificity rate. Given that these two measures are often not functionally equivalent, it is difficult to directly compare data from different studies (e.g., van Vreeswijk & De Wilde, 2004). Nevertheless, these two measures are often used interchangeably in the literature (e.g., Moore & Zoellner, 2007). In the current study, we primarily focused on the number of specific autobiographical memory responses because this appears to be the most widely used measure of autobiographical memory specificity (e.g., Moore & Zoellner, 2007). For sake of completeness, rates of omissions (i.e., when a participant failed to respond), other responses (also known in the literature as 'no-memory responses'; e.g., associations, a definition of the word, etc.), and same event descriptions (referring to an event or experience that was already described in response to another cue word) are also reported. Additionally, overgeneral memory responses are reported. A memory was categorized as overgeneral if it referred to a series of repeated events (categorical) or to an event that lasted longer than a day (extended; see for example Sutherland & Bryant, 2007).

Our main analyses focussed on the mean number of specific autobiographical memories with the results pertaining to the initial responses to the cue words. All responses were audio taped and later scored by the first author. A subset of 40 cases was additionally scored by a second independent rater to assess interrater reliability

of the scoring procedure. This was done by calculating intra-class correlation coefficients (ICCs; Shrout & Fleis, 1979). ICCs ranged from 0.76 (*lonely*) to 0.98 (*happy*). For the total number of specific memories, a high level of agreement between the judges was observed: $ICC = 0.88$.

2.2.2. Beck Depression Inventory (BDI)

The BDI (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a 21-item questionnaire addressing current depressive symptoms (i.e., from the previous week). Its four-choice statements describe depressive symptoms in increasing severity (scored 0–3; range 0–63). Participants were asked to mark the statements that described best how they felt the previous week. The psychometrically sound properties of the BDI have been documented extensively (e.g., Beck, Steer, & Carbin, 1988).

2.2.3. Posttraumatic stress disorder Symptom Scale-Self Report (PSS-SR)

The PSS-SR (Foa, Riggs, Dancu, & Rothbaum, 1993) is a 17-item questionnaire describing PTSD symptoms corresponding to the DSM-IV. These symptoms are rated on a 4-point severity scale (0 = not at all; 3 = almost always; range 0–51). The sum of these ratings yield a PTSD symptom severity score. Wohlfarth, van den Brink, Winkel, and ter Smitten (2003) provide data as to the satisfactory psychometric properties of the PSS-SR.

2.3. Procedure

All participants gave informed consent and were tested individually. They first filled out the BDI and the PSS-SR. Note that as the PSS-SR deals with reactions to traumatic experiences, it would be inappropriate to interpret the data from control participants. Therefore, the PSS-SR data from the control participants will not be addressed further here. As to the AMT, participants were told that they would be given 10 cue words. They were asked to retrieve a specific personal memory in response to each word and were told that they would have one minute for each response. Participants were explicitly instructed that a specific memory referred to a personally experienced event that happened within a particular time frame and context (i.e., within a day; Williams & Broadbent, 1986) and the experimenter provided examples of memories that would and would not qualify as a specific autobiographical memory. In order to familiarize participants with the task, they were then given practice trials with neutral cue words (e.g., *car*) and received feedback on their performance. We proceeded with the AMT proper after participants had succeeded in retrieving at least three specific memories during the practice trial.

2.4. Design and analyses

AMT scores were subjected to a 3 (Group: continuous memory, recovered memory, control) $\times$ 2 (Valence: positive, negative) Analysis of Variance (ANOVA), with the latter factor being a repeated measurement. Moreover, we conducted one-way ANOVAs to evaluate group differences in BDI and PSS-SR scores. Furthermore, correlations were calculated to examine the associations between number of specific autobiographical memories and measures of depression (BDI) and PTSD (PSS-SR). Additional explorative analyses were conducted focusing on AMT scores of people with different types of recovered memories (i.e., spontaneously recovered vs. recovered in therapy). We also looked at the content of the specific AMT responses reported by our participants. Specific autobiographical memories relating to events occurring before age 18 were classified as childhood related specific memories, whereas specific autobiographical memories relating to events

occurring after age 18 were classified as adulthood related memories. If specific autobiographical memories pertained to events related to the subject's history of CSA, they were classified as trauma related whereas responses referring to events not related to the subject's CSA history were classified as non-trauma-related memories.

3. Results

3.1. Number of specific memories retrieved

The current study focuses on the ability to retrieve specific autobiographical memories. If a person retrieved a specific personal memory within one minute, its response was coded as specific. Table 1 shows mean number of specific memories retrieved on the AMT for each group. The ANOVA revealed main effects of Group, $F(2, 109) = 4.09$, $p < 0.05$, $\eta_p^2 = 0.07$, and Valence, $F(1, 109) = 4.78$, $p < 0.05$, $\eta_p^2 = 0.04$. The interaction between Group and Valence fell short of significance, $F(2, 109) = 1.92$, $p = 0.15$.

Post-hoc analyses (LSD) indicated that the control group retrieved more specific autobiographical memories than did the continuous memory group and the recovered memory group, (both $ps < 0.05$). The continuous and the recovered memory group did not differ in terms of autobiographical memory specificity.

3.2. Omissions, same event, other responses, and overgeneral memories

If a person failed to retrieve a specific personal memory within the given time frame, its response was coded as (a) 'omission' in case a person failed to respond, (b) 'same events' when a person reported events or experiences that were already described in response to another cue word, (c) 'other responses' when participants reported associations, a definition of a word, etc., and (d) 'overgeneral' in case the response referred to groups of events sharing common elements or events lasting longer than one day. For the aforementioned AMT parameters, results can be summarized as follows (see also Table 1). With respect to omissions and same events reported, no main effects of Valence could be observed, $F(1, 109) = 0.35$, $p = 0.56$ and $F(1, 109) = 0.88$, $p = 0.35$, respectively. Neither were there main effects of Group, $F(2, 109) = 0.69$, $p = 0.50$ and $F(2, 109) = 0.92$, $p = 0.40$, respectively. Furthermore, there were no significant interaction effects between Group

and Valence, $F(2, 109) = 0.13$, $p = 0.88$ and $F(2, 109) = 0.26$, $p = 0.78$, for missions and same events, respectively.

With respect to the other responses category, we found main effects of Valence $F(1, 109) = 24.63$, $p < 0.001$, $\eta_p^2 = 0.18$ and Group $F(2, 109) = 3.66$, $p < 0.05$, $\eta_p^2 = 0.06$. Moreover, a significant interaction effect between Group and Valence $F(2, 109) = 3.31$, $p < 0.05$, $\eta_p^2 = 0.06$ was found. For positive cue words, a significant effect of Group was observed, $F(2, 109) = 3.92$, $p < 0.05$, $\eta_p^2 = 0.07$. Post-hoc analyses (LSD) on group differences for positive cue words revealed that controls reported significantly less 'other responses' than people with recovered memories ($p < 0.01$) and they tended to report less such responses than people with continuous memories ($p = 0.06$). For negative cue words, no significant effect of Group was found, $F(2, 109) = 1.20$, $p = 0.31$.

For the overgeneral memories, a significant main effect of Valence was found, $F(1, 109) = 24.94$, $p < 0.001$, $\eta_p^2 = 0.17$ in the absence of a main effect of Group $F(2, 109) = 2.23$, $p = 0.11$ or a Group by Valence interaction, $F(2, 109) = 0.23$, $p = 0.80$. Overgeneral memories were more prevalent in response to negative cue words compared to positive cue words ($p < 0.05$).

3.3. Response latency

An ANOVA performed on latency data (i.e., reaction times) yielded a main effect of Valence $F(1, 109) = 6.25$, $p < 0.05$, $\eta_p^2 = 0.06$. Overall, participants tended to respond slower to positive cues than to negative cues, $t(111) = 1.77$, $p = 0.07$. However, no main effect of Group was apparent, $F(2, 109) = 0.14$, $p = 0.87$. Moreover and critically, no significant interaction effect between Valence and Group could be observed, $F(2, 109) = 0.24$, $p = 0.79$.

3.4. Depressive and PTSD symptoms

Table 1 also shows mean BDI and PSS-SR scores for each group. A one-way ANOVA revealed a borderline significant difference between the three groups for depressive symptoms, $F(2, 104) = 2.8$, $p = 0.06$. Post-hoc analyses (LSD) indicated that the control group reported less depressive symptoms than did the continuous ($p = 0.05$) and recovered memory groups ($p < 0.05$). No differences were observed between the continuous and the recovered memory group in terms of depressive symptom reporting ($p = 0.76$). Similarly, no differences were observed between the continuous and the recovered memory group in terms of PTSD symptom reporting ($p = 0.15$).

3.5. Correlational analyses

For the continuous and recovered memory group together, the Pearson correlation between BDI scores (depressive symptom reporting) and PSS-SR score (PTSD symptom reporting) was significant, $r(81) = 0.67$, $p < 0.001$. Given that five participants (three belonging to the continuous and two belonging to the recovered memory group) failed to complete both questionnaires, the current analysis pertained to a subsample of 81 participants (instead of 86).

For each group, Pearson correlation coefficients were computed between the number of specific memories to positive and negative cue words and PSS-SR and BDI scores. All correlations failed to reach conventional levels of significance (all $rs < 0.34$; $ps > 0.09$). In the subsample of people reporting recovered CSA memories, Pearson correlations between negative specific autobiographical memories, on the one hand, and depressive symptoms and PTSD symptoms, on the other hand, were $r(43) = 0.26$, $p = 0.09$ and $r(43) = 0.16$, $p = 0.31$, respectively. With respect to positive specific autobiographical memories recalled by this group, Pearson

Table 1

Mean AMT scores and mean questionnaire scores for controls and participants reporting continuous CSA memories and recovered CSA memories (Standard deviations are given between parentheses).

	Group		
	Controls <i>n</i> = 26	Continuous <i>n</i> = 42	Recovered <i>n</i> = 44
Specific memories	5.58 (2.51)	3.79 (2.38)	4.07 (2.86)
Total			
Positive specific memories	3.12 (1.36)	1.98 (1.45)	2.05 (1.40)
Negative specific memories	2.46 (1.50)	1.81 (1.27)	2.02 (1.72)
Omissions	0.35 (0.74)	0.48 (0.77)	0.30 (0.66)
Other response	0.35 (0.68)	0.93 (1.40)	1.34 (1.80)
Same event	0.23 (0.58)	0.14 (0.52)	0.32 (0.67)
Overgeneral memories	3.50 (2.12)	4.64 (2.13)	4.05 (2.32)
BDI	8.52 (8.99)	13.63 (7.91)	14.31 (12.41)
PSS-SR	NA	18.51 (12.49)	14.71 (12.68)

Notes. Specific memories sum, specific memories in response to negative and positive cue words; BDI, Beck Depression Inventory; PSS-SR, Posttraumatic Stress Disorder Symptom Scale, N.A. = not assessed.

correlations with depressive symptoms and PTSD symptoms were $r(43) = 0.05$, $p = 0.73$ and $r(43) = 0.06$, $p = 0.71$, respectively.

3.6. Additional explorative analyses

Explorative analyses were conducted in which we took the two different types of recovered memories into account (Geraerts et al., 2009): people with spontaneously recovered memories of abuse ($n = 28$) and people who recovered their abuse memories within a therapeutic context ($n = 16$). Thus, AMT scores were subjected to 4 (group: continuous memory, spontaneously recovered memory, therapy induced recovered memory, control) $\times$ 2 (cue valence: positive, negative) ANOVAs, with repeated measurement on the second factor.

Table 2 shows mean AMT and questionnaire scores for each group. With respect to autobiographical memory specificity, we found, again, main effects of Group, $F(3, 108) = 2.72$, $p = 0.05$, $\eta_p^2 = 0.07$, and Valence, $F(1, 108) = 3.93$, $p = 0.05$, $\eta_p^2 = 0.04$. Importantly, no significant interaction between Group and Valence emerged $F(3, 108) = 2.13$, $p = 0.10$. Post-hoc analyses (LSD) revealed that the control group retrieved more specific memories than did the continuous memory group ($p < 0.05$, Cohen's $d = 0.73$), the spontaneously recovered memory group ($p < 0.05$, Cohen's $d = 0.54$), and the in therapy recovered memory group ($p < 0.05$, Cohen's $d = 0.59$). The three CSA groups did not differ in terms of specificity (all p s > 0.50).

A main effect of Group was observed for 'other responses' $F(3, 108) = 2.69$, $p = 0.05$, $\eta_p^2 = 0.07$ and same event responses $F(3, 108) = 2.95$, $p = 0.04$, $\eta_p^2 = 0.08$. Post-hoc analyses (LSD) on group differences for each of the two measures revealed that the spontaneously recovered memory group reported more 'other responses' than the controls ($p < 0.05$, Cohen's $d = 0.81$), the continuous memory group ($p < 0.05$, Cohen's $d = 0.34$), and the in therapy recovered memory group ($p < 0.05$, Cohen's $d = 0.25$). Also, people reporting in therapy recovered memories retrieved more same event memory responses relative to controls ($p < 0.05$, Cohen's $d = 0.54$), people with continuous memories ($p < 0.05$, Cohen's $d = 0.68$), and people with spontaneously recovered memories ($p < 0.05$, Cohen's $d = 0.70$).

A main effect of Valence was found with respect to overgeneral memories, $F(1, 108) = 22.92$, $p < 0.001$, $\eta_p^2 = 0.18$. Again, overgeneral memories were more common in response to negative cue words than in response to positive ones ($p < 0.05$). No other main effects

were apparent. Furthermore, no significant interaction effects could be observed.

Additional explorative analyses with respect to the content of the specific AMT responses yielded no significant group differences. That is, with respect to the mean percentage of specific memories related to childhood experiences, no significant group differences were found, $F(2, 83) = 0.36$, $p = 0.70$, $\eta_p^2 = 0.01$. Moreover, no significant group differences were found with respect to the mean percentage of specific trauma (CSA) related memories reported, $F(2, 83) = 0.30$, $p = 0.74$, $\eta_p^2 = 0.01$.

4. Discussion

We tested whether people who recovered CSA memories exhibit a less specific retrieval style compared to people who never forgot their abuse experiences (continuous memory group) and people without a history of abuse (controls). Based on the speculation that a lack of memory specificity underlies the subjective experience of amnesia typically reported by recovered memory patients, we hypothesized that people with recovered memories would show reduced autobiographical memory specificity relative to people with continuous memories and controls.

The main results can be summarized as follows. To begin with, people reporting CSA memories – whether continuous or recovered – showed reduced autobiographical memory specificity relative to controls. No significant differences were observed in terms of autobiographical memory specificity between people reporting continuous memories of abuse and people with recovered abuse memories. Thus, the present findings suggest that reduced autobiographical memory specificity is not by itself characteristic for people with recovered memories of CSA. We also examined whether autobiographical memory specificity differed between people who recovered memories *within* a therapeutic context and those who recovered memories *outside* a therapeutic context (i.e., spontaneously recovered memories). Our data, however, indicate that this was not the case.

We failed to observe a significant difference in memory specificity between the continuous memory group and the recovered memory group, which opposes the idea that recovered memories *in general* are more likely to occur when an individual has great difficulty retrieving specific autobiographical memories. Some authors (Dalenberg, 1996; Rassin et al., 2000) have speculated that lack of memory specificity underlies the subjective experience of amnesia that is typical for recovered memory patients in general and those who recovered memory in therapy in particular. We therefore expected that particularly people with CSA memories recovered in therapy would exhibit a less specific retrieval style relative to the other three groups. Yet, our data clearly show that reduced memory specificity is not a unique characteristic for this particular group. That is, all three groups reporting a history of CSA showed significantly reduced memory specificity rates compared to controls.

By and large, our data replicate previous findings of McNally et al. (2006), who showed that controls provided more specific autobiographical memories than did the continuous, the repressed, and the recovered memory groups. Furthermore, our results support recent findings showing that people reporting a history of CSA are less specific than non-abused controls in response to general (but not concrete) retrieval cues (Hauer, Wessel, Geraerts, Merckelbach, & Dalgleish, 2008).

It is tempting to interpret the results of the current study along the lines of the so-called affect regulation hypothesis (Kleim & Ehlers, 2008; Raes et al., 2003; Williams, Stiles, & Shapiro, 1999). According to this hypothesis, individuals with a trauma history attempt to avoid remembering specific details of their childhood in order to reduce trauma-related distress. This avoidance behaviour

Table 2

Mean AMT scores and mean questionnaire scores for people reporting spontaneously recovered memories and people who recovered their memories during the course of therapy (standard deviations are given between parentheses).

	Group	
	Spontaneously recovered	Recovered in therapy
	$n = 28$	$n = 16$
Specific memories	4.14 (2.82)	3.94 (3.02)
Total		
Positive specific memories	1.96 (1.29)	2.19 (1.60)
Negative specific memories	2.18 (1.76)	1.75 (1.65)
Omissions	0.25 (0.64)	0.38 (0.72)
Other response	1.50 (1.90)	1.06 (1.65)
Same event	0.14 (0.45)	0.63 (0.88)
Overgeneral memories	4.07 (2.45)	4.00 (2.16)
BDI	14.96 (13.66)	13.00 (9.80)
PSS-SR	13.89 (12.30)	16.36 (13.74)

Notes. Specific memories sum, specific memories in response to negative and positive cue words; BDI, Beck Depression Inventory; PSS-SR, Posttraumatic Stress Disorder Symptom Scale.

is thought to exert its influence not only on the recollection of trauma memories, but also on other, non-traumatic autobiographical memories, resulting in an overall reduced autobiographical memory specificity (for an overview see Williams et al., 2007). Note, however, that the current study did not seek to systematically parse out the presence of psychopathology from trauma exposure. Therefore, the interpretation that a history of trauma exposure alone is critical for poor autobiographical memory specificity remains only speculative.

The finding that our groups with CSA memories showed a less specific retrieval style seems consistent with the emphasis that some scholars place on trauma history as an antecedent of reduced autobiographical memory specificity. Since Williams' (1996) initial theory highlighted trauma history as the dominant path to reduced specificity, his view has been echoed by many researchers (e.g., Hermans et al., 2004; Kuyken & Brewin, 1995). Even though our data at first sight seem to support this view, it is vital to note that reporting a history of CSA does not necessarily imply that the trauma really *did* happen. The point here is, of course, that the accuracy of recovered memories has been fiercely debated in the literature (e.g., Geraerts, Raymaekers, & Merckelbach, 2008; Geraerts et al., 2007; Loftus & Davis, 2006; McNally, 2003; McNally & Geraerts, 2009). Thus, the possibility that at least some people in our therapy group – and perhaps also in our other CSA groups – claim to have experienced CSA, while in fact they did not have such background, should be taken into account. These people might nevertheless ruminate about their CSA memories and this may deplete resources needed to retrieve specific autobiographical memories (e.g., Watkins & Teasdale, 2001; Williams, 1996; Williams et al., 2007). Thus, although traumatic memories may be incorrect, they may be very real in their consequences, a point also nicely illustrated by a study of McNally et al. (2004) who showed that the traumatic memories of people who claim to have been abducted by UFO's are accompanied by a psychophysiological reaction pattern than is typical for patients with PTSD.

The question remains how the impression of amnesia that is almost by definition part of memory recovery can be understood. One possibility is that this impression is not so much carried by a less specific retrieval style, but paradoxically by highly successful retrieval of a series of childhood events. For example, during therapy, patients are often asked to recall various childhood events. Some might attribute the difficulty related to successful retrieval to amnesia. Ultimately, the more events they recall, the more often poorer memory will be inferred. There is indeed some experimental evidence that repetitively talking and thinking about one's past might induce an impression of amnesia (Merckelbach, Wiers, Horselenberg, & Wessel, 2001; Winkelman, Schwarz, & Belli, 1998). Clearly, this issue warrants further research within the context of recovered memories.

As to the limitations of the current study, it should be mentioned that no corroboration for the current trauma reports was sought, making it impossible to report on the authenticity of these experiences. Also, our in therapy recovered memory subgroup was smaller than the other groups. There are several reasons for this asymmetry. For example, participants who recovered their abuse memories during the course of therapy might be more reluctant to apply for studies on recovered memories because of the increasing knowledge about suggestive therapeutic routes to recovery and the scepticism it arouses. Fortunately, memory recovery due to suggestive therapeutic influences is apparently on the decline (e.g., McHugh, Lief, Freyd, & Fetkewicz, 2004). Hence, memory recovery in a therapeutic context might be occurring less frequently than spontaneous memory recovery. Additionally, we only focussed on the presence of a history of *childhood sexual abuse* in our experimental groups and thus did not explicitly check for the

presence of *all other forms* of trauma exposure. One might also speculate whether the use of direct instead of general retrieval cues may have eliminated the differences in specificity between our controls and CSA groups. That is, Hauer et al. (2008) showed that while people reporting a history of CSA were less specific than non-abused controls in response to generative retrieval cues, this difference disappeared when using direct retrieval cues. Thus, whereas the standard version of the AMT uses words that are believed to elicit relatively generative memory retrieval, a concrete word-version of the AMT specifically designed to promote relatively direct retrieval of memories (e.g., Conway & Pleydell-Pearce, 2000) eliminates the difference in memory specificity between CSA patients and controls. In addition, while a recent study by Crane and Duggan (2009) showed that an earlier age of CSA onset is associated with lowered memory specificity, age of CSA onset was only asked in a global manner in the present study making it difficult to systematically look at the link between early CSA onset and memory specificity. Also, the exact time range for the period of amnesia reported by our recovered memory participants was not recorded. Finally, it is well-known that autobiographical memories of events that happened before the age of three are almost never recalled, a phenomenon known as childhood amnesia (e.g., Eacott & Crawley, 1998). Thus, amnesia for CSA occurring at very young age would be expected. Future studies should take these considerations into account when investigating memory specificity in samples who report CSA memories by, for example, excluding participants whose claims of recovered memories may have been related to childhood amnesia and/or examining whether the time range of the reported amnesia is related to the later recovery of CSA memories.

In sum, present findings suggest that people reporting a history of CSA show reduced autobiographical memory specificity compared to people reporting no history of abuse, but we found no evidence that reduced memory specificity is particularly pronounced in people with (in therapy) recovered memories. Our data thus seem to be at odds with the idea that reduced memory specificity is likely to explain the impression of amnesia that frequently occurs within this group. However, large systematic studies are needed to replicate this. Examining what might account for the subjective impression of amnesia experienced by people reporting recovered memories of abuse still remains a promising though challenging avenue for future research.

Acknowledgements

Linsey Raymaekers was supported by a grant from The Netherlands Organization for Scientific Research (NWO 400 06 024).

References

- Beck, A. T., Steer, R. A., & Carbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: twenty-five years of evaluation. *Clinical Psychology Review*, 8, 77–100.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561–571.
- Conway, M. A., & Pleydell-Pearce, C. W. (2000). The construction of autobiographical memories in the self-memory system. *Psychological Review*, 107, 261–288.
- Crane, C., & Duggan, D. S. (2009). Overgeneral autobiographical memory and age of onset of childhood sexual abuse in patients with recurrent suicidal behaviour. *British Journal of Clinical Psychology*, 48, 93–100.
- Dalenberg, C. J. (1996). Accuracy, timing and circumstances of disclosure in therapy of recovered and continuous memories of abuse. *Journal of Psychiatry & Law*, 24, 229–275.
- Eacott, M. J., & Crawley, R. A. (1998). The offset of childhood amnesia: memory for events that occurred before age 3. *Journal of Experimental Psychology: General*, 127, 22–33.
- Foa, E. B., Riggs, D. S., Dancu, C. V., & Rothbaum, B. O. (1993). Reliability and validity of a brief instrument for assessing post-traumatic stress disorder. *Journal of Traumatic Stress*, 6, 459–473.

- Geraerts, E., Hauer, B. J. A., & Wessel, I. (2010). Effects of suppressing negative memories on intrusions and autobiographical memory specificity. *Applied Cognitive Psychology*, 24, 387–398.
- Geraerts, E., Lindsay, D. S., Merckelbach, H., Jelicic, M., Raymaekers, L., Arnold, M. M., et al. (2009). Cognitive mechanisms underlying recovered memory experiences of childhood sexual abuse. *Psychological Science*, 20, 92–98.
- Geraerts, E., Raymaekers, L., & Merckelbach, H. (2008). Recovered memories of childhood sexual abuse: current findings and their legal implications. *Legal and Criminological Psychology*, 13, 165–176.
- Geraerts, E., Schooler, J. S., Merckelbach, H., Jelicic, M., Hauer, B. J. A., & Ambadar, Z. (2007). The reality of recovered memories: corroborating continuous and discontinuous memories of childhood sexual abuse. *Psychological Science*, 18, 564–568.
- Harvey, A. G., Bryant, R. A., & Dang, S. T. (1998). Autobiographical memory in acute stress disorder. *Journal of Consulting and Clinical Psychology*, 66, 500–506.
- Hauer, B. J. A., Wessel, I., Geraerts, E., Merckelbach, H., & Dalgleish, T. (2008). Autobiographical memory specificity after manipulating retrieval cues in adults reporting childhood sexual abuse. *Journal of Abnormal Psychology*, 117, 444–453.
- Hermans, D., van den Broeck, K., Belis, G., Raes, F., Pieters, G., & Eelen, P. (2004). Trauma and autobiographical memory specificity in depressed inpatients. *Behaviour Research and Therapy*, 42, 775–789.
- Kleim, B., & Ehlers, A. (2008). Reduced autobiographical memory specificity predicts depression and posttraumatic stress disorder after recent trauma. *Journal of Consulting and Clinical Psychology*, 76, 231–242.
- Kuyken, W., & Brewin, C. R. (1995). Autobiographical memory functioning in depression and reports of early abuse. *Journal of Abnormal Psychology*, 104, 585–591.
- Loftus, E. F., & Davis, D. (2006). Recovered memories. *Annual Review of Clinical Psychology*, 2, 469–498.
- Loftus, E. F., Joslyn, S., & Polage, D. (1998). Repression: a mistaken impression. *Development and Psychopathology*, 10, 781–792.
- McHugh, P. R., Lief, H. I., Freyd, P. P., & Fetkewicz, J. M. (2004). From refusal to reconciliation: family relationships after an accusation based on recovered memories. *Journal of Nervous and Mental Disease*, 192, 525–531.
- McNally, R. J. (2003). *Remembering trauma*. Cambridge, MA: Harvard University Press.
- McNally, R. J. (2005). Debunking myths about trauma and memory. *The Canadian Journal of Psychiatry*, 50, 817–822.
- McNally, R. J., Clancy, S. A., Barrett, H. M., Parker, H. A., Ristuccia, C. S., & Perlman, C. A. (2006). *Cognition and Emotion*, 20, 527–535.
- McNally, R. J., & Geraerts, E. (2009). A new solution to the recovered memory debate. *Perspectives on Psychological Science*, 4, 126–134.
- McNally, R. J., Lasko, N. B., Clancy, S. A., Macklin, M. L., Pitman, R. K., & Orr, S. P. (2004). Psychophysiological responding during script-driven imagery in people reporting abduction by space aliens. *Psychological Science*, 15, 493–497.
- McNally, R. J., Lasko, N. B., Macklin, M. L., & Pitman, R. K. (1995). Autobiographical memory disturbance in combat-related posttraumatic stress disorder. *Behaviour Research and Therapy*, 33, 619–630.
- McNally, R. J., Litz, B. T., Prassas, A., Shin, L. M., & Weathers, F. W. (1994). Emotional priming of autobiographical memory in posttraumatic stress disorder. *Cognition and Emotion*, 8, 351–367.
- Merckelbach, H., Wiers, R., Horselenberg, R., & Wessel, I. (2001). Effects of retrieving childhood events on metamemory judgements depend on the questions you ask. *British Journal of Clinical Psychology*, 40, 215–220.
- Moore, S. A., & Zoellner, L. A. (2007). Overgeneral autobiographical memory and traumatic events: an evaluative review. *Psychological Bulletin*, 133, 419–437.
- Peeters, F. P. M. L., Wessel, I., Merckelbach, H., & Boon-Vermeeren. (2002). Autobiographical memory and the course of depressive disorder. *Comprehensive Psychiatry*, 43, 344–350.
- Pollock, L. R., & Williams, J. M. (2001). Effective problem solving in suicide attempters depends on specific autobiographical recall. *Suicide and Life-Threatening Behavior*, 31, 386–396.
- Raes, F., Hermans, D., de Decker, A., Eelen, P., & Williams, J. M. G. (2003). Autobiographical memory specificity and affect-regulation: an experimental approach. *Emotion*, 3, 201–206.
- Rassin, E., Merckelbach, H., & Muris, P. (2000). Paradoxical and less paradoxical effects of thought suppression: a critical review. *Clinical Psychology Review*, 20, 973–995.
- Schooler, J. W. (1999). Seeking the core: the issues and evidence surrounding recovered accounts of sexual trauma. In L. M. Williams, & V. L. Banyard (Eds.), *Trauma and memory* (pp. 203–216). Thousand Oaks, CA: Sage.
- Shrout, P. E., & Fleis, J. L. (1979). Intraclass correlations: uses in assessing rater reliability. *Psychological Bulletin*, 2, 420–428.
- Sutherland, K., & Bryant, R. A. (2007). Rumination and overgeneral autobiographical memory. *Behaviour, Research and Therapy*, 45, 2407–2416.
- Sutherland, K., & Bryant, R. A. (2008). Social problem solving and autobiographical memory in posttraumatic stress disorder. *Behaviour Research and Therapy*, 46, 154–161.
- Van der Kolk, B. A., & Van der Hart, O. (1995). The intrusive past: the flexibility of memory and the engraving of trauma. In C. Caruth (Ed.), *Trauma: Explorations in memory* (pp. 158–182). Baltimore, MD: Johns Hopkins University Press.
- Van Vreeswijk, M. F., & De Wilde, E. J. (2004). Autobiographical memory specificity, psychopathology, depressed mood and the use of the Autobiographical Memory Test: a meta-analysis. *Behaviour Research and Therapy*, 42, 731–743.
- Watkins, E., & Teasdale, J. D. (2001). Rumination and overgeneral memory in depression: effects of self-focus and analytic thinking. *Journal of Abnormal Psychology*, 110, 353–357.
- Wessel, I., Meeren, M., Peeters, F., Arntz, A., & Merckelbach, H. (2001). Correlates of autobiographical memory specificity: the role of depression, anxiety, and childhood trauma. *Behaviour Research and Therapy*, 39, 409–421.
- Williams, J. M. G. (1996). Autobiographical memory in depression. In D. Rubin (Ed.), *Remembering our past: Studies in autobiographical memory* (pp. 244–267). Cambridge, England: Cambridge University Press.
- Williams, J. M. G., Barnhofer, T., Crane, C., Hermans, D., Raes, F., Watkins, E., et al. (2007). Autobiographical memory specificity and emotional disorder. *Psychological Bulletin*, 133, 122–148.
- Williams, J. M. G., & Broadbent, K. (1986). Autobiographical memory in suicide attempters. *Journal of Abnormal Psychology*, 95, 144–149.
- Williams, J. M. G., Ellis, N. C., Tyers, C., Healy, H., Rose, G., & MacLeod, A. K. (1996). The specificity of autobiographical memory and imageability of the future. *Memory and Cognition*, 24, 116–125.
- Williams, J. M. G., Stiles, W. B., & Shapiro, D. A. (1999). Cognitive mechanisms in the avoidance of painful and dangerous thoughts: elaborating the assimilation model. *Cognitive Therapy and Research*, 23, 285–306.
- Winkielman, P., Schwarz, N., & Belli, R. F. (1998). The role of ease of retrieval and attribution in memory judgements: judging your memory as worse despite recalling more events. *Psychological Science*, 9, 124–126.
- Wohlfarth, T. D., van den Brink, W., Winkel, F. W., & ter Smitten, M. (2003). Screening for posttraumatic stress disorder: an evaluation of two self-report scales among crime victims. *Psychological Assessment*, 15, 101–109.

Appendix C

Dafna Tener & Sharon B. Murphy, *Adult Disclosure of Child Sexual Abuse: A Literature Review*, 16(4) Trauma, Violence & Abuse 391 (2014).

Appendix C

Adult Disclosure of Child Sexual Abuse: A Literature Review

Dafna Tener¹ and Sharon B. Murphy²

TRAUMA, VIOLENCE, & ABUSE
2015, Vol. 16(4) 391-400
© The Author(s) 2014
Reprints and permission:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/1524838014537906
tva.sagepub.com



Abstract

Victims of childhood sexual abuse carry the experience of abuse into adulthood. One of the dilemmas victims face during adulthood is the decision to disclose or conceal the abuse. Although adult disclosure may be affected by former disclosure during childhood, adult survivors face new challenges and dilemmas, such as to whom, when, and how to tell. The purpose of this article is to review the domains found in the literature on survivors' experiences regarding disclosure of child sexual abuse during adulthood, all of which were published between 1980 and 2013. Domains include decisions to disclose during adulthood, barriers and facilitators to disclosure and potential recipients of the disclosure, as well as the process of telling and its impact on survivors' well-being. The authors present implications for policy, practice, and research.

Keywords

child abuse, sexual abuse, reporting/disclosure

While the growth of research concerning child sexual abuse (CSA) disclosure has led to greater understanding of the challenges children face when considering disclosure, there is less attention focused on adult survivors of CSA and disclosure.

