

SPECIAL FEATURE

Recall of Childhood Trauma: A Prospective Study of Women's Memories of Child Sexual Abuse

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One hundred twenty-nine women with previously documented histories of sexual victimization in childhood were interviewed and asked detailed questions about their abuse histories to answer the question "Do people actually forget traumatic events such as child sexual abuse, and if so, how common is such forgetting?" A large proportion of the women (38%) did not recall the abuse that had been reported 17 years earlier. Women who were younger at the time of the abuse and those who were molested by someone they knew were more likely to have no recall of the abuse. The implications for research and practice are discussed. Long periods with no memory of abuse should not be regarded as evidence that the abuse did not occur.

In the early 1970s, child sexual abuse was thought to be a relatively rare event. In the past decade, however, several major retrospective studies have independently documented the extent of child sexual abuse and suggest that our early assessments of its prevalence were gross underestimates. The best research indicates that between one fifth to one third of all women have experienced sexual abuse in childhood (Finkelhor, in press; Finkelhor, Hotaling, Lewis, & Smith, 1990; Kilpatrick, Edmunds, & Seymour, 1992; Peters, Wyatt, & Finkelhor, 1986; Russell, 1984, 1988; Saunders, 1992). Because most sexual abuse experienced in childhood was never reported to the authorities (Finkelhor, 1993), our understanding of the nature and long-term consequences of child sexual abuse depends in large part on such retrospective studies.

Some child abuse researchers and other academics, however, have raised scientific questions about the accuracy of retrospective reports (Briere, 1992b) and have taken steps to improve the validity and reliability of the questions posed to respondents (Koss, 1993; Martin, Anderson, Romans, Mullen, & O'Shea, 1993). One concern is that, in such studies, legitimate cases of abuse may be missed, and most child abuse researchers argue that prevalence estimates based on adult retrospective reports are probably underestimates (Finkelhor, in press). Although some have argued that there may be many false positives in ret-

rospective reports (Nash, 1992), the prevailing presumption is that some victims fail to disclose their victimization because of embarrassment or forgetting. Until now, there was no evidence about the proportion of people sexually abused in childhood who would fail to report such abuse on reinterview many years later.

The scientific debate about retrospective studies that rely on recall of child sexual abuse has more recently been affected by a public debate about repressed and recovered memories. Public attention has focused on a large and steadily growing cadre of public figures, celebrities, and others who have revealed their own child sexual victimization experiences, many reporting they had at some time forgotten that the abuse had occurred. The laws in many states have changed to extend the statute of limitations, and recently recovered memories of abuse have figured prominently in some prosecutions and numerous civil cases (Loftus & Rosenwald, 1993).

These allegations, civil suits, and criminal cases based on recently recalled abuse have generated a great deal of attention to the possibility that the recovered memories of child sexual abuse are false (Lindsay & Read, 1994; Loftus, 1993). Often the accused individuals who come to the attention of the public are otherwise upstanding members of the community or have considerable authority and prestige. It is often difficult for friends, family members, and the general public to accept the possibility that these individuals have abused children sexually, especially when the accusers themselves are highly successful and high functioning (Wakefield & Underwager, 1992). Some have suggested that the recovered memories are fabricated by disturbed or vindictive adults or fostered by overzealous or poorly trained therapists (Dawes, 1992; Nash, 1992; Nathan, 1992; Tavis, 1993; Wakefield & Underwager, 1992) who use aggressive memory recovery techniques (Lindsay & Read, 1994). Academic laboratory research on memory and anecdotal case accounts of individuals' memories of personal tragedies (Belli & Loftus, in press; Lindsay & Read, 1994; Loftus, 1993) has been used to suggest that adults are susceptible to acquiring memories of child sexual abuse that did not actually occur.

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One critical research question that is at the root of the debate on recovered memory is, how common is it to have no memory of child sexual abuse? Also, by what mechanism does such forgetting occur (Loftus, 1993)? Some authors (Wakefield & Underwager, 1992) suggest that to have no recall of abuse is uncommon and argue that there is no evidence that a child would forget a truly traumatic event unless the event occurred before the age of 3 years. This article provides important evidence about how common such forgetting may be and suggests some explanations for its occurrence.

Theoretical Formulation and Literature Review

The research that has specifically focused on adult memories of child sexual abuse is based entirely on clinical samples and suggests that a large proportion of those sexually abused in childhood (who now recollect some details of the abuse) have had periods when they did not remember the abuse. Briere and Conte (1993) found that 59% of 450 women and men in treatment for sexual abuse reported that, at some time before age 18, they had forgotten the sexual abuse that they suffered during childhood. Herman and Schatzow report "severe memory deficits" (1987, p. 4) for abuse in 28% of their clinical sample of women in group therapy for incest survivors. Approximately two thirds of their sample (64%) reported some degree of amnesia. Loftus, Polonsky, & Fullilove, (1994) report that a sizeable minority (31%) of their sample of sexually abused women in treatment for substance abuse showed at least partial repression or incomplete memory for their abuse and 19% reported previous periods of total lack of recall of the abuse.