Draucker and Martsolf (2008) offer the following conceptualization of disclosure: "... a process that is complex, progressive, and multifaceted, best captured by the metaphor of 'storying'" (p. 1045). In its broadest definition, disclosure refers to telling another person about the abuse either formally or informally, voluntarily or in response to others' invitations to tell (Ullman, 2003). Some researchers agree that many survivors of CSA will never tell their stories, and many will delay the telling (Hébert, Tourigny, Cyr, McDuff, & Joly, 2009; Jonzon & Lindblad, 2004). Accordingly, the concept of delay of disclosure has been extensively reported in the literature (e.g., Hébert et al., 2009; Hershkowitz, Lanes, & Lamb, 2007; Schönbucher, Maier, Mohler-Kuo, Schnyder, & Landolt, 2012). A commonly cited definition of delay found in the literature refers to the survivor's avoidance of disclosing the abuse (e.g., Smith et al., 2000). Delay can be temporary, when eventually the survivor chooses to tell his or her abuse story to a trusted person, or it can be permanent, with survivors' decisions not to reveal their story. Hébert, Tourigny, Cyr, McDuff, and Joly (2009) reported one of the five survivors never disclosed the childhood sexual abuse, and nearly 60% delayed disclosure for more than 5 years after the first episode. Similarly, Jonzon and Lindblad (2004) reported less than one third disclosed the abuse during childhood, and most of the survivors waited an average of 21 years until disclosing during adulthood.

There are several individual, social, and cultural dimensions that impact the decision to disclose or conceal the abuse story.

Individuals who disclose childhood sexual abuse make decisions to disclose or not during adulthood. The transition to adulthood brings new challenges and introduces the survivors to new surroundings, including individuals or groups (formal and informal) who are not aware of the survivor's story of abuse. To disclose the abuse can mean bringing the abused childhood world into the current life, possibly contaminating it forever (Tener, 2010). On the other hand, to avoid disclosure means carrying a heavy burden and may require a great deal of energy in secret keeping (Staller & Nelson-Gardell, 2005).

Social expectations of others about disclosing during adulthood might be similarly diverse. On one hand, there may be an expectation that adult survivors will "turn their childhood perpetrator in," since sex offenders pose a source of fear and anxiety in society (Levenson, Brannon, Fortney, & Baker, 2007). On the other hand, the phenomenon of sexual abuse is so threatening that society might reject a person who reveals his or her story publicly or society might use stereotypes in order to encapsulate it from daily life (Tener & Eisikovits, in press). Accordingly, several studies indicated that survivors of sexual

¹ Crimes against Children Research Center, Horton Social Science Center, University of New Hampshire, Durham, NH, USA

² Social Work Department, University of New Hampshire, Durham, NH, USA

Corresponding Author:

Dafna Tener, Crimes against Children Research Center, University of New Hampshire, Horton Social Science Center, 20 Academic Way, Durham, NH 03824, USA.

Email: dtener@gmail.com

abuse tend to feel more comfortable when their abuse fits the stereotype of kidnapping and sustaining serious injury (Wolitzky-Taylor et al., 2011), neither of which are typical experiences for those reporting CSA (Salter, 2013).

Numerous studies during the last three decades described elements of disclosure. Some studies were restricted to disclosure during childhood (e.g., London, Bruck, Ceci, & Shuman, 2005; McElvaney, Greene, & Hogan, 2012; Schaeffer, Leventhal, & Asnes, 2011), while others combined disclosure during childhood and adulthood (for review, see Ullman, 2003). A major drawback in some studies was the tendency to combine childhood and adulthood disclosure without specifically examining each of them separately. Though some of the variables in the disclosure process may be similar in childhood and adulthood, other variables are unique to each and require individual examination. For example, Roesler and Wind (1994) examined both survivors who disclosed during childhood and ones who disclosed during adulthood. In so doing, the authors presented facilitators to disclosure, but it was not clear whether some of them were more common to specific age-groups. A case in point, one may assume that “wanted protection from the abuse” (p. 333) would be more likely to motivate childhood disclosure, while the “secret interfered with intimacy” (p. 333) would more likely be related to adult disclosure. Only a few studies specifically addressed the phenomenon of adult disclosure, and of those, some stressed very specific domains, such as disclosing during therapy sessions (McGregor, Glover, Gautam, & Jülich, 2010) or disclosing abuse by specific types of offenders, that is, abuse by clergy (Isely, Isely, Freiburger, & McMackin, 2008).

While some similarities between the disclosures of children and adults do exist (Ullman, 2003), it is important to understand the specific dynamics of each. For example, while fear of negative responses from others appears to be an area that impacts both children and adults, an adults’ decision making can occur whether the abuse was disclosed or concealed during childhood. Whether to disclose or not must be faced each time the adult meets a new situation. Each new social system—formal or informal—and each new relationship—short or long term—necessitates the decision. As examples, the survivor might disclose to a caring nurse in the delivery room or to an intimate partner in a long-term relationship. Accordingly, the purpose of this article is to review the domains found in the research literature on adult disclosure experience. As mentioned, the authors considered literature published between 1980 and 2013 as published in peer-reviewed journals. Our search included decisions to disclose during adulthood, barriers and facilitators to disclosure, potential recipients of the disclosure, the process of telling, and its impact on survivors’ well-being.

Method

Articles between 1980 and 2013 were reviewed. The academic databases that reflect the multidisciplinary nature of the phenomenon under study were searched: criminal justice (Criminal Justice Abstracts); health care (Medline with full text); psychology (PsychInfo); social work (Social Work Abstracts);

sociology (Sociological Abstracts); and Web of Science database. Search terms included CSA, incest, adult, and disclosure.

The following inclusion criteria were implemented: (1) qualitative and quantitative studies examining domains of disclosure of CSA during adulthood; (2) studies sampling survivors only, as the purpose of the review was to focus on the experience of the survivors themselves; (3) In the case of studies that consisted of essential information about both childhood and adulthood disclosure, the parts of the article that dealt specifically with adult disclosure of childhood experiences were reviewed.

The following articles were excluded from the review: (1) articles in languages other than English; (2) reviews, opinions, and editorials; (3) articles that discussed disclosure only during childhood or adolescence; (4) Articles in which it was impossible to differentiate between information about childhood and adulthood disclosure; (5) publications that discussed professionals’ and lay persons’ opinions and attitudes toward disclosure; (6) articles discussing delayed disclosure without emphasizing whether disclosure actually took place in childhood or adulthood.

During the review of the articles, six main domains were located and were used as a framework. These included (1) the decision to disclose, (2) barriers for disclosure, (3) facilitators for disclosure, (4) process of disclosure, (5) responses to disclosure, and (6) the impact of disclosure on survivor’s well-being.

Results

In total, 55 articles in Criminal Justice Abstracts were found, 281 articles in Medline with full text, 58 articles in PsychInfo, 19 articles in Social Work Abstracts, 39 articles in Sociological Abstracts, and 1 additional article in the Web of Science based on citations of selected articles. In all, 28 articles published between 1980 and 2013 that met our criteria were reviewed (see Table 1).

Although the results are organized according to the categories listed previously, the contents in specific categories are not necessarily exclusive. For example, negative responses to disclosure during childhood or adulthood can function as a barrier to further disclosure during adulthood. On the contrary, positive responses from significant others can be categorized as facilitators to further disclosure.

Decisions to Disclose

Adult decision making about disclosure is described in the literature as thoughtful and well processed, and decisions to disclose or conceal are typically described as purposeful (Alaggia, 2004; Draucker & Martsolf, 2008), meaning that the survivors are deliberately telling or withholding information about the abuse to another person. “Intentionality has to do with the directedness or aboutness of mental states—the fact that, for example, one’s thinking is of or about something” (Siewert, 2011, para. 1). It should be noted that other impetus to disclose is also discussed in the literature, for example, elicited disclosure that is encouraged by therapists (Alaggia, 2004; Donalek, 2001). However, the same mechanism exists whether it is

Table 1. Descriptions of Reviewed Articles.

Authors (In Order of References)	Year of Publication	Article Title	Focus Topics Used in Review	Study Method	Sample Size	Specific Survivors Groups of Interest
Alaggia	2004	Many ways of telling: Expanding conceptualizations of child sexual abuse disclosure	Decisions to disclose Barriers to disclosure Facilitators for disclosure	Qualitative	24	Female and male survivors of CSA
Alaggia	2005	Disclosing the trauma of child sexual abuse: A gender analysis	Barriers to disclosure; facilitators for disclosure	Qualitative	30	Female and male survivors of CSA
Alaggia and Millington	2008	Male child sexual abuse: A phenomenology of betrayal	Barriers to disclosure	Qualitative	14	Male survivors of CSA
Chouliara et al.	2011	Talking therapy services for adult survivors of childhood sexual abuse (CSA) in Scotland: Perspectives of service users and professionals	Facilitators for disclosure	Qualitative	13	Female and male survivors of CSA
Crowley and Seery	2001	Exploring the multiplicity of childhood sexual abuse with a focus on polycastuous contexts of abuse	Barriers to disclosure; responses to disclosure	Mixed methods	88	Female and male survivors of incest
Deering and Mellor	2011	An exploratory qualitative study of the self-reported impact of female-perpetrated childhood sexual abuse	Barriers to disclosure	Qualitative	14	Female and male survivors of CSA by female perpetrators
Del Castillo and Wright	2009	The perils and possibilities in disclosing childhood sexual abuse to a romantic partner	Barriers to disclosure; facilitators for disclosure; process of disclosure; responses to disclosure; impact of disclosure	Qualitative	7	Female survivors of CSA who disclosed to a romantic partner
Denov	2003	To a safer place? victims of sexual abuse by females and their disclosures to professionals	Barriers to disclosure; facilitators for disclosure; responses to disclosure; impact of disclosure	Qualitative	14	Female and male survivors of CSA by female perpetrators
Donalek	2001	First incest disclosure	Decisions to disclose; impact of disclosure	Qualitative	9	Female survivors of incest
Dorahy and Clearwater	2012	Shame and guilt in men exposed to childhood sexual abuse: A qualitative investigation	Barriers to disclosure; responses to disclosure; impact of disclosure	Mixed methods	7	Male survivors of CSA
Draucker and Martsof	2008	Storying childhood sexual abuse	Decision to disclose; barriers to disclosure; facilitators for disclosure; process of disclosure	Qualitative	74	Female and male who experienced CSA by a family member or close acquaintance
Glover et al.	2010	Childhood sexual abuse severity and disclosure predict posttraumatic stress symptoms and biomarkers in ethnic minority women	Impact of disclosure; facilitators for disclosure	Quantitative	94	Female survivors of CSA from ethnic minority
Hunter	2011	Disclosure of child sexual abuse as a lifelong process: Implications for health professionals	Barriers to disclosure; facilitators for disclosure	Qualitative	22	Female and male survivors of CSA
Jonzon and Lindblad	2004	Disclosure, reactions, and social support: Findings from a sample of adult victims of child sexual abuse	Facilitators for disclosure; impact of disclosure	Mixed methods	122	Female survivors of CSA

(continued)

Table 1. (continued)

Authors (In Order of References)	Year of Publication	Article Title	Focus Topics Used in Review	Study Method	Sample Size	Specific Survivors Groups of Interest
Isely, Isely, Freiburger, and McMackin	2008	In their own voices: A qualitative study of men abused as children by catholic clergy	Impact of disclosure	Qualitative	9	Male survivors of CSA
Josephson and Fong-Beyette	1987	Factors assisting female clients' disclosure of incest during counseling	Facilitators for disclosure; responses to disclosure; impact of disclosure	Qualitative	37	Female and male survivors of incest
Lab and Moore	2005	Prevalence and denial of sexual abuse in a male psychiatric inpatient population	Barriers to disclosure	Quantitative	74	Male inpatient survivors of CSA
MacFarlane and Korbin	1983	Confronting the incest secret long after the fact: A family study of multiple victimization with strategies	Barriers to disclosure; facilitators for disclosure	Qualitative	11	Female survivors of incest (all members of the same extended family)
McGregor, Glover, Gautam, and Jülich	2010	Working sensitively with child sexual abuse survivors: What female child sexual abuse survivors want from health professionals	Barriers to disclosure; facilitators for disclosure; responses to disclosure	Qualitative	22	Female survivors of incest
Mize, Bentley, Helms, Ledbetter, and Neblett	1995	Surviving voices: Incest survivors' narratives of their process of disclosure	Barriers to disclosure; facilitators for disclosure; responses to disclosure	Qualitative	21	Female and male survivors of incest
O'Leary and Barber	2008	Gender differences in silencing following childhood sexual abuse	Barriers to disclosure	Quantitative	296	Female and male survivors of CSA
Roesler	1994	Reactions to disclosure of childhood sexual abuse: the effect on adult symptoms	Responses to disclosure; impact of disclosure	Quantitative	188	Female and male survivors of CSA
Roesler and Wind	1994	Telling the secret: Adult women describe their disclosures of incest	Barriers to disclosure; facilitators for disclosure; responses to disclosure	Quantitative	228	Female survivors of incest
Sinclair and Gold	1997	The psychological impact of withholding disclosure of child sexual abuse	Impact of disclosure	Quantitative	204	Females (undergraduate students) survivors of CSA
Somer and Szwarcberg	2001	Variables in delayed disclosure of childhood sexual abuse	Barriers to disclosure; facilitators for disclosure; responses to disclosure	Quantitative	41	Female and male survivors of CSA
Sorsoli et al.	2008	"I keep that hush-hush:" Male survivors of sexual abuse and the challenges of disclosure	Barriers to disclosure; facilitators for disclosure; responses to disclosure	Qualitative	16	Male survivors of CSA
Sorsoli	2010	"I remember," "I thought," "I know I didn't say": Silence and memory in trauma narratives	Barriers to disclosure; facilitators for disclosure; responses to disclosure	Qualitative		Female survivors of incest
Ullman	2007	Relationship to perpetrator, disclosure, social reactions, and PTSD symptoms in child sexual abuse survivors	Impact of disclosure	Quantitative	733	Female and male (college students) survivors of CSA

Note. PTSD = posttraumatic stress disorder; CSA = child sexual abuse.

prompted by others or self-motivated: Survivors deliberately and willingly decide whether to reveal information about the abuse to another person, and they are engaged in self-dialogue about the right time for the disclosure (Del Castillo & Wright, 2009). The emotional and cognitive processes involved in the decision to disclose are described as overwhelming, and survivors struggle with confusion and doubts (Donalek, 2001). Yet the act of telling is described in the literature as purposeful and intentional. It is not clear in the literature whether other forms of disclosure, such as disclosing the story unintentionally to a recipient after being triggered or overwhelmed, can also occur during adulthood.

Barriers to Disclosure

A relatively large portion of the literature about adult disclosure of CSA focuses on the barriers for disclosure. These can be divided into intrapersonal, interpersonal, and sociocultural barriers. When discussing intrapersonal barriers, some survivors describe lacking an awareness about whether or not they were abused or about feeling ambiguity about the accuracy of their memory regarding childhood sexual abuse. They describe having repressed the memory of the abuse into adulthood. Even when they were somewhat aware of it, they found themselves questioning whether what happened constituted abuse (Crowley & Seery, 2001; Lab & Moore, 2005) and expressed concern about the accuracy of their memories and whether or not they were genuine (Dorahy & Clearwater, 2012; Sorsoli, Kia-Keating, & Grossman, 2008). Other adult survivors were fully aware of the past abuse and yet knowingly chose to avoid disclosing it (Sorsoli, 2010). They referred to shame, guilt, self-blame (Alaggia, 2004; Dorahy & Clearwater, 2012; Draucker & Martsof, 2008), and anxiety as the most frequent barriers to disclosure (Dorahy & Clearwater, 2012). They also expressed doubt regarding how to address the subject, and they were unsure whether disclosing would improve their current state of well-being (Sorsoli et al., 2008).

Interpersonal barriers to disclosing relate to all social systems surrounding the adult survivor: family, environment, society, and culture. Survivors talk about fear of others' reactions to their stories. They have prior expectations about other's reactions, and they engage in predicting how others will respond. Their main concerns focus on their fear of not being believed and on being emotionally hurt after disclosing (Alaggia, 2004). They fear others will not be interested or will reject their story, dismiss it, condemn them, or further expose the story to others without their permission (Del Castillo & Wright, 2009; Dorahy & Clearwater, 2012; Draucker & Martsof, 2008). They also fear hurting the people they care about and are concerned about the feelings others might have after they hear their stories, such as feeling sad or guilty (Alaggia, 2004; Draucker & Martsof, 2008; Hunter, 2011; Mize, Bentley, Helms, Ledbetter, & Neblett, 1995).

Some survivors noted the fear that disclosure will ruin their present lives, making them lose everything they had achieved so far (their partner, children, and psychological balance (Donalek, 2001). They might also state that the abuse is irrelevant to their current lives and does not represent their current

identities, thus describing disclosure as an unnecessary act (Sorsoli, 2010). During childhood, the purpose of disclosure could be to protect oneself and to stop the abuse. However, during adulthood, survivors may have moved physically away from the perpetrator (Alaggia, 2004). In some cases, adults acquired normative social statuses such as establishing a family and/or career, making friends, and becoming involved with new social systems. In these cases, even when they did disclose the abuse during childhood, others in their present environment may be unaware of the childhood abuse. He or she then has to reconsider the disclosure process all over again and decide whether it will be beneficial. In other cases, when survivors were abused by a family member, the relationship with the perpetrator continued into adulthood. In these cases, disclosing the abuse might endanger the survivors' relationship with other family members. Upon disclosure about incestuous relationships, survivors may face abandonment by other family members who prefer to take the side of the perpetrator. In still other cases, they are encouraged by family members to ignore or minimize the past abuse (Crowley & Seery, 2001). Accordingly, studies indicate it is much less likely for adult survivors to disclose their abuse to their family of origin. Somer and Szwarcberg (2001) reported that 95% of respondents chose not to disclose to a family member during adulthood. When disclosure to parents did occur, less favorable responses (nonsympathy and unresponsiveness) were noted (Crowley & Seery, 2001; Roesler & Wind, 1994; Somer & Szwarcberg, 2001). Some survivors state that reporting the abuse to professionals might result in feeling that the listener does not want to hear their story, especially if the survivor suffered from mental illness or substance abuse (Draucker & Martsof, 2008). Another complicating factor is the presence of negative experiences of disclosure during childhood, which may impact future decisions to disclose (Hunter, 2011; Somer & Szwarcberg, 2001). The childhood disclosure may have had such a negative psychological impact that it shapes the way survivors think about it in the future.

When discussing how survivors are affected by social and cultural attitudes, it is interesting to note that even though survivors are concerned about society's reactions to their stories, some survivors bring up concerns related to the level of congruence between their stories and social expectations about survivors of CSA, as they perceive them. More specifically, they feel that they are part of a society that can only accept limited social scripts, such as men as perpetrators and not as victims, or of women as victims but not perpetrators (Sorsoli et al., 2008). The "unstereotyped" survivors, in general, might feel that there is no social legitimation for their abuse (Denov, 2003; Draucker & Martsof, 2008). For example, male victims fear they may be judged as weak or thought to be gay if they disclose the abuse (Dorahy & Clearwater, 2012; O'Leary & Barber, 2008). They may also be concerned that they might become perpetrators because folk knowledge tells them that they are at greater risk of perpetrating in adulthood (Alaggia, 2005). Denov's (2003) study of women abused in childhood by female perpetrators reports that all the participants described

the fear of a negative response to their disclosures based on their perpetrator's gender. One respondent, for example, declared it would have been easier to disclose whether she had been abused by her father rather than by a female perpetrator.

Facilitators for Disclosure

A number of factors have been identified in the literature as facilitators to assist survivors as they decide whether to tell their story to others. Retrieving memories of the abuse and acknowledging that abuse occurred are both described in the literature as facilitating disclosure (e.g., Alaggia, 2004; Sorsoli, 2010). About a third of the survivors interviewed in Alaggia's study (2004) stated that they became aware of the abuse and were able to define and describe their experiences as abusive only as adults. Retrieved memories may be an extreme negative emotional experience, which could lead to disclosure as a way of giving meaning to and controlling these events (Alaggia, 2004; Del Castillo & Wright, 2009).

Some survivors' motivation to disclose derived from the need to protect young family members who are potentially in danger of being abused by the same perpetrator. MacFarlane and Korbin (1983) studied four adult survivors of incest, all from the same family, who disclosed their fear that their preschool family member (the daughter of their perpetrator) would be abused when she turned the same age as they were when first abused. Additionally, some adult survivors described creating geographic distance from the perpetrator or family of origin as a facilitator for disclosure (Alaggia, 2004; Hunter, 2011).

Much of the current literature reports that most adults choose to disclose to individuals with whom they have a trusting relationship such as professionals, including counselors, doctors or psychiatrists (Deering & Mellor, 2011), intimate partners, and friends (Denov, 2003; Draucker & Martsolf, 2008; Hunter, 2011; Isely et al., 2008; Jonzon & Lindblad, 2004; Sorsoli et al., 2008). The relationship with others usually has to achieve a level of intimacy for the survivor to feel comfortable sharing his or her story (Del Castillo & Wright, 2009). The psychological efforts required in order to keep the abuse a secret during childhood may encourage survivors to share their stories with loved or trusted ones during adulthood and avoid keeping the abuse secret. Previous research discusses the difficulties involved in disclosing; however, some victims also work very hard not to disclose, thus keeping the secret hidden from the view of others. Some adult survivors believe that telling their story will enable them to pursue a path to healing (Draucker & Martsolf, 2008). Survivors seem to search for the "safe and trusted space," where they can tell their story without danger (Chouliara et al., 2011).

In the same manner, findings indicate that high levels of social support during adulthood serve as an important facilitator for disclosure (Crowley & Seery, 2001; Mize et al., 1995). Women with high levels of social support tended to disclose their abuse stories to at least five people from their adult social networks (Jonzon & Lindblad, 2004). When asked hypothetically what would have encouraged them to disclose the abuse

in health care settings, the survivors emphasized the importance of professionals' ability to provide an unconditional positive response for them (McGregor et al., 2010).

Media stories about famous people who disclose their history of victimization and public attention to legal cases against perpetrators serve as facilitators for disclosure (e.g., Kennedy, 2011). Both of those examples can provoke survivors' disclosure to public venues, such as help centers, law enforcement, or other support systems. Publicized stories may assist survivors in believing their personal stories have been approved and legitimated by others. They feel they are no longer considered deviant but have become part of society.

The process of telling. Though the literature reveals much information about barriers and facilitators to disclosure, much less is known about the process of telling, for example, the sequence of disclosure or the terms being used when the stories are described. Draucker and Martsolf (2008) define a series of stages for disclosing CSA stories during adulthood that include (1) "working up to coming out with it," (2) "really coming out with it," (3) "revising the story: story-as-account," and (4) "sharing the story: story-as-message" (p. 1039). In the first stage, survivors give general details about the abuse (Sorsoli et al., 2008) and carefully examine how the recipient responds. In the second stage, if the responses were perceived as positive (empathic and nonjudgmental), survivors will begin to disclose their stories in more detail or to more sources. Each time they tell their stories to others, they also revise them into a "story-as-account," assimilating other viewpoints into their narrative in ways that they perceive as positive and empowering (Draucker & Martsolf, 2008). During this process, some survivors may choose to share their stories with the public (e.g., in a large gathering or through the media). In cases of a negative reaction during one of these stages of disclosure, the survivor might decide to avoid further disclosure; this is what the authors refer to as "shielding the story: story-as-secret" (Draucker & Martsolf, 2008, p. 1039). Del Castillo and Wright (2009) described two distinct ways of disclosing that were commonly used by their respondents. First, telling the story as though they were reporting the news and with little apparent affect. Second, revealing the whole story with no control of its components, described by one of the survivors as "vomiting" the story (p. 396).

Perceived Responses to Disclosure During Adulthood

Generally, survivors report more positive than negative responses to adult disclosure than to childhood disclosure (Roesler, 1994; Roesler & Wind, 1994; Somer & Szwarcberg, 2001). This may be because as adults they have more control of their story and they are more discerning about to whom they disclose the abuse story. For example, they may specifically choose to disclose to a person that they believe will be supportive (Draucker & Martsolf, 2008) such as a professional who specializes in treating CSA survivors. Nevertheless, regardless of the care they take in choosing to whom to disclose, responses

Table 2. Critical Findings of Adult Disclosure of CSA.

Domains of Disclosure	Findings
Decisions to disclose	Tend to be purposeful and well processed
Barriers for disclosure	Intrapersonal (e.g., ambiguity about the accuracy of memories), interpersonal (e.g., fear of rejection), and social (e.g., don't fit the "typical abuse" types)
Facilitators for disclosure	Intrapersonal (e.g., believe the disclosure will promote the recovery) and interpersonal (e.g., moving physically away from the perpetrator)
The process of telling	Gradual and includes several steps. Survivors first reveal small portions of the story and if the response is positive, survivors will reveal more significant parts of the story. Telling enable them to give new meanings to their stories
Perceived responses	Typically more positive compared to disclosure during childhood (e.g., calm, supportive, and accepting). Yet can be experienced as extremely negative (e.g., dismissing it, minimizing, and normalizing)
The impact of the disclosure	An impact on future disclosures: Initial responses (whether negative or positive) disclosure during adulthood can cause the survivor to decide either to continue revealing or to conceal the past abuse An impact on the survivor's well-being: When perceived as positive, the disclosure is considered a healing experience. However, when perceived as negative, it may cause more psychological distress. The decision not to disclose can also cause psychological damage

Note. CSA = child sexual abuse.

to adult disclosure can be extremely negative as well (e.g., Deering & Mellor, 2011).

Survivors describe a positive response as calm, supportive, and accepting, followed by encouragement to talk more about the abuse (Denov, 2003; Josephson & Fong-Beyette, 1987). On the contrary, negative responses from others include signs that listeners are uncomfortable or hostile to the story, listeners not believing and dismissing the story, or listeners minimizing and normalizing the abuse, as well as listeners refusing to further discuss the subject or changing the subject (Crowley & Seery, 2001; Deering & Mellor, 2011; Denov, 2003; Dorahy & Clearwater, 2012; Draucker & Martsolf, 2008). Other characteristics of negative responses include a listener's unnecessary interest in sexual details (or in cases of a romantic partner, being sexually aroused from the abuse story) or anger toward the offender or the survivor and insensitivity to the survivor's needs (Del Castillo & Wright, 2009; Josephson & Fong-Beyette, 1987). Responses can also vary according to the gender of the survivors or the offenders. For example, some men who disclose being sexually abused by women were described by the recipient of the story as "lucky bastards" (Deering & Mellor, 2011, p. 65).

The Impact of Disclosure on Survivors

The impact of the first disclosure often determines whether the survivor will tell again. On one hand, negative responses from others may act as a deterrent to further disclosure and result in feelings of isolation and distress (Donalek, 2001), as well as distrust of others (Isely et al., 2008; Josephson & Fong-Beyette, 1987). On the other hand, Denov (2003) reported that survivors who received negative responses from professionals after disclosure tended to consult more professionals until they received a positive response.

Revealing the story might create a sense of loss of control. Despite engaging in a long and thoughtful process of decision

making, survivors cannot necessarily predict the short- and long-term consequences of their disclosure, which can cause symptoms of distress in cases of negative responses (Glover et al., 2010). One of the participants in Dorahy and Clearwater (2012) described the effect of the disclosure as a "mine field," where negative, dangerous, and offensive consequences can occur unexpectedly.

It should be noted that the consequences of not telling can be extremely harsh as well. Ullman's study (2007) of survivors revealed that they had more symptoms of posttraumatic stress disorder if they delayed disclosure. Sinclair and Gold (1997) found that symptoms of traumatization were most likely to occur when survivors expressed a desire to tell their story but did not tell it. The symptomology could also occur in cases where the survivors have already disclosed the story to some other recipients but did not tell other desirable sources.

Positive responses to the disclosure had several effects on survivors' well-being. Draucker and Martsolf (2008) described the stage of "story-as-account" (mentioned in one of the previous domains) in which each telling enabled the survivor to incorporate more insights into his or her story and eventually change the narrative (e.g., growing from feelings of self-blame in the abuse to understanding that only the offender should be held accountable). The repeated telling was interpreted by survivors as a healing experience. Mize, Bentley, Helms, Ledbetter, and Neblett (1995) reported survivors' response to whether they would disclose again included phrases such as "in a heartbeat" and "with no question."

Conclusion

In summary, the research on the disclosure of sexual abuse during adulthood reveals that this is a complicated process that involves several domains (see Table 2). CSA disclosure has been under investigation for the last three decades. Yet the findings from this review reveal that the disclosing during adulthood is

only partially understood and may be combined with child abuse disclosure, though the two processes can be very different.

Adult survivors of CSA are at risk for numerous intrapersonal and interpersonal difficulties (Lacelle, Hébert, Lavoie, Vitaro, & Tremblay, 2012; Lamoureux, Palmieri, Jackson, & Hobfoll, 2012). Yet disclosure may serve as a way to assist in the recovery process. "The expression of a personal narrative to a listener is a powerful way in which we build our identities, forge interpersonal connections, and sustain a sense of purpose and meaning" (Baddeley & Singer, 2009, p. 203). Indeed, some of the adult survivors reviewed in the studies look at the disclosure process in adulthood as an epiphany which added meaning and balance to their lives. However, disclosure is likely to be a complicated process. Even though survivors have more control over the story during adulthood (e.g., they can choose who to tell and are not under the custody of the perpetrator), the results of the disclosure even in adulthood can be harsh or unpredictable, causing further alienation from others. Even when they carefully choose the timing and the person to disclose to, they cannot predict the short- and long-term consequences of telling. On the other hand, much of our knowledge is based on clinical literature. One can assume there is less information about survivors who did not disclose the abuse during adulthood and do not seek forms of counseling. It is possible that some survivors do not think that the childhood abuse had a significant effect on their present life and do not consider dilemmas about disclosure as a major part of their life.

Two ways of conceptualizing adult survivors of CSA are proposed. One way is to observe them as a distinct group, apart from all others, who define themselves as survivors of sexual trauma. This may fit the perception and needs of some of the survivors. Yet another way is to look at the survivors as part of any other group of individuals involved in decision making about disclosing a sensitive or traumatic memory. This broader perspective provides a wider lens for understanding the context of disclosure. For example, Alea and Bluck (as cited in Baddeley & Singer, 2009) present a conceptual model of the social functions of autobiographical memory which can fit a variety of experiences. This model takes into account several variables involved in the memory disclosure as follows: the speakers' characteristics (age, gender, and personality), the listeners' characteristics (familiarity and similarity to the speaker), the memory characteristics (level of details and emotions), and the social function of the memory. This model incorporates many variables involved in the process of disclosure by providing a holistic view of each individual without stereotyping his or her experience. For example, an adult survivor of CSA, when considering disclosure, may be specifically concerned with issues of recovered or repressed memories but may also be generally concerned with his or her culture's rules concerning disclosing of any sexual topics to others. Looking at disclosure during adulthood as a phenomenon that is both unique to the survivors and also part of the general patterns of disclosing traumatic memories allows for a broader, more thorough understanding of an issue which is part of the daily lives of many sexual abuse survivors.