The scientific debate on reports and recollections of child sexual abuse goes back to at least 1896, when Freud argued that repression of early childhood seduction (sexual molestation) had etiological significance for adult hysteria (Freud, 1954; Masson, 1984, 1985; Peters, 1976; Rush, 1980). He later recanted, saying that he was wrong about the repression of actual experiences of child sexual abuse and that it was fantasies (of sexual contact with parents or other adults) that drove the hysteria (Freud, 1966). The research of Briere and Conte (1993) and that of Herman and Schatzow (1987) revisited the issue of repression of child sexual abuse and suggest that a large proportion of women sexually abused in childhood have no recall of the abuse. These studies support Freud's originally hypothesized connection between child sexual abuse, no recall of the abuse, and high levels of psychological symptoms in adulthood, at least in clinical samples.

Briere and Conte (1993) and Herman and Schatzow (1987) found that, among their treatment-seeking respondents, having a previous period of no recall of the abuse was associated with more violent episodes of abuse and younger age at the time of the abuse. Herman and Schatzow suggest that massive repression was the main defensive resource available to their patients who were sexually abused in early childhood, who suffered physically violent sexual abuse. Briere and Conte suggest that the association they found between no recall and trauma (as measured by violence or injury) and the lack of association between no recall and conflict (as measured by guilt, shame, and enjoyment), fit better with the process of dissociation than with an active defensive process of repression. Similarly, Terr (1991)

has suggested that what she calls Type II traumas (longstanding or repeated ordeals) may be more likely to result in denial and dissociation. Briere and Conte suggest that young age is associated with no recall for the abuse experiences because younger children may be more likely to experience abuse as violent (thus motivating repression or dissociation) or may have fewer psychological defenses available to them other than forgetting. As evidence that the association between age and no recall is not primarily attributable to cognitive developmental features of young children, Briere and Conte (1993) and Herman and Schatzow (1987) point to the finding that many of their subjects who retrieved memories were very young at the time of abuse.

The research on cognitive development and memory can shed some light on these issues; unfortunately, this research has not focused on memory for traumatic events and has primarily relied on studies of laboratory-induced stress and children's memory (see Ceci & Bruck, 1993). The majority of studies from the experimental psychology literature suggest that adult memories for any events before the age of 3 years are rare, (Pillemer & White, 1989) and they attribute such childhood (infantile) amnesia to developmental processes and immaturity of the nervous system. However, a recent study by Usher and Neisser "show(s) that the offset of the (childhood) amnesia varies with the kind of experience in question (and that) some events are likely to remain in memory even if they occur at age 2" (1993, p. 164). For example, they found that many college-aged subjects did have memory of hospitalization at ages younger than 3 years and they suggest that when events of childhood fit adult schemata or are painful or embarrassing, they may be easier to recall. Their study challenges the previously held boundaries of age 3 years for infantile amnesia.

Nelson's (1993) research suggests that autobiographical memory (such as memory of child sexual abuse) requires not only development of language but a facility with language often not present until the late preschool years. Nelson further suggests that autobiographical memories may have both cognitive psychological and social origins and may depend not only on language development but on learning to share memories with others. One further explanation for a relationship between young age at the time of abuse and an adult's failure to recall such traumatic events is that the memory for these events was laid down or constructed in a way that was not verbally mediated but was based on images, actions, or feelings (Pillemer & White, 1989). Memories may be evoked only when those images are encountered again or if they are revived as may be the case in some therapeutic interventions (Briere, 1992a; Herman, 1992).

Other factors that have been shown to affect memory and that may play a role in adult recall of child sexual abuse are the salience of the event (Brainerd & Ornstein, 1991; Lindberg, 1991), threats or promises made by perpetrators (Bottoms, Goodman, Schwartz-Kenney, Sachsenmaier, & Thomas, 1990; Briere & Conte, 1993), and rehearsal (Harris & Liebert, 1991).

Until now, there has been no prospective study of sexually abused children to determine the proportion who in adulthood have forgotten about the abuse. The two important studies of adult memories of child sexual abuse (Briere & Conte, 1993; Herman & Schatzow, 1987) that have provided the basis for conclusions about the high rate of no recall for abuse, relied on

retrospective accounts of clinical samples of individuals who now remember the abuse.

The study reported here relied on a sample of women with documented histories of sexual abuse in childhood who were asked about their memories of such abuse 17 years later. This study asks the following questions: (a) How common is forgetting of child sexual abuse? (b) Is forgetting associated only with young age at time of the abuse and suggestive of the operation of infantile amnesia, or are other factors, such as relationship to the perpetrator or severity of the trauma, associated with forgetting, independent of age at time of the abuse?

Method

In the 1970s, all reported victims of sexual abuse in a major northeastern city were brought to the city hospital emergency room for treatment and collection of forensic evidence. From April 1, 1973 to June 30, 1975, 206 girls (aged 10 months to 12 years) were examined as part of a larger study (funded by the National Institute of Mental Health) of the consequences of sexual assault for adult, adolescent, and child victims (McCahill, Meyer, & Fischman, 1979; Peters, 1976). Details of the sexual assault were recorded contemporaneously with the report of the abuse and were documented in both hospital medical records and research interviews with the child, the caregiver, or both. These reports of the abuse (the "index" abuse) are, therefore, not subject to recall biases.