Implications for Practice, Policy, and Research

- Disclosure of CSA during adulthood is a multilayered experience for the survivors. It requires professionals from different disciplines working with CSA survivors to be aware of the context of each adult survivor when he or she faces the dilemma to tell the story.
- During adulthood, new barriers as well as facilitators to disclosure arise. Telling the abuse story is a challenging process whether the abuse was disclosed during childhood or not. One should not assume disclosing is a preferable option for every individual. Disclosing the abuse can be experienced as extremely beneficial, especially when the responses are positive, but it can also be an extremely hurtful experience when the responses are negative. Disclosing should be carefully considered depending on domains such as the client's current emotional state, experiences of former disclosure (if they exist), potential sources for social support, possible perceived responses to the disclosure, and the way those things may affect the survivors' life.
- Further research should focus more specifically on the process of disclosing during adulthood while distinguishing between childhood and adulthood disclosure. Relatively little is understood about the decisions to disclose and the actual process of disclosing during adulthood. Many questions remain partially answered, such as what the actual process of telling involves, how survivors disclose to different sources (e.g., law enforcements, criminal justice system, health professionals, family members, or friends?), and how responses from one source effect the survivor's tendency to tell other sources. Further research is also needed in order to understand the way the nonclinical population deals with past abuse at the present time.
- Future studies should also focus on age differences among survivors, as it is most likely that the experiences of disclosure during adulthood are affected by social norms, which change across generations. Another possible area of study is the differences between lengths of time the abuse was delayed during adulthood, that is, how survivors who delayed disclosure many years into adulthood differ from those who disclosed during young adulthood. Further studies should emphasize cultural differences concerning the phenomenon, as the experience of disclosing the abuse in religious or conservative societies, for example, can be significantly different.
- Qualitative studies consisting of interviewing all involved in this phenomenon will allow for a more thorough understanding. In addition, applying general models of memory telling or decision making will enable a broader perspective on disclosure that applies to this population.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

- Alaggia, R. (2004). Many ways of telling: Expanding conceptualizations of child sexual abuse disclosure. *Child Abuse & Neglect*, 28, 1213–1227. doi:10.1016/j.chiabu.2004.03.016
- Alaggia, R. (2005). Disclosing the trauma of child sexual abuse: A gender analysis. *Journal of Loss and Trauma*, 10, 453–470. doi:10.1080/15325020500193895
- Alaggia, R., & Millington, G. (2008). Male child sexual abuse: A phenomenology of betrayal. *Clinical Social Work Journal*, 36, 265–275. doi:10.1007/s10615-007-0144-y
- Baddeley, J. L., & Singer, J. A. (2009). A social interactional model of bereavement narrative disclosure. *Review of General Psychology*, 13, 202–218. doi:10.1037/a0015655
- Chouliara, Z., Karatzias, T., Scott-Brien, G., Macdonald, A., MacArthur, J., & Frazer, N. (2011). Talking therapy services for adult survivors of childhood sexual abuse (CSA) in Scotland: Perspectives of service users and professionals. *Journal of Child Sexual Abuse*, 20, 128–156. doi:10.1080/10538712.2011.554340
- Crowley, M. S., & Seery, B. L. (2001). Exploring the multiplicity of childhood sexual abuse with a focus on polyincestuous contexts of abuse. *Journal of Child Sexual Abuse*, 10, 91–110. doi:10.1300/J070v10n04_07
- Deering, R., & Mellor, D. (2011). An exploratory qualitative study of the self-reported impact of female-perpetrated childhood sexual abuse. *Journal of Child Sexual Abuse*, 20, 58–76. doi:10.1080/10538712.2011.539964
- Del Castillo, D., & Wright, M. O. (2009). The perils and possibilities in disclosing childhood sexual abuse to a romantic partner. *Journal of Child Sexual Abuse: Research, Treatment, & Program Innovations for Victims, Survivors, & Offenders*, 18, 386–404. doi:10.1080/10538710903035230
- Denov, M. S. (2003). To a safer place? victims of sexual abuse by females and their disclosures to professionals. *Child Abuse & Neglect*, 27, 47–61. doi:10.1016/S0145-2134(02)00509-4
- Donalek, J. G. (2001). First incest disclosure. *Issues in Mental Health-Nursing*, 22, 573–591. doi:10.1080/016128401750364129
- Dorahy, M. J., & Clearwater, K. (2012). Shame and guilt in men exposed to childhood sexual abuse: A qualitative investigation. *Journal of Child Sexual Abuse*, 21, 155–175. doi:10.1080/10538712.2012.659803
- Draucker, C. B., & Martsof, D. S. (2008). Storying childhood sexual abuse. *Qualitative Health Research*, 18, 1034–1048. doi:10.1177/1049732308319925
- Glover, D. A., Loeb, T. B., Carmona, J. V., Sciolla, A., Zhang, M., Myers, H. F., & Wyatt, G. E. (2010). Childhood sexual abuse severity and disclosure predict posttraumatic stress symptoms and biomarkers in ethnic minority women. *Journal of Trauma & Dissociation*, 11, 152–173. doi:10.1080/15299730903502920
- Hébert, M., Tourigny, M., Cyr, M., McDuff, P., & Joly, J. (2009). Prevalence of childhood sexual abuse and timing of disclosure in a representative sample of adults from Quebec. *Canadian Journal of Psychiatry*, 54, 631–636.
- Hershkowitz, I., Lanes, O., & Lamb, M. E. (2007). Exploring the disclosure of child sexual abuse with alleged victims and their parents. *Child Abuse & Neglect*, 31, 111–123. doi:10.1016/j.chiabu.2006.09.004
- Hunter, S. V. (2011). Disclosure of child sexual abuse as a life-long process: Implications for health professionals. *Australian and New Zealand Journal of Family Therapy*, 32, 159–172. doi:10.1375/anft.32.2.159
- Isely, P. J., Isely, P., Freiburger, J., & McMackin, R. (2008). In their own voices: A qualitative study of men abused as children by catholic clergy. *Journal of Child Sexual Abuse*, 17, 201–215. doi:10.1080/10538710802329668
- Jonzon, E., & Lindblad, F. (2004). Disclosure, reactions, and social support: Findings from a sample of adult victims of child sexual abuse. *Child Maltreatment*, 9, 190–200. doi:10.1177/1077559504264263
- Josephson, G. S., & Fong-Beyette, M. (1987). Factors assisting female clients' disclosure of incest during counseling. *Journal of Counseling & Development*, 65, 475–478. doi:10.1002/j.1556-6676.1987.tb00759.x
- Kennedy, S. (2011). *Why I didn't say anything Why I didn't say anything: The Sheldon Kennedy story*. Toronto, ON: Insomniac Press.
- Lab, D. D., & Moore, E. (2005). Prevalence and denial of sexual abuse in a male psychiatric inpatient population. *Journal of Traumatic Stress*, 18, 323–330.
- Lacelle, C., Hébert, M., Lavoie, F., Vitaro, F., & Tremblay, R. E. (2012). Sexual health in women reporting a history of child sexual abuse. *Child Abuse & Neglect*, 36, 247–259. doi:10.1016/j.chiabu.2011.10.011
- Lamoureux, B. E., Palmieri, P. A., Jackson, A. P., & Hobfoll, S. E. (2012). Child sexual abuse and adulthood-interpersonal outcomes: Examining pathways for intervention. *Psychological Trauma: Theory, Research, Practice, and Policy*, 4, 605–613. doi:10.1037/a0026079
- Levenson, J. S., Brannon, Y. N., Fortney, T., & Baker, J. (2007). Public perceptions about sex offenders and community protection policies. *Analyses of Social Issues and Public Policy (ASAP)*, 7, 137–161. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2007-19508-012&site=ehost-live>
- London, K., Bruck, M., Ceci, S. J., & Shuman, D. W. (2005). Disclosure of child sexual abuse: What does the research tell us about the ways that children tell? *Psychology, Public Policy, and Law*, 11, 194–226. doi:10.1037/1076-8971.11.1.194
- MacFarlane, K., & Korbin, J. (1983). Confronting the incest secret long after the fact: A family study of multiple victimization with strategies for intervention. *Child Abuse & Neglect*, 7, 225–237. doi:10.1016/0145-2134(83)90073-X
- McElvaney, R., Greene, S., & Hogan, D. (2012). Containing the secret of child sexual abuse. *Journal of Interpersonal Violence*, 27, 1155–1175. doi:10.1177/0886260511424503

- McGregor, K., Glover, M., Gautam, J., & Jülich, S. (2010). Working sensitively with child sexual abuse survivors: What female child sexual abuse survivors want from health professionals. *Women & Health, 50*, 737–755. doi:10.1080/03630242.2010.530931
- Mize, L. K., Bentley, B., Helms, S., Ledbetter, J., & Neblett, K. (1995). Surviving voices: Incest survivors' narratives of their process of disclosure. *Journal of Family Psychotherapy, 6*, 43–59. doi:10.1300/j085V06N04_04
- O'Leary, P. J., & Barber, J. (2008). Gender differences in silencing following childhood sexual abuse. *Journal of Child Sexual Abuse, 17*, 133–143.
- Roesler, T. A. (1994). Reactions to disclosure of childhood sexual abuse. *The effect on adult symptoms. The Journal of Nervous and Mental Disease, 182*, 618–624.
- Roesler, T. A., & Wind, T. W. (1994). Telling the secret: Adult women describe their disclosures of incest. *Journal of Interpersonal Violence, 9*, 327–338. doi:10.1177/088626094009003003
- Salter, M. (2013). Grace's story: Prolonged incestuous abuse from childhood into adulthood. *Violence Against Women, 19*, 146–165. doi:10.1177/1077801213476459
- Schaeffer, P., Leventhal, J. M., & Asnes, A. G. (2011). Children's disclosures of sexual abuse: Learning from direct inquiry. *Child Abuse & Neglect, 35*, 343–352. doi:10.1016/j.chiabu.2011.01.014
- Schönbucher, V., Maier, T., Mohler-Kuo, M., Schnyder, U., & Landolt, M. A. (2012). Disclosure of child sexual abuse by adolescents: A qualitative in-depth study. *Journal of Interpersonal Violence, 27*, 3486–3513. doi:10.1177/0886260512445380
- Siewert, C. (Fall 2011 Edition). Consciousness and Intentionality. In *The Stanford Encyclopedia of Philosophy*, Retrieved April 1, 2013, from <http://plato.stanford.edu/archives/fall2011/entries/consciousness-intentionality/>
- Sinclair, B. B., & Gold, S. R. (1997). The psychological impact of withholding disclosure of child sexual abuse. *Violence and Victims, 12*, 137–145.
- Smith, D. W., Letourneau, E. J., Saunders, B. E., Kilpatrick, D. G., Resnick, H. S., & Best, C. L. (2000). Delay in disclosure of childhood rape: Results from a national survey. *Child Abuse & Neglect, 24*, 273–287. doi:10.1016/S0145-2134(99)00130-1
- Somer, E., & Szwarcberg, S. (2001). Variables in delayed disclosure of childhood sexual abuse. *The American Journal of Orthopsychiatry, 71*, 332–341.
- Sorsoli, L. (2010). "I remember", "I thought", "I know I didn't say": Silence and memory in trauma narratives. *Memory (Hove, England), 18*, 129–141.
- Sorsoli, L., Kia-Keating, M., & Grossman, F. K. (2008). 'I keep that hush-hush': Male survivors of sexual abuse and the challenges of disclosure. *Journal of Counseling Psychology, 55*, 333–345. doi:10.1037/0022-0167.55.3.333
- Staller, K. M., & Nelson-Gardell, D. (2005). 'A burden in your heart': Lessons of disclosure from female preadolescent and adolescent survivors of sexual abuse. *Child Abuse & Neglect, 29*, 1415–1432. doi:10.1016/j.chiabu.2005.06.007
- Tener, D. (2010). *Between me and them: Forgiving incest?! Unpublished doctoral dissertation*. School of social work University of Haifa, Israel.
- Tener, D., & Eisikovits, Z. (in press). Forgiveness and social expectations among women who have experienced incest. Manuscript in preparation.
- Ullman, S. E. (2003). Social reactions to child sexual abuse disclosures: A critical review. *Journal of Child Sexual Abuse: Research, Treatment, & Program Innovations for Victims, Survivors, & Offenders, 12*, 89–121. doi:10.1300/J070v12n01_05
- Ullman, S. E. (2007). Relationship to perpetrator, disclosure, social reactions, and PTSD symptoms in child sexual abuse survivors. *Journal of Child Sexual Abuse, 16*, 19–36. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=cmed-m&AN=17255075&site=ehost-live>
- Wolitzky-Taylor, K., Resnick, H. S., Amstadter, A. B., McCauley, J. L., Ruggiero, K. J., & Kilpatrick, D. G. (2011). Reporting rape in a national sample of college women. *Journal of American College Health, 59*, 582–587. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=cmedm&AN=21823952&site=ehost-live>

Author Biographies

Dafna Tener, PhD, is an assistant professor of social work at the Hebrew University in Jerusalem. She has been studying child sexual abuse since 2006 and was the research coordinator at the Tene Center for the treatment of the sexually abused at Poryia Medical Center in Tiberius, Israel, between 2006 and 2012. She was also a postdoctoral student at the Crimes against Children Research Center at the University of New Hampshire, supervised by Professor David Finkelhor, where she engaged in studies on statutory victimization, online sexual victimization, and adult disclosure of childhood sexual abuse. Her other areas of research include intrafamilial child sexual abuse, forensic medical examination of sexually abused children, the work of medical clowns with sexually abused children and women sexual offenders.

Sharon B. Murphy, PhD, ACSW, is an associate professor of social work at the University of New Hampshire, Durham, NH. She began her career as a clinician working with battered and sexually abused women in mental health settings approximately 30 years ago. Her research interest grew out of her direct practice with victims in which she learned about the interface of multiple systems within a victims' life. Her research area focuses on examining the correlates of victim decision making regarding reporting the abuse to professionals, the criminal justice response to sexual assault, factors related to sexual assault case attrition, the use of expert testimony in cases of domestic or sexual violence, and qualitative research methodologies.

Appendix C

Sarah Turner, et al., *The Relationship Between Childhood Sexual Abuse and Mental Health Outcomes Among Males: Results from a Nationally Representative United States Sample*, 66 Child Abuse & Neglect 64 (2017).

Appendix C



The relationship between childhood sexual abuse and mental health outcomes among males: Results from a nationally representative United States sample



Sarah Turner^{a,b}, Tamara Taillieu^c, Kristene Cheung^d, Tracie O. Afifi^{a,b,*}

^a Department of Community Health Sciences, University of Manitoba, Canada

^b Department of Psychiatry, University of Manitoba, Canada

^c Applied Health Sciences Program, University of Manitoba, Canada

^d Department of Psychology, University of Manitoba, Canada

ARTICLE INFO

Article history:

Received 4 August 2016

Received in revised form

26 November 2016

Accepted 23 January 2017

Available online 6 February 2017

Keywords:

Child sexual abuse

Males

Mental disorders

Child maltreatment

Co-occurrence

ABSTRACT

Background: Few studies have examined the associations between childhood sexual abuse (CSA), co-occurrence with other types of maltreatment and adult mental health outcomes, specifically among males. The objectives of this study were to: 1) determine the prevalence of males who have experienced a) childhood maltreatment without CSA; b) CSA without other forms of childhood maltreatment; and c) CSA along with other forms of childhood maltreatment; and 2) determine the relationship between CSA among males and mood, anxiety, substance and personality disorders and suicide attempts.

Methods: Data were drawn from the 2004–2005 National Epidemiological Survey on Alcohol and Related Conditions (NESARC) and limited to males age 20 years old and older ($n = 14,564$). Child maltreatment included harsh physical punishment, physical abuse, sexual abuse, emotional abuse, emotional neglect, physical neglect and exposure to intimate partner violence (IPV).

Results: Emotional abuse, physical abuse, and exposure to IPV were the most common forms of maltreatment that co-occurred with CSA among males. A history of CSA only, and CSA co-occurring with other types of child maltreatment, resulted in higher odds for many mental disorders and suicide attempts compared to a history of child maltreatment without CSA.

Conclusions: Child maltreatment is associated with increased odds of mental disorders among males. Larger effects were noted for many mental disorders and suicide attempts for males who experienced CSA with or without other child maltreatment types compared to those who did not experience CSA. These results are important for understanding the significant long-term effects of CSA among males.

© 2017 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

* Corresponding author at: S113-750 Bannatyne Avenue, Winnipeg, Manitoba R3E 0W5, Canada.

E-mail addresses: sarah.turner@umanitoba.ca (S. Turner), umtailli@myumanitoba.ca (T. Taillieu), umcheu46@myumanitoba.ca (K. Cheung), tracie.afifi@umanitoba.ca (T.O. Afifi).

1. Introduction

Child sexual abuse (CSA) is common in the United States (U.S.) with an estimated prevalence between 2.5%–7.8% in males and 11.4%–13.5% in females (Finkelhor, Turner, Shattuck, & Hamby, 2013; Molnar, Buka, & Kessler, 2001). The long-term consequences of experiencing CSA can be devastating and have been well documented in the literature. Those who experience CSA are more likely to be diagnosed with mental disorders, (Afifi et al., 2011, 2014; Afifi, Henriksen, Asmundson, & Sareen, 2012; MacMillan, Tanaka, Duku, Vaillancourt, & Boyle, 2013; Molnar, Buka et al., 2001; Pérez-Fuentes et al., 2013; Walker, Carey, Mohr, Stein, & Seedat, 2004) have suicide-related behaviour (Afifi et al., 2014; Devries et al., 2014; Easton, Renner, & O'Leary, 2013; Holmes & Slap, 1998), and be at increased likelihood for experiencing adult victimization (Afifi et al., 2009; Desai, Arias, Thompson, & Basile, 2002).

Although research focusing on CSA has increased dramatically in the last three decades (Fergusson, McLeod, & Horwood, 2013), much of this literature considers only females, or uses samples that combine males and females. Only a small portion of literature has focused on CSA specifically among males, with many of these studies using small or non-representative samples (Dhaliwal, Gauzas, Antonowicz, & Ross, 1996; Dimok, 1988; Easton et al., 2013; Ellerstein & Canavan, 1980; Fromuth & Burkhart, 1989; Holmes & Slap, 1998; Nalavany, Ryan, & Hinterlong, 2009; Valente, 2005). Results from these studies are further limited by restricted measures of other types of child maltreatment, most often only including physical abuse as a co-occurring type of abuse.

Experiencing CSA can result in negative outcomes in childhood, but can also result in long-term conditions that persist into adulthood. Research examining the long-term mental health sequelae following CSA has focused on comparing males to females or using non-stratified samples. These methodologies shift attention away from the relationship between CSA in males and long-term mental health sequelae, and towards the relative difference or similarities in mental health sequelae between males and females (Dhaliwal et al., 1996; Dube et al., 2005; Fergusson et al., 2013; Spataro, Mullen, Burgess, Wells, & Moss, 2004). Although it is understood that CSA is related to long-term mental disorders, it is currently unknown how CSA is linked to anxiety, substance use, mood, and personality disorders as well as suicide attempts in adulthood specifically among males using a representative general population sample.

The co-occurrence of different types of child maltreatment is common (Dong, Anda, Dube, Giles, & Felitti, 2003; Higgins & McCabe, 2001). However, it is unknown how often CSA among males occurs on its own and with other types of maltreatment. A previous study using a non-stratified sample of males and females showed that physical abuse, physical maltreatment, and physical neglect were significantly more prevalent among individuals with CSA than among those who did not experience CSA (Pérez-Fuentes et al., 2013). Experiencing more than one type of child maltreatment and/or childhood adversity can have cumulative effects and has been shown to increase the likelihood of emotional harm (De Marco, Tonmyr, Fallon, & Trocmé, 2007), suicidality (Afifi et al., 2014; Bryant & Range, 1996), and mental disorders (Afifi et al., 2014). It is unknown to what extent child maltreatment without CSA, CSA only, and CSA with other experiences of child maltreatment may increase the likelihood of long-term mental health sequelae. Additionally, most studies do not look at the co-occurrence of six types of child abuse and neglect (i.e., harsh physical punishment, physical abuse physical neglect, emotional abuse, emotional neglect, and exposure to intimate partner violence (IPV)) with the experience of CSA, which does not provide a complete picture of the relationship between CSA alone and in combination with other types of maltreatment and later mental health outcomes.

This study fills several important gaps in the literature by using a large, representative sample of males from the U.S., using a widely used and validated measure of CSA, examining the co-occurrence between six types of child maltreatment and CSA, and measuring the relationship between child maltreatment and mental disorders and suicide attempts using an additive child maltreatment variable that includes experiences of child maltreatment with and without CSA and CSA alone. The objectives of this study were to: 1) determine the prevalence of males who have experienced a) childhood maltreatment without CSA; b) CSA without other forms of childhood maltreatment and; c) CSA along with other forms of childhood maltreatment and; 2) determine the relationship between CSA among males and mood, anxiety, substance, personality disorders, and suicide attempts while adjusting for sociodemographic factors and history of family dysfunction.

2. Methods

2.1. Data and sample

Data were drawn from the second wave of National Epidemiological Survey on Alcohol and Related Conditions (NESARC) collected between 2004 and 2005. The second wave of the NESARC is a cross-sectional sample of 34,653 adults aged 20 years and older living in households and non-institutionalized settings. In this study, analyses were restricted to male respondents, resulting in a final sample of 14,564. Data were weighted to adjust for non-response, the selection of one person per household, the oversampling of specific groups, and then further adjusted to be representative of the U.S. population based on 2006 Census data (Grant et al., 2004). Data were collected through face-to-face interviews by trained lay interviewers of the U.S. Census Bureau. The response rate was 86.7%. Further details on the NESARC have been described elsewhere (Grant et al., 2003, 2004; Ruan et al., 2008).

2.2. Measures

2.2.1. Child maltreatment. Several types of child maltreatment, including sexual abuse, harsh physical punishment, physical abuse, exposure to IPV, physical neglect, emotional abuse, and emotional neglect, were assessed using questions adapted from the Adverse Childhood Experiences (ACE) survey (Dong et al., 2003; Dube et al., 2003). The original ACE questions were based on items from valid, psychometrically established measures designed to assess adverse childhood experiences using a survey methodology, including the Conflict Tactics Scales (Straus, Hamby, Boney-McCoy, & Sugarman, 1996; Straus, 1979), the Childhood Trauma Questionnaire (Bernstein et al., 1994), and childhood sexual abuse items adapted from Wyatt (1985). All child maltreatment items, with the exception of childhood emotional neglect, were measured on a 5-point ordinal scale (*never, almost never, sometimes, fairly often, and very often*), and respondents were asked to report on experiences that occurred before the age of 18 years. Psychometrically established dichotomous coding was used to indicate the presence or absence of each type of child maltreatment based on the following criteria.

Sexual abuse was coded as present if the respondent reported having ever (i.e., any response other than *never* on the 5-point ordinal scale) experienced any unwanted sexual touching or fondling, or any attempted or actual intercourse by an adult or other person that was unwanted or occurred when the respondent was too young to understand what was happening.

Harsh physical punishment was coded as present if the respondent reported having *sometimes, fairly often, or very often* been pushed, grabbed, shoved, slapped, or hit by their parents or any adult living in their home. Physical abuse was coded as present if the respondent reported having ever (i.e., any response other than *never* on the 5-point ordinal scale) been hit so hard that it left marks, bruises, or caused an injury by a parent or other adult living in the home. Physical neglect was coded as present if the respondent reported having ever (i.e., any response other than *never* on the 5-point ordinal scale) been left alone or unsupervised before age 10; gone without needed things such as clothes, shoes, or school supplies because a parent or other adult living in the home spent the money on themselves; been made to go hungry or did not have regular meals prepared; and/or had a parent or other adult living in the home ignore or fail to get the respondent medical treatment.

Exposure to IPV was coded as present if the respondent reported having *sometimes, fairly often, or very often* witnessed their mother's partner (a) push, grab, slap, or throw something at their mother, or (b) kicked, bit or hit their mother with a fist or something hard, or if the respondent reported having ever (i.e., any response other than *never* on the 5-point ordinal scale) witnessed their mother's partner (c) repeatedly hit their mother for at least a few minutes or (d) threatened her with a knife or gun, or used a knife or gun to her hurt. Maternal perpetration of IPV was not assessed in the survey.

Emotional abuse was coded as present if the respondent reported having *fairly often or very often* experienced a parent or other adult living in the home swear at or insult the respondent; threaten to hit or throw something at the respondent, but didn't do it; and/or act in any other way that made the respondent feel afraid. Childhood emotional neglect was assessed on a similar 5-point ordinal scale (*never true, rarely true, sometimes true, and very often true*) based on the following five items: (a) the respondent felt there was someone in the family who wanted them to be a success, (b) someone in the respondent's family made them feel special or important, (c) the respondent's family was a source of strength or support, (d) the respondent felt part of a close knit family, and (e) someone in the respondent's family believed in them. Consistent with past research, these items were reverse-coded and summed; emotional neglect was coded as present if the total score for the emotional neglect items was 15 or greater (Afifi et al., 2011; Dong et al., 2003; Dube et al., 2003).

A four-category additive child maltreatment variable was also computed based on participant's responses to all of the individual child maltreatment items. For this variable, respondents were placed into one of four mutually exclusive categories: (1) no child maltreatment, (2) child maltreatment without CSA, (3) CSA only, and (4) CSA with other child maltreatment.

2.2.2. Family history of dysfunction. Family history of dysfunction was also based on items from the ACE study (Dong et al., 2003; Dube et al., 2003). A family history of dysfunction was coded as present if the respondent reported that a parent or other adult living in the home had a problem with alcohol or drugs, went to jail or prison, was treated or hospitalized due to mental illness, and/or attempted or completed suicide before the respondent was 18 years old.

2.2.3. Mental disorders. Lifetime diagnoses of mental disorders were made using a fully structured interview protocol called the Alcohol Use Disorder and Associated Disabilities Interview Schedule – Fourth Edition (AUDADIS-IV) (Grant et al., 2001; Ruan et al., 2008), based on DSM-IV criteria. Reliability and validity of the AUDADIS-IV have been established (Grant et al., 2003, 2004; Ruan et al., 2008). Dichotomous coding was used to assess the presence or absence each individual mental disorder based on AUDADIS-IV criteria. Mental disorders that were assessed in this study included mood disorders (i.e., major depression, dysthymia, mania, and hypomania), anxiety disorders (i.e., panic disorder, social phobia, specific phobia, generalized anxiety disorder, and post-traumatic stress disorder (PTSD)), and substance use disorders (i.e., alcohol abuse or dependence or illicit drug abuse or dependence). In addition, the personality disorders assessed included Cluster A personality disorders (i.e., paranoid, schizoid, and schizotypal), Cluster B personality disorders (i.e., antisocial, borderline, histrionic, and narcissistic), and Cluster C personality disorders (i.e., avoidant, dependent, and obsessive-compulsive). Composite variables for each of the different mental disorder categories were also created.

2.2.4. Suicide attempt. Each respondent was asked if they ever attempted suicide in their lifetime. This item was measured as a dichotomous yes or no variable.

2.2.5. Sociodemographic covariates. Sociodemographic covariates included age, marital status, race/ethnicity, education, past year household income, and a proxy indicator of childhood socioeconomic status (SES). Childhood SES was based on participant's response to the question: "Before you were 18 years old, was there ever a time when your family received money from government programs like welfare, food stamps, general assistance, Aid to Families with Dependent Children, or Temporary Assistance for Needy families?" (yes or no).

2.3. Statistical methods

Statistical weights were applied in all analyses to ensure that the NESARC data were representative of the general U.S. population. To account for the complex sampling design of the NESARC, Taylor series linearization was used as a variance estimation technique using Stata software. First, descriptive statistics were computed using cross tabulations and logistic regression models to examine the distribution of sociodemographic characteristics by CSA. Second, descriptive statistics using cross tabulations were computed to examine the co-occurrence of CSA with other types of childhood maltreatment and a family history of dysfunction. Logistic regression models were also computed to examine the association between CSA and other types of child maltreatment and a family history of dysfunction. Models were first run unadjusted (OR), and then adjusted for sociodemographic covariates (AOR). Third, descriptive statistics using cross tabulations were computed to examine the distribution of mental disorders by the four-level childhood maltreatment variable (i.e., no maltreatment; child maltreatment without CSA; CSA only; and CSA with other types of child maltreatment). Finally, multivariable logistic regression models were computed to examine the association of the four-level childhood maltreatment variable by mental disorders. Multivariable logistic models were adjusted for sociodemographic covariates and a family history of dysfunction. Additive effects of the four-category child maltreatment variable were tested by changing the reference groups in the multivariable logistic regression models. Significant differences between the child maltreatment groups are indicated by differing superscripts in the tables. Results at $p \leq 0.05$ were considered statistically significant and 95% confidence intervals are reported for all models. To account for the multiple comparisons, P values of $p \leq 0.01$ and $p \leq 0.001$ are also provided to interpret the models at a stricter statistical level for the more conservative reader.

3. Results

The prevalence of CSA among males was 5.3%. The four-category child maltreatment variable indicated that 58.1% of males experienced no child maltreatment, 36.7% experienced child maltreatment without CSA, 1.3% experienced CSA only, and 4.0% experienced CSA with other forms of maltreatment. The distribution of CSA by sociodemographic characteristics is provided in Table 1. The prevalence of CSA was significantly higher among respondents aged 40–69 years (vs. 70 years and older), those who were currently separated or divorced (vs. married or common-law), respondents self-identifying as American Indian or Alaskan Native, Black, and Hispanic (vs. White), and among respondents with both lower childhood SES and past-year total household incomes.

The presence of other forms of child maltreatment and a family history of dysfunction were strongly associated with CSA (Table 2). That is, the odds of experiencing CSA were significantly elevated in homes where other forms of child maltreatment or a family history of dysfunction were also present (odds ratios (ORs) range from 2.98 to 5.84, all $p \leq 0.001$). These relationships were attenuated, but remained statistically significant, after adjustment for sociodemographic covariates (adjusted odds ratios (AORs) ranged from 2.71 to 5.22, all $p < 0.001$).

The association between the four-level categorical child maltreatment variable and mood, anxiety, and substance disorders and suicide attempts is provided in Table 3. Child maltreatment increased the odds of all mental disorders and suicide attempts. With the exception of hypomania, alcohol abuse/dependence, and any substance use disorder, experiencing CSA only was significantly related to an increased odds of all mental disorders and suicide attempts compared to not experiencing child maltreatment after controlling for sociodemographic variables and a family history of dysfunction (AORs range from 1.77 to 8.57, $p \leq 0.05$). Examination of the differences across the child maltreatment categories indicated that CSA only and CSA with other types of maltreatment had significantly higher odds of major depression, dysthymia, mania, any mood disorder, panic disorder, generalized anxiety disorder, any anxiety disorder, and suicide attempts compared to child maltreatment without CSA. The strength of the association between CSA only was not statistically different from child maltreatment without CSA and was significantly lower compared to CSA with other types of child maltreatment for PTSD, alcohol abuse/dependence, and any substance use disorders.

The association between CSA, based on the four-category child maltreatment variable, and personality disorders is provided in Table 4. With the exception of schizoid personality disorder and borderline personality disorder, experiencing CSA only was associated with all personality disorders after adjusting for sociodemographic factors and family history of dysfunction (AORs ranged from 2.46 to 5.96 $p \leq 0.05$). Examination of the differences across child maltreatment categories indicated that CSA only and CSA with other types of maltreatment categories had significantly higher odds of schizotypal personality disorder, any Cluster A personality disorder, borderline personality disorder, narcissistic personality disorder, any Cluster B personality disorder, any Cluster C personality disorder, and any personality disorder compared to child maltreatment

Table 1

Sociodemographic Characteristics by Childhood Sexual Abuse History in a Nationally Representative Sample of Adult Males from the United States.

Sociodemographic Covariate	No Sexual Abuse % (n)	Sexual Abuse % (n)	OR (95% CI)
Age (years)			
20–29	95.7 (2020)	4.3 (96)	1.04 (0.72, 1.49)
30–39	94.4 (2492)	5.6 (161)	1.36 (0.98, 1.89)
40–49	94.3 (3067)	5.7 (217)	1.41 (1.05, 1.89) [†]
50–59	94.2 (2502)	5.8 (175)	1.44 (1.03, 2.00) [†]
60–69	94.2 (1691)	5.8 (103)	1.43 (1.04, 1.96) [†]
70 or older	95.9 (1814)	4.1 (93)	1.00
Marital Status			
Single (never married)	94.3 (2876)	5.7 (187)	1.22 (0.98, 1.52)
Separated/Divorced	91.8 (1869)	8.2 (166)	1.81 (1.42, 2.29) ^{***}
Widowed	94.6 (588)	5.4 (31)	1.16 (0.69, 1.94)
Married/Common-law	95.3 (8250)	4.7 (461)	1.00
Race/Ethnicity			
American Indian/Alaskan Native	89.6 (208)	10.4 (25)	2.32 (1.36, 3.98) ^{**}
Asian/Native Hawaiian/Pacific Islander	96.1 (398)	3.9 (20)	0.81 (0.48, 1.39)
Black	92.4 (2137)	7.6 (162)	1.66 (1.29, 2.13) ^{***}
Hispanic	93.8 (2504)	6.2 (186)	1.32 (1.02, 1.72) [†]
White	95.3 (8336)	4.7 (452)	1.00
Education			
Less than High School	94.3 (2107)	5.7 (126)	1.17 (0.89, 1.55)
High School	95.0 (3636)	5.0 (221)	1.02 (0.81, 1.28)
Some College/University	93.8 (2816)	6.2 (207)	1.29 (1.01, 1.64) [†]
Post-Secondary Degree	95.1 (5024)	4.9 (291)	1.00
Past Year Household Income			
Less than \$20,000	92.8 (2302)	7.2 (173)	1.63 (1.22, 2.18) ^{***}
\$20,000–\$39,999	94.3 (3332)	5.7 (222)	1.28 (1.04, 1.57) [†]
\$40,000–\$69,999	95.1 (3752)	4.9 (215)	1.08 (0.85, 1.36)
\$70,000 or more	95.5 (4197)	4.5 (235)	1.00
Government Assistance Receipt in Childhood			
Yes	90.1 (1740)	9.9 (201)	2.28 (1.86, 2.79) ^{***}
No	95.4 (11,723)	4.6 (631)	1.00

* ≤ 0.05 .** ≤ 0.01 .*** ≤ 0.001 .**Table 2**

Co-Occurrence of Childhood Sexual Abuse with Other Forms of Maltreatment and Family History of Dysfunction in a Nationally Representative Sample of Adult Males from the United States.

Type of Childhood Maltreatment	No Sexual Abuse % (N)	Sexual Abuse % (N)	OR (95% CI)	AOR ^a (95% CI)
Harsh Physical Punishment	86.8 (2280)	13.2 (360)	4.02 (3.36, 4.81) ^{***}	3.70 (3.09, 4.43) ^{***}
Physical Abuse	81.1 (859)	18.9 (200)	5.18 (4.10, 6.55) ^{***}	4.43 (3.48, 5.63) ^{***}
Exposure to IPV	82.1 (1073)	17.9 (252)	5.10 (4.11, 6.32) ^{***}	4.37 (3.48, 5.50) ^{***}
Emotional Abuse	79.8 (860)	20.2 (215)	5.84 (4.59, 7.43) ^{***}	5.22 (4.08, 6.68) ^{***}
Emotional Neglect	87.4 (1055)	12.6 (173)	2.98 (2.37, 3.74) ^{***}	2.71 (2.13, 3.46) ^{***}
Physical Neglect	89.2 (3412)	10.8 (464)	3.57 (2.94, 4.33) ^{***}	3.30 (2.73, 3.98) ^{***}
History of Family Dysfunction	89.6 (3259)	10.4 (417)	3.12 (2.59, 3.76) ^{***}	2.77 (2.30, 3.34) ^{***}

*** ≤ 0.001 .^a AOR = Odds ratio adjusted for: age, marital status, race/ethnicity, education, income, and government assistance in childhood.

without CSA (AOR range from 2.68 to 7.86 $p \leq 0.001$). The odds for CSA only and CSA with other types of child maltreatment were not significantly different for any of the personality disorders.

4. Discussion

The significant findings from this study are: 1) of the males who experience CSA (5.3%), most experience CSA along with other types of child maltreatment (4.0%); 2) emotional abuse, physical abuse, and exposure to IPV were the most common forms of maltreatment that co-occurred with CSA; 3) a history of CSA only and CSA co-occurring with other types of child maltreatment, resulted in higher odds for many mental disorders and suicide attempts compared to a history of child maltreatment without CSA.

First, CSA more commonly occurred with other types of maltreatment than on its own. The odds of experiencing CSA were the largest with emotional abuse, physical abuse, and exposure to IPV after adjusting for sociodemographic variables

Table 3

The Association between Childhood Sexual Abuse History and Mood, Substance, Anxiety Disorders and Suicide Attempts in a Nationally Representative Sample of Adult Males from the United States.