In 1990 and 1991, 153 of these girls, now adults, were located and personally contacted. Ten women refused to be interviewed, and seven scheduled but never came in for an interview. One hundred thirty-six women were interviewed (66% of the total sample). Four of these interviews were dropped from the analyses because the initial report did not involve actual sexual contact, and three additional cases were dropped because the women indicated that they or others had fabricated the initial report of the sexual abuse.¹ Thus, the sample for these analyses consisted of 129 women.

At the time of reinterview, the women ranged in age from 18 to 31. The majority of the women interviewed (86%) were African American. The sexual abuse that these women reported in childhood ranged from sexual intercourse to touching and fondling. In 60% of the cases, sexual penetration was reported. Some type of physical force (pushing, shoving, slapping, beating, or choking) was used by the perpetrator in 62% of the cases. All of the perpetrators were male. In 34% of the cases, the offender was a member of the immediate or extended family; in 14%, a peer of the child was the perpetrator; and in 25%, a stranger. Medical evidence of some physical trauma was present in 34% of the cases, with 28% of the visual exams revealing mild-to-severe genital trauma. There was no statistically significant difference between the interviewed and noninterviewed women on these characteristics. For the purposes of the study, child sexual abuse was defined as sexual contact that (a) was against the child's wishes, (b) involved force or coercion, or (c) involved a perpetrator who was at least 5 years older than the victim.

In 1990 and 1991, when the women were located and contacted by the researcher, informed consent following human subjects guidelines was obtained.² The women were asked to participate in an important follow-up study of the lives and health of women who during childhood received medical care at the city hospital. The women were not informed of their victimization history, although some women connected the hospital visit to their experiences with child sexual abuse.

During the private face-to-face interview, which averaged 3 hr in length, the women were asked questions about their childhood and adult life experiences. Their current social and psychological health was assessed with various measures. After sufficient rapport had been established, they were asked about childhood experiences with sex to begin to elicit their histories of sexual victimization. A series of 14 separate

and detailed screening questions were asked, following the approach of Russell (1986).³ The questions focused on experiences with sexual contact by force, with someone in a position of authority, with a family member, with someone who was 5 or more years older, or that took place against her wishes. In addition, to elicit information about events that the women did not now define as abuse but that may have precipitated the report to the hospital in the 1970s, the interviewers asked them about fabricated reports of sexual abuse that were made by them or by others. To elicit information about other events that may have led to the hospital report, the interviewers also asked the women whether anyone in their family ever got in trouble for his or her sexual activities.

The interviewers were two women in their 40s (one White and one African American) who had received training and supervision to assure that they were able to establish rapport with the women and conduct interviews on sensitive and potentially upsetting personal topics. They followed a protocol that has resulted in high rates of reports of child sexual abuse when used with other adults who were not known to have been abused in childhood (Williams & Finkelhor, 1989; Williams, Siegel, Hyman, & Jackson-Graves, 1993). The interviewers were aware of the purpose of the study, but they were unaware of any of the circumstances of the child sexual abuse reported in the 1970s.

Because many of the women reported different or multiple incidents of child sexual abuse, two raters (the principal investigator and research assistant) assessed whether the woman had recalled the index abuse. The raters independently read the details of the women's current descriptions of the sexual abuse suffered in childhood and, taking an approach that would result in a conservative estimate of the proportion who did not recall abuse, used the information recorded in the 1970s in the case records to decide whether the abuse even remotely resembled the previously documented index abuse. Frequently, the women detailed to the interviewer exactly the same incident as had been reported in the 1970s but were incorrect in recall of their age at the time the abuse occurred. Although the report of their age at the time of the abuse was incorrect, the women were deemed for purposes of this study to have "recalled" the abuse. Furthermore, some of the women had experienced repeated victimization by the same offender. To be judged as having recalled the child sexual abuse, the women were not required to recall the specific incident that had been reported to the authorities. When a woman reported any instance of sexual abuse by the original offender (even if she reported that it occurred some time after the abuse event that brought

¹ A separate article on the validity of children's disclosures will provide further detail on reported fabrications and is being prepared for publication.

² Legally effective informed consent was obtained before each interview, including a description of the sensitive subject matter to be covered. The women were provided with an opportunity to decide whether to participate in the study. They were informed of their right to terminate the interview at any time and still receive full monetary compensation (\$30). All interviewers were trained to deal with the sensitive issues covered in the research, how to recognize signs of stress in the women, and how to make appropriate referrals. The interview was interrupted if the women so desired or when the interviewer judged that she was distressed. Because the interview dealt with sensitive issues concerning the women's social and psychological adjustment and their experiences with sexual abuse and other types of victimization, if a sexual abuse history was disclosed, crisis intervention services of a sexual abuse treatment program were made available at no cost after debriefing. Only a few women made use of these services. Other referrals were also made as appropriate. The interviewers did not possess information on the nature of the victimization the women had experienced in childhood, and the women were not informed of their victimization if they did not recall.

³ A copy of the questions is available from Linda Meyer Williams.

her into the study), she was classified as having remembered the abuse. In all cases, the two raters agreed on whether the index abuse was recalled or not recalled.

Results

Proportion Who Did Not Recall the Abuse

Of the 129 women in the sample, over one third (38%) did not report the sexual abuse that they experienced in childhood and that had been documented in hospital records (the index abuse), nor did they report any sexual abuse by the same perpetrator. Although some of these women may have simply decided not to tell the interviewers about the abuse, additional findings discussed later suggest that the majority of these women actually did not remember the abuse.

Some women gave dramatic indications that they really did not recall the abuse and would have told us if they had "known." For example, in one instance, the young woman told the interviewer that she was never sexually abused as a child, and she repeatedly and calmly denied any sexual abuse experiences throughout the detailed questioning.⁴ She was then asked if anyone in her family had ever gotten into trouble for his or her sexual behavior, and she said, "No," and then spontaneously added, "Oh, wait a minute, could this be something that happened before I was born?" When told "yes," she said, "My uncle sexually assaulted someone." Later she said the following:

"I never met my uncle (my mother's brother), he died before I was born. You see, he molested a little boy. When the little boy's mother found out that her son was molested, she took a butcher knife and stabbed my uncle in the heart, killing him."

The interviewer (unaware of the circumstances of this woman's victimization) recorded the details of this account of the uncle's death and completed the interview. Comparison with the original account of the abuse recorded in 1974 revealed that this participant (at age 4), her cousin (at age 9), and her playmate (at age 4) were all abused by the uncle. The records of the earlier research revealed that, when this participant told her mother about the abuse, her mother, in turn, informed the mother of the playmate, a little boy. This boy's mother, according to newspaper accounts available in the case files, armed herself with a knife and went looking for the uncle. She stabbed him five times, killing him. The participant in the present study apparently did not recall that she was abused by this man.

The finding that such a high proportion, 38% of the women, did not tell the interviewer about the child sexual abuse that was documented in the hospital records from the 1970s was quite dramatic, despite findings from clinical samples such as those of Briere and Conte (1993) and Herman and Schatzow (1987). This is a significant proportion of the sample. The assertion that these women do not recall the abuse is subject to challenges that are addressed as follows.

Is It Likely That the Women Were Embarrassed or Just Did Not Want to Talk About Such Personal Matters?

Most of the women told the interviewer about many other very personal matters, such as information on other sexual, physical, and emotional abuse suffered in childhood, personal

histories of substance abuse, and intimate details of their adolescent and adult sexual functioning, so it is unlikely that embarrassment was the reason that so many women did not tell about the index abuse. Of the women who did not recall the child sexual abuse that brought them into the study, 68% told the interviewer about other sexual assaults (clearly involving different perpetrators and circumstances) that they experienced in childhood. Of the women who did recall the index abuse, the same proportion (68%) reported other incidents of child sexual abuse. Furthermore, those who did not recall the abuse were no less likely to report the most highly embarrassing, upsetting, and stigmatizing abuse experiences than those who did recall. Indeed, of those who did not recall the index abuse, over one third (35%) told the interviewer about other sexual abuse perpetrated by family members.

To examine the question of whether the women who appeared to not recall the abuse were simply reluctant to talk about very personal matters, a measure of willingness to divulge personal information was developed. The women who reported a previous history of undergoing an abortion, prostitution, or having a sexually transmitted disease ($n = 51$, 40%) were no more likely to recall the index childhood sexual victimization (61%) than were those who denied (or did not have) any such a sexual history (63%), $\chi^2(1, N = 129) = .0023, p = .9621$.

Is It Possible That No Recall of the Index Abuse Really Reflects a Reluctance to Report and Discuss Multiple Incidents of Abuse?

To avoid the possibility that the women would censor multiple reports of abuse if they feared they would be asked detailed questions about each sexual abuse incident (and thus simply omit a report of the index abuse), the long series of screening questions was used only to elicit a brief indication of all the abuse each woman had experienced. For each positive response, the woman was asked only her age at the time of the abuse and the relationship of the perpetrator. Only after this minimal information was elicited for all of the incidents she recollected were more details solicited about each abuse experience, starting with the abuse that happened closest to the time she was seen at the hospital.

Were the Women Just so Traumatized by Negative Life Events or Affected by Substance Abuse Problems That the Child Sexual Abuse Was Insignificant or Easily Forgotten?

It may be that women who are multiply battered by negative life events are less likely to report an episode of sexual abuse that occurred many years ago. Indeed, many of the women in this sample had other very traumatic life experiences. Having a close friend or family member violently killed was used as a proxy measure for other traumatic life events. The women who experienced this severe trauma (37% of the sample) were no more likely than the women who did not have this experience to have no recall of the index abuse, $\chi^2(1, N = 129) = .7242, p$

⁴ Details have been changed to protect the identity of the subjects.

= .948. With regard to substance abuse problems, 8% of the women had in the past been in treatment for alcohol abuse problems, and 26% had been in treatment for drug problems, but these women were no more likely to have forgotten the index abuse than those who had no treatment for substance abuse: For alcohol treatment, $\chi^2(1, N = 129) = .0437, p = .8345$; for drug treatment, $\chi^2(1, N = 106) = .9421, p = .332$. In fact, of the 11 women who reported a history of alcohol-related blackouts and delirium tremens, only 3 (27%) had forgotten the index abuse. The women with self-reported current drug or alcohol problems were no more likely than those without any current drug or alcohol problems to have forgotten the child sexual abuse (38% vs. 39%), $\chi^2(1, N = 128) = .0114, p = .9150$.

Is It Possible That Some Women Did Not Recall the Abuse Because the Abuse Never Occurred, Not Withstanding the Documentation in Our Records?