Mental Disorders	No Child Maltreatment	Child Maltreatment without Sexual Abuse	Sexual Abuse Only	Sexual Abuse with Child Maltreatment
Major Depression				
% (n)	12.1 (1022)	18.7 (1037)	30.5 (56)	39.1 (228)
AOR ¹ (95% CI)	1.00	1.52 ^a (1.34, 1.71)***	3.22 ^b (2.13, 4.85)***	3.54 ^b (2.82, 4.45)***
Dysthymia				
% (n)	2.3 (192)	4.7 (274)	8.4 (18)	10.9 (74)
AOR (95% CI)	1.00	1.90 ^a (1.46, 2.48)***	3.80 ^b (2.08, 6.94)***	3.70 ^b (2.54, 5.41)***
Mania				
% (n)	2.9 (234)	6.5 (345)	13.4 (23)	16.0 (94)
AOR (95% CI)	1.00	2.01 ^a (1.59, 2.54)***	5.51 ^b (3.14, 9.68)***	4.15 ^b (2.84, 6.08)***
Hypomania				
% (n)	3.2 (266)	4.3 (236)	4.4 (8)	9.2 (51)
AOR (95% CI)	1.00	1.34 ^a (1.08, 1.67)**	1.46 ^{a,b} (0.64, 3.35)	2.76 ^b (1.80, 4.25)***
Any Mood Disorder				
% (n)	15.6 (1297)	24.0 (1336)	35.7 (68)	47.0 (282)
AOR (95% CI)	1.00	1.56 ^a (1.41, 1.74)***	3.09 ^b (2.08, 4.59)***	3.66 ^b (2.89, 4.64)***
Panic Disorder				
% (n)	3.5 (295)	5.6 (296)	13.3 (24)	15.9 (84)
AOR (95% CI)	1.00	1.47 ^a (1.19, 1.82)***	4.18 ^b (2.45, 7.13)***	3.81 ^b (2.57, 5.65)***
Social Phobia				
% (n)	4.4 (363)	7.2 (398)	7.7 (18)	15.2 (95)
AOR (95% CI)	1.00	1.58 ^a (1.30, 1.92)***	1.81 ^{a,b} (1.04, 3.17)*	2.91 ^b (2.09, 4.05)***
Specific Phobia				
% (n)	8.5 (714)	11.6 (652)	15.0 (32)	18.9 (109)
AOR (95% CI)	1.00	1.35 ^a (1.18, 1.56)***	1.87 ^{a,b} (1.12, 3.11)*	2.09 ^b (1.52, 2.86)***
GAD ²				
% (n)	3.6 (305)	5.7 (308)	10.8 (22)	16.2 (97)
AOR (95% CI)	1.00	1.39 ^a (1.14, 1.69)**	3.09 ^b (1.72, 5.56)***	3.53 ^b (2.56, 4.85)***
PTSD				
% (n)	2.3 (213)	6.0 (350)	5.5 (16)	13.5 (87)
AOR (95% CI)	1.00	2.33 ^a (1.84, 2.94)***	2.33 ^a (1.25, 4.37)**	4.66 ^b (3.34, 6.52)***
Any Anxiety Disorder				
% (n)	16.6 (1389)	24.6 (1340)	35.6 (71)	42.8 (266)
AOR (95% CI)	1.00	1.53 ^a (1.38, 1.70)***	2.78 ^b (1.89, 4.10)***	3.00 ^b (2.36, 3.81)***
Alcohol Abuse/Dependence				
% (n)	43.8 (3537)	52.6 (2840)	46.8 (97)	60.9 (385)
AOR (95% CI)	1.00	1.40 ^{a,b} (1.27, 1.54)***	1.13 ^a (0.80, 1.61)	1.72 ^b (1.37, 2.15)***
Drug Abuse/Dependence				
% (n)	12.5 (976)	19.6 (1031)	23.4 (44)	32.5 (205)
AOR (95% CI)	1.00	1.59 ^a (1.41, 1.78)***	2.32 ^{a,b} (1.47, 3.65)***	2.53 ^b (1.92, 3.34)***
Any Substance Use Disorder				
% (n)	45.8 (3677)	55.5 (2990)	49.1 (104)	64.3 (407)
AOR (95% CI)	1.00	1.45 ^{a,b} (1.32, 1.59)***	1.15 ^a (0.82, 1.63)	1.80 ^b (1.44, 2.26)***
Any Mood, Anxiety, or Substance Use Disorder				
% (n)	55.7 (4511)	67.2 (3670)	68.2 (140)	80.8 (511)
AOR (95% CI)	1.00	1.59 ^a (1.45, 1.73)***	1.77 ^{a,b} (1.23, 2.55)**	2.80 ^b (2.00, 3.91)***
Suicide Attempt (Lifetime)				
% (n)	0.9 (79)	3.1 (191)	7.0 (13)	12.7 (76)
AOR (95% CI)	1.00	2.82 ^a (1.93, 4.11)***	8.57 ^b (3.81, 19.26)***	9.27 ^b (5.73, 15.00)***

Adjusted AOR with different superscripts indicate that the odds ratios were statistically significantly different at $p \leq 0.05$ (i.e., the same superscript letter indicates that the odds ratios were not statistically different from each other).

* ≤ 0.05 .

** ≤ 0.01 .

*** ≤ 0.001 .

¹ AOR = Odds ratio adjusted for: age, marital status, race/ethnicity, education, income, government assistance in childhood and history of family dysfunction.

² GAD = generalized anxiety disorder.

(AORs = 5.22, 4.43 and 4.37, respectively). This finding is important for health care practitioners so that inquiries about CSA are made when other types of maltreatment are disclosed. This may be especially important for discovering CSA among males, because it is an underreported type of abuse (Holmes & Slap, 1998). Stigma, confusion, and fear associated with CSA among males strongly contributes to secrecy and non-disclosure (Spataro, Moss, & Wells, 2001), therefore, normalizing and increasing the conversation around CSA among males in health care settings may facilitate higher disclosure rates. Without disclosure, the individual will not receive services, which may increase the likelihood of better mental health outcomes following experiences of CSA. Health care professionals should recognize the commonality of co-occurrence between other

Table 4

The Association between Childhood Sexual Abuse History and Personality Disorders in a Nationally Representative Sample of Adult Males from the United States.

Personality Disorders	No Child Maltreatment	Child Maltreatment without Sexual Abuse	Sexual Abuse Only	Sexual Abuse with Child Maltreatment
Paranoid PD ¹				
% (n)	2.4 (191)	4.7 (283)	7.2 (18)	11.4 (76)
AOR ² (95% CI)	1.00	1.81 ^a (1.40, 2.34) ^{***}	3.21 ^{a,b} (1.60, 6.41) ^{***}	3.58 ^b (2.56, 5.01) ^{***}
Schizoid PD				
% (n)	2.3 (185)	3.9 (223)	4.4 (9)	7.1 (44)
AOR (95% CI)	1.00	1.56 ^a (1.19, 2.05) ^{**}	1.94 ^a (0.85, 4.41)	2.26 ^a (1.38, 3.69) ^{**}
Schizotypal PD				
% (n)	2.0 (188)	5.8 (340)	10.4 (23)	19.4 (114)
AOR (95% CI)	1.00	2.63 ^a (2.02, 3.43) ^{***}	5.59 ^b (3.29, 9.50) ^{***}	7.86 ^b (5.32, 11.63) ^{***}
Any Cluster A PD				
% (n)	5.7 (488)	11.5 (675)	16.5 (39)	27.5 (171)
AOR (95% CI)	1.00	1.93 ^a (1.61, 2.31) ^{***}	3.32 ^b (2.10, 5.25) ^{***}	4.54 ^b (3.31, 6.24) ^{***}
Antisocial PD				
% (n)	3.5 (258)	8.2 (428)	9.2 (17)	19.9 (106)
AOR (95% CI)	1.00	2.26 ^a (1.82, 2.80) ^{***}	3.09 ^{a,b} (1.62, 5.90) ^{***}	5.10 ^b (3.61, 7.20) ^{***}
Borderline PD				
% (n)	3.1 (265)	7.5 (443)	15.3 (30)	21.1 (140)
AOR (95% CI)	1.00	2.16 ^a (1.75, 2.67) ^{***}	5.96 ^b (3.68, 9.64) ^{***}	5.25 ^b (3.84, 7.18) ^{***}
Histrionic PD				
% (n)	1.0 (80)	2.6 (133)	4.0 (8)	6.3 (44)
AOR (95% CI)	1.00	2.47 ^a (1.72, 3.55) ^{***}	4.34 ^{a,b} (1.63, 11.61) ^{**}	4.83 ^b (2.80, 8.33) ^{***}
Narcissistic PD				
% (n)	5.0 (429)	10.2 (605)	16.4 (31)	20.3 (142)
AOR (95% CI)	1.00	2.00 ^a (1.68, 2.39) ^{***}	3.60 ^b (2.19, 5.90) ^{***}	3.76 ^b (2.88, 4.92) ^{***}
Any Cluster B PD				
% (n)	10.2 (826)	20.8 (1170)	28.2 (58)	43.4 (271)
AOR (95% CI)	1.00	2.14 ^a (1.87, 2.45) ^{***}	3.67 ^b (2.51, 5.38) ^{***}	5.17 ^b (4.06, 6.59) ^{***}
Avoidant PD				
% (n)	1.3 (96)	2.3 (125)	2.9 (8)	5.2 (34)
AOR (95% CI)	1.00	1.65 ^a (1.15, 2.36) ^{**}	2.46 ^{a,b} (1.15, 5.24) [*]	2.85 ^b (1.70, 4.79) ^{***}
Dependent PD				
% (n)	0.2 (14)	0.3 (16)	0.3 (1)	1.6 (9)
AOR (95% CI)	1.00	1.03 ^a (0.36, 2.99)	1.11 ^{a,b} (0.11, 11.17)	3.73 ^b (1.003, 13.87) [*]
Obsessive-Compulsive PD				
% (n)	6.3 (498)	9.6 (521)	15.1 (25)	17.8 (113)
AOR (95% CI)	1.00	1.50 ^a (1.28, 1.75) ^{***}	2.57 ^{a,b} (1.49, 4.24) ^{***}	2.72 ^b (2.00, 3.70) ^{***}
Any Cluster C PD				
% (n)	7.1 (557)	10.8 (586)	17.0 (30)	19.8 (126)
AOR (95% CI)	1.00	1.49 ^a (1.28, 1.73) ^{***}	2.68 ^b (1.62, 4.34) ^{***}	2.66 ^b (2.00, 3.55) ^{***}
Any PD, n (%)				
% (n)	17.0 (1392)	29.2 (1636)	37.1 (80)	53.6 (335)
AOR (95% CI)	1.00	1.83 ^a (1.65, 2.04) ^{***}	2.94 ^b (2.06, 4.19) ^{***}	4.29 ^b (3.37, 5.46) ^{***}

Adjusted AOR with different superscripts indicate that the odds ratios were statistically significantly different at $p \leq 0.05$ (i.e., the same superscript letter indicates that the odds ratios were not statistically different from each other).

* ≤ 0.05 .

** ≤ 0.01 .

*** ≤ 0.001 .

¹ PD = personality disorder.

² AOR = Odds ratio adjusted for: age, marital status, race/ethnicity, education, income, government assistance in childhood and history of family dysfunction.

types of maltreatment and CSA, which can lead to greater awareness of the prevalence of CSA and aid with the disclosure of CSA among males.

Second, for many mental disorders and for suicide attempts, experiencing CSA only or CSA with other types of maltreatment resulted in a greater odds ratio compared to experiencing child maltreatment without CSA after adjusting for sociodemographic factors and family history of dysfunction. The lack of a significant difference between experiencing CSA only and CSA along with other types of child maltreatment may indicate that CSA has a particularly detrimental impact on mental health outcomes and suicide attempts compared to other types maltreatment. Other studies have also found that CSA on its own has a strong relationship with mental disorders; however, these studies only measured one or two other types of maltreatment, unlike the six other types of maltreatment included in this study (Briere & Elliott, 2003; Molnar, Buka et al., 2001). Since alcohol abuse/dependence was highly prevalent across all groups in the four-level child maltreatment variable, there was a lack of variance between the groups which resulted in a non-significant odds ratio for CSA only. This should not be interpreted to mean that CSA is not associated with alcohol abuse/dependence, but rather that alcohol abuse is prevalent among all males in the U.S., regardless of experiences of child maltreatment.

There was a large and significant increase in the odds ratio associated with suicide attempts and CSA only compared to maltreatment without CSA (AOR = 2.82 for maltreatment without CSA and AOR = 8.57 for CSA only). Other studies have confirmed that CSA is associated with increased suicide attempts (Afifi et al., 2008; Molnar, Berkman, & Buka, 2001); however, no studies have looked at the relative difference in odds ratios between maltreatment without CSA, CSA only, and maltreatment with CSA. No other mental disorder included in this paper showed such a large difference in odds ratios between maltreatment without CSA and CSA with or without other types of maltreatment. This shows that CSA specifically has a significant and strong relationship with suicide attempts. It is important for health care practitioners to understand the association between CSA in males and suicide attempts so that suicidal behaviours are assessed and monitored in this population.

There are several factors associated with CSA that may contribute to the strong relationship between CSA and many mental disorders and suicide attempts. These include stigma, embarrassment, shame, and secrecy. Experiences of CSA among males challenge current masculine roles endorsed by Western society including dominance, being emotionally stoic, pursuit of status, winning, and heterosexuality (Easton et al., 2013; Mahalik et al., 2003). Experiences of CSA are often associated with feelings of fear, vulnerability, helplessness, and confusion which are not consistent with these masculine stereotypes (Spataro et al., 2001). Some male CSA victims may decide to over-assert their masculinity in attempts to internally reconcile their compromised masculine roles (Easton et al., 2013). However, strong adherence to masculine roles has been shown to be associated with greater psychological distress, but less willingness to seek treatment (Mahalik et al., 2003). Men who uphold the importance of adhering to masculine roles may feel embarrassed or ashamed of their experiences and refrain from disclosing abuse (Easton et al., 2013; Spataro et al., 2001). Secrecy associated with CSA experiences may lead to reluctance to seek mental health treatment and increased risk of experiencing mental health impairment including suicide attempts. Reducing the stigma and secrecy associated with CSA by increasing the frequency of conversation about CSA among males and understanding the prevalence and co-occurrence with other types of abuse may be an important first step in reducing the poor health outcomes associated with CSA among males.

There are several strengths of this study including: 1) the use of a large, representative data set from the general U.S. population; 2) the assessment of seven forms of child abuse and neglect using psychometrically established tools; 3) the adjustment for a family history of dysfunction; and 4) the examination of numerous mood, anxiety, substance use and personality disorders along with suicide attempts. There are also several important limitations in this study. First, the study is retrospective and cross-sectional in nature, resulting in the inability to produce causal inferences. Second, all data are self-report. Third, although the study adjusted for a family history of dysfunction, it did not adjust for adult stressors that could affect the presentation of mental disorders. Fourth, PTSD is no longer classified as an anxiety disorder in the DSM-V criteria, however, these data are based on the DSM-IV criteria, therefore we have included PTSD in our composite measure of any anxiety disorder. Fifth, there was a low prevalence of some mental disorders including hypomania, schizoid personality disorder and dependent personality disorder, leading to possibly underpowered analyses and the presentation of non-significant findings when significant ones may exist.

5. Conclusions

This research contributes to the small, but growing, literature on CSA among males. It is important to recognize the prevalence of CSA among males and its relationship to long-term mental health outcomes. CSA among males commonly co-occurs with other types of maltreatment, which is important knowledge for health care providers and to inform effective intervention strategies. However, it is also important to recognize that CSA can occur on its own. Experiencing CSA is related to increased odds of many mood, anxiety, substance and personality disorders, as well as suicide attempts. In many cases, the effect sizes for these poor mental health outcomes are stronger when CSA is experienced compared to other experiences of child maltreatment that do not include CSA. Focusing on prevention of CSA, intervention strategies to reduce stigma and secrecy associated with CSA, and promotion of resilience following CSA could potentially mitigate some of the mental health impairments among males.

Funding

This work was supported by Dr. Afifi's Research Manitoba Establishment Award, CIHR New Investigator Award, and CIHR Foundations Scheme Funding Award.

References

- Afifi, T. O., Enns, M. W., Cox, B. J., Asmundson, G. J. G., Stein, M. B., & Sareen, J. (2008). Population attributable fractions of psychiatric disorders and suicide ideation and attempts associated with adverse childhood experiences. *American Journal of Public Health, 98*(5), 946–952. <http://dx.doi.org/10.2105/AJPH.2007.120253>
- Afifi, T. O., MacMillan, H., Cox, B. J., Asmundson, G. J. G., Stein, M. B., & Sareen, J. (2009). Mental health correlates of intimate partner violence in marital relationships in a nationally representative sample of males and females. *Journal of Interpersonal Violence, 24*(8), 1398–1417. <http://dx.doi.org/10.1177/0886260508322192>
- Afifi, T. O., Mather, A., Boman, J., Fleisher, W., Enns, M. W., Macmillan, H., et al. (2011). Childhood adversity and personality disorders: Results from a nationally representative population-based study. *Journal of Psychiatric Research, 45*(6), 814–822. <http://dx.doi.org/10.1016/j.jpsychires.2010.11.008>

- Affifi, T. O., Henriksen, C. A., Asmundson, G. J. G., & Sareen, J. (2012). Childhood maltreatment and substance use disorders among men and women in a nationally representative sample. *Canadian Journal of Psychiatry. Revue Canadienne De Psychiatrie*, 57(11), 677–686. <http://dx.doi.org/10.1177/070674371205701105>
- Affifi, T. O., MacMillan, H., Boyle, M., Taillieu, T., Cheung, K., & Sareen, J. (2014). Child abuse and mental disorders in Canada. *CMAJ*, 186(9), E324–E332. <http://dx.doi.org/10.1503/cmaj.131792>
- Bernstein, D. P., Fink, L., Handelsman, L., Foote, J., Lovejoy, M., Wenzel, K., et al. (1994). Initial reliability and validity of a new retrospective measure of child abuse and neglect. *American Journal of Psychiatry*, 151, 1132–1136.
- Briere, J., & Elliott, D. M. (2003). Prevalence and psychological sequelae of self-reported childhood physical and sexual abuse in a general population sample of men and women. *Child Abuse & Neglect*, 27(10), 1205–1222. <http://dx.doi.org/10.1016/j.chiabu.2003.09.008>
- Bryant, S. L., & Range, L. M. (1996). Suicidality in college women who report multiple versus single types of maltreatment by parents. *Journal of Child Sexual Abuse*, 4(3), 87–94.
- De Marco, R., Tonmyr, L., Fallon, B., & Trocmé, N. (2007). The effect of maltreatment co-occurrence on emotional harm among sexually abused children. *Victims & Offenders*, 2(1), 45–62. <http://dx.doi.org/10.1080/15564880600767389>
- Desai, S., Arias, I., Thompson, M. P., & Basile, K. C. (2002). Childhood victimization and subsequent adult revictimization assessed in a nationally representative sample of women and men. *Violence and Victims*, 17(6), 639–653. <http://dx.doi.org/10.1891/vivi.17.6.639.33725>
- Devries, K. M., Mak, J. Y. T., Child, J. C., Falder, G., Bacchus, L. J., Astbury, J., et al. (2014). Childhood sexual abuse and suicidal behavior: A meta-analysis. *Pediatrics*, 133(5), e1331–e1344. <http://dx.doi.org/10.1542/peds.2013-2166>
- Dhaliwal, G. K., Gazaus, L., Antonowicz, D. H., & Ross, R. R. (1996). Adult male survivors of childhood sexual abuse: Prevalence, sexual abuse characteristics, and long-term effects. *Clinical Psychology Review*, 16(7), 619–639. [http://dx.doi.org/10.1016/S0272-7358\(96\)00018-9](http://dx.doi.org/10.1016/S0272-7358(96)00018-9)
- Dimok, P. (1988). Adult males sexually abused as children: Characteristics and implications for treatment. *Journal of Interpersonal Violence*, 3(2), 203–221. <http://dx.doi.org/10.1177/088626088003002007>
- Dong, M., Anda, R. F., Dube, S. R., Giles, W. H., & Felitti, V. J. (2003). The relationship of exposure to childhood sexual abuse to other forms of abuse, neglect, and household dysfunction during childhood. *Child Abuse & Neglect*, 27(6), 625–639. [http://dx.doi.org/10.1016/S0145-2134\(03\)00105-4](http://dx.doi.org/10.1016/S0145-2134(03)00105-4)
- Dube, S. R., Felitti, V. J., Dong, M., Chapman, D. P., Giles, W. H., & Anda, R. F. (2003). Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: The adverse childhood experiences study. *Pediatrics*, 111(3), 564–572. <http://dx.doi.org/10.1542/peds.111.3.564>
- Dube, S. R., Anda, R. F., Whitfield, C. L., Brown, D. W., Felitti, V. J., Dong, M., et al. (2005). Long-term consequences of childhood sexual abuse by gender of victim. *American Journal of Preventive Medicine*, 28(5), 430–438. <http://dx.doi.org/10.1016/j.amepre.2005.01.015>
- Easton, S. D., Renner, L. M., & O'Leary, P. (2013). Suicide attempts among men with histories of child sexual abuse: Examining abuse severity, mental health, and masculine norms. *Child Abuse & Neglect*, 37(6), 380–387. <http://dx.doi.org/10.1016/j.chiabu.2012.11.007>
- Ellerstein, N. S., & Canavan, J. W. (1980). Sexual abuse of boys. *American Journal of Diseases of Children*, 134(3), 255. <http://dx.doi.org/10.1001/archpedi.1980.02130150013004>
- Fergusson, D. M., McLeod, G. F. H., & Horwood, L. J. (2013). Childhood sexual abuse and adult developmental outcomes: Findings from a 30-year longitudinal study in New Zealand. *Child Abuse & Neglect*, 37(9), 664–674. <http://dx.doi.org/10.1016/j.chiabu.2013.03.013>
- Finkelhor, D., Turner, H. A., Shattuck, A., & Hamby, S. L. (2013). Violence, crime, and abuse exposure in a national sample of children and youth. *JAMA Pediatrics*, 167(7), 614. <http://dx.doi.org/10.1001/jamapediatrics.2013.42>
- Fromuth, M. E., & Burkhardt, B. R. (1989). Long-term psychological correlates of childhood sexual abuse in two samples of college men. *Child Abuse and Neglect*, 13(4), 533–542. [http://dx.doi.org/10.1016/0145-2134\(89\)90057-4](http://dx.doi.org/10.1016/0145-2134(89)90057-4)
- Grant, B. F., Dawson, D. A., Hasin, D. S., (2001). The alcohol use disorders and associated disabilities interview schedule- version for DSM-IV (AUDADIS-IV). Bethesda, MD.
- Grant, B. F., Dawson, D. A., Stinson, F. S., Chou, P. S., Kay, W., & Pickering, R. (2003). The alcohol use disorder and associated disabilities interview schedule-IV (AUDADIS-IV): Reliability of alcohol consumption, tobacco use, family history of depression and psychiatric diagnostic modules in a general population sample. *Drug and Alcohol Dependence*, 71(1), 7–16. [http://dx.doi.org/10.1016/S0376-8716\(03\)00070-X](http://dx.doi.org/10.1016/S0376-8716(03)00070-X)
- Grant, B. F., Stinson, F. S., Dawson, D. A., Chou, S. P., Dufour, M. C., Compton, W., et al. (2004). Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders. *Archives of General Psychiatry*, 61(8), 807. <http://dx.doi.org/10.1001/archpsyc.61.8.807>
- Higgins, D. J., & McCabe, M. P. (2001). Multiple forms of child abuse and neglect: Adult retrospective reports. *Aggression and Violent Behavior*, 6(6), 547–578. [http://dx.doi.org/10.1016/S1359-1789\(00\)00030-6](http://dx.doi.org/10.1016/S1359-1789(00)00030-6)
- Holmes, W. C., & Slap, G. B. (1998). Sexual abuse of boys. *JAMA*, 280(21), 1855. <http://dx.doi.org/10.1001/jama.280.21.1855>
- MacMillan, H. L., Tanaka, M., Duku, E., Vaillancourt, T., & Boyle, M. H. (2013). Child physical and sexual abuse in a community sample of young adults: Results from the Ontario Child Health Study. *Child Abuse & Neglect*, 37(1), 14–21. <http://dx.doi.org/10.1016/j.chiabu.2012.06.005>
- Mahalik, J. R., Locke, B. D., Ludlow, L., Diemer, M. A., Scott, R. P. J., Gottfried, M., et al. (2003). Development of the conformity to masculine norms inventory. *Psychology of Men and Masculinity*, 4(1), 3–25. <http://dx.doi.org/10.1037/1524-9220.4.1.3>
- Molnar, B. E., Berkman, L. F., & Buka, S. L. (2001). Psychopathology, childhood sexual abuse and other childhood adversities: Relative links to subsequent suicidal behaviour in the US. *Psychological Medicine*, 31(6), 965–977. <http://dx.doi.org/10.1017/S0033291701004329>
- Molnar, B. E., Buka, S. L., & Kessler, R. C. (2001). Child sexual abuse and subsequent psychopathology: Results from the National Comorbidity Survey. *American Journal of Public Health*, 91(5), 753–760.
- Nalavany, B. A., Ryan, S. D., & Hinterlong, J. (2009). Externalizing behavior among adopted boys with preadoptive histories of child sexual abuse. *Journal of Child Sexual Abuse*, 18(5), 553–573. <http://dx.doi.org/10.1080/10538710903183337>
- Pérez-Fuentes, G., Olsson, M., Villegas, L., Morcillo, C., Wang, S., & Blanco, C. (2013). Prevalence and correlates of child sexual abuse: A national study. *Comprehensive Psychiatry*, 54(1), 16–27. <http://dx.doi.org/10.1016/j.comppsy.2012.05.010>
- Ruan, W. J., Goldstein, R. B., Chou, S. P., Smith, S. M., Saha, T. D., Pickering, R. P., et al. (2008). The alcohol use disorder and associated disabilities interview schedule-IV (AUDADIS-IV): Reliability of new psychiatric diagnostic modules and risk factors in a general population sample. *Drug and Alcohol Dependence*, 92(1), 27–36. <http://dx.doi.org/10.1016/j.drugalcdep.2007.06.001>
- Spataro, J., Moss, S. a., & Wells, D. L. (2001). Child sexual abuse: A reality for both sexes. *Australian Psychologist*, 36(3), 177–183. <http://dx.doi.org/10.1080/00050060108259653>
- Spataro, J., Mullen, P. E., Burgess, P. M., Wells, D. L., & Moss, S. A. (2004). Impact of child sexual abuse on mental health: Prospective study in males and females. *The British Journal of Psychiatry*, 184(5), 416–421. <http://dx.doi.org/10.1192/bjp.184.5.416>
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised conflict tactics scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues*, 17(3), 283–316. <http://dx.doi.org/10.1177/019251396017003001>
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The conflict tactics (CT) scales. *Journal of Marriage and the Family*, 41(1), 75. <http://dx.doi.org/10.2307/351733>
- Valente, S. M. (2005). Sexual abuse of boys. *Journal of Child and Adolescent Psychiatric Nursing*, 18(1), 10–16. <http://dx.doi.org/10.1111/j.1744-6171.2005.00005.x>
- Walker, J. L., Carey, P. D., Mohr, N., Stein, D. J., & Seedat, S. (2004). Gender differences in the prevalence of childhood sexual abuse and in the development of pediatric PTSD. *Archives of Women's Mental Health*, 7(2), 111–121. <http://dx.doi.org/10.1007/s00737-003-0039-z>
- Wyatt, G. E. (1985). The sexual abuse of Afro-American and White-American women in childhood. *Child Abuse & Neglect*, 9(4), 507–519. [http://dx.doi.org/10.1016/0145-2134\(85\)90060-2](http://dx.doi.org/10.1016/0145-2134(85)90060-2)

Appendix C

Delphine Collin-Vézina, et al., *A Preliminary Mapping of Individual, Relational, and Social Factors that Impede Disclosure of Childhood Sexual Abuse*, 43 *Child Abuse & Neglect* 123 (2015).

Appendix C



Research article

A preliminary mapping of individual, relational, and social factors that impede disclosure of childhood sexual abuse[☆]

Delphine Collin-Vézina^{a,*}, Mireille De La Sablonnière-Griffin^b,
Andrea M. Palmer^b, Lise Milne^b

^a McGill University, School of Social Work, Centre for Research on Children and Families, 3506, University, Suite 321A, Montreal, Quebec H3A 2A7, Canada

^b McGill University, School of Social Work, Centre for Research on Children and Families, Canada

ARTICLE INFO

Article history:

Received 29 May 2014

Received in revised form 10 March 2015

Accepted 16 March 2015

Available online 4 April 2015

Keywords:

Child sexual abuse

Disclosure

Adult survivors

Barriers

Model

Ecological framework

ABSTRACT

Uncovering the pathways to disclosures of child sexual abuse (CSA) and the factors influencing the willingness of victims to talk about the abuse is paramount to the development of powerful practice and policy initiatives. Framed as a long interview method utilizing a grounded theory approach to analyze data, the objective of the current study was to provide a preliminary mapping of the barriers to CSA disclosures through an ecological systemic lens, from a sample of 67 male and female CSA adult survivors, all of whom had recently received counselling services. The current project led to the identification of three broad categories of barriers that were each comprised of several subthemes, namely: Barriers from Within (internalized victim-blaming, mechanisms to protect oneself, and immature development at time of abuse); Barriers in Relation to Others (violence and dysfunction in the family, power dynamics, awareness of the impact of telling, and fragile social network); and Barriers in Relation to the Social World (labelling, taboo of sexuality, lack of services available, and culture or time period). This study points to the importance of using a broad ecological framework to understand the factors that inhibit disclosure of CSA, as barriers to disclosure do not constrain solely the victims. Results are discussed in light of their implications for research, prevention and intervention programs, and social policies and media campaigns, as the burden is on the larger community to create a climate of safety and transparency that makes the telling of CSA possible.

© 2015 Elsevier Ltd. All rights reserved.

The sexual abuse of children and youth is a widespread problem that affects 1 out of 8 people worldwide (Pereda, Guilera, Forns, & Gómez-Benito, 2009; Stoltenborgh, van IJzendoorn, Euser, & Bakermans-Kranenburg, 2011). This alarming rate clearly calls for extensive and powerful policy and practice efforts; yet, the development of effective strategies to deal with child sexual abuse (CSA) is hampered by the fact that many victims are undetected and their needs unrecognized. Using a grounded theory approach and ecological framework lens, the aim of the current research is to advance this field of inquiry by mapping the factors that prevent CSA victims from coming forward with a disclosure, in order to develop powerful practice and policy initiatives that facilitate the telling of CSA.

[☆] This research was funded through the Standard Research Grant program from the Social Sciences and Humanities Research Council of Canada (410-2009-2386) awarded to the first author.

* Corresponding author.

Literature Review

Victims of CSA often delay reporting of their experience of abuse, or never tell. Based on a review of contemporary studies of CSA disclosure rates, [London, Bruck, Wright, and Ceci \(2008\)](#) concluded that between 55 and 69% of CSA survivors did not disclose as children. Although measures of timing vary across studies, they also observed that disclosures mainly occurred either promptly (within one month of the event) or many years after the abuse. Results from population surveys conducted in Canada and the US show similar trends: 70–75% of respondents reporting CSA waited five years or more before disclosing the abuse, or had never disclosed prior to the survey ([Hébert, Tourigny, Cyr, McDuff, & Joly, 2009](#); [Smith et al., 2000](#)). In addition to delaying CSA disclosure, children may deny the abuse despite corroborative evidence such as medical findings ([Lawson & Chaffin, 1992](#); [Lyon, 2007](#)), or proof through videotapes of the abuse ([Sjöberg & Lindblad, 2002](#)). In a study on alleged CSA victims, one third of those interviewed did not disclose abuse during forensic interviews, despite strong suspicion that abuse had occurred ([Hershkowitz, Horowitz, & Lamb, 2005](#)).

Disclosure can occur in various, potentially concomitant or sequential forms. [Alaggia \(2004\)](#) categorized the types of disclosure that adult survivors have made throughout their lives as purposeful, manifested through behaviours, intentionally withheld, or triggered by delayed memories. In examining CSA case reports, [Collings, Griffiths, and Kumalo \(2005\)](#) identified two broad dimensions of disclosure: Agency (child-initiated disclosure versus detection by a third party) and Temporal duration (event versus process). This process of disclosure is described as involving multiple dynamics, where victims actively withhold the secret, experience ambivalence between the wish to tell and the wish to keep it secret ('pressure cooker effect'), and eventually confide in the context of a trustworthy relationship ([McElvaney, Greene, & Hogan, 2012](#)).

With regard to the choice of confidants, [Malloy, Brubacher, and Lamb \(2013\)](#) examined 204 forensic interviews of alleged sexual abuse of children aged 5–13 years and identified that mothers and peers were the most common recipients of disclosure, and that most children who disclosed had told more than one individual. [Priebe and Svedin \(2008\)](#) examined a sample of 1,505 girls and 457 boys who reported an experience of CSA and found that only 8.3% had talked to professionals about the abuse. In a study by [Easton \(2013\)](#) involving 487 male survivors (62% abused by priests), only 15.1% of cases were reported to authorities. [Ungar, Barter, McConnell, Tutty, and Fairholm \(2009\)](#) and [Hunter \(2011\)](#) suggested that disclosure is often indirect, including refusal to disclose, engagement in risk-taking behaviours, or acting out, or in some cases, possible attempts to draw attention to their situation to facilitate disclosure. A pattern among children and youth is to disclose less directly to non-professionals (perceived as less 'endangering'), and move towards more direct strategies of disclosure, such as disclosing directly to professionals mandated to intervene ([Alaggia, 2004](#); [Ungar, Barter, et al., 2009](#)).