An unknown number of original reports may have been fictitious. The best research suggests that between 4% and 8% of reports of child sexual abuse today are fictitious (Everson & Boat, 1989). It is likely that the rate of fictitious reports in the 1970s was even lower, as reporting such abuse may have been less socially acceptable and less likely to achieve any secondary gain. None of the reports were made in the context of custody disputes, which may have a higher rate of fabrication. Three women told us that the reports made by them or by others were fabricated, and so they were excluded from this analysis.

To respond to the concern that some of the women in the study may not have really been abused, a more conservative estimate of the rate of forgetting was made by restricting the analysis to those girls (a) who had recorded medical evidence of genital trauma and (b) whose accounts also received the highest credibility rating (based on a 4-point, subjective, interviewer rating) in the 1970s. Interestingly, in the 23 cases that meet this high standard for the validity of the original abuse allegation, over half (52%) of the women did not recall the abuse when interviewed in 1990–1991. This suggests that the .38 rate of no recall is not an inflated figure attributable to originally false or mistaken reports. Indeed, there was a tendency for the women who did not recall the abuse to be more likely than those who did recall the abuse to have actual medical evidence of genital trauma (37% vs. 24%) and to have a high credibility rating (87% vs. 84%).

Is the High Proportion of Women Who Do Not Recall Attributable to the Young Age of the Children at the Time of Abuse?

Figure 1 graphs (for four age groups) the proportion of women who had no recall of the abuse. The women aged 3 years and younger at the time of the abuse were not the only ones who had a high rate of no recall (55%). Women who were 4 to 6 years old were just as likely (62%) to have forgotten the abuse. Children who were 4 to 6 years old at the time of the abuse may be expected to have been more likely to recall the abuse than the infant-to-3-year-old group if recall was solely attributable to cognitive development and language acquisition. The high rate of no recall for these older children (4 to 6 years of age)

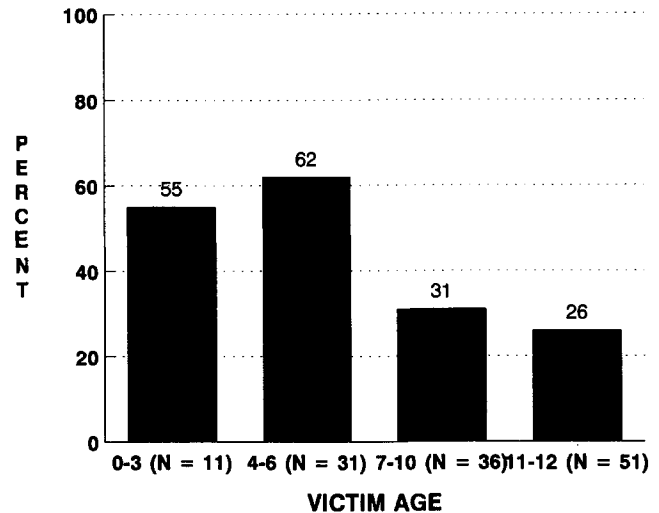


Figure 1. Bar graph showing age at time of victimization and no recall of sexual abuse, $\chi^2(3, N = 149) = 12.65, p < .006$.

may be due to other factors, such as the degree of psychological trauma they suffered, their ability to understand the seriousness and meaning of the abuse, or the resources that were available to them for dealing with abuse. These findings suggest that factors other than cognitive development and language acquisition (factors associated with so-called infantile amnesia) play a role in forgetting. Although cognitive developmental capacities undoubtedly affect the memory of very young children and are translated into adult lack of recall of the abuse, in this study, 5 of 11 women who were under 4 years of age at the time of the victimization recalled the abuse.^{5,6}

The high rate of no recall of the sexual abuse for this entire sample is not due to the extremely young age of the girls, as has been suggested by Loftus (1993). Most of the girls were at least 7 years old at the time of the abuse. However, nearly one third of those abused between ages 7 and 10 and over one quarter of those abused between ages 11 and 12 did not recall the abuse. Of those who were age 7 or older at the time they were sexually abused, 28% did not recall the abuse (Table 1).

Nevertheless, an inverse relationship between age at time of abuse and no recall was found; abuse that occurred at an earlier age was more likely to be forgotten (see Table 4). The women who did not recall the abuse were, on the average, 2 years younger at the time of abuse than those who recalled the abuse (Table 2).

⁵ Some of the "memories" may be attributable to information they received from others later in life; however, this was not explored systematically in this interview.

⁶ The exact distribution of no recall for each age is: age <1 year, 1 of 1 no recall; age 1 year, 1 of 1 no recall; age 2 years, 3 of 5 no recall; age 3 years, 1 of 5 no recall; age 4 years, 6 of 12 no recall; age 5 years, 9 of 11 no recall; age 6 years, 4 of 7 no recall; age 7 years, 4 of 11 no recall; age 8 years, 4 of 8 no recall; age 9 years, 1 of 9 no recall; age 10 years, 2 of 8 no recall; age 11 years, 6 of 21 no recall; age 12 years, 7 of 30 no recall.