Several attempts have been made to find a relationship between the victim or the abuse characteristics, and the timing of disclosure. Research findings generally indicate that younger age at the onset of abuse, being male, having a close relationship to the perpetrator, and more severe forms of abuse contribute to delayed disclosure, though some studies have found contradictory evidence (see review by [London et al., 2008](#)). Indeed, disclosure of traumatic events is a very complex, iterative life-long process ([Hunter, 2011](#)) that cannot be influenced solely by the victim or the abuse characteristics. While patterns or types of disclosure are well documented in research, [Ungar, Barter, et al. \(2009\)](#) question "why young people perceive the experience of disclosing traumatic events as threatening and why so many delay disclosure to authorities for years" (p. 344). Despite the societal assumption that it is in the best interests of victims and society to talk about CSA, as it may lead to successful legal interventions and prosecutions ([McElvaney, 2013](#)), several negative impacts of disclosure have been documented: not being believed, or the situation actually worsening as a result of telling ([Barter, 2005](#)), becoming the subject of gossip, and causing additional family rift and disruption ([Staller & Nelson-Gardell, 2005](#)). Other victims reported that they felt the situation spiral out of their control ([Barter, 2005](#); [Paine & Hansen, 2002](#)). [Hunter \(2011\)](#) reported that of the 22 adults she interviewed about their experiences of telling as a child, all "had experienced some form of disclosure-related trauma, either because nothing changed for the better or because they were not believed or supported" (p. 164). Based on semi-structured interviews with 122 Swedish female survivors of CSA, [Jonzon and Lindbald \(2004\)](#) concluded that for many victims, reporting CSA in childhood was a hazardous process, as the outcomes were uncertain or even negative (e.g., the abuse did not cease despite being revealed). [Ullman \(2007\)](#) concluded both from her review of the literature and her own research conducted among 733 college students that negative outcomes following CSA disclosure are more likely in childhood than adulthood.

The challenges associated with CSA disclosure have been understood using different theoretical orientations (see review by [Paine & Hansen, 2002](#)), but no theory has yet reached consensus in this field. Even the seminal work of [Summit \(1983\)](#) on the 'Child Sexual Abuse Accommodation Syndrome' did not receive sufficient support in research (e.g. [London, Bruck, Ceci, & Shuman, 2005](#)). Despite the absence of a theory underlying the factors that impede CSA disclosure, several studies have provided empirical evidence of the barriers at play. These studies fall into three categories: information gathered through forensic interviews with children; interviews and surveys with children and adolescents; and retrospective interviews with adult survivors. Studies examining the barriers to disclosure published in peer-reviewed journals from the year 2000 onwards and listed in either PsycInfo or MedLine databases are briefly reviewed below, with a focus on dynamics other than those that pertain to victim characteristics (e.g., gender, age) or the abusive situation (e.g., intrafamilial versus extrafamilial abuse).

Forensic Interviews with Children

Distinct patterns highlighting dynamics that were predictive of delaying disclosure emerged across studies wherein researchers gathered information from police files and forensic interviews involving large samples of female and male children and adolescents of all ages (Goodman-Brown, Edelstein, Goodman, Jones, & Gordon, 2003; Hershkowitz, 2006; Hershkowitz et al., 2005; Malloy, Brubacher, & Lamb, 2011; Priebe & Svedin, 2008; Schaeffer, Leventhal, & Asnes, 2011). Common or recurring themes identified were: perceived responsibility for the abuse or self-blame; shame and other negative feelings; fear of negative consequences for themselves or others including losing relationships; threats made by the perpetrator and fear of being physically harmed following disclosure; relationship with the perpetrator, in that s/he could be perceived as a friend; lack of opportunity to confide in someone they could trust; lack of understanding (e.g. that the abusive situation was unacceptable); and co-occurrence with other family violence such as physical abuse. These latter findings were not, however, synonymous with Priebe and Svedin's study (2008) where physical violence in the home was not predictive of delay in CSA disclosure.

Interviews with Children and Adolescents

Through the Hidden Hurt Project, Ungar, Barter, et al. (2009) and Ungar, Tutty, McConnell, Barter, and Fairholm (2009) examined the multiple barriers to disclosing experiences of violence (not exclusively CSA) as voiced by adolescents. From focus groups and interviews with stakeholders, teachers, staff and prevention educators, emergent themes were: family and cultural values; fear; lack of confidentiality; lack of trusting relationships; negative responses; fear of the abuse being reported to authorities; and shame and secrecy. From interviews with adolescents, emergent themes were: fear of not being believed; lacking the words to describe the abuse/violence; lack of control over the process; lack of knowledge of resources; and perception of ineffectual responses to their disclosure. These findings echo studies by Staller and Nelson-Gardell (2005) and Schönbucher, Maier, Mohler-Kuo, Schnyer, and Landold (2012) using a similar approach with cohorts of 34 female CSA survivors aged 10–18, and of 26 female and male teenagers aged 15–18, respectively.

Recently, McElvaney, Greene, and Hogan (2014) highlighted both intrapersonal and interpersonal factors influencing disclosure. Interviews of 14 parents and 22 youth aged 8–18 revealed several factors that hindered disclosure: fear of not being believed; shame/self-blame; and fear and concerns for self and others. This latter result echoes findings from Jensen, Gulbrandsen, Mossige, Reichelt, and Tjersland (2005) gathered through interviews with 22 suspected CSA victims aged 3–16, and was also noted in Münzer and colleagues' interviews with 42 children and adolescents aged 6–17 (Münzer et al., 2014), alongside additional reasons for delaying disclosure, including threats by the perpetrator.

Finally, Jackson, Newall, and Backett-Milburn (2013) used qualitative data from a child phone line to examine 2,986 cases of CSA self-disclosure by children aged 5–18. The most important barriers to disclosure were: a sense of responsibility, or self-blame; shame; fear of consequences for themselves or others; threats from abusers; and fear of not being believed.

Retrospective Studies with Adult Survivors

As a whole, studies conducted with children and youth who have come to the attention of authorities have highlighted a number of mechanisms that play a role in hindering disclosure. However, by virtue of their design, such studies cannot capture the extent of the potential barriers to disclosing CSA as they only include cases that were divulged and brought to the attention of authorities. Moreover, these studies have focused largely on the complex interaction of individual factors (Shackel, 2014), providing little insight into the array of influences at the relational, community, social, and cultural levels on the disclosure process. Indeed, paying attention to factors that impede disclosure at all levels is a means to advocate for greater social responsibility in creating safer places for children and youth to disclose.

In this vein, Alaggia (2010) has suggested analyzing barriers to disclosure from an ecological systemic standpoint, that is to recognize the complexity and interplay of factors acting at all levels to influence the disclosure process, using a framework which postulates that multiple, intertwined factors contribute to child abuse (e.g. Belsky, 1980). Through her analysis of 40 interviews with adult survivors, Alaggia concluded that not only is the occurrence of child abuse a multi-faceted process, so is the disclosure of this abuse. Indeed, the disclosure process involves individual characteristics (e.g. developmental factors), family dynamics (e.g. presence of other forms of maltreatment, social isolation), neighbourhood and community factors (e.g. fear of not being believed by teachers), and cultural and societal attitudes (e.g. media messages, stigma and labelling). The relevance of this framework is further supported by findings from previous qualitative studies with adult survivors that, although not rooted in an ecological model per se, describe disclosure barriers at the various levels (Alaggia, 2005; Alaggia & Millington, 2008; Alaggia & Turton, 2005; Donalek, 2001; Hunter, 2011; McGregor, Julich, Glover, & Gautam, 2010; Sorsoli, Kia-Keating, & Grossman, 2008). All studies conducted qualitative interviews, with the exception of two which employed long form questionnaires (Deering & Mellor, 2011; McGregor et al., 2010). Studies included a mix of participants (exclusively female; exclusively male; mixed) who were recruited through community and/or clinical populations. With the exception of McGregor and colleagues' study that involved 61 male and female survivors, most inquiries were conducted among small cohorts of survivors (about 15–20 participants).

Individual barriers to disclosure most frequently reported in research with adult CSA survivors are similar to those reported in children and youth studies, including: feelings of guilt and shame; self-blame; developmental factors affecting

the understanding of and ability to talk about the abuse; fear of retaliation, of being blamed, or not being believed, emotional safety, and repressed memories. At the family level, barriers are related to the presence of violence in the home; poor communication patterns; desire to protect the family; rigid gender roles; social isolation, and expected or experienced negative reactions to disclosure. At the sociocultural and structural level, barriers are related to taboos; lack of direct questioning by others about potential abuse; lack of attention to children's voices in society; expected or experienced negative reactions to disclosure, including those based in racism and stereotypes; and conflicting media messages regarding teenagers and seduction. Sociocultural barriers reported more specifically by males include: being abused by a woman (which may be socially perceived as sexual exploration rather than abuse); lack of social acceptance of males as victims; and fear of uncertainty regarding sexual orientation.

Despite inherent methodological limitations of interviewing adults about CSA experiences – including potential forgetting of information and re-interpretation of the event in hindsight with the knowledge of adulthood, studies conducted among adult survivors have offered insight that can underscore the different layers of influence on CSA disclosure, from individual to collective dynamics. The field is still awaiting a model that integrates findings into a cohesive portrait to conceptualize barriers to disclosure. The current research was undertaken with the objective of mapping such barriers to CSA disclosures through an ecological systemic lens, using in-depth analysis of data from a mixed sample of CSA adult survivors.

Method

Sampling

A purposive sample of adults was recruited through community-based sexual assault or adult counselling/mental health services in three Canadian metropolitan areas (Greater Montreal, Ottawa, and Greater Toronto) between May 2011 and October 2012. In accordance with the upper limit of legal age of majority in Canada, all participants had to be 19 years of age or older. To fulfil requirements of the ethics research committee, all participants had to be currently receiving or had recently received counselling services for their CSA experiences, as a means to exclude participants who could potentially experience upsetting feelings by divulging their CSA experiences for the very first time through this research. No definition of CSA was established by the research team; rather, recruitment was inclusive of participants who self-identified as having been sexually abused as a child. Accordingly, the recruitment material (posters and brochures) made available in recruitment sites stated: "Are you a man or a woman above the age of 19 who experienced child sexual abuse in their history?" Participation in this research was voluntary, and had no impact on access to services provided by the agencies. Individual information gathered in the context of this research was kept strictly confidential from the agencies where participants were recruited.

The initial sample was comprised of 68 participants. One interview was excluded from the current analysis because the participant did not provide consent for the interview to be recorded. Among the 67 participants that comprised the final pool, 51 identified as female (76%) and 16 male (24%), ranging in age from 19 to 69 years ($M = 44.9$). Most of the participants were between 40 and 49 years old ($n = 25$; 37.3%), were recruited from the greater Montreal area ($n = 45$; 67.2%) and spoke French ($n = 39$; 58.2%).

Design

Ethics approval was obtained from McGill University research ethics board. Written or recorded verbal consent was gained prior to conducting phone interviews with participants. The interviews were conducted by three research assistants, all of whom held a master's degree in social work and were registered social workers at the time of the interviews. Two were native English speakers and one was a native French speaker. The interviews were conducted in the preferred language of the participant, and with an interviewer of the same mother tongue. The interview was informed by the long-interview method, which [McCracken \(1988\)](#) describes as "a sharply focused, rapid, highly intensive interview process" (p. 7) and is thus suited to elicit information about precise complex and dynamic processes, such as disclosure of CSA. The interview consisted of a core set of ten lines of questioning, to which relevant clarifying questions and prompts were attached. Although a standard format for each line of questioning was provided to the interviewers, the interviews were semi-structured wherein the interviewer could follow a participant's lead or narrative. During the interview, the participants were asked to describe all of their disclosure experiences; they were probed to share details of each disclosure experience, including information such as to whom they had disclosed, what led to the disclosure, and what the experience was like for them. The participants were also asked about what could have helped them through the disclosure experiences, what could have helped them disclose earlier, and whether there is any person they wish they had told. The interviews lasted between 24 and 159 min, or 69 min on average. Finally, a list of resources was provided to the participants should they be in need of further counselling and interviewers made one follow-up phone call a week after the interview to ensure participants were not experiencing upsetting feelings.

Data Analysis

Data analysis was conducted using a grounded theory strategy ([Charmaz, 2006](#); [Strauss & Corbin, 1997](#)). This approach is in keeping with other qualitative research endeavours in the field and offers a way to understand the meaning that people

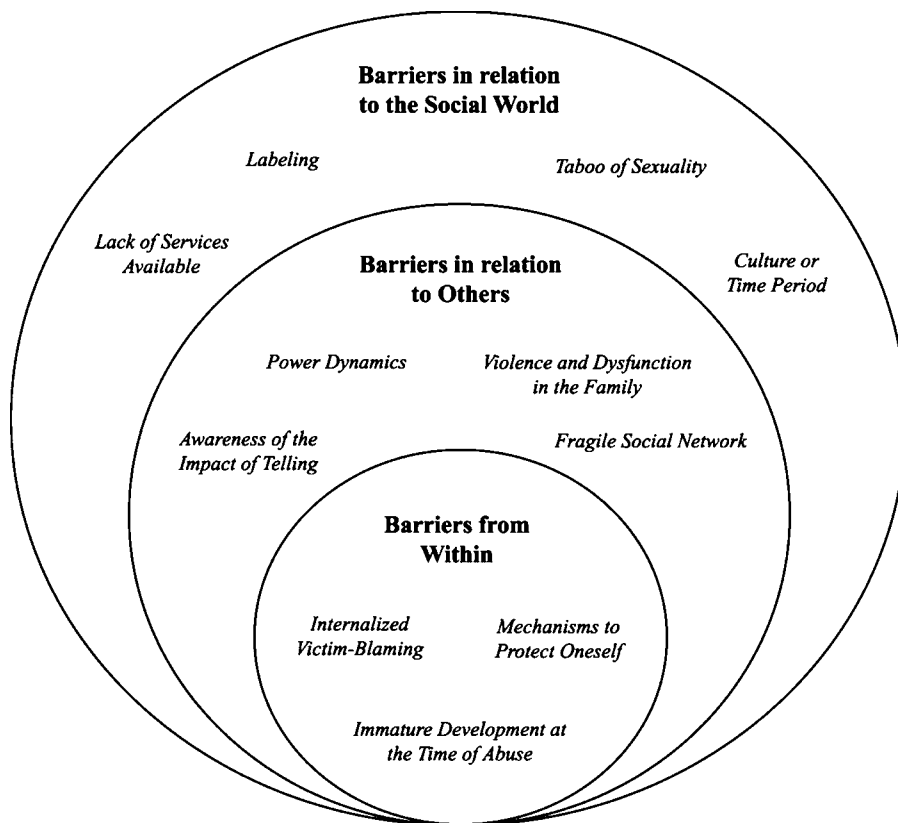


Fig. 1. Conceptualization of the barriers to CSA disclosure across three levels.

attribute to their experiences. It is rooted in a constructivist–interpretivist paradigm, whereby the subjective reality of both the participants and the investigators is recognized and integrated into the design (Schwandt, 1998).

The interviews were digitally recorded and transcribed verbatim by research assistants. Coding was done by hand and through NVivo 8 software, following Charmaz's (2006) methodical coding procedure. During the initial round of coding, researchers highlighted all instances wherein participants referenced barriers to CSA disclosure. Particular attention was paid to disclosure barriers during childhood or around the time the abuse was occurring. Seventy (70) codes were identified during the initial round. Codes were then grouped together according to synonymy and overlapping, and categorized into 11 subthemes (axial coding). Following this categorization, identification of patterns led to the application of an ecological framework for final analysis and organization of the subthemes into three broad categories: Barriers from Within, Barriers in Relation to Others, and Barriers in Relation to the Social World. Two research assistants and the principal investigator of the study were involved throughout each step to ensure that all nuances and possible directions in the data were compared and debriefed. Final categories and subthemes are represented in Fig. 1 and described in detail in the results section.

Trustworthiness of research carried out within a constructivist–interpretivist paradigm is evaluated according to the criteria of credibility, transferability, dependability, and confirmability (Guba, 1981; Shenton, 2004). Credibility was established in the following ways: researchers' clinical expertise in conducting interviews with CSA survivors; congruency of method and data with previous studies on CSA disclosure and conceptual models as described in the preceding literature review; periodic debriefing between the researchers; and by achieving general consensus in presentations by the principal investigator to recruitment sites and at several conferences (including the 2013 European ISPCAN conference). Concerning transferability, the context of this research is well described, and recruitment of participants from multiple sites across a large geographical area in central Canada allows for the representation of two regional groups (Ontario and Quebec) and two language groups (English and French). The detailed methodology of this research demonstrates dependability through a grounded theory model, which could be replicated. To promote confirmability, during the design and analysis phases the research team acknowledged and discussed their inherent biases and lenses as academics from the dominant majority.

Results

Of the 67 participants, half ($n = 34$; 50.7%) did not disclose their CSA experiences before the age of 19. Thirty-one (31) participants (46.3%) verbally disclosed to someone before the age of 19, two of which disclosed after the abuse was witnessed

and reported by a third party. Disclosure is defined here in a very inclusive manner, meaning that the person told at least one person about being sexually abused, regardless of whether or not the person was believed, actions were taken, or any other details were disclosed. For the remaining two participants, one made indirect attempts to disclose; and the other was told later in life they had disclosed but reported having no memories of doing so. Among the 31 participants who disclosed in childhood or adolescence, most did so to more than one person ($n = 25$; 80.6%). Twenty-one (21) participants disclosed to their parents (67.7%). The other categories of disclosure confidants included friends and peers ($n = 16$; 51.6%), authorities (child protection services and police forces; $n = 9$; 29%), other professionals ($n = 14$; 45.2%), dating partners ($n = 9$; 29%), siblings ($n = 9$; 29%), other family members ($n = 3$; 9.7%), and other adults ($n = 9$; 29%; e.g. neighbour). No noticeable differences in perceived barriers to disclosure were noted between subgroups of participants (e.g. those who made disclosures as children compared with those who made their first disclosures as adults, as those who disclosed in childhood also faced barriers before telling).

Although the interview grid did not include questions that asked directly about characteristics of the CSA experiences, most of the participants revealed some information pertaining to the abuse events. The experiences ranged from single events with one perpetrator to multiple events with multiple perpetrators, and from exposure to pornography to vaginal and anal penetration. Among the 67 participants, 30 (45%) provided explicit details that confirmed experiences of intrafamilial CSA, defined as an abuse perpetrated by a biological, step or foster parent, by a sibling, or by an extended family member living with the victim at the time of the abuse (e.g. uncles/aunts). Extrafamilial abuse was described by 44 participants (66%) and was defined as involving a perpetrator that had no family relationship with the victim or an extended family member not living with the victim at the time of the abuse (e.g. grand-parents). Most cases involved a male perpetrator ($n = 60$; 90%).

Analysis of the barriers to disclosure reported by the study participants led to the identification of three broad categories, namely Barriers from Within, Barriers in Relation to Others, and Barriers in Relation to the Social World, reflecting the various levels of influence laid out in the ecological systemic framework (Fig. 1). The following is a comprehensive presentation of these three categories and their subthemes. Although the barriers are presented as distinct categories, it is pertinent to keep in mind the inextricability of the individual and relational barriers from their social context. Fig. 1 illustrates how Barriers from Within are embedded within Barriers in Relation to Others, which are, in turn, embedded within Barriers in Relation to the Social World.

Barriers from Within

Included in this category are participants' inner turmoil and emotional responses to the abuse that prevented them from telling. Three subthemes were identified: internalized victim-blaming, mechanisms to protect oneself, and immature development at time of abuse.

Internalized victim-blaming encompasses experiences of embarrassment and shame, which were often related to self-blame and feeling responsible for the abuse. One participant explained:

"I kind of wanted to say [what I was rebelling against] but you know still firmly believed that I had gotten myself into the situation and it was my fault you know, and so that was the biggest barrier. . . I felt like I should have known better." (P65, M, 33) [Participant number, Gender (M: male; F: female), Age at time of interview]

Another participant highlighted a comparable feeling of self-blame:

"You know you're not just exploited but exploitable, that there's something. . . wrong with you that you would have. . . uh you would have attracted something like this to happen to you." (P47, F, 44)

Participants emphasized feelings of being apart and having their self-esteem and self-worth shattered, as described here:

"When you're being abused, you don't have self-respect, you can't look people in the eye. You feel dirty. It feels like you don't belong. You feel like you're not as good as anyone else. You feel like you don't deserve anything." (P54, F, 62)

Participants explained how these feelings also led to feelings of isolation and alienation, which one individual described as a pain that was unbearable and others articulated as having an invisible 'handicap'. Participants described how the abuse had altered or destroyed their identity and articulated feeling dirty, infected, or alien in comparison to others.

"I mean, when you're a kid, you do, you feel like an alien, you feel you're infected, you feel like you're so. . . you're such an extraterrestrial from everyone else, you're so apart, and the last thing I wanted was to reinforce that." (P2, M, 38)

Mechanisms to protect oneself includes experiences of minimizing the abusive experience both consciously and unconsciously by convincing oneself that they could deal with it on their own or by repressing the memories altogether.

"I was - I was never gonna tell anyone because I - I don't want - I just wanted to forget about it. If I could deal with it myself. . ." (P58, F, 41)

"I had blocked it off and put it down inside me. . . I just sort of made it like it didn't happen. . . after putting it down, and burying it for all those years." (P54, F, 62)

Participants explained their lack of disclosure in childhood was attributed to forgetting about the abuse until they experienced flashbacks in adulthood.

“Okay, like you use denial number one, you don’t want to believe that your father did this or your uncle or whatever and then it has a mind of its own. . .the flashbacks happen, you don’t know when they are going to happen.” (P55, F, 69)

Coping strategies perceived as barriers that impeded disclosure included dissociating or using substances to numb the pain, as well as hypervigilance and an inability to trust in others.

“For me, and I’m sure it’s the case for lots of abused children is you. . .you withdraw from the outside world and you uh you create this inside world that you’re living in. I wasn’t in contact with the outside world even when I was in high school. . . I wasn’t present in the class. I was in the class but. . .I was in my own world I wasn’t listening to the teacher or what was going on. . .and so for me living like that it was kind of safe. . .uh disconnecting from the outside world being only in my inside world.” (P68, F, 42)

“So ya, my trust was destroyed and. . .it’s all mixed up who you trust and who you don’t trust, it’s all confused.” (P62, F, 50)

Immature development at the time of abuse refers to the survivors’ recollections of being ill-equipped when the abuse occurred to fully comprehend the situation, which hampered their capacity and willingness to tell. These experiences included a lack of understanding of sexuality, confusion about the abuse, and potential outcomes of telling.

“I was eight so for me back then I didn’t know that sex could happen in that position. . .it was so hard to put together because it was such a confusing experience for me. . .like I just didn’t know what happened to me, I really didn’t.” (P66, F, 34)

“Will she believe me? Will she blame me? Will she be angry at me? Because there’s also the sense that when it first started. . .I didn’t really know or understand it was wrong.” (P7, F, 26)

Additionally, participants explained lacking tools or language to disclose the abuse, as expressed by the following participant:

“How do you say it. . .like how does a nine year old say. . .this is what’s happening to me?” (P62, F, 50)

Indirect attempts to tell and bewilderment at how or why their parents did not know were also mentioned.

“Like, give me attention, like parent wise, like something’s happening (. . .) I would pick their uh, flowers, and break them across the street and I would take tomatoes and squish their tomatoes” (P3, F, 46)

Barriers in Relation to Others

Barriers in Relation to Others are the intermediate-level barriers to disclosure that are linked directly to the participant’s family members, caregivers, peers, or a significant adult presence in their life such as a teacher or school personnel. Four subthemes were identified: violence and dysfunction in the family, power dynamics, an awareness of the impact of telling, and a fragile social network.

Violence and dysfunction in the family included situations where other forms of violence in the child’s home contributed to general feelings of being unsafe or a fear of escalation. One participant explains:

“There was conjugal violence in my family as well so it was very like, I was always walking on eggshells in my home anyways.” (P7, F, 26)

Another participant expands upon this type of experience to highlight the prioritizing and protection of others, or a sacrifice of self:

“I couldn’t really talk about it, ‘cause my mom, my mom was being battered at the same time and I didn’t want to cause any trouble in the family.” (P58, F, 41)

Victim-blaming or disbelief of the child’s disclosure by caregivers or family members who would be in a position to protect the child also contributed to a child remaining silent.

“Part of it is I try to excuse my parents but really they did fail me and my mom actually did come into the room while he was doing something to me and. . .she punished me. . .she screamed at me and punished me and just nothing ever stopped.” (P50, F, 41)

Power dynamics included two forms of manipulation that the child was subjected to by the perpetrator, either manipulation in the form of grooming, or manipulation in the form of a direct threat.

“(The perpetrator) said ‘I am so sorry, you know, I got really carried away, but you’re so special. . .nobody else knows how special you are’.” (P48, F, 58)

“(The perpetrator) threatened to kill me and my family if I told them. So that’s why I didn’t tell until I was 15.” (P3, F, 46)

Power dynamics were also relevant when there was general secrecy and containment within the family.

"I think that's what happens sometimes with sexual abuse. That the family doesn't want to talk about it. And it – that can be handed down... an attitude... can be handed down from generation to generation." (P51, M, 55)

Finally, power dynamics were pertinent when pertaining to the complexity of the relationship with the perpetrator depending on their status within the community or as a family member or breadwinner for the home.

"The abuser was on my mom's side of the family and I was very much aware that my family would be ripped apart by the situation and I didn't want to be the cause of it." (P7, F, 26)

Awareness of the impact of telling included participants fearing the perceptions or reactions of others if they disclosed, including blame, anger, and rejection.

"Yeah, there have been several times where I was gonna say something, I was like, 'No, keep it to yourself, because you don't want people running away from you, you don't wanna be alone, you wanna have friends'." (P5, F, 32)

"You don't know what you're doing [when you disclose], but you know that you are opening a big hole into the world." (P2, M, 38)

Participants also explained that they feared consequences if the police or authorities would become involved. They explained that following a disclosure they tried to avoid actions from authorities because they found their approach intimidating, were excluded from the investigative process, or feared the unknown of what would happen next.

"(There) was four or five of them in there (an office at the school) including the school principal... a police officer at the door...um asking me all kinds of questions... I remember my parents being brought up... and I was told to sign a piece of paper... stating that they know... were aware... and it scared me half to death and I thought my parents were going to be arrested. Ya I thought that they were going to take my parents away so I said 'nothing's happening to me and I don't know where you got your information from but it's all wrong'... 'cause I just knew that it was so bad'." (P62, F, 50)

Fragile social network included accounts of participants who simply had no one to tell, or felt that there was no one equipped to receive the disclosure including peers and teachers or other supports in schools.

"I just – I wish there had been someone to tell." (P59, F, 48)

"But... like friends, family, even somebody like who – who is a great friend, not everybody is gonna understand and wanna hear, it's uncomfortable, it makes them feel awkward, and I experienced a lot of rejection from family, like even to this day, like... rejection, rejection, [laughs] rejection." (P5, F, 32)

"... maybe it's like information overload and people just don't wanna hear about that ugly stuff, I don't know." (P59, F, 48)

Barriers in Relation to the Social World

Finally, Barriers in Relation to the Social World acknowledge the context in which the abuse occurred. Four subthemes were identified: labelling, taboo of sexuality, lack of services available, and culture or time period.

Labelling refers to the stigma attached to being seen or treated as a 'victim' and in seeking services for the abuse, or for resulting mental health challenges, and fear of being called 'crazy'.

"I was always afraid because of what happened to me that I would be locked up when anybody found out, like put in a nut house or something, that people would think I was crazy." (P62, F, 50)

Men in particular feared homophobic responses from others when the perpetrator was of the same sex, or explained how the social construction of masculinity prevented them from disclosing.

"I was just ya know, I didn't want anybody to think I was gay or anything 'cause I didn't think I was and I didn't want to keep that in me, but it seemed to, ya know, be the cost of fitting in ya'." (P65, M, 33)

"Men are of course, in my day you're taught to be tough... don't show emotion. You know? That's only for... weaklings, and fairies or whatever, right?" (P52, M, 58)

Taboo of sexuality barriers resulted from a lack a discussion of sexuality in society and within home and schools. Participants explained they did not know what was 'normal' or 'not normal' about sexuality in their childhood, or that they had no knowledge about sex or what constitutes inappropriate behaviour or abuse, or where to find information accordingly.

"If I had known that there were predators out there and that adults can do this to children, even if it's like graphically to explain to me. (...) I know that if somebody had told me..." (P47, F, 44)

"I can remember asking my mother something about sex, and her throwing a big medical book at me and said 'look it up'. That was the only help I got from my mother when it comes to sex. It would have made a big difference." (P56, F, 65)

Lack of services available included participants noting the absence of services in mainstream education, as well as information on available help.

"No one even talked at our school. You know, that would be amazing, for people to give talks in schools. To school children and say 'If anyone is touching you here, that's wrong and you don't need to keep doing that, you have a voice and you gotta tell somebody'." (P1, F, 42)

Culture and time period barriers surround the broader invisibility of sexual abuse in society throughout time.

"Back then, you didn't talk about that, you didn't go to your teacher, you didn't go to your nursery or doctor. You had nowhere to go back then. Child abuse was so well-hidden back in the 50s." (P56, F, 65)

"I don't think it would have crossed teachers' minds the same as it might have today. . .like I don't think teachers were as aware of warning signs." (P50, F, 41)

Discussion

Based on contemporary research on the telling of CSA, this grounded theory research explored barriers to CSA disclosures experienced in childhood and adolescence, as voiced by 67 male and female adult survivors. Through an ecological systemic lens that highlights the multiplicity and complexity of influences at the individual, family, community, social, and cultural levels, a multi-level conceptualization of disclosure barriers was created.

The first level of barriers labelled Barriers from Within, includes the following subthemes: internalization of victim-blaming; protecting oneself; and immature development at time of abuse. Overall, this level highlights the participants' inner turmoil and emotional responses to the abuse that prevented them from telling, as well as the negative self-perception and destroyed sense of identity in comparison to others following the abuse. It reveals how the experiences of minimizing the abusive experience hampered disclosure, as well as the lack of knowledge and skills at the time of abuse that made participants ill-equipped to report the situation.

The second layer of factors, Barriers in Relation to Others, includes themes that relate to: violence and dysfunction in the family; power dynamics; awareness of impact of telling; and fragile social network. This level sheds light on situations where other forms of violence in the child's home contributed to general feelings of being unsafe or a fear of escalation as well as manipulations in the form of grooming or direct threat that kept them silent. Additionally, this theme encompasses the feared perceptions or reactions of others when considering disclosure and the reality of having no person in their life they felt they could confide in.

The last level, Barriers in Relation to the Social World, includes broader themes such as: labelling; taboo of sexuality; lack of mainstream education and services; and culture/time period. This level reveals disclosure issues that relate to the stigma attached to being a victim of CSA in our society; the absence of information and discussion around sexuality as a whole; the lack of services available or made known to children; and the broader invisibility of sexual abuse in society throughout time.

Altogether, these results point to the relevance of using a broad ecological framework when understanding the factors that inhibit CSA disclosure. This model echoes past research with children, youth, and adults who experienced CSA and provides a framework upon which future work on CSA disclosure can be expanded. Although the taboo of CSA might not be as prominent as a few decades ago when it was rarely spoken of, veiled issues still prevent victims from reaching out to authorities to reveal the abuse they suffer. The burden should not be on the child to navigate a traumatic experience through social and structural obstacles that keep CSA in the dark. The burden is on the larger community to create a climate of safety and transparency, where the abuse of children is simply not tolerated, and where their support is paramount.

Limitations

This research presents limitations that warrant caution in generalizing findings to understanding barriers at play for all CSA victims across diverse social locations. Similar to other studies of this kind, all participants in this research self-identified as CSA survivors and no attempt was made to verify the veracity of subjects' reports. Also, participants had all previously disclosed their CSA experiences before participating in the interview, and even more importantly, they had all received counselling services in relation to their victimization experiences. Individuals who were sexually abused but have never disclosed may face a host of additional barriers to disclosure given that they have never found a way to break the silence about the abuse. CSA survivors who seek counselling in adulthood may also present different characteristics than children, as they are coming forward to clinics with continuing mental health problems and struggles due in part or fully to the abuse. They may have encountered more barriers to disclosure than other CSA victims that present resilient adaptation following the abuse. This preliminary mapping should therefore not be used to confirm veracity of CSA cases by contrasting individual disclosure pathways against this emerging conceptualization, which is likely not representing the full spectrum of barriers or of positive disclosure experiences.

Moreover, this analysis focused only on adults' recollections of experiences that occurred anywhere from a few years to several decades in the past. In addition to being influenced by memory recall issues, this model may not accurately represent the barriers that are currently impeding children and youth from coming forward with a disclosure. Barriers at the social, community and cultural levels are likely to have been mediated by the growing attention placed on CSA in our society,

or through the implementation of media campaigns and prevention programs. Exploring factors that inhibit and promote disclosure in current cohorts of children and adolescents through the lens of ecological theories is therefore warranted.

Another limitation is the relative ethnic and cultural homogeneity of the sample recruited. Ethnic and cultural affiliations may influence the way by which the process of disclosure is experienced and can influence the telling and reporting of CSA (Fontes & Plummer, 2010). The barriers experienced by CSA survivors from social and cultural locations other than those of English and French Canadians may well have gone unrepresented in the current research. The 'Barriers in Relation to the Social World' that were identified in this research are likely to represent those of a specific group of individuals, or may not encompass the full array of barriers that take place across different cultures. Future research should therefore aim to document the barriers of CSA survivors through the lived experiences of non-Caucasian, non-Western victims to expand and enrich the current proposed conceptualization.