Table 1
Characteristics of Abuse and No Recall of Child Sexual Victimization

Characteristic	% who remembered ^a	% with no recall ^b	Odds ratio	<i>p</i>	<i>n</i>
Age 7 or older at time of abuse	72	28	0.26	.0009	129
Physical force used	69	31	0.75	.648	101
Penetration	64	36	0.99	.852	113
Genital trauma	51	49	1.86	.167	129
Perpetrator was stranger	82	18	0.20	.018	120
Perpetrator was family member	53	47	1.95	.136	119

^a Coded as 0. *N* = 80. ^b Coded as 1. *N* = 49.

One difficulty for interpreting the meaning of the association found between age and no recall is that the women who were younger at the time of the abuse were also younger at the time of reinterview—many still in their early 20s. It is possible that the women who were abused in early childhood—and who are now more likely to have forgotten the abuse—will recall the abuse in the next several years. Therefore, it may be the age at time of reinterview and not the age at time of the initial abuse that is associated with recall. Once this sample of women ages, other variables may be found to have more explanatory value and override the effects of age suggested by the current data.

What Accounts for Recall Besides Age?

Those molested by strangers were more likely to recall the abuse than those molested by someone they knew, such as a friend of the family, a peer, or a family member. The women who were molested by family members or had genital trauma were more likely to have no recall (43% vs. 28%), but this may be attributable to chance (Table 1). Physical force, sexual penetration, and genital trauma were not associated with no recall of the abuse on the bivariate level.

Three measures of abuse characteristics were constructed:

Table 2
Measures of Abuse Associated With No Recall of Child Sexual Victimization (t tests)

Variable	<i>M</i> for women who remembered ^a	<i>M</i> for women with no recall ^b	<i>p</i>
Age at abuse	9.0	7.0	.0003
Degree of force (ranging from 0 to 4)	1.6	1.2	.059
Severity of penetration	0.96	1.12	.151
Closeness to perpetrator	1.01	1.45	.008

Table 3
Logistic Regression of Analysis of Characteristics of Abuse and No Recall

Variable	Coefficient	<i>SE</i>	<i>p</i>
Age at time of abuse	−0.1756	.0657	.008
Degree of force	−0.0329	.1646	.842
Severity of penetration	0.2028	.2665	.447
Closeness to perpetrator	0.4123	.2128	.053

Note. *N* = 129, and log likelihood = 171.309; $\chi^2(124, N = 129)$, = 129.283, *p* = .354.

degree of force (0 = none, 1 = coercion–intimidation, 2 = roughness, 3 = beating, 4 = 1, 2, or 3 plus choking); severity of penetration (0 = no penetration, 1 = penetration with no genital trauma, 2 = genital trauma); and closeness of the relationship to the perpetrator (0 = stranger–relative stranger, 1 = acquaintance, peer–friend of family, 2 = extended family member, 3 = nuclear family member).⁷ Table 2 presents the results of *t* tests. Women with a closer relationship to the perpetrator were more likely to not recall the abuse. There is a tendency for the women who were subjected to more force to not recall the abuse.

Table 3 contains the results from the multivariate analysis (logistic regression). Young age at time of abuse and closeness of the relationship to the perpetrator make an independent contribution to forgetting the abuse. When an interaction term, a reverse coding of closeness to the perpetrator multiplied by age, was included in the analysis, young age and closeness to the perpetrator continued to make an independent contribution to no recall of the abuse. A logistic regression was also computed after excluding the women who were 3 years of age or younger at the time of the abuse. The same statistical associations were found between young age at time of abuse and closeness to the perpetrator and no recall.

Are Older Girls Who Were Sexually Penetrated, Had High Credibility Ratings, and Have No Current Drug or Alcohol Problems Less Likely to Have Forgotten the Child Sexual Abuse?

Skeptics about the findings may question the likelihood that so many women forgot and suggest a more conservative analysis of a sample confined to those older girls who have high credibility and have experienced the most invasive forms of abuse. Unfortunately, the sample is too small for meaningful statistical tests when only those girls are considered who were older than age 6 at the time of the abuse, who had high credibility, who were sexually penetrated, and who have no current drug or al-

⁷ Closeness of the relationship to the perpetrator is based on nominal categories and kinship label rather than on a preferred measure of degree of emotional or caregiving involvement (see Kendall-Tackett, Williams, & Finkelhor, 1993). Such a measure was not available in the data from the 1970s.

Table 4
Correlation Matrix

Measure	Dependent variable (no recall)	1	2	3
1. Age				
<i>r</i>	-.2961			
<i>p</i>	.0007			
2. Degree of force				
<i>r</i>	-.1419	.46521		
<i>p</i>	.1175	.0000		
3. Severity of penetration				
<i>r</i>	.0965	.0050	.1521	
<i>p</i>	.3028	.9566	.0959	
4. Closeness to perpetrator				
<i>r</i>	.2208	-.1521	-.0783	.1641
<i>p</i>	.0154	.0891	.3835	.0795

cohol problems ($n = 10$). The findings, however, are interesting for heuristic purposes. Even among this select group, 40% (4) of the 10 women did not recall the abuse. When the women who were 4 years of age or older at the time of the abuse were added to this subsample, 54% did not recall. Several similar challenges to the findings were made by confining the analysis to various combinations of older girls with high credibility and who experienced more serious acts of sexual penetration or use of force. Although the sample sizes are small, in all of these analyses 38% or more of the women were found to not recall the abuse.