Future Directions for Research

To expand our understanding of the complex, multi-determined impact of disclosing for CSA victims, future research should pursue two main objectives: to better understand the lived experiences of victims with institutional responses such as child protection services and police following disclosures, and to document not only the negative, potentially harmful outcomes that resulted from disclosures, but the potentially positive outcomes of disclosures.

Regarding institutional responses to disclosure, services for sexually abused children and youth have gone through an extensive transformation in the past decades, which include: the implementation of a standardized forensic interview protocol in several Western countries; inter-agency protocol agreements between child welfare agencies and the police to enhance collaboration between services; as well as specialized Child Advocacy Centres. Despite documented positive outcomes associated with these changes, such as reducing the need for children to testify multiple times; increasing conviction of perpetrators; improving support to children and families (see for example Jones, Cross, Walsh, & Simone, 2007; Lamb, Orbach, Hershkowitz, Esplin, & Horowitz, 2007), the ways in which these services impact the post-disclosure experiences of youth has received limited consideration.

With regard to potential positive outcomes of effective disclosures, one interesting question that has not yet been examined in research is whether positive outcomes that follow informal disclosures of CSA (e.g. feeling supported and believed by peers) and formal disclosures of CSA (e.g. getting access to treatment services) may reduce future victimizations in adolescence. Indeed, among other long-term effects, CSA places youth at increased risk for sexual re-victimization in adolescence (Honor, 2010; Lalor & McElvaney, 2010) and dating violence in early romantic relationships (Hébert, Daigneault, & Van Camp, 2012; Hébert, Lavoie, Vitaro, McDuff, & Tremblay, 2008). A recent longitudinal inquiry has suggested a causal chain process, whereby the extent of CSA exposure is related to adolescent risk-taking and low self-esteem, which in turn leads to increased risk of future victimizations (Friesen, Woodward, Horwood, & Fergusson, 2010). Effective responses to disclosures could be an opportunity for alleviating individual and family factors that place children at risk for CSA and further victimizations, for instance through empowering youth and de-shaming the experience. A better understanding of the relationship between CSA, disclosure experiences, social and legal actions, and later victimizations would thus provide great insight into breaking cycles of violence.

Practice and Policy Implications

The current research posits that disclosure is not only a matter of courage; rather, multiple barriers prevent abused children and youth from divulging the sexual violence they experience. Having a better understanding of the process and of the factors that influence disclosure may favour practices that are more responsive to survivors' needs, including counselling, awareness, and prevention, and that reduce the potential risks associated with disclosure. Intervention programs for victims of abuse can integrate these findings on barriers to disclosure to provide support that will empower victims, by recognizing and normalizing the multiple reasons that may have led them to withhold the secret of CSA for a long period of time.

These findings can also inform prevention programs implemented among general populations of children and youth. School-based prevention programs should promote a non-blaming discourse towards victims and recognize the multiple barriers to disclosure. This knowledge is essential to inform programs whose aims should be not only to empower youth to tell, but to take a more holistic perspective by focusing, for instance, on better equipping potential recipients of disclosure (Ungar, Barter, et al., 2009; Ungar, Tutty, et al., 2009). Considering that peers are often the first confidants youth turn to, prevention programs must not only equip children and youth to identify sexual abuse situations, but prepare them to become sensitive and reliable confidants for their friends.

Findings from this research can also bring fundamental leverage to revisit social policies that guide actions taken with sexually abused children and youth, for instance by including mandatory training on CSA to all professionals working with children and youth, which would strengthen their abilities to facilitate the disclosure of CSA (e.g. creating a safe place for children to talk), and to react appropriately when faced with a disclosure (e.g. having a reassuring and supportive attitude). This recommendation echoes Jensen et al.'s (2005) conclusions that stressed the importance of a "dialogical process that becomes less difficult if the children perceive that there is an opportunity to talk, and a purpose for speaking, and a connection has been established" (p. 1395).

Findings from this study also provide insight for media campaigns to highlight the challenges that victims experience and offer solutions to overcome these roadblocks to disclosure, rather than simply telling victims they should talk about the abuse. Given the wide coverage that CSA cases receive, mass media can play a vital role in further enhancing awareness towards CSA in our societies, and in providing information free of sexism, prejudices and sensationalism when reporting on CSA. Some interesting political reappraisal processes and cutting-edge prevention programs have emerged lately, such as the German ‘Speaking helps’ campaign (<http://www.sprechen-hilft.de/>; see Rassenhofer, Spröber, Schneider, & Fegert, 2013), which hold great promise to raise awareness of CSA, reduce social stigma, and promote a non-blaming, compassionate discourse towards victims in our communities. Ultimately, it is this shift in societal discourse that could in turn influence more victims to come forward with formal disclosures.

Acknowledgements

The authors would like to express their heartfelt gratefulness to the 67 adult child sexual abuse survivors who shared their stories, and to all participating agencies who agreed to be part of this research endeavour.

References

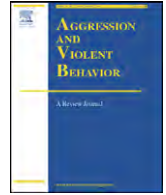
- Alaggia, R. (2004). Many ways of telling: Expanding conceptualizations of child sexual abuse disclosures. *Child Abuse & Neglect*, 28, 1213–1227.
- Alaggia, R. (2005). Disclosing the trauma of child sexual abuse: A gender analysis. *Journal of Loss and Trauma*, 10, 453–470.
- Alaggia, R. (2010). An ecological analysis of child sexual abuse disclosure: Considerations for child and adolescent mental health. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 19, 32–39.
- Alaggia, R., & Millington, G. (2008). Male child sexual abuse: A phenomenology of betrayal. *Clinical Social Work Journal*, 36, 265–275.
- Alaggia, R., & Turtton, J. V. (2005). Against the odds: The impact of woman abuse on maternal response to disclosure of child sexual abuse. *Journal of Child Sexual Abuse*, 14, 95–113.
- Barter, K. (2005). Alternative approaches to promoting the health and well-being of children. In M. Ungar (Ed.), *Handbook for working with children and youth: Pathways to resilience across cultures and contexts* (pp. 343–356). Thousand Oaks, CA: Sage Publications.
- Belsky, B. (1980). Child maltreatment: An ecological integration. *American Psychologist*, 35, 320–335.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage.
- Collings, S. J., Griffiths, S., & Kumalo, M. (2005). Patterns of disclosure in child sexual abuse. *South African Journal of Psychology*, 35, 270–285.
- Deering, R., & Mellor, D. (2011). An exploratory qualitative study of the self-reported impact of female-perpetrated childhood sexual abuse. *Journal of Child Sexual Abuse*, 20, 58–76.
- Donalek, J. G. (2001). First incest disclosure. *Issues in Mental Health Nursing*, 22, 573–591.
- Easton, S. D. (2013). Disclosure of child sexual abuse among adult male survivors. *Clinical Social Work Journal*, 41, 344–355.
- Fontes, L. A., & Plummer, C. (2010). Cultural issues in disclosures of child sexual abuse. *Journal of Child Sexual Abuse*, 19, 491–518.
- Friesen, M. D., Woodward, L. J., Horwood, L. J., & Fergusson, D. M. (2010). Childhood exposure to sexual abuse and partnership outcomes at age 30. *Psychological Medicine*, 40, 679–688.
- Goodman-Brown, T. B., Edelstein, R. S., Goodman, G. S., Jones, D., & Gordon, D. S. (2003). Why children tell: A model of children's disclosure of sexual abuse. *Child Abuse & Neglect*, 27, 525–540.
- Guba, E. G. (1981). Annual review paper: Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Communication and Technology: A Journal of Theory, Research and Development*, 29, 75–91.
- Hébert, M., Daigneault, I., & Van Camp, T. (2012). Aggression sexuelle et risque de revictimisation à l'adolescence: Modèles conceptuels et défis liés à la prévention. In M. Hébert, M. Cyr, & M. Tourigny (Eds.), *Les agressions sexuelles envers les enfants* (pp. 171–223). Montréal, QC: Presses de l'Université du Québec.
- Hébert, M., Lavoie, F., Vitaro, F., McDuff, P., & Tremblay, R. E. (2008). Association of child sexual abuse and dating victimization with mental health disorder in a sample of adolescent girls. *Journal of Traumatic Stress*, 21, 181–189.
- Hébert, M., Tourigny, M., Cyr, M., McDuff, P., & Joly, J. (2009). Prevalence of childhood sexual abuse and timing of disclosure in a representative sample of adults from the province of Quebec. *Canadian Journal of Psychiatry*, 54, 631–636.
- Hershkowitz, I. (2006). Delayed disclosure of alleged child abuse victims in Israel. *American Journal of Orthopsychiatry*, 76, 444–450.
- Hershkowitz, I., Horowitz, D., & Lamb, M. E. (2005). Trends in children's disclosure of abuse in Israel: A national study. *Child Abuse & Neglect*, 29, 1203–1214.
- Hornor, G. (2010). Child sexual abuse: Consequences and implications. *Journal of Pediatric Health Care*, 24, 358–364.
- Hunter, S. V. (2011). Disclosure of child sexual abuse as a life-long process: Implications for health professionals. *Australian and New Zealand Journal of Family Therapy*, 32, 159–172.
- Jackson, S., Newall, E., & Backett-Milburn, K. (2013). Children's narratives of sexual abuse. *Child & Family Social Work*, <http://dx.doi.org/10.1111/cfs.12080> (advance online publication).
- Jensen, T. K., Gulbrandsen, W., Mossige, S., Reichelt, S., & Tjersland, O. A. (2005). Reporting possible sexual abuse: A qualitative study on children's perspectives and the context for disclosure. *Child Abuse & Neglect*, 29, 1395–1413.
- Jones, L. M., Cross, T. P., Walsh, W. A., & Simone, M. (2007). Do Children's Advocacy Centers improve families' experiences of child sexual abuse investigations? *Child Abuse & Neglect*, 31, 1069–1085.
- Jonzon, E., & Lindbald, F. (2004). Disclosure, reactions, and social support: Findings from a sample of adult victims of child sexual abuse. *Child Maltreatment*, 9, 190–200.
- Lalor, K., & McElvaney, R. (2010). Overview of the nature and extent of child sexual abuse in Europe. In Council of Europe (Ed.), *Protecting children from sexual violence: A comprehensive approach* (pp. 13–43). Strasbourg: Council of Europe.
- Lamb, M. E., Orbach, Y., Hershkowitz, I., Esplin, P. W., & Horowitz, D. (2007). A structured forensic interview protocol improves the quality and informativeness of investigative interviews with children: A review of research using the NICHD Investigative Interview Protocol. *Child Abuse & Neglect*, 31, 1201–1231.
- Lawson, L., & Chaffin, M. (1992). False negatives in sexual abuse disclosure interviews: Incidence and influence of caretaker's belief in abuse in cases of accidental abuse discovery by diagnosis of STD. *Journal of Interpersonal Violence*, 7, 532–542.
- London, K., Bruck, M., Ceci, S. J., & Shuman, D. W. (2005). Disclosure of child sexual abuse: What does the research tell us about ways that children tell? *Psychology, Public Policy & Law*, 11, 194–226.
- London, K., Bruck, M., Wright, D. B., & Ceci, S. J. (2008). Review of the contemporary literature on how children report sexual abuse to others: Findings, methodological issues, and implications for forensic interviewers. *Memory*, 16, 29–47.
- Lyon, T. D. (2007). False denials: Overcoming methodological biases in abuse disclosure research. In M.-E. Pipe, M. E. Lamb, Y. Orbach, & A.-C. Cederborg (Eds.), *Child sexual abuse: Disclosure, delay, and denial* (pp. 41–62). Mahwah, NJ: Lawrence Erlbaum Associates.
- Malloy, L. C., Brubacher, S. P., & Lamb, M. E. (2011). Expected consequences of disclosure revealed in investigative interviews with suspected victims of child sexual abuse. *Applied Developmental Science*, 15, 8–19.

- Malloy, L. C., Brubacher, S. P., & Lamb, M. E. (2013). "Because She's One Who Listens": Children discuss disclosure recipients in forensic interviews. *Child Maltreatment*, 18, 245–251.
- McCracken, G. (1988). *The long interview*. Newbury Park, CA: Sage Publications.
- McElvaney, R. (2013). Disclosure of child sexual abuse: Delays, non-disclosure and partial disclosure. What the research tells us and implications for practice. *Child Abuse Review*, <http://dx.doi.org/10.1002/car.2280> (advance online publication)
- McElvaney, R., Greene, S., & Hogan, D. (2012). Containing the secret of child sexual abuse. *Journal of Interpersonal Violence*, 27, 1155–1175.
- McElvaney, R., Greene, S., & Hogan, D. (2014). To tell or not to tell? Factors influencing young people's informal disclosures of child sexual abuse. *Journal of Interpersonal Violence*, 29, 928–947.
- McGregor, K., Julich, S., Glover, M., & Gautam, J. (2010). Health professionals' responses to disclosure of child sexual abuse history: Female child sexual abuse survivors' experiences. *Journal of Child Sexual Abuse*, 19, 239–254.
- Münzer, A., Fegert, J. M., Ganser, H. G., Loos, S., Witt, A., & Goldbeck, L. (2014). Please tell! Barriers to disclosing sexual victimization and subsequent social support perceived by children and adolescents. *Journal of Interpersonal Violence*, <http://dx.doi.org/10.1177/0886260514555371> (advance online publication)
- Paine, M. L., & Hansen, D. J. (2002). Factors influencing children to self-disclose sexual abuse. *Clinical Psychology Review*, 22, 271–295.
- Pereda, N., Guilera, G., Forns, M., & Gómez-Benito, J. (2009). The international epidemiology of child sexual abuse: A continuation of Finkelhor (1994). *Child Abuse & Neglect*, 33, 331–342.
- Priebe, G., & Svedin, C. G. (2008). Child sexual abuse is largely hidden from the adult society: An epidemiological study of adolescents' disclosures. *Child Abuse & Neglect*, 32, 1095–1108.
- Rassenhofer, M., Spröber, N., Schneider, T., & Fegert, J. M. (2013). Listening to victims: Use of a critical incident reporting system to enable adult victims of childhood sexual abuse to participate in a political reappraisal process in Germany. *Child Abuse & Neglect*, 37, 653–663.
- Schaeffer, P., Leventhal, J. M., & Asnes, A. G. (2011). Children's disclosures of sexual abuse: Learning from direct inquiry. *Child Abuse & Neglect*, 35, 343–352.
- Schönbucher, V., Maier, T., Mohler-Kuo, M., Schnyer, U., & Landold, M. (2012). Disclosure of child sexual abuse by adolescents: A qualitative in-depth study. *Journal of Interpersonal Violence*, 27, 3486–3513.
- Schwandt, T. A. (1998). Constructivist, interpretivist approaches to human inquiry. In N. K. Denzin, & Y. S. Lincoln (Eds.), *The landscape of qualitative research: Theories and issues*. Thousand Oaks: Sage Publication.
- Shackel, R. (2014). Understanding children's medium for disclosing sexual abuse: A tool for overcoming potential misconceptions in the courtroom. *Psychiatry, Psychology, & Law*, 16, 379–393.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22, 63–75.
- Sjöberg, R. L., & Lindblad, F. (2002). Limited disclosure of sexual abuse in children whose experiences were documented by videotape. *The American Journal of Psychiatry*, 159, 312–314.
- Smith, D. W., Letourneau, E. J., Saunders, B. E., Kilpatrick, D. G., Resnick, H. S., & Best, C. L. (2000). Delay in disclosure of childhood rape: Results from a national survey. *Child Abuse & Neglect*, 24, 273–287.
- Sorsoli, L., Kia-Keating, M., & Grossman, F. K. (2008). "I keep that hush-hush": Male survivors of sexual abuse and the challenges of disclosure. *Journal of Counseling Psychology*, 55, 333–345.
- Staller, K. M., & Nelson-Gardell, D. (2005). "A burden in your heart": Lessons of disclosure from female preadolescent and adolescent survivors of sexual abuse. *Child Abuse & Neglect*, 29, 1415–1432.
- Stoltenborgh, M., van Ijzendoorn, M. H., Euser, E. M., & Bakermans-Kranenburg, M. J. (2011). A global perspective on child sexual abuse: Meta-analysis of prevalence around the world. *Child Maltreatment*, 16, 79–101.
- Strauss, A., & Corbin, J. (1997). *Grounded theory in practice*. Thousand Oaks, CA: Sage Publications.
- Summit, R. C. (1983). The child sexual abuse accommodation syndrome. *Child Abuse & Neglect*, 7, 177–193.
- Ullman, S. E. (2007). Relationship to perpetrator, disclosure, social reactions, and PTSD symptoms in child sexual abuse survivors. *Journal of Child Sexual Abuse*, 16, 19–36.
- Ungar, M., Barter, K., McConnell, S. M., Tutty, L. M., & Fairholm, J. (2009). Patterns of abuse disclosure among youth. *Qualitative Social Work*, 8, 341–356.
- Ungar, M., Tutty, L. M., McConnell, S. M., Barter, K., & Fairholm, J. (2009). What Canadian youth tell us about disclosing abuse. *Child Abuse & Neglect*, 33, 699–708.

Appendix C

Kate Walsh, et al., *Adult Coping with Childhood Sexual Abuse: A Theoretical and Empirical Review*, 15 *Aggression & Violent Behavior* 1 (2010).

Appendix C



Adult coping with childhood sexual abuse: A theoretical and empirical review

Kate Walsh^a, Michelle A. Fortier^b, David DiLillo^{a,*}

^a University of Nebraska—Lincoln, United States

^b University of California—Irvine and Children's Hospital of Orange County, United States

ARTICLE INFO

Article history:

Received 3 March 2009

Received in revised form 22 June 2009

Accepted 26 June 2009

Available online 5 July 2009

Keywords:

Childhood sexual abuse

Coping strategies

Childhood trauma

Adult female victims

Methods of coping

ABSTRACT

Coping has been suggested as an important element in understanding the long-term functioning of individuals with a history of child sexual abuse (CSA). The present review synthesizes the literature on coping with CSA, first by examining theories of coping with trauma, and, second by examining how these theories have been applied to studies of coping in samples of CSA victims. Thirty-nine studies were reviewed, including eleven descriptive studies of the coping strategies employed by individuals with a history of CSA, eighteen correlational studies of the relationship between coping strategies and long-term functioning of CSA victims, and ten investigations in which coping was examined as a mediational factor in relation to long-term outcomes. These studies provide initial information regarding early sexual abuse and subsequent coping processes. However, this literature is limited by several theoretical and methodological issues, including a failure to specify the process of coping as it occurs, a disparity between theory and research, and limited applicability to clinical practice. Future directions of research are discussed and include the need to understand coping as a process, identification of coping in relation to adaptive outcomes, and considerations of more complex mediational and moderational processes in the study of coping with CSA.

© 2009 Elsevier Ltd. All rights reserved.

Contents

1. Introduction	1
2. Coping theory	2
2.1. Conceptual overview of coping	2
3. Coping with CSA: a review of the empirical literature	3
3.1. How do adult abuse victims cope with child abuse experiences?	3
3.2. How do coping strategies relate to long-term outcomes of abuse?	7
3.3. Do coping strategies mediate relations between CSA and adult adjustment?	9
4. Conclusions and future directions	10
4.1. Theoretical and measurement issues	10
4.1.1. Defining coping	10
4.2. Methodological issues	10
4.2.1. Measurement of coping	11
4.2.2. Is coping a mediating or moderating construct?	11
4.2.3. The limited range of outcome and intervening variables	11
4.2.4. The gap between research and practice	11
References	12

1. Introduction

Estimates suggest that between one-fifth and one-third of females in the U.S. experience some form of sexual abuse during childhood (Elliott & Briere, 1995; Finkelhor, 1994; Finkelhor, Hotaling, Lewis, & Smith, 1990), although rates within clinical populations of women tend to be much higher (Goodman, Rosenberg, Mueser, & Drake, 1997;

* Corresponding author. Department of Psychology, University of Nebraska—Lincoln, 238 Burnett Hall, Lincoln, NE, 68588-0308, United States.

E-mail address: ddilillo@unl.edu (D. DiLillo).

Jacobsen & Herald, 1990; Mitchell, Grindel, & Laurenzno, 1996; Read, 1997). As part of the broader increased awareness of CSA, researchers have focused considerable attention on mental health and behavioral outcomes associated with early abuse. This work suggests that CSA is a risk factor for the development of an array of long-term difficulties, including depression, posttraumatic stress, dissociation, and substance abuse (Fergusson, Boden, & Horwood, 2008; Neumann, Houskamp, Pollock, & Briere, 1996; Polusny & Follette, 1995).

Although the detrimental correlates of CSA are common, both the short- and long-term outcomes are variable and inconsistent. For example, it has been proposed that 10% to 25% of CSA victims report no psychological difficulties in childhood (Conte & Berliner, 1988; Kendall-Tackett, Williams, & Finkelhor, 1993). Similarly, studies of long-term outcomes consistently show a significant proportion of victims (20% to 40%) report little to no symptomatology as adults (Finkelhor, 1990). This finding fits with recent literature showing that resilience is the most common response to trauma (Bonanno, 2005). Furthermore, among adults, CSA has been linked to such a wide array of psychopathology that some consider it to be a “non-specific risk factor” for the range of detrimental outcomes seen in CSA victims (Putnam, 2003; Romans, Martin, & Mullen, 1997).

This variation in the degree and range of long-term correlates highlights the need to understand the various intervening processes that may contribute to the diverse outcomes associated with CSA. One obvious source of variation is the nature and severity of the abuse experience itself. Indeed, factors such as the types of acts committed, use of physical force, and the relationship of the victim to the perpetrator each may play important roles determining victims' long-term functioning (Beitchman et al., 1992; Bennett, Hughes, & Luke, 2000; Elliott & Briere, 1992; Trickett, Reiffman, Horowitz, & Putnam, 1997). In addition to abuse-specific characteristics, a number of other factors also may predict post-abuse adjustment as adults including family characteristics such as cohesion and conflict (McClure, Chavez, Agars, Peacock, & Matosian, 2008) and responses of others upon disclosure of abuse (Wyatt & Mickey, 1987).

The coping strategies employed by victims represent another potential determinant of the variation in long-term functioning reported by victims. Specifically, individuals who have more adaptive means of managing their abuse-related negative emotions may experience less long-term distress than those who have greater difficulty processing such emotions. In this vein, coping methods often are categorized as effective (e.g., directly addressing a problem) or ineffective (e.g., avoidance), although the effectiveness of certain methods also may be dependent upon the nature of the stressor and time employed (Coyle & Racioppo, 2000). In light of research showing that coping strategies have been found to impact later adjustment and functioning (Folkman & Lazarus, 1980), it is reasonable to hypothesize that variability in coping strategies would help to account for the wide range of emotional and behavioral outcomes associated with a history of CSA.

Research and theoretical writings addressing associations between CSA, coping, and long-term functioning have increased dramatically in recent years. One reason for this upsurge may be recognition that coping strategies are amenable to change and thus represent viable targets for intervention among individuals dealing with the negative sequelae of abuse. Despite increased interest in coping and CSA, few attempts have been made to synthesize empirical findings at the intersection of these important areas of research. The primary purpose of this review is to provide a clearer picture of current knowledge about the types of coping used by CSA victims as well as associations between coping and long-term psychological functioning. Through critical examination of this literature, we also offer suggestions for advancing research in the area. As a theoretical backdrop for this review, we first present a brief overview of general coping theory. Because the preponderance of studies has focused on adult victims

who are asked either to report about current coping strategies or to provide retrospective accounts of childhood coping, the present review is limited to this area of the literature.

2. Coping theory

2.1. Conceptual overview of coping

Coping refers to a range of diverse cognitions and behaviors used to manage the internal and external demands of a stressful or threatening situation (Folkman & Lazarus, 1980; Lazarus & Folkman, 1984). Although coping strategies have been identified and categorized along a variety of dimensions (Cohen, 1987; Holohan & Moos, 1987; Roth & Cohen 1986), one common approach classifies coping as consisting of either cognitive or behavioral responses to a specific stressor or situation (Holohan & Moos, 1987). Cognitive coping strategies include attempts to change one's perception or conception of a situation, whereas behavioral coping includes actions taken to reduce the effects of stress. For example, focusing on positive aspects of a situation would be considered a form of cognitive coping, while engaging in substance abuse or physically distancing oneself from the source of stress would be conceptualized as behavioral coping. Another common approach involves distinguishing between approach and avoidance coping (Holohan & Moos, 1987; Roth & Cohen 1986). This model suggests that coping involves alternating between approach, which involves attempts to integrate painful material, and avoidance, which involves attempts to protect oneself from a threatening event. Thus, approach allows for direct action in attempts to regulate stress, whereas avoidance serves to prevent negative emotions from becoming overwhelming, by allowing distance from the trauma and thereby reducing stress (Roth & Cohen, 1986). Of importance to note, Moos (1995) suggests that cognitive/behavioral and approach/avoidance coping dimensions can be considered in combination when assessing and analyzing coping strategies. Specifically, to integrate these facets of coping, Moos proposes that the cognitive/behavioral construct reflects the “method” of coping, while the approach/avoidance distinction refers to the “focus” of coping.

Coping can refer both to strategies typically used in response to a variety of common stressors (i.e., individuals display particular coping styles) as well as to strategies anchored to aspects of a particular stressful event (i.e., individuals modulate the strategies used based on the particular stressor or trauma encountered). The experience of CSA might prompt the use of particular coping strategies across more general domains of functioning as well as in specific stressful situations. Consistent with this notion, Finkelhor and Browne (1985) proposed a model termed the Traumagenic Dynamics Model of CSA that accounts, in part, for the manner in which CSA might influence the development of coping strategies. This model posits that four dynamics explain the symptoms observed in sexual abuse victims: traumatic sexualization, betrayal, stigmatization, and powerlessness. A “traumagenic dynamic is an experience that alters a child's cognitive or emotional orientation to the world and causes trauma by distorting the child's self-concept, worldview, or affective capacities” (Finkelhor, 1987; p. 354). Finkelhor suggests that victims may develop abuse-related schemas and coping strategies that are adaptive and reflect integration, but may be “dysfunctional in coping with a world where abuse is not the norm” (p. 355).

Coping effectively with sexual abuse is likely to occur in phases over time and involve the use of different strategies (Burgess & Holmstrom, 1976; Horowitz, 1986). Thus, it is reasonable to conclude that the adaptive outcomes associated with the coping process also will change over time. For example, if avoidance is adaptive in the short-term, victims who are able to employ this strategy effectively might evidence decreased levels of emotional distress. However, if long-term coping requires the integration of the abuse into existing

schemas, increased distress might be expected during this phase, as an individual is required to examine the meaning of the trauma. Further, the dynamics of abuse are considered processes, rather than events, that create cognitive distortions (Finkelhor, 1987). These distortions are proposed to relate to the emotional and behavioral difficulties seen in both adult and child victims of CSA that must be understood in the context of the victim's life prior to, during, and following the abuse (Finkelhor, 1987).

3. Coping with CSA: a review of the empirical literature

Understanding the process of coping with trauma from a theoretical standpoint provides a foundation from which to examine coping with CSA on an empirical level. Empirical studies exploring the relationship between CSA and coping have been conducted in three primary ways: 1) investigations providing descriptive information regarding the coping strategies that victims employ in relation to their abuse experiences; 2) studies examining associations between various coping strategies and long-term correlates of abuse; and 3) studies examining coping as an intervening factor in the relationship between CSA and long-term outcomes. The present review synthesizes work in each of these domains. To gather pertinent articles examining coping with CSA, an initial search of the PsychINFO, PILOTS, ERIC, and Medline databases was conducted using keywords such as “coping” and “child sexual abuse.” The reference sections of those articles identified in this search were examined to obtain additional studies not identified through the electronic searches. This strategy yielded a total of 39 published articles addressing adult coping with CSA. These studies have been grouped into the three main categories noted above: those that are primarily descriptive in nature ($n = 11$), those that examine the correlational associations between coping strategies and long-term functioning ($n = 18$), and those that examine coping as a mediator of the relationship between CSA and long-term outcomes ($n = 10$). What follows is a review of the studies in each of these areas.

3.1. How do adult abuse victims cope with child abuse experiences?

Many investigations of coping among adult CSA victims utilize qualitative research designs to describe the coping methods most often employed by CSA victims. Typically, these studies use open-ended interviews to assess coping, with later coding of responses into categories based upon the content of the interviews. Such studies vary in nature of the samples used, operationalization of CSA, and methods of assessing coping. Further, these studies are retrospective in design, involve adult female CSA victims, and use some form of semi-structured interview to assess sexual abuse, as well as the ways in which individuals coped with CSA, either at the time of the abuse or as an adult. Section 1 of Table 1 provides a summary of these investigations. Collectively, these studies indicate that CSA victims use a wide array of coping strategies, including cognitive (e.g., cognitive reappraisal, reframing, minimization, memory repression, distraction) and behavioral (e.g., avoidance, addictive behaviors) efforts to deal with their abuse experiences. For example, Brand, Warner, and Alexander (1997) found that adult incest victims recruited via newspaper advertisements used 19 different coping strategies, ranging from cognitive avoidance to behavioral sublimation. In a small sample of 11 adult women participating in counseling, Morrow and Smith (1995) identified two core coping strategies: 1) keeping from being overwhelmed by threatening emotions and 2) managing feelings of helplessness, powerlessness, and lack of control. Moreover, among 40 adult women recruited from electoral rolls in New Zealand, Perrott, Morris, Martin, and Romans (1998) proposed six main coping styles (e.g., deliberately suppressing, reframing, working through the abuse, seeking support, talking about the abuse as adults, and coping on own). Similarly, among 10 self-identified resilient adult women who had experienced CSA, positive coping strategies, refocusing and moving on, active healing, and

achieving closure were identified as processes that enabled women to effectively manage their negative emotions (Bogar & Hulse-Killacky, 2006). Attempting to illuminate adaptive coping strategies, Himelein and McElrath (1996) examined females in their first year of college and found that four coping strategies emerged in resilient CSA victims: disclosure, minimization, positively reframing the abuse, and refusing to dwell on the past.

Illustrating changes in coping that may occur over time, DiPalma (1994) examined child and adult coping styles of 15 adult victims of incest who self-identified as “high functioning.” Coping strategies used by these individuals during childhood included attempts to stop the abuse, avoidance, psychological escape, and compensation, while adult strategies involved breaking away from the past, cognitive coping, self-discovery, and revisiting the past (DiPalma, 1994). Oaksford and Frude (2003) also attempted to illustrate how the process of coping with CSA may evolve over time. Using semi-structured interviews, 11 adult female victims were asked about the coping strategies they used at the time of the abuse (i.e., immediate strategies) as well as coping used later in life (i.e., long-term strategies). Results suggested that some strategies were used only in the immediate aftermath of the abuse (e.g., psychological escape, physical resistance, and disclosure), whereas others served as long-term coping efforts (e.g., rumination, normalizing the abuse, and acquiring a sense of psychological control). Strategies that emerged as both enduring and prevalent included: wishful thinking, cognitive appraisal, downward comparison, and minimization. Overall, these findings suggest that sexual abuse victims report using a wide range of coping strategies both in the immediate aftermath of abuse and over the long-term, although the specific strategies used may differ substantially with time. As expected, for instance, coping responses used in the immediate aftermath of abuse appear to generally reflect avoidance behaviors whereas long-term coping strategies appear to reflect cognitive efforts to integrate the material.

In addition to describing CSA victims' typical coping responses, studies also have examined links between specific abuse characteristics and coping strategies. This is important because more severe or chronic abuse may increase the likelihood of using a particular coping strategy. For example, using a sample of 66 of college women, DiLillo, Long, and Russell (1994) compared intra- versus extrafamilial sexual abuse victims on a standardized coping checklist and found that intrafamilial victims engaged in increased use of both problem-focused and emotion-focused coping strategies when compared to extrafamilial victims. Among undergraduate women, increased CSA severity also has been shown to predict greater use of maladaptive coping strategies such as withdrawing from others, acting out sexually or aggressively, and using alcohol or drugs (Filipas & Ullman, 2006). A study of men and women recruited from multiple sources (college, outpatient, and inpatient) revealed that increased resistance during the abuse experience was associated with lower use of confrontive coping as an adult, and longer duration of abuse was associated with increased use of distancing (Steel, Sanna, Hammond, Whipple, & Cross, 2004). Examining the construction of victims' life stories (i.e., narratives) in relation to coping strategies, Klein and Janoff-Bulman (1996) found that male and female undergraduates who placed blame on their perpetrator or others used more adaptive coping strategies. However, these authors assessed only cognitive coping strategies (avoiding dwelling on the abuse and overgeneralizing) without accounting for behavioral coping methods.

Studies of multitype maltreatment (i.e., experiencing more than one abuse type) can illuminate differences in coping between victims reporting various abuse types as well as how the experience of additional maltreatment types might influence the use of particular coping strategies. For instance, among college women reporting multiple forms of abuse (e.g., physical and sexual), Futa, Nash, Hansen, and Garbin (2003) found that all child abuse victims evidenced a greater tendency to use distancing and self-blame to cope, whereas CSA victims engaged in self-isolation to a greater degree than did victims of child physical abuse (CPA) and non-victims. In addition, CSA victims were found to be low in social support seeking, tension

Table 1
Coping strategies employed by adult CSA victims: summary of study characteristics and empirical findings.