Do These Findings Apply Only to Memories of Single Occurrences of Sexual Abuse Rather Than a History of Repeated Abuse? Would Recall of Repeated Abuse Be More Likely?

In the first wave of this research conducted in 1973 to 1975, no systematic data were collected on the number of times the child had been subjected to repeated sexual assaults by the same offender. This research began as a study of rape that was conceptualized as a one-time event that mostly happened to adult women and was perpetrated by strangers. The findings from this early study were part of the discovery of child sexual abuse. Two fifths of the rape victims were actually girls under the age of 16, and both girls and adult women were more likely to be sexually assaulted by someone they knew than by a total stranger (McCahill et al., 1979). A review of the descriptive information recorded in narrative form in the first-wave interviews reveals that, in many cases, the girls who were sexually abused by a family member or by someone close to them were subjected to repeated abuse by the same offender. Those with a close relationship to the child often had more opportunity to gain repeated access to her. The finding on follow-up—that women abused by someone close to them were more likely to have forgotten the abuse (Tables 2, 3, and 4)—suggests that repeated abuse may be associated with no recall. There is no way to test this directly on the basis of the data collected.

The only data relevant to this question that were collected in

the first wave of the study was a question on whether the child had ever been sexually abused before the index incident. This previous abuse may have been by the same perpetrator or by someone else. Thirty percent of the girls had experienced such previous abuse. The women with such previous (possibly repeated) abuse were just as likely to have forgotten the abuse as the women who had had no previous history of child sexual abuse (33% vs. 38%), $\chi^2(1, N = 110) = .1871, p = .665$.

Discussion

These findings suggest that having no memory of child sexual abuse is a common occurrence, not only among adult survivors in therapy for abuse (Briere & Conte, 1993) but among community samples of women who were reported to have been sexually abused in childhood. On reinterview, nearly two fifths of the women did not report the child sexual abuse that was documented 17 years earlier, and those who did not report appear to not recall the abuse.

This sample comprised primarily poor, inner-city dwelling, African American women and, as such, may not be generalizable to all sexually abused women. Although some research on ethnic differences in the impact of sexual abuse has shown few differences between racial groups (Wyatt, 1990), others have found that African American women were more likely than White women to have exhibited negative consequences as a result of incestuous abuse (Russell, Schurman, & Trocki, 1988). Russell and her colleagues suggested that the differences observed in the long-term consequences may be the result of more severe abuse suffered by African Americans. It is not known whether African American women differ from women of other cultures or ethnic groups in their recall of child sexual abuse. This study found, however, that experiences of other serious traumas was not associated with rate of recall of the child sexual abuse.

Because no first-wave data were collected on the number of times the child was abused by the same offender, no firm conclusion can be drawn about differential effects of repeated abuse on adult memory. A previous history of abuse (by the same or a different perpetrator) was not found to be associated with recall of the index abuse, suggesting that women who have experienced repeated abuse may be no more likely to recall that abuse. Further research is needed to examine this issue.

All of the women in this sample had experienced child sexual abuse that was reported to authorities. This raises questions about the generalizability of these findings to women who never reported their abuse. It is difficult to see how a comparable study could be conducted to determine the proportion of non-reporters who do not now recall their victimization, as it is impossible to identify such a sample. Because women who never reported their abuse to authorities may have been less likely to have discussed the details of the abuse with anyone, it is possible that their rate of forgetting would be even higher. This study may, therefore, provide a conservative estimate of the proportion of women sexually abused in childhood who have no memory of the abuse.

These findings have implications for research and for clinical and legal practice. Although many of the women who did not recall the index abuse did recall some other child sexual abuse

experience (68%), of those who did not recall the index abuse 32% (12% of the total sample) reported that they were never sexually abused in childhood when, according to official records, they were indeed abused. This suggests that large, community-based retrospective studies of child sexual abuse may misclassify as nonabused a significant number of women who were abused in childhood. Furthermore, these findings suggest that retrospective studies miss information about a significant proportion of the abuse that women have suffered (Williams, Siegel, & Jackson-Graves, 1993). Therefore, understanding of the prevalence of abuse is affected, as is understanding of the nature of that abuse. For example, this study suggests that abuse of very young children and abuse perpetrated by individuals with a close relationship to the victim may be more likely to go undetected in retrospective studies. The problem of underreporting of abuse in retrospective studies may be even greater than these results suggest because this sample entirely comprised women whose sexual abuse was known to at least one family member and was reported to the authorities. Many victims of child sexual abuse never discuss their victimization with anyone, and they may be even more likely to have forgotten the abuse.

If, as these findings suggest, having no recall of sexual abuse is a fairly common event, later recovery of memories of child sexual abuse by some women should not be surprising. Indeed, 16% of the women who recalled the index abuse in this study stated that there was a time in the past when they did not remember that the abuse had happened (Williams, 1993). Although this article has not addressed the accuracy of recovered or recalled memories of once-forgotten abuse or the association of such memories with adult symptomatology, further analyses will examine this issue. Additional follow-up of this sample may provide evidence about the proportion of women who eventually recall the abuse and the circumstances under which such recovery of memories occurs. The current findings, however, indicate that therapists should be open to the possibility of child sexual abuse among clients who report no memory of such abuse (see Berliner & Williams, 1994).