Study	Size and source of study sample	Definition of CSA			Measure of coping	Major findings regarding descriptions of coping strategies utilized by participants with a history of CSA
		Nature of abusive acts	Upper age limit	Age difference required		
Section 1: How do adult abuse victims cope with child abuse experiences?						
Bogar and Hulse-Killacky (2006)	10 female sexual abuse victims; recruited via referrals and fliers at three universities	Abused “during childhood by someone known to them”	NR	NR	Qualitative interview transcribed and coded.	Determinants of resiliency were interpersonal skills, competence, high self-regard, spirituality, and helpful life circumstances. Processes that facilitated resiliency were coping strategies, refocusing and moving on, active healing, and achieving closure
Brand et al. (1997)	101 female incest victims; newspaper ads	Abuse “in childhood or adolescence” by family member or someone older living in the home	NR	NR	Interview adapted from Incest History Questionnaire	Most common coping strategies included: behavioral sublimation, avoidance of abuser, emotional expression, cognitive avoidance, dissociation, emotional suppression, verbal confrontation, rumination, withdrawal, addictive behaviors, and seeking social support.
DiLillo et al. (1994)	66 female college students; recruited from psychology department	“Any sexual activity”	Under 13	5+ years; 10+ years if victim aged 13–16	Ways of Coping Checklist–Revised	Intrafamilial victims used more problem- and emotion-focused coping (wishful thinking, self-blame, and self-isolation) and a greater number of additional strategies that did not load on either factor compared to extrafamilial victims.
DiPalma (1994)	15 incest victims self-identified as “high functioning”; snowball technique	Self-id of “sexual abuse by a family member during childhood or adolescence”	NR	NR	Two semi-structured interviews, coping categorized as data were collected.	Childhood coping included: attempts to stop abuse, avoidance, psychological escape, and compensation. Adult coping included: breaking away and creating own dreams, cognitive coping, self-discovery, and revisiting the past.
Futa et al. (2003)	196 female undergraduates with a history of CPA, CSA, both, or no abuse	Any experience on the Childhood Experiences Form (e.g., shown sexually explicit material to vaginal intercourse)	Under 14	4+ years	Ways of Coping Checklist–Revised	All groups used distancing and self-blame. CSA group used more self-isolation than CPA and the no abuse groups. CSA group low in social support seeking, tension reduction, problem-focused coping, and wishful thinking coping.
Himelein and McElrath (1996)	Study 1: 180 female college students; Study 2: 20 of Study 1 CSA victims (put in high- vs. low-adjustment groups	“Contact sexual experiences” (fondling, attempted intercourse, intercourse)	Under 15	5+ years	Study 1: Mastery Scale, The Optimism Scale Study 2: semi-structured interview	Study 1: Greater perceptions of internal control and higher unrealistic optimism predicted better adjustment. Study 2: Four long-term coping strategies used by resilient CSA victims: disclosure, minimization, positively reframing the abuse, and refusing to dwell on the past.
Leitenberg et al. (2004)	828 female undergraduates experiencing 0–3+ types of abuse or adverse events	“Any sexual activity involving genital contact”; physical contact required	Under 16	5+ years or use of physical force	Coping Strategies Inventory	When coping with current stressor, disengagement (problem- and emotion-focused) but not engagement strategies positively correlated with number of abuse experiences.
Morrow and Smith (1995)	11 females recruited from therapists working with CSA victims	Self-id as ‘abuse victim’; “varied from a single incident ...to ...ongoing sadistic abuse”	NR	NR	Qualitative interview transcribed and coded. 7 participants involved in focus groups on coping.	Two strategies identified: (1) keeping from being overwhelmed by threatening feelings (e.g., reducing intensity, avoidance, release) and (2) managing helplessness, powerlessness, and lack of control (e.g., reframing, mastery, control other areas of life, rejecting power).
Perrott et al. (1998)	40 females; “randomly selected from electoral rolls” in New Zealand	“Any unwanted sexual experience” ranging from non-genital contact to intercourse	Under 16	“Someone older or bigger”	Qualitative interview involving open-ended questions, which were transcribed and coded.	Identified six coping styles: deliberately suppressing, reframing, working through abuse, seeking support, talking about abuse, and coping on own. Reframing related to father/stepfather perpetrator and intercourse; avoidance or suppression related to attempted intercourse/intercourse; self-blame to chronic abuse or earlier age of onset.
Romans et al. (1999)	173 female CSA victims and 178 controls; recruited from Otago Women’s Health Survey study	“Any unwanted sexual experience”	Under 16	“Someone older or bigger”	Defense Style Questionnaire, which assesses psychological coping strategies	CSA victims demonstrated increased use of following defenses: autistic fantasy, displacement, projection, passive aggressiveness, and acting out compared to non-victims.
Section 2: How do coping strategies relate to long-term outcomes of abuse?						
Bonanno et al. (2003)	103 females (48 CSA victims, 55 non-abused) aged 11–25 who were part of an	“Abuse involved genital contact and/or penetration; and perpetrator was a family member...”	NR	NR	Repression: Taylor Manifest Anxiety Scale and Marlow–Crowne Social Desirability Scale;	Non-disclosers of CSA tended to score as “repressors,” while CSA disclosers reported greater dissociative scores. Repressive coping positively correlated with both

Table 1 (continued)

Study	Size and source of study sample	Definition of CSA			Measure of coping	Major findings regarding descriptions of coping strategies utilized by participants with a history of CSA
		Nature of abusive acts	Upper age limit	Age difference required		
Section 2: How do coping strategies relate to long-term outcomes of abuse?						
Bonanno et al. (2003)	ongoing longitudinal study of effects of CSA				affective–autonomic response discrepancy. <i>Dissociation</i> : adolescent version of Dissociative Experiences Scale	positive and negative facial expressions; dissociative coping inversely correlated with emotional expression. Dissociation positively associated with PTSD, internalizing, and externalizing symptoms, whereas repression negatively correlated with internalizing and externalizing symptoms.
Brand and Alexander (2003)	101 female incest victims; recruited via newspaper ads.	“Abuse in childhood or adolescence by a family member or older co-residing individual”	NR	NR	Ways of Coping Checklist	Emotion-focused coping used more than problem-focused. Avoidance and seeking social support positively associated with adult dysfunction, whereas distancing associated with less dysfunction (after controlling for abuse characteristics). CSA victims reported greater use of disengagement coping and demonstrated greater psychological distress compared to controls. Disengagement related to Increased duration and level of sexual activity and accounted for unique variance in current psychological distress.
Coffey et al. (1996)	666 females; randomly selected and sent questionnaires	“Any sexual activity involving physical contact”	Under 16	5+ years or use of physical force	Coping Strategies Inventory	Increased CSA severity associated with more self-blame, maladaptive coping (withdrawing from people, acting out sexually, using alcohol or drugs, acting out aggressively), and PTSD symptoms. Maladaptive coping predicted PTSD and revictimization.
Filipas and Ullman (2006)	577 female students recruited from introductory psychology/ criminal justice courses: 166 CSA; 411 non-CSA	Sexual contact occurring prior to age 14 with a perpetrator at least 5 years older	Under 14	5+ years	Questionnaire designed to assess cognitive and behavioral coping	CSA associated with increased use of disengagement strategies (wishful thinking, self-criticism, social withdrawal) when compared to non-CSA. Disengaged coping associated with depression and low self-esteem.
Griffing et al. (2006)	219 female domestic violence victims; 40% reported CSA	Positive response to items on Childhood Trauma Questionnaire	NR	NR	Coping Strategies Inventory—Short Form	CSA and negative coping both predicted PTSD severity after controlling for personality characteristics
Huang et al. (2008)	471 female Chinese inmates		NR	NR	Trait Coping Style Questionnaire	Wishful thinking most significant coping predictor of global distress. Tension-reduction and distancing related to increased distress; seeking social support related to increased therapist-rated psychopathology.
Johnson and Kenkel (1991)	45 female incest victims, recruited from treatment settings, ages 13–18	Not specified; “female incest victims...currently in treatment”	NR	NR	Ways of Coping Checklist (wording modified for age appropriateness)	Approach positively correlated with passive aggressive and histrionic personality disorder (PD); avoidance positively correlated with PTSD severity and avoidant, dependent, borderline, paranoid, schizotypal and schizoid PD as well as CSA victims diagnosed with PTSD.
Johnson et al. (2003)	86 females “seeking... therapy for symptoms related to...sexual abuse.	“Unwanted or forced sexual contact (i.e., fondling, oral sex and/or intercourse)”	Under 13	5+ years or 10+ if victim aged 13–16	Coping Strategies Inventory	Avoiding dwelling on abuse and overgeneralizing associated with lower psychological distress. Abuse group reported increased psychological distress, though no differences in coping abilities. Use of “other” pronouns in narratives positively related to adaptive coping strategies.
Klein and Janoff-Bulman (1996)	23 male and female undergraduates reporting physical, emotional, or sexual abuse; 23 controls.	Self-reported physical or sexual abuse described as “extremely traumatic”	NR	NR	Personal narrative and Constructive Thinking Inventory	Emotional suppression and denial most common coping methods. Denial, emotional suppression, cognitive rumination, and avoidance associated with greater psychological distress, after controlling for abuse characteristics.
Leitenberg et al. (1992)	54 female nurses in New England responding to mailed questionnaires.	“Any sexual experience”	Under 15	5+ years, minimum age 16	Questionnaire designed for study, with items pertinent to CSA.	Social support from family and friends was found to moderate associations between CSA and personal sense of loss associated with alexithymia and depression.
Murthi and Espelage (2005)	116 college women reporting child sexual abuse	Contact sexual experiences occurring before age 12 with someone older than 16 or with family member	Under 12	Perpetrator older than 16	Ways of Coping Questionnaire	Wider range of coping, problem-focused coping and self-blame related to poorer adjustment. Immediate strategies: psychological escapes, support, action-oriented, and cognitive appraisal. Long-
Oaksford and Frude (2003)	Phase II: 11 female undergraduates in the UK; Phase III: same 11 CSA victims	“Broad definition...that included peer abuse, but excluded experiences of mutual sexual exploration...”	NR	NR	Phase II: Ways of Coping Checklist—Revised; Phase III: semi-structured interview	

(continued on next page)

Table 1 (continued)

Study	Size and source of study sample	Definition of CSA			Measure of coping	Major findings regarding descriptions of coping strategies utilized by participants with a history of CSA
		Nature of abusive acts	Upper age limit	Age difference required		
Section 2: How do coping strategies relate to long-term outcomes of abuse?						
Oaksford and Frude (2003) Sigmon et al. (1996)	19 male and 58 female CSA victims recruited from local and national support groups		NR	NR		term strategies: same as immediate, with addition of positive reframing. Avoidance coping most commonly used strategy among CSA victims; avoidance coping related to increased anxiety, depression, and posttraumatic symptoms. Women endorsed greater use of emotion-focused coping whereas men endorsed greater acceptance.
Silver et al. (1983)	77 female incest victims; recruited using newspapers, posters, announcements	“Explicit sexual contact between a female child and father or other adult male serving in father role”	NR	NR	Self-assessment of resolution of feelings; search for meaning (2 open-ended questions)	Finding meaning associated with less distress, and increased social adjustment, self-esteem, and resolution of abusive experiences. Continued search for meaning associated with increased distress, impairment in social functioning, and lower self-esteem and resolution of abuse experiences.
Ullman and Filipas (2005)	733 male and female students recruited from introductory psychology/ criminal justice courses; 167 CSA; 566 non-CSA	Sexual contact occurring prior to age 14 with a perpetrator at least 5 years older	Under 14	5+ years	Questionnaire designed to assess cognitive and behavioral coping	Women who delayed disclosure had greater PTSD severity than those who disclosed sooner; for men, this relationship was non-significant. Among male and female abuse victims, maladaptive coping predicted increased PTSD after controlling for abuse characteristics.
Ullman, Townsend, et al. (2007)	636 community women	Unwanted sexual experiences prior to age 18 (distinguished between CSA and ASA)	Under 18	NR	Brief COPE	Using SEM, negative social reactions of others and avoidant coping are strongest predictors of PTSD
Walsh, et al. (2007)	73 undergraduate females recruited through flyers and internet postings	Sexual abuse as indicated by the Childhood Trauma Questionnaire	Under 16	NR	Ways of Coping—Revised	Positive coping strategies (summary of problem-focused coping, seeking social support, and focusing on positive) associated with decreased likelihood of experiencing adult sexual coercion
Wright et al. (2007)	60 mothers with sexual abuse histories recruited through flyers, newspapers, and internet postings	Adult mothers who had experienced childhood sexual abuse	NR	NR	Coping Strategy Indicator; open-ended questions about resolution of CSA, benefits of coping, and meaning derived from abuse	Avoidant coping associated with more depressive symptoms; women who reported that abuse was unresolved were more likely to use avoidant coping; finding meaning in the experience was associated with less social isolation and better adjustment
Section 3: Do coping strategies mediate relations between CSA and adult adjustment?						
Draucker (1995)	149 females; questionnaires sent to clinicians	Not specified; women attending “sexual abuse groups” in 18 major metropolitan areas	NR	NR	The Cognitive Adaptation Scale	Stigmatization and powerlessness directly related to meaning and indirectly related to guilt and social introversion. Finding meaning and sense of mastery related to less guilt and isolation in adulthood. Mastery related to decreased interpersonal victimization.
Fortier et al. (2009)	99 female undergraduates with a history of CSA	Sexual touching, kissing, or oral, anal, or vaginal intercourse with an individual 5 or more years older before age of 14, or with someone 10 or more years older if victim was 14 to 17 years, or any of the aforementioned activities experienced against their will, regardless of the difference in age or relationship to the perpetrator	17 or under	5+ years if victim was 14 or younger, 10+ years if victim was 14–17 years old, no age difference if experiences were against will of victim	Coping Strategies Inventory	Avoidant coping mediated relationship between CSA and traumatic distress, which in turn, was associated with sexual revictimization in adulthood. Specifically, severity of CSA predicted use of avoidant coping strategies, which in turn predicted traumatic distress in adulthood. Increased traumatic distress was associated with increased risk for coercive sexual revictimization.
Frazier et al. (2004)	88–98 females; presenting at an ER for sexual assault	“Any sexual activity they did not want to happen”	Under 12	NR	Coping Strategies Inventory; Religious Coping Scale	Positive life changes associated with use of approach coping and sense of control over recovery. Social support positively related to approach coping, control over recovery, precautions against future assault, and decreases in avoidant coping.
Gibson and Leitenberg (2001)	106 female undergraduates, experienced adult sexual assault within past year	CSA: “sexual experiences” with physical contact; Adolescent sexual abuse (ASA): “sexual victimization”	CSA: Under 12; ASA: 14–17	CSA/ASA: 5+ years or forced sexual activity	Coping Strategies Inventory	Disengagement related to increased psychological distress and PTSD symptoms. History of CSA related to disengagement and feelings of stigma and powerlessness in response to adult sexual assault. Stigma found to mediate

Table 1 (continued)

Study	Size and source of study sample	Definition of CSA			Measure of coping	Major findings regarding descriptions of coping strategies utilized by participants with a history of CSA
		Nature of abusive acts	Upper age limit	Age difference required		
Section 3: Do coping strategies mediate relations between CSA and adult adjustment?						
Gibson and Leitenberg (2001)	144 female undergraduates (44 CSA, 144 non-victims)	Sexual contact; "anything ranging from playing 'doctor' to sexual intercourse"	Under 16	5+ years or no consent, use of force or coercion	Coping Inventory for Stressful Situations	relationship between history of CSA and use of disengagement. CSA indirectly related to global self-worth through paternal support. For CSA victims, paternal support indirectly related to global self-worth through its effects on emotion-focused coping.
Guelzow et al. (2002)	547 female U.S. Navy recruits	"Any sexual contact...with a family member or with a non-family member"	Under 14	5+ years	How I Deal With Things Scale	Positive relationship between CSA severity and avoidant and self-destructive coping. Self-destructive coping related to dysfunctional sexual behavior and increased number of sex partners, and avoidance associated with increased sexual concerns and decreased numbers of sex partners
Merrill et al. (2003)	4,098 female U.S. Navy recruits, 28% (N = 1,134) experienced CSA.	Sexual kissing/touching; made to touch sexual parts; oral, anal, or vaginal intercourse, anal or vaginal penetration	Under 14	5+ years	How I Deal With Things Scale	Self-destructive and avoidance coping positively related to psychological symptoms. Constructive coping negatively associated with symptomatology. Negative coping mediated relationship between abuse severity and adjustment.
Merrill et al. (2001)	191 female and 110 male undergraduates, reporting physical or sexual abuse	"Sexual contact" involving lack of consent (determined by age, power, victim view as abusive or negative)	Under 15 or lack of consent	5+ years older or 10+ years if between 15–18	Coping: How I deal with Things	Expressing emotion and actively seeking change associated with positive psychological functioning. Self-destructive and avoidant coping associated with impaired psychosocial functioning. Mediating effects of social support only supported for CPA.
Runtz and Schallow (1997)	285 males and females recruited from non-patient (college), psychiatric outpatient, and psychiatric inpatient settings	"Unwanted or forced sexual contact during childhood or adolescence"	Under 18	NR	Ways of Coping Questionnaire, Attributional Style Questionnaire	The coping strategies of accepting responsibility and confrontive coping mediated relationships between specific abuse characteristics (i.e., relationship to perpetrator, force, age of onset, and frequency of abuse) and psychological distress.
Steel et al. (2004)	111 females, contacted by random-digit dialing of telephones.	"Sexual body contact," including fondling and attempted or completed vaginal or oral intercourse	Under 18	5+ years or contact not desired or involving coercion	Immediate negative responses to abuse and internal attributions	Coping strategies of immediate negative responses and internal attributions fully explained the impact of abuse characteristics (e.g., age of last abuse, duration, and psychological coercion) on long-term negative outcomes.
Wyatt and Newcomb (1990)						

reduction, problem-focused coping, and wishful thinking. Among a large sample of undergraduate women reporting multiple forms of abuse or other adverse childhood experiences, Leitenberg, Gibson, and Novy (2004) found that as the number of abuse types increased, a corresponding increase in the use of disengagement (both problem- and emotion-focused) methods of coping with current stressors was observed, although no difference was found in use of engagement methods of coping. This suggests that increased trauma exposure might require victims to devote more effort to coping with stressors by distancing themselves cognitively and emotionally. However, as Aldwin (1993) notes, an increase in the utilization of coping strategies does not necessarily correspond to increased efficacy of coping.

In concert with current theories of coping with trauma, descriptive studies indicate that coping with childhood sexual trauma is a multifaceted and complex process that evolves over time. Consistent across these studies are results indicating that the experience of sexual trauma is often associated with the use of avoidant coping strategies, particularly in the short-term. In addition, many victims report the use of cognitive coping strategies later in life, which fits with trauma theories suggesting that integration is a critical strategy in the final phases of coping. These studies provide a foundation from which to understand coping with sexual trauma on an individual level and suggest that assessments of coping must not only encompass a wide variety of behavioral, cognitive, and emotional efforts, but also must be sensitive to changes in coping over time. Furthermore, these results provide insights into the range of coping strategies that victims may employ at different developmental stages (i.e.,

childhood versus adulthood), as well as factors that may relate to the use of particular strategies (e.g., relationship to perpetrator, severity, resistance during abuse, and duration of abuse, and multitype abuse).

Although descriptive studies provide useful initial information, they have several limitations. In particular, many qualitative studies utilize small sample sizes and identify a large number of coping strategies, some of which were only reported by a few individuals. These limitations suggest that these studies may not provide a representative assessment of the coping strategies typically used by CSA victims. Further, these studies rely on retrospective assessments of methods of coping at the time of the abuse and therefore may be influenced by errors in recall as well as distorted by current functioning. Although some consistencies in coping strategies are noted, the categorizations of coping differed greatly across studies, making direct comparisons difficult. None of these studies assessed male victims of CSA and, consequently, offer results that are not generalizable to more diverse populations.

3.2. How do coping strategies relate to long-term outcomes of abuse?

In addition to descriptive studies, researchers have also examined the relationship between specific types of coping and long-term outcomes. Section 2 of Table 1 provides a summary of the correlational studies. Some studies from Section 1 of Table 1 also are discussed here if associations between coping strategies and adjustment were examined. As noted previously, CSA is considered a "non-specific risk factor" for a range of detrimental outcomes (Putnam, 2003;

Romans et al., 1997). General psychological distress is the most commonly examined outcome of abuse found in the coping literature, followed closely by psychosocial outcomes such as PTSD, dissociation, depression, and interpersonal problems including sexual dysfunction and revictimization. One important outcome of CSA that is not included in the present study is physical health problems resulting from abuse (Finestone et al., 2000; Najman, Nguyen, & Boyle, 2007; Romans, Belaise, Martins, Morris, & Raffi, 2002). This area has been excluded from the present review because few studies have specifically examined coping strategies in relation to physical pain and medical problems resulting from the abuse. Typically, correlational studies employ standardized checklists to investigate the relationship between coping and adult psychological adjustment, most often assessed using a symptom checklist. Similar to the descriptive approaches noted above, the majority (11 of 18) of the correlational studies examined female populations.

Much of the coping literature with CSA victims has documented heightened levels of psychological distress among these women (Klein & Janoff-Bulman, 1996; Oaksford & Frude, 2003). Avoidance and denial strategies appear to be commonly used and have repeatedly been linked to increased levels of self-reported distress and symptomatology (Brand & Alexander, 2003; Johnson & Kenkel, 1991; Leitenberg, Greenwald, & Cado, 1992; Steel et al., 2004), even after controlling for abuse severity and characteristics (Brand & Alexander, 2003; Coffey, Leitenberg, Henning, Turner, & Bennett, 1996; Leitenberg et al., 1992).

Although Oaksford and Frude (2003) found wide variation in coping strategies used by poorly and relatively well-adjusted victims, results suggested that well-adjusted individuals tended to utilize one or two coping strategies (e.g., seeking support), whereas poorly adjusted victims employed a wider variety of methods, perhaps stretching their efforts across both adaptive and maladaptive strategies in an unsuccessful attempt to deal with their abuse (Oaksford & Frude, 2003). Research supports the importance and implications of finding meaning in childhood abuse experiences. For example, in a sample of 60 mothers reporting CSA experiences, Wright, Crawford, and Sebastian (2007) found that the cognitive coping strategy of finding meaning in the abuse experience was associated with less social isolation and better overall adjustment. Similarly, Silver, Boon, and Stones (1983) reported that for 77 adult incest victims, finding meaning in the abuse was related to lower psychological distress, better social adjustment, increased self-esteem, and resolution of the abuse experiences, compared to victims who reported that they were still searching for meaning. These authors suggest that continued search for meaning may be related to rumination about the events, and as such, may indicate that victims had not yet come to terms with their abuse-related issues.

Although most studies examining coping and adult adjustment have focused on global psychological distress as the primary outcome, some investigations have focused on more specific aspects of psychological functioning such as depression and posttraumatic stress. These findings indicate that CSA victims who employ avoidant (Sigmon, Greene, Rohan, & Nichols, 1996; Wright et al., 2007) or disengagement (i.e., wishful thinking, self-criticism, and social withdrawal; Griffing Lewis, Chu, Sage, Jospitre, 2006) coping strategies tend to report increased depressive symptoms. More specifically, Wright and colleagues discovered that women who reported that their sexual abuse was unresolved were more likely to use avoidant coping strategies, which in turn, predicted greater depression. Additionally, Griffing and colleagues found that increased CSA severity predicted greater use of disengagement coping strategies (e.g., wishful thinking, self-criticism, and social withdrawal), which in turn predicted greater depression and lower self-esteem. Overall, these findings from college, treatment-seeking, incarcerated, and military samples suggest that CSA victims who use maladaptive coping strategies (e.g., avoidance) over the long term are likely to

develop increased trauma symptoms (Filipas & Ullman, 2006; Huang, Zhang, Momartin, Huang, & Zhao, 2008; Johnson, Sheahan, & Chard, 2003; Ullman & Filipas, 2005).

As might be expected given such findings, studies suggest that the coping strategy of seeking social support is associated with decreased symptomatology in both adolescent (e.g., Bal, Crombez, Van Oost, & Debourdeaudhuij, 2003) and adult victims (Filipas & Ullman, 2001; Murthi & Espelage, 2005). A key element in this relationship appears to be the response of the support network. For example, among child victims, a supportive relationship with the non-offending parent has been found to be predictive of psychological resilience, defined as social functioning comparable to non-victimized youths and the absence of clinically significant symptomatology (Spaccarelli & Kim, 1995). Tremblay, Hebert and Piche (1999) illustrated that for both male and female sexually abused youth, stronger perceived social support was related to increased self-worth and lower symptomatology. Further, among college samples, CSA victims who received social support from family and friends were less likely to experience negative outcomes (Murthi & Espelage, 2005). However, in some cases, seeking social support has been linked to increased distress. For instance, findings of heightened distress have been documented both via self-report measures administered to adult samples of incest victims (Brand & Alexander, 2003) as well as via therapist-rated dysfunction among adolescents in treatment centers (Johnson & Kenkel, 1991). However, in these samples it is possible that disclosure was met with negative responses, consistent with research suggesting that negative reactions to disclosure of adult sexual assault are associated with adverse consequences for the victims, whereas positive responses following disclosure are related to more adaptive outcomes (Filipas & Ullman, 2001; Ullman, Townsend, Filipas, & Starzynski, 2007).

Himelein and McElrath (1996) suggest that increased perceptions of control and unrealistic optimism in general are predictive of better adjustment in both CSA victims and non-victims. It may be that, as a coping strategy, unrealistic optimism can “cushion the impact” of a stressor, thereby serving a protective function against later distress (Himelein & McElrath, 1996). Similarly, Walsh, Blaustein, Grant-Knight, Spinazzola, and van der Kolk (2007) found that college women who employed positive coping strategies (e.g., problem-focused coping, seeking social support, and focus on the positive) and had an internal locus of control were less likely to experience a coercive sexual assault as an adult. Further, using data from a seven year longitudinal study of the effects of sexual abuse, Bonanno, Noll, Putnam, O'Neill, & Trickett (2003) examined repressive coping and dissociative tendencies in relation to trauma symptomatology and abuse disclosure in a sample of female adolescents and young adults. Findings revealed that among 48 sexually abused participants who had been referred by child protective services agencies, non-disclosers of CSA tended to score as “repressors,” whereas CSA disclosers reported greater dissociation. Further, repressive coping was positively correlated with both positive and negative facial expressions and negatively associated with internalizing and externalizing symptoms. Conversely, dissociative coping was negatively correlated with emotional expression and positively associated with PTSD, internalizing, and externalizing symptoms.

In general, these correlational studies suggest that CSA victims employ increased use of avoidant or emotion-focused coping strategies both in the immediate aftermath of abuse and over time, and such methods are related to greater psychological distress in adulthood. However, the causal nature of this relationship remains unclear. CSA victims may use avoidant strategies to deal with their negative emotions related to CSA. Conversely, it also is possible that the use of avoidant strategies predated victimization and contributes to persistent emotional distress. Correlational studies also highlight the potential effectiveness of particular coping strategies (e.g., social support) on adult adjustment, as well as the potential importance of

strategies that may be specific to the experience of trauma (e.g., finding meaning in the abuse). Importantly, however, there appear to be certain contexts wherein strategies typically conceptualized as adaptive (e.g., searching for meaning in the abuse, disclosure of CSA experiences) are actually associated with more negative outcomes. These examples highlight the contextual nature of coping as well as the complexity involved in researching coping and suggest a need to glean a thorough understanding of the context and functionality of the coping method employed.

Despite the value of current investigations of long-term coping with CSA, such studies also suffer from limitations. For example, some investigations assess general coping styles (i.e., typical coping with a wide range of potential stressors) in relation to adult adjustment (e.g., Walsh et al., 2007), whereas others measure coping specifically with the early abuse experience and later adult adjustment (e.g., Oaksford & Frude, 2003; Sigmon et al., 1996). Further, among the studies that measure coping specifically with the abuse, many ask only about current coping with the abuse, ignoring the dynamic nature of coping with abuse over time (e.g., Bonanno et al., 2003). Thus, depending on the instrument chosen and accompanying instructions, researchers may arrive at starkly contrasting conclusions about relations between coping methods and adjustment among adult victims of CSA. Finally, much of the research in this area provides only a bivariate account of the relationship between CSA and adult adjustment, failing to take into account the complexity of the relationship of multiple factors that may contribute to the negative outcomes often experienced by CSA victims.

3.3. Do coping strategies mediate relations between CSA and adult adjustment?

A logical next step in the research on coping with CSA is to build upon the bivariate associations found in correlational studies by proposing models that include coping, among other factors, as a potential mediator of linkages between CSA and long-term outcomes. These studies typically propose that coping processes are among the key pathways by which abusive experiences may impact long-term adjustment. Specifically, abuse victims who use maladaptive coping strategies are hypothesized to evince increased adult adjustment difficulties. Many investigations employ Baron and Kenny's (1986) well-known procedures for testing mediation. In doing so, these mediational studies provide an opportunity to better illuminate the complexity of the relationship between CSA and long-term adjustment. Refer to Section 3 of Table 1 for a summary of the mediational studies.

Wyatt and Newcomb (1990) offered one of the earliest examinations of mediation by illustrating that immediate negative responses to the abuse and internal attributions related to the abuse mediated long-term adjustment by accounting for the impact of several abuse characteristics (age of last abuse, duration of abuse, psychological coercion) upon negative outcomes. In this study, the direct effects of these abuse characteristics were reduced after partialing the effects of coping responses. More recent investigations have revealed that strategies such as confrontive coping, accepting responsibility for the abuse, and internalizing the abuse experience mediate relationships between specific abuse characteristics (e.g., age of onset, duration, and resistance during the abuse) and psychological distress as adults (Steel et al., 2004). More specifically, women who resisted during the abuse were less likely to use confrontive coping (i.e., aggressive efforts to cope that involve a degree of risk taking and hostility), and increased use of confrontive coping was positively associated with greater psychological distress. Additionally, women with longer abuse durations were more likely to internalize the abuse experience (i.e., blame themselves), which was associated with increased psychological distress. Similarly, women who reported being older when the abuse began accepted more responsibility for the abuse and reported increased psychological distress as a result.

Expanding on the psychological distress literature, researchers have examined both coping strategies and distress as intervening factors in the relationship between CSA and adult revictimization. Specifically, trauma symptoms have been suggested to increase the risk of revictimization in victims of CSA (Messman-Moore, Brown, & Koelsch, 2005; Messman-Moore, Ward, & Brown, 2009; Sandberg, Matorin, & Lynn, 1999) and coping strategies have been proposed to account, in part, for these relationships. Thus, Fortier, DiLillo, Messman-Moore, Peugh, DeNardi and Gaffey (2009) examined 99 female college students with a history of CSA using a mediational model in which severity of revictimization in adulthood was hypothesized to be a result of the impact of avoidant coping on trauma symptoms. Using MacKinnon, Lockwood, Hoffman, West, and Sheets' (2002) criteria for testing mediation, findings suggested that severity of CSA predicted use of avoidant coping, which was in turn predictive of increased trauma symptoms in adulthood (Fortier et al., 2009). Trauma symptoms were then associated with increased severity of coercive sexual revictimization. Thus, long-term use of avoidant coping strategies may partially explain the association between psychological distress and increased risk of revictimization in female CSA victims.

Mediational studies have often incorporated Finkelhor and Browne's (1985) "traumagenic dynamics model," which is a framework for conceptualizing the long-term effects of abuse. As noted earlier, this model proposes four dynamics to understand the impact of abuse experiences on functioning: powerlessness, betrayal, stigmatization, and traumatic sexualization. Draucker (1995) used this framework to examine the relationship of traumagenic dynamics, coping in the form of Taylor's (1983) cognitive adaptation (e.g., search for meaning, mastery, self-enhancement), and the long-term correlates of CSA in adult women participating in group therapy for victims of sexual abuse. The traumagenic dynamics of stigmatization and powerlessness had direct statistical effects on the cognitive coping task of meaning, and both had indirect effects on guilt and social introversion. Further, the ability to find meaning and regain a sense of mastery was related to better psychological adjustment in adulthood (Draucker, 1995).

Gibson and Leitenberg (2001) also used the traumagenic model to examine the relationship between CSA, traumagenic dynamics, and disengagement and engagement methods of coping in a sample of undergraduate females. Rather than examine coping as a mediator, it was proposed that the traumagenic dynamics would mediate the relationship between a history of CSA and methods of coping. Thus, coping was examined as an outcome variable in this study. Results revealed that stigmatization mediated the relationship between CSA and the use of disengagement methods of coping. More specifically, CSA was indirectly related to increased use of disengagement coping strategies, through its effects of feelings of stigmatization.

Several researchers have included abuse severity in their mediational frameworks. For example, Merrill, Guimond, Thomsen, and Milner (2003) examined the relationship between abuse severity and coping in a large sample of female U.S. Navy recruits reporting a history of CSA. Results indicated that women who experienced more severe CSA used increased avoidant and self-destructive coping strategies in comparison to victims of less severe CSA. Further, self-destructive methods of coping were positively related to dysfunctional sexual behavior and number of sexual partners. Moreover, CSA was indirectly related to increased levels of sexual concerns and decreased numbers of sexual partners through its effects on avoidant coping strategies.

A common construct included in many mediational studies is social support. Investigators have demonstrated that both social support and coping mediate the relationship between CSA and adult adjustment (e.g., Frazier, Tashiro, Berman, Steger, & Long, 2004; Guelzow, Cornett, & Dougherty, 2002; Merrill, Thomsen, Sinclair, Gold, & Milner, 2001; Runtz & Schallow, 1997; Wyatt & Newcomb, 1990). Representative of this work is a study by Runtz and Schallow (1997),

who reported that the effects of abuse severity on long-term adjustment in a sample of undergraduate women were completely accounted for by social support and coping. Although social support emerged as the primary mediator in this relationship, the mediational effects of coping remained significant.

Researchers have also examined social support in the form of parental support following CSA. Investigating paternal support as well as coping, Guelzow et al. (2002) found that for female CSA victims attending college, paternal support was indirectly related to long-term functioning (i.e., global self-worth) through the use of emotion-focused coping strategies, suggesting that increased paternal support may buffer victims from the impact of CSA, thereby increasing overall self-worth. In contrast to these findings, Merrill et al. (2001) demonstrated that for a large sample of female Navy recruits, the relationship between adult adjustment and abuse severity was largely mediated by coping strategies, but that victims' perceptions of both maternal and paternal support did not contribute either directly or indirectly to adult functioning. Characteristics of the study samples may account for these discrepant findings. More specifically, paternal approval may be an important factor in the psychological adjustment of college students due to the importance that fathers place on education (Tannen, 1990; Turbiville & Marquis, 2001).

Although seemingly counterintuitive, coping and social support also have been examined in models that include the concept of positive changes following CSA. Positive changes refer to improvements in self (e.g., greater ability to take care of self), strengthened relationships (e.g., relationship with family), positive life philosophy or spirituality (e.g., greater sense of purpose in life), and stronger sense of empathy (e.g., greater concern for others in a similar situation; Frazier et al., 2004). In the more general trauma literature, approximately 50–60% of trauma victims note at least one positive life change following the traumatic event. Among adult female sexual assault victims presenting to emergency rooms (36% of whom reported a history of CSA), greater social support was related to increased positive life changes over time, and this relationship was mediated by positive coping strategies (Frazier et al., 2004). Specifically, control over the recovery process almost entirely mediated the relationship between social support and positive life changes.

In summary, studies exploring the mediational role of coping in victims' long-term adjustment suggest that coping may indeed explain, in part, the variability in outcomes associated with a history of CSA. Thus, CSA may promote particular coping strategies that may, in turn, be related to different outcomes. The use of avoidant or self-destructive coping strategies may help explain the negative long-term outcomes associated with CSA. Social support also emerges in the literature as a coping-related construct that may play a role in the relationship between CSA and adult adjustment. However, associations between social support and long-term outcomes are currently unclear, due to inconsistencies in findings across these studies. Further, because many studies include a number of potential mediating variables, direct comparisons of results are difficult to make, making replication a necessary future endeavor.

4. Conclusions and future directions

A review of the theoretical and empirical literature related to coping with sexual abuse provides a starting point in understanding the process of adjustment following CSA. Theoretical writings indicate that coping with sexual trauma is a prolonged process, involving different coping strategies at the various stages in abuse recovery. Further, theorists suggest several constructs of particular importance to adaptive coping with sexual trauma, such as finding meaning in the experience, and the need to integrate traumatic events into existing cognitive frameworks. In fact, descriptive investigations suggest that victims retrospectively report a variety of strategies that evolve and change as the phases of coping with trauma change. However, the lack

of longitudinal research on the topic is a hindrance to forming such conclusions. Further, certain strategies, namely avoidance, show predictable associations with psychological functioning whereas others, such as finding meaning in the abuse and seeking social support, appear to be linked with more adaptive outcomes, although not universally. These findings indicate a need to consider specific strategies within the context of a larger process model of coping. For example, the long-term use of avoidant coping strategies is related to increased distress in adulthood, whereas cognitive coping strategies (e.g., finding meaning, mastery) are related to more adaptive outcomes later in life. Finally, mediational investigations support the role of coping as a possible intervening variable in the CSA-adjustment relationship. Although such research is in its early stages, data show that cognitive methods of coping (e.g., appraisals) and seeking social support are potential pathways between CSA and adult functioning whereas increased use of avoidant and self-destructive coping strategies mediate links between various abuse characteristics and poor adjustment in adulthood.

Despite the value of this information, several limitations plague the current body of research and many questions remain unanswered. As described in more detail below, limitations of this research include theoretical and methodological issues, as well as a gap between research and practice.

4.1. Theoretical and measurement issues

4.1.1. Defining coping

As evidenced in the Introduction, literature in this area has employed various definitions of coping, resulting in a somewhat amorphous construct that encompasses a variety of cognitive, emotional, and behavioral responses to stressors. For example, in addition to cognitive strategies, such as focusing on the positive and distraction, behaviors, such as substance abuse and risky sex, are sometimes conceptualized as coping strategies (e.g., Filipas & Ullman, 2006; Polusny & Follette, 1995; Ullman, Filipas, Townsend, & Starzynski, 2005). However, not all researchers agree that such an expansive definition of coping is warranted. These same behaviors have other times been examined as maladaptive outcomes (e.g., Merrill et al., 2003; Ullman, Filipas et al., 2005). Without a clear operational definition of coping, studies purporting to assess coping may not consistently measure the same construct, thus limiting comparisons across studies.

4.2. Methodological issues

In addition to definitional inconsistencies, the reliance on cross-sectional, between-subjects designs in this area is limiting. Although informative, such studies do not afford the opportunity to determine causal relationships (Tennen, Affleck, Armeli, & Carney, 2000). For instance, it has frequently been found that psychological distress is positively associated with emotion-focused coping (Coyne & Racioppo, 2000). However, even if Baron and Kenny's (1986) statistical conditions for mediation are met, in the absence of longitudinal data, it is impossible to determine whether emotion-focused coping causes or emanates from psychological distress. Although the former is implied in many studies, it is plausible that negative emotions actually elicit (rather than cause) such coping strategies (Coyne & Racioppo, 2000). Because cross-sectional studies, which rely on coping checklists, are unable to capture the evolving nature of coping over time, future work in this area would benefit from a longitudinal, developmentally sensitive approach. One way of addressing these concerns is to employ a process-oriented approach that incorporates daily assessment methods of coping (e.g., Bolger & Schilling, 1991; Caspi, Bolger, & Eckenrode, 1987; Clark & Watson, 1988; Marco & Suls, 1993; Rehm, 1987; Tennen et al., 2000). Such methods address many of the concerns associated with retrospective reporting (e.g., recall biases) and permit recording fluctuations in

emotions alongside methods of coping (Tennen et al., 2000). These abilities are important given findings that retrospective accounts of coping are not equivalent to assessment at the time of a stressor or to daily accounts of coping (Smith, Leffingwell, & Ptacek, 1999).

There are also those methodological limitations that are endemic to the larger body of CSA research, such as the lack of consistency in definitions used to establish the occurrence of sexual abuse (Haugaard, 2000). Many investigations include participants who merely self-identify as “victims” or vary in the nature of the characteristics used to operationalize CSA. Such differences affect not only the incidence and prevalence of abuse, but may result in differing portrayals of the nature and type of coping used by victims. There are also a number of issues regarding retrospective reports of abuse, including the potential for distorted recall and concerns regarding the reconstructive nature of autobiographical memory (Loftus, 1980; Schwarz & Sudman, 1994). Moreover, the utilization of college samples of CSA victims, who are almost always entirely female, limits the generalizability of results from these studies, both in terms of gender and SES. Hence, increased efforts to include broader community and clinical samples are needed to improve generalizability of findings.

4.2.1. Measurement of coping

Related to definitional issues in the coping literature, few attempts have been made to link the assessment of coping with trauma theory. In particular, it is questionable whether general coping checklists, designed for broad classes of stressors, are applicable to studies of CSA, given that such measures do not assess the coping processes thought to be most relevant to trauma victims (e.g., meaning, controllability, cognitive integration of the abuse; Aldwin, 1993; Horowitz, 1986; Kleber & Brown, 1992). Furthermore, checklists do not consider important contextual factors, such as the circumstances and effectiveness of the coping strategies employed (Coyne & Racioppo, 2000) or “how much” one coped (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; see Coyne and Gottlieb (1996) for a thorough discussion on the use of coping checklists). In some circumstances, victims may report increased reliance on maladaptive strategies due to limited alternatives. Children, for example, may not be able to physically escape their abusive situations, which could understandably lead to avoidant coping strategies. Other victims, however, may have expanded resources, yet rely on ineffective strategies nonetheless. Accordingly, future research will benefit from the development of coping instruments (e.g., semi-structured interviews) that incorporate concepts hypothesized to be specific to trauma and assessing factors related to the quality of coping efforts.

4.2.2. Is coping a mediating or moderating construct?

Coping has been most often examined as a mediator between CSA and adult functioning. However, the role that coping plays in this relationship warrants further consideration, given the common misuse and misunderstanding of the terms “mediator” and “moderator” (Baron & Kenny, 1986; Holmbeck, 1997). Investigators often fail to make correct distinctions between the terms *mediator* and *moderator* (Holmbeck, 1997), which can influence the selection of appropriate statistical analyses. Mediators are often conceptualized as being produced by the independent variable, and, in turn, are thought to be causally related to the dependent variable (e.g., Shadish & Sweeney, 1991). Moderators, in contrast, are variables that affect the direction and/or strength of the relationship between an independent and dependent variable (Baron & Kenny, 1986; Holmbeck, 1997).

Holmbeck (1997) outlined several difficulties with the use of mediator and moderator variables in the literature, including the use of “idiosyncratic definitions” of these terms, describing a presumed mediator using the conceptualization for a moderator or vice versa, using improper diagrammatic representations of these processes, and applying inappropriate analytic procedures when testing for effects (Holmbeck, 1997). Holmbeck highlights coping in his critique, arguing

that investigators often fail to provide an adequate rationale for hypothesizing that coping and other process variables function as mediators. Temporally, this conceptualization may seem intuitively correct; however, the manner in which many authors present coping in mediational models may be better described as a moderational process, in that outcomes associated with a stressor may vary as a function of the nature of the coping strategies employed.

Theoretically, coping may serve either a mediating or moderating role. More specifically, CSA may engender a certain type of coping, which in turn contributes to long-term functioning, and the long-term effects of CSA also may vary as a function of a number of factors, one of which is coping. Some authors have explicitly tested these possibilities. For example, Merrill et al. (2001) describe and test coping both as a mediator and moderator of adult adjustment. These authors conclude that coping may in fact serve both functions. However, studies that thoroughly and accurately assess the mediating and moderating functions of coping with CSA are rare, and as noted by Holmbeck (1997), many researchers have incorrectly applied these labels.

4.2.3. The limited range of outcome and intervening variables

As this review illustrates, most studies of coping focus on psychological distress as a primary outcome variable despite indications that CSA has been linked to a wide array of positive and negative outcomes (Bonanno et al., 2003; Putnam, 2003; Romans et al., 1997). In addition to concentrating on maladaptive outcomes, it also is important to take into account individually-relevant goals as a means of assessing whether coping processes impact adaptive functioning as well (Coyne & Racioppo, 2000). For example, a victim's goals may include the establishment of satisfying interpersonal relationships, steady employment, and self-sufficiency—few of which have been explored as outcomes of adaptive coping. Furthermore, theoretically relevant moderating constructs have previously been viewed merely as confounding or nuisance variables in studies of coping. For example, demographic factors, such as age, SES, and ethnicity, have been treated as covariates without considering the possible interactive effects of these variables (e.g., Guelzow et al., 2002; Leitenberg et al., 2004; Merrill et al., 2001). Gender often has been ignored in CSA research through an almost exclusive focus on female participants (e.g., Walker, Carey, Mohr, Stein, & Seedat, 2004). This omission is significant because gender and gender-related variables (e.g., perceived power, status) may interact with a variety of factors to influence the coping process (Banyard & Graham-Bermann, 1993).

4.2.4. The gap between research and practice

A goal of coping research should be to inform clinical practice, for coping strategies represent potential targets for therapeutic intervention (Folkman & Lazarus, 1988; Roth & Cohen, 1986). Although the studies reviewed here provide support for the role of coping in the process of adjustment following CSA, little effort has been made to link this area of research to intervention possibilities. For example, a review of treatments for sexual abuse victims suggest that few treatments have targeted important factors, including “coping deficits” as a part of the intervention (Chard, Weaver, & Resick, 1997). An exception to this trend is the work of Chard et al. (1997) whose Cognitive Processing Therapy for Sexual Abuse (CPT-SA; Chard, 1997) has been found to reduce abuse-related cognitive distortions in a sample of adult female CSA victims (Owens, Pike, & Chard, 2001). Similarly, Cloitre (1998) describes an intervention termed Skills Training in Affect and Interpersonal Regulation (STAIR). She contends that affect dysregulation is one pathway through which CSA may impact coping processes (Cloitre, 1998). More specifically, sexual abuse may interfere with the development of appropriate affect regulation abilities, therefore predisposing victims of CSA to an over reliance on avoidant coping strategies (e.g., dissociation, substance abuse; Briere, 1992). Consequently, STAIR targets victims' abilities to identify and manage distressing emotions (Cloitre, 1998).

Although these approaches are not framed explicitly within a coping perspective, to the extent that cognitive distortions and affect regulation are related to coping strategies, components of such interventions may ultimately have a positive impact on coping processes. These efforts begin to bridge the gap between research and practice; however, in order to advance knowledge translation in the field of coping with CSA, findings from the coping literature must be incorporated more explicitly into the development and empirical evaluation of interventions for adult sexual abuse victims. Opportunities for this integration should increase as the two research areas grow and evolve.

In summary, despite the accumulating body of information addressing adult coping in response to CSA, several important areas remain unexplored. For example, although the literature suggests that coping is a potentially important factor to consider when evaluating the long-term outcomes associated with CSA, there is little information about how factors, such as gender and SES, may moderate this association. In addition, little is known about the process of coping with CSA across various developmental periods. Hence, longitudinal designs that establish the temporal sequencing of CSA, coping, and psychological functioning are needed to demonstrate causation within a mediational framework and to better understand how victims cope across the lifespan. Finally, ongoing efforts are needed to integrate our evolving understanding of how victims cope with CSA, with the development of empirically supported interventions for adult victims.

References

- Aldwin, C. (1993). Coping with traumatic stress. *PTSD Research Quarterly*, 4, 1–3.
- Bal, S., Crombez, G., Van Oost, P., & Debourdeaudhuij, I. (2003). The role of social support in well-being and coping with self-reported stressful events in adolescents. *Child Abuse and Neglect*, 27, 1377–1395.
- Banyard, V. L., & Graham-Bermann, S. A. (1993). Can women cope? A gender analysis of theories of coping with stress. *Psychology of Women Quarterly*, 17, 303–318.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Beitchman, J. H., Zucker, K. J., Hood, J. E., DaCosta, G. A., Akman, D., & Cassavia, E. (1992). A Review of the long-term effects of child sexual abuse. *Child Abuse & Neglect*, 16, 101–118.
- Bennett, S. E., Hughes, H. M., & Luke, D. A. (2000). Heterogeneity in patterns of child sexual abuse, family functioning, and long-term adjustment. *Journal of Interpersonal Violence*, 15, 134–157.
- Bogars, C. B., & Hulse-Killackey, D. (2006). Resilience determinants and resiliency processes among female adult survivors of childhood sexual abuse. *Journal of Counseling and Development*, 84, 318–327.
- Bolger, N., & Schilling, E. (1991). Personality and the problems of everyday life: The role of neuroticism in exposure and reactivity to daily stressors. *Journal of Personality*, 59, 335–386.
- Bonanno, G. A. (2005). Resilience in the face of potential trauma. *Current Directions in Psychological Science*, 14, 135–138.
- Bonanno, G. A., Noll, J. G., Putnam, F. W., O'Neill, M., & Trickett, P. K. (2003). Predicting the willingness to disclose childhood sexual abuse from measures of repressive coping and dissociative tendencies. *Child Maltreatment*, 8, 302–318.
- Brand, B. L., & Alexander, P. C. (2003). Coping with incest: The relationships between recollections of childhood coping and adult functioning in female survivors of incest. *Journal of Traumatic Stress*, 16, 285–293.
- Brand, B., Warner, S. C., & Alexander, P. C. (1997). Coping with incest in adult female survivors. *Dissociation*, 10, 3–10.
- Briere, J. (1992). *Child abuse trauma: Theory and treatment of the lasting effects*. Newbury Park, CA: Sage.
- Burgess, A. W., & Holmstrom, L. L. (1976). Coping behavior of the rape victim. *American Journal of Psychiatry*, 133, 413–418.
- Caspi, A., Bolger, N., & Eckenrode, J. (1987). Linking person and context in the daily stress process. *Journal of Personality and Social Psychology*, 52, 184–195.
- Chard, K. M. (1997). Cognitive processing therapy for sexual abuse: A treatment manual. Manuscript in preparation.
- Chard, K. M., Weaver, T. L., & Resick, P. A. (1997). Adapting cognitive processing therapy for child sexual abuse survivors. *Cognitive and Behavioral Practice*, 4, 31–52.
- Clark, L., & Watson, D. (1988). Mood and the mundane: Relations between daily life events and self-reported mood. *Journal of Personality and Social Psychology*, 54, 296–308.
- Cloitre, M. (1998). Sexual revictimization: Risk factors and prevention. In V. M. Follette, & J. I. Ruzek (Eds.), *Cognitive-behavioral therapies for trauma* (pp. 278–304). New York: Guilford Press.
- Coffey, P., Leitenberg, H., Henning, K., Turner, T., & Bennett, R. T. (1996). The relation between methods of coping during adulthood with a history of childhood sexual abuse and current psychological adjustment. *Journal of Consulting and Clinical Psychology*, 64, 1090–1093.
- Cohen, F. C. (1987). Measurement of coping. In S. V. Kasl, & C. L. Coopers (Eds.), *Stress and health: Issues in research methodology* (pp. 283–305). New York: Wiley.
- Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin*, 127, 87–127.
- Conte, J. R., & Berliner, L. (1988). The impact of sexual abuse on children: empirical findings. In L. E. Walker (Ed.), *Handbook on sexual abuse of children: Assessment and treatment issues* (pp. 72–93). New York: Springer.
- Coyne, J. C., & Gottlieb, B. H. (1996). The mismeasure of coping by checklist. *Journal of Personality*, 64, 959–991.
- Coyne, J. C., & Racioppo, M. W. (2000). Never the twain shall meet? Closing the gap between coping research and clinical intervention research. *American Psychologist*, 55, 655–664.
- DiLillo, D. K., Long, P. J., & Russell, L. M. (1994). Childhood coping strategies of intrafamilial and extrafamilial female sexual abuse victims. *Journal of Child Sexual Abuse*, 3, 45–65.
- DiPalma, L. M. (1994). Patterns of coping and characteristics of high-functioning incest survivors. *Archives of Psychiatric Nursing*, 8, 82–90.
- Draucker, C. B. (1995). A coping model for adult survivors of childhood sexual abuse. *Journal of Interpersonal Violence*, 10, 159–175.
- Elliott, D. M., & Briere, J. (1992). Sexual trauma among professional women: Validating the Trauma Symptom Checklist-40. *Child Abuse and Neglect*, 16, 391–398.
- Elliott, D. M., & Briere, J. (1995). Posttraumatic stress associated with delayed recall of sexual abuse: A general population study. *Journal of Traumatic Stress*, 3, 629–648.
- Fergusson, D. M., Boden, J. M., & Horwood, L. J. (2008). Exposure to childhood sexual and physical abuse and adjustment in early adulthood. *Child Abuse and Neglect*, 32, 607–619.
- Filipas, H. H., & Ullman, S. E. (2001). Social reactions to sexual assault victims from various support sources. *Violence and Victims*, 16, 673–692.
- Filipas, H. H., & Ullman, S. E. (2006). Child sexual abuse, coping responses, self-blame, posttraumatic stress disorder, and adult sexual revictimization. *Journal of Interpersonal Violence*, 21, 652–672.
- Finestone, H. M., Stenn, P., Davies, F., Stalker, C., Fry, R., & Koumanis, J. (2000). Chronic pain and health care utilization in women with a history of childhood sexual abuse. *Child Abuse and Neglect*, 24, 547–556.
- Finkelhor, D. (1987). The trauma of child sexual abuse: Two models. *Journal of Interpersonal Violence*, 2, 348–366.
- Finkelhor, D. (1990). Early and long-term effects of child sexual abuse: An update. *Professional Psychology: Research and Practice*, 20, 325–330.
- Finkelhor, D. (1994). Current information on the scope and nature of child abuse. *The Future of Children*, 4, 31–53.
- Finkelhor, D., & Browne, A. (1985). The traumatic impact of child sexual abuse: A conceptualization. *American Journal of Orthopsychiatry*, 55, 530–541.
- Finkelhor, D., Hotaling, G. T., Lewis, I., & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence characteristics, and risk factors. *Child Abuse & Neglect*, 14, 14–28.
- Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, 21, 219–239.
- Folkman, S., & Lazarus, R. S. (1988). Coping as a mediator of emotion. *Journal of Personality and Social Psychology*, 54, 466–475.
- Fortier, M. A., DiLillo, D., Messman-Moore, T. L., Peugh, J., DeNardi, K. A., & Gaffey, K. J. (2009). Child sexual abuse and revictimization: The mediating role of coping and trauma symptoms. *Psychology of Women Quarterly*, 33, 308–320.
- Frazier, P., Tashiro, T., Berman, M., Steger, M., & Long, J. (2004). Correlates of levels and patterns of positive life changes following sexual assault. *Journal of Consulting and Clinical Psychology*, 72, 19–30.
- Futa, K. T., Nash, C. L., Hansen, D. J., & Garbin, C. P. (2003). Adult survivors of childhood abuse: An analysis of coping mechanisms used for stressful childhood memories and current stressors. *Journal of Family Violence*, 18, 227–239.
- Gibson, L. E., & Leitenberg, H. (2001). The impact of child sexual abuse and stigma on methods of coping with sexual assault among undergraduate women. *Child Abuse & Neglect*, 25, 1343–1361.
- Goodman, L. A., Rosenberg, S. D., Mueser, K., & Drake, R. E. (1997). Physical and sexual assault history in women with serious mental illness: Prevalence, correlates, treatment, and future research directions. *Schizophrenia Bulletin*, 23, 685–696.
- Griffing, S., Lewis, C. S., Chu, M., Sage, R., Jospitre, T., Madry, L., et al. (2006). The process of coping with domestic violence in adult survivors of child sexual abuse. *Journal of Child Sexual Abuse*, 15, 23–41.
- Guelzow, J. W., Cornett, P. F., & Dougherty, T. M. (2002). Child sexual abuse victims' perception of paternal support as a significant predictor of coping style and global self-worth. *Journal of Child Sexual Abuse*, 11, 53–61.
- Haugaard, J. J. (2000). The challenge of defining child sexual abuse. *American Psychologist*, 55, 1036–1039.
- Himelein, M. J., & McElrath, J. V. (1996). Resilient child sexual abuse survivors: Cognitive coping and illusion. *Child Abuse & Neglect*, 20, 747–758.
- Holohan, C. J., & Moos, R. H. (1987). Personal and contextual determinants of coping strategies. *Journal of Personality and Social Psychology*, 52, 946–955.
- Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology*, 65, 599–610.
- Horowitz, M. (1986). *Stress response syndromes*. New York: Basic Books.
- Huang, G., Zhang, Y., Momartin, S., Huang, X., & Zhao, L. (2008). Child sexual abuse, coping strategies, and lifetime posttraumatic stress disorder among female inmates. *International Journal of Prisoner Health*, 4, 54–63.
- Jacobsen, A., & Herald, C. (1990). The relevance of childhood sexual abuse to adult psychiatric inpatient care. *Hospital and Community Psychiatry*, 147, 1547–1552.

- Johnson, B. K., & Kenkel, M. B. (1991). Stress, coping, and adjustment in female adolescent incest victims. *Child Abuse & Neglect*, 15, 293–305.
- Johnson, D. M., Sheahan, T. C., & Chard, K. M. (2003). Personality disorders, coping strategies, and posttraumatic stress disorder in women with histories of childhood sexual abuse. *Journal of Child Sexual Abuse*, 12, 19–39.
- Kendall-Tackett, K. A., Williams, L. M., & Finkelhor, D. (1993). Impact of sexual abuse on children: A review and synthesis of recent empirical studies. *Psychological Bulletin*, 113, 164–180.
- Kleber, R. J., & Brown, D. (1992). *Coping with trauma: Theory, prevention, and treatment*. Amsterdam: Swets & Zeitlinger B. V.
- Klein, I., & Janoff-Bulman, R. (1996). Trauma history and personal narratives: Some clues to coping among survivors of child abuse. *Child Abuse & Neglect*, 20, 45–54.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Leitenberg, H., Gibson, L. E., & Novy, P. L. (2004). Individual differences among undergraduate women in methods of coping with stressful events: The impact of cumulative childhood stressors and abuse. *Child Abuse & Neglect*, 28, 181–192.
- Leitenberg, H., Greenwald, E., & Cado, S. (1992). A retrospective study of long-term methods of coping with having been sexually abused during childhood. *Child Abuse & Neglect*, 16, 399–407.
- Loftus, E. F. (1980). *Memory*. Reading, MA: Addison-Wesley.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7, 83–104.
- Marco, C., & Suls, J. (1993). Daily stress and the trajectory of mood: Spillover, response amplification, contrast, and chronic negative affectivity. *Journal of Personality and Social Psychology*, 64, 1053–1063.
- McClure, F. H., Chavez, D. V., Agars, M. D., Peacock, M. J., & Matosian, A. (2008). Resilience in sexually abused women: Risk and protective factors. *Journal of Family Violence*, 23, 81–88.
- Merrill, L. L., Guimond, J. M., Thomsen, C. J., & Milner, J. S. (2003). Child sexual abuse and number of sexual partners in young women: The role of abuse severity, coping style, and sexual functioning. *Journal of Consulting and Clinical Psychology*, 71, 987–996.
- Merrill, L. L., Thomsen, C. J., Sinclair, B. B., Gold, S. R., & Milner, J. S. (2001). Predicting the impact of child sexual abuse on women: The role of abuse severity, parental support, and coping strategies. *Journal of Consulting and Clinical Psychology*, 69, 992–1006.
- Messman-Moore, T. L., Brown, A. L., & Koelsch, L. E. (2005). Posttraumatic symptoms and self-dysfunction as consequences and predictors of sexual revictimization. *Journal of Traumatic Stress*, 18, 253–261.
- Messman-Moore, T. L., Ward, R. M., & Brown, A. L. (2009). Substance use and PTSD symptoms impact the likelihood of rape and revictimization in college women. *Journal of Interpersonal Violence*, 24, 499–521.
- Mitchell, D., Grindel, C. G., & Laurenzo, C. (1996). Sexual abuse assessment on admission by nursing staff in general hospital psychiatric settings. *Psychiatric Services*, 47, 159–164.
- Moos, R. H. (1995). Development and applications of new measures of life stressors, social resources, and coping responses. *European Journal of Psychological Assessment*, 11, 1–13.
- Morrow, S. L., & Smith, M. L. (1995). Constructions of survival and coping by women who have survived childhood sexual abuse. *Journal of Counseling Psychology*, 42(1), 24–33.
- Murthi, M., & Espelage, D. L. (2005). Childhood sexual abuse, social support, and psychological outcomes: A loss framework. *Child Abuse and Neglect*, 29, 1215–1231.
- Najman, J. M., Nguyen, M. L. T., & Boyle, F. M. (2007). Sexual abuse in childhood and physical and mental health in adulthood: An Australian population study. *Archives of Sexual Behavior*, 36, 666–675.
- Neumann, D. A., Houskamp, B. M., Pollock, V. E., & Briere, J. (1996). The long term sequelae of childhood sexual abuse in women: A meta-analytic review. *Child Maltreatment*, 1, 6–16.
- Oaksford, K., & Frude, N. (2003). The process of coping following child sexual abuse: A qualitative study. *Journal of Child Sexual Abuse*, 12, 41–72.
- Owens, G. P., Pike, J. L., & Chard, K. M. (2001). Treatment effects of cognitive processing therapy on cognitive distortions of female child sexual abuse survivors. *Behavior Therapy*, 32, 413–424.
- Perrott, K., Morris, E., Martin, J., & Romans, S. (1998). Cognitive coping styles of women sexually abused in childhood: A qualitative study. *Child Abuse & Neglect*, 22, 1135–1149.
- Polusny, M. A., & Follette, V. M. (1995). Long-term correlates of child sexual abuse: Theory and review of the empirical literature. *Applied and Preventive Psychology*, 4, 143–166.
- Putman, F. W. (2003). Ten-year research update review: Child sexual abuse. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42, 269–278.
- Read, J. (1997). Child abuse and psychosis: A literature review and implications for professional practice. *Professional Psychology*, 28, 448–456.
- Rehm, L. (1987). Mood, pleasant events, and unpleasant events: Two pilot studies. *Journal of Consulting and Clinical Psychology*, 46, 854–859.
- Romans, S., Belaise, C., Martin, J., Morris, E., & Raffi, A. (2002). Childhood abuse and later medical disorders in women: An epidemiological study. *Psychotherapy and Psychosomatics*, 71, 141–150.
- Romans, S. E., Martin, J. L., & Morris, E. (1999). Defense styles in women who have experienced childhood sexual abuse: A comparative community study. In L. M. Williams & V. L. Banyard (Eds.), *Trauma and memory*. Thousand Oaks, CA: Sage Publications.
- Romans, S., Martin, J., & Mullen, P. (1997). Childhood sexual abuse and later psychological problems: Neither necessary, sufficient nor acting alone. *Criminal Behavior and Mental Health*, 7, 327–338.
- Roth, S., & Cohen, L. J. (1986). Approach, avoidance, and coping with stress. *American Psychologist*, 41, 813–819.
- Runtz, M. G., & Schallow, J. R. (1997). Social support and coping strategies as mediators of adult adjustment following childhood maltreatment. *Child Abuse & Neglect*, 21, 211–226.
- Sandberg, D. A., Matorin, A. I., & Lynn, S. J. (1999). Dissociation, posttraumatic symptomatology, and sexual revictimization: A prospective examination of mediator and moderator effects. *Journal of Traumatic Stress*, 12, 127–138.
- Schwarz, N., & Sudman, S. (1994). *Autobiographical memory and the validity of retrospective reports*. New York: Springer-Verlag.
- Shadish, W. R., & Sweeney, R. B. (1991). Mediators and moderators in meta-analysis: There's a reason we don't let dodo birds tell us which psychotherapies should have prizes. *Journal of Consulting and Clinical Psychology*, 59, 883–893.
- Sigmon, S. T., Greene, M. P., Rohan, K. J., & Nichols, J. E. (1996). Coping and adjustment in male and female survivors of child sexual abuse. *Journal of Child Sexual Abuse*, 5, 57–76.
- Silver, R. L., Boon, C., & Stones, M. H. (1983). Searching for meaning in misfortune: Making sense of incest. *Journal of Social Issues*, 39, 81–102.
- Smith, R. E., Leffingwell, T. R., & Ptacek, J. T. (1999). Can people remember how they coped? Factors associated with discordance between same-day and retrospective reports. *Journal of Personality and Social Psychology*, 76, 1050–1061.
- Spaccarelli, S., & Kim, S. (1995). Resilience criteria and factors associated with resilience in sexually abused girls. *Child Abuse & Neglect*, 19, 1171–1182.
- Steel, J., Sanna, L., Hammond, B., Whipple, J., & Cross, H. (2004). Psychological sequelae of childhood sexual abuse: Abuse-related characteristics, coping strategies, and attributional style. *Child Abuse and Neglect*, 28, 785–801.
- Tannen, D. (1990). Gender differences in topical coherence: Creating involvement in best friends' talk. *Discourse Processes*, 13, 73–90.
- Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. *American Psychologist*, 38, 1161–1173.
- Tennen, H., Affleck, G., Armeli, S., & Carney, M. A. (2000). A daily process approach to coping: Linking theory, research, and practice. *American Psychologist*, 55, 626–636.
- Tremblay, C., Hebert, M., & Piche, C. (1999). Coping strategies and social support as mediators of consequences in child sexual abuse victims. *Child Abuse & Neglect*, 23, 929–945.
- Trickett, P. K., Reiffman, A., Horowitz, L. A., & Putman, F. W. (1997). Characteristics of sexual abuse trauma and the prediction of developmental outcomes. In D. C. S. Toth (Ed.), *Rochester Symposium on Developmental Psychopathology: Developmental perspectives on trauma*, vol. 8. (pp. 289–314) Rochester, NY: University of Rochester.
- Turbiville, V. P., & Marquis, J. G. (2001). Father participation in early education programs. *Topics in Early Childhood Special Education*, 21, 223–231.
- Ullman, S. E., & Filipas, H. H. (2005). Gender differences in social reactions to abuse disclosures, post-abuse coping, and PTSD of child sexual abuse survivors. *Child Abuse and Neglect*, 29, 767–782.
- Ullman, S. E., Filipas, H. H., Townsend, S. M., & Starzynski, L. L. (2005). Trauma exposure, posttraumatic stress disorder and problem drinking in sexual assault survivors. *Journal of Studies on Alcohol*, 66, 610–619.
- Ullman, S. E., Townsend, S. M., Filipas, H. H., & Starzynski, L. L. (2007). Structural model of the relations between assault severity, social support, avoidance coping, self-blame, and PTSD among sexual assault survivors. *Psychology of Women Quarterly*, 31, 23–37.
- Walker, J. L., Carey, P. D., Mohr, N., Stein, D. J., & Seedat, S. (2004). Gender differences in the prevalence of childhood sexual abuse and in the development of pediatric PTSD. *Archives of Women's Mental Health*, 7, 111–121.
- Walsh, K., Blaustein, M., Grant-Knight, W., Spinazzola, J., & van der Kolk, B. A. (2007). Resilience factors in the relationship between child sexual abuse and adult revictimization. *Journal of Child Sexual Abuse*, 16, 1–17.
- Wright, M. O., Crawford, E., & Sebastian, K. (2007). Positive resolutions of childhood sexual abuse experiences: The role of coping, benefit-finding, and meaning-making. *Journal of Family Violence*, 22, 597–608.
- Wyatt, G. E., & Mickey, M. (1987). Ameliorating the effects of child sexual abuse: An exploratory study of support by parents and others. *Journal of Interpersonal Violence*, 2, 403–414.
- Wyatt, G. E., & Newcomb, M. (1990). Internal and external mediators of women's sexual abuse in childhood. *Journal of Consulting and Clinical Psychology*, 58(6), 758–767.