This article does not examine the validity or accuracy of adult recollections of childhood sexual abuse and, therefore, cannot specifically address the forensic assessment of such memories. However, the findings do suggest that having had a period during which sexual abuse allegedly experienced in childhood was forgotten cannot be regarded as evidence that such abuse did not occur.

In regard to the mechanism by which it happens that women have no memory of abuse, these findings suggest that forgetting is associated not only with age but with the relationship to the offender. Although the association between age at time of the abuse and recall indicates that very young children are more likely to forget, the notion that adults cannot recall abuse that occurred before age 3 was not supported by this study. For example, one woman, abused at age 2 years, 9 months, now reports that she independently remembers the molester's "itchy beard." She claims that this memory still haunts her and interferes with her enjoyment of sexual relations with men who are not clean shaven. The findings from this study suggest that age-related, cognitive developmental theories are not sufficient explanation for memories of traumatic events.

Sexual abuse by a stranger is more likely to be remembered even when we control for age. For the child, abuse by a stranger may be a highly salient event—easily remembered because of its one-time occurrence, its frightening aspects, its novelty, or because it is more likely to be discussed later with family members or friends. The family may also be more likely to provide support and comfort for the child molested by a stranger. Abuse by a perpetrator with a close relationship to the child is likely to combine elements of betrayal, fear, and conflict, which may cause the victim to be confused about the nature of the abuse and to experience difficulty with her memory of it. Such abuse may be associated with high levels of guilt and psychological distress focused on issues of betrayal and, possibly, confusion about her role in precipitating the abuse (Finkelhor & Browne, 1985). Furthermore, such abuse may be more likely to be ignored or hidden by other family members. This may send a powerful message to the child to forget about it. Abuse by known perpetrators may have been likely to occur repeatedly and routinely, and memory may be hazy (Hudson & Nelson, 1986). The women in this study were not asked if they "had a feeling that they were sexually abused, but were not 100% sure it had happened." Their responses to such a question may have revealed that some who did not recall the abuse have a vague notion that they were abused but were reluctant to assert that it happened to them.

Contrary to clinical research with adult survivors (Briere & Conte, 1993; Herman & Schatzow, 1987), use of physical force and violence was not found to be associated with recall, nor was genital trauma or sexual penetration. It is possible that adult retrospective reports are more accurate in their portrayal of the amount of violence or penetration experienced during the abuse than were the contemporaneous reports of children relied on for this study. It may be that some incidents are forgotten because they are not highly salient (e.g., relatively "minor" one-time incidents that did not involve the use of force) and others are forgotten despite their highly disturbing content (e.g., frightening or overwhelming use of force). Those experiencing overwhelming trauma who forget about the abuse may be more likely to later recover the memories and to seek therapy, thus finding their way into clinical samples used in retrospective studies.

These data indicate that having no recall of child sexual abuse is a common occurrence for adult women with documented histories of such abuse. Forgetting about child sexual abuse is not solely a function of the age at time of victimization. Some who were very young at the time of abuse appear to have quite detailed memories of what happened, and many women abused after the achievement of more complex reasoning and language skills did not appear to recall the abuse.

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Call for Nominations

The Publications and Communications Board has opened nominations for the editorships of the *Journal of Consulting and Clinical Psychology*, the *Journal of Educational Psychology*, the Interpersonal Relations and Group Processes section of the *Journal of Personality and Social Psychology*, *Neuropsychology*, and *Psychological Bulletin* for the years 1997-2002. Larry E. Beutler, PhD; Joel R. Levin, PhD; Norman Miller, PhD; Nelson Butters, PhD; and Robert J. Sternberg, PhD, respectively, are the incumbent editors. Candidates must be members of APA and should be available to start receiving manuscripts in early 1996 to prepare for issues published in 1997. Please note that the P&C Board encourages participation by members of underrepresented groups in the publication process and would particularly welcome such nominees. To nominate candidates, prepare a statement of one page or less in support of each candidate.

- For the *Journal of Consulting and Clinical Psychology*, submit nominations to Hans H. Strupp, PhD, Department of Psychology, Wilson Hall, Vanderbilt University, Nashville, TN 37240, to FAX number (615) 343-8449, or to STRUPPHH@CTRVAX.VANDERBILT.EDU. Members of the search committee are Marvin R. Goldfried, PhD; Kenneth I. Howard, PhD; and Karla Moras, PhD.
- For the *Journal of Educational Psychology*, submit nominations to Carl E. Thoresen, PhD, School of Education, Stanford University, Stanford, CA 94305-3096, to FAX number (415) 725-7412, or to CTHOR@LELAND.STANFORD.EDU. Members of the search committee are Robert C. Calfee, PhD; Penelope L. Peterson, PhD; and Joanna P. Williams, PhD.
- For the Interpersonal Relations and Group Processes section of the *Journal of Personality and Social Psychology*, submit nominations to Judith P. Worell, PhD, Department of Educational and Counseling Psychology, 235 Dickey Hall, University of Kentucky, Lexington, KY 40506-0017, to FAX number (606) 257-5662, or to CPDJUDYW@UKCC.UKY.EDU. Members of the search committee are Norbert L. Kerr, PhD; Harry T. Reis, PhD; Caryl E. Rusbult, PhD; and Harry C. Triandis, PhD.
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First review of nominations will begin December 15, 1994.