Recovered Memories of Abuse in Women with Documented Child Sexual Victimization Histories

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This study provides evidence that some adults who claim to have recovered memories of sexual abuse recall actual events that occurred in childhood. One hundred twenty-nine women with documented histories of sexual victimization in childhood were interviewed and asked about abuse history. Seventeen years following the initial report of the abuse, 80 of the women recalled the victimization. One in 10 women (16% of those who recalled the abuse) reported that at some time in the past they had forgotten about the abuse. Those with a prior period of forgetting—the women with "recovered memories"—were younger at the time of abuse and were less likely to have received support from their mothers than the women who reported that they had always remembered their victimization. The women who had recovered memories and those who had always remembered had the same number of discrepancies when their accounts of the abuse were compared to the reports from the early 1970s.

KEY WORDS: child sexual abuse; memory; trauma recall.

In the past several years there has been much controversy among both professionals and the general public about adults' memories of childhood trauma, especially delayed or recently recovered memories of child sexual abuse. The scientific debate has focused on the reality of repressed memories of childhood trauma (Berliner & Williams, 1994; Briere & Conte, 1993; Harvey & Herman, 1994; Herman & Schatzow, 1987; Lindsay & Read, 1994; Loftus, 1993; Williams, 1994).

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Some have suggested that the recovered memories are fabricated by disturbed or vindictive adults or fostered by overzealous therapists (Dawes, 1992; Nathan, 1992; Tavris, 1993; Wakefield & Underwager, 1992). Academic laboratory research on memory (Loftus, 1993) has been used to suggest that adults are susceptible to acquiring "memories" of child sexual abuse that did not actually occur (see Lindsay & Read, 1994).

Recently I have reported (Williams, 1994) that of 129 women with documented histories of child sexual abuse, 38% did not appear to recall their victimization when interviewed 17 years post-abuse, suggesting that among women who reported child sexual abuse many years ago, having no recall of the abuse may be a fairly common event. These findings, however, do not address the issue of recovery of memories of abuse. How common is it for victims of child sexual abuse to forget and then at some later time to recall the abuse? What is the explanation for such forgetting and recalling of traumatic events? What is the validity of memories that are recovered or recalled? This paper provides evidence about how common delayed recall of sexual victimization is, in a community sample of women, 17 years after the abuse occurred; the characteristics of the abuse experiences of the women with recovered memories; and the accuracy of the recovered memories.

Theoretical Background and Prior Studies

The research which has been conducted to date on adults' recovered memories of child sexual abuse is based on clinical samples. This research suggests that a large proportion of adults who were sexually abused during childhood and now recall the abuse had periods of time in the past when they did not remember what had happened to them. Briere and Conte (1993) found that 59% of 450 women and men in treatment for sexual abuse reported that, at some time prior to age 18, they had forgotten the sexual abuse they had experienced during childhood. Herman and Schatzow (1987) reported "severe memory deficits" for abuse in 28% of their clinical sample of women in group therapy for incest survivors.

It is possible that the figures from both of these studies reflect an overestimate of the proportion of adults who had prior periods with no memory of the abuse because the studies rely on clinical samples of men and women who sought therapy. Those with prior periods of forgetting may be more troubled by the experience and thus may be more likely to seek therapy. In another study which relied on a clinical sample of 100 women in outpatient treatment for substance abuse (not abuse-focused therapy), over one-half recalled sexual abuse in childhood and, of these, 18% re-

ported that they had forgotten the abuse for a period of time and later regained the memory (Loftus, Polonsky, & Fullilove, 1994). Studies of clinical samples, therefore, suggest that somewhere between 18% and 59% of those persons who now remember being sexually victimized in childhood have experienced a period of not remembering the abuse.

One problem with these studies is that they rely totally on retrospective accounts. They are thus vulnerable to the criticism that the childhood abuse may not have occurred or that the memories could have been implanted by therapists (Loftus, 1993; Pope & Hudson, in press). Herman and Schatzow (1987) attempted to address this concern and reported that the majority of their patients (74%) had obtained independent corroboration of the sexual assault. They did not, however, indicate the proportion who validated their accounts among the women with a prior period of forgetting. In addition, the nature of the corroborating evidence was not detailed.

Much of the literature on memory would bolster a hypothesis that there is an association between age at time of abuse and recall of the event in adulthood. Adult memories for events of very early childhood may be limited by what has been called "infantile amnesia." Empirical research on memory for events of childhood has suggested that the earliest recall does not go back to before the age of 3 or 4 (Pillemer & White, 1989; Sheingold & Tenney, 1982; Wetzler & Sweeney, 1986). A study by Usher and Neisser (1993) suggests an earlier offset of infantile amnesia for some salient events such as the birth of a sibling, a move, as well as events that may have been painful or embarrassing, such as a hospital visit. Such memories even for 3- and 4-year-olds are relatively thin and incomplete (p. 164). And, while infantile amnesia may explain having no recall of an abuse experience, it does not account for later recovered memories.

One explanation that can incorporate the possibility of a young child having no memory of an abuse experience and then later recalling it is that the memory may have been laid down or constructed in a way that was not verbally mediated but was based on images, actions or feelings (Pillemer & White, 1989). The memory may be evoked only when those images are encountered again or if they were revived, as may be the case, in some therapeutic interventions or due to a subsequent victimization experience or other triggering event. Alternatively, events which occur in childhood may initially be forgotten because they are incomprehensible to the child at the time. Eventually the child may realize the significance of the event or the event may finally fit newly acquired adult schemata (Harvey & Herman, 1994; Usher & Neisser, 1993) and, at that point, it may be recalled unless selectivity in attention and a lack of understanding

resulted in the information not being entered into memory (see Ornstein, 1995).

Some research has suggested that infantile amnesia is overcome by linguistic sharing of memory (Nelson, 1993; Pillemer & White, 1989) and that autobiographical memory is influenced by parent-child interactions (Fivush & Hammond, 1990; Fivush & Reese, 1992; Goodman & Quas, 1994). Ornstein, Larus, and Clubb (1991) have outlined and expanded (Ornstein, 1995) upon a framework for understanding memory performance that is useful here: (1) Not everything gets into memory, (2) What gets into memory may vary in strength, (3) The status of information in memory changes, and (4) Retrieval is not perfect.

Moving beyond these cognitive developmental discussions of normal childhood memory, several researchers suggest that the operation of dissociation or repression accounts for periods of forgetting about the abuse. Both Briere and Conte (1993) and Herman and Schatzow (1987) found that a self-reported history of prior periods during which the abuse was forgotten was associated with more violent episodes of abuse in addition to younger age at the time of the abuse. Herman and Schatzow suggested that massive repression explains this period of "amnesia" as the main defensive resource available to their patients who were sexually abused in early childhood and/or suffered violent abuse. Briere and Conte suggested that the association they found between a prior period of forgetting about the abuse and trauma (as measured by violence or injury), and the lack of association between prior forgetting and conflict (as measured by shame and guilt), fits better with the process of dissociation than with an active defensive process of repression. Terr (1991) suggests that what she calls type II traumas (longstanding or repeated ordeals) are more likely to result in denial and dissociation. Loftus et al. (1994), on the other hand, reported that whether the women in treatment for substance abuse remembered the abuse their entire lives or forgot for a period was unrelated to the violence of the abuse. Williams (1994) also found that multivariate analyses of factors associated with forgetting child sexual abuse revealed no relationship between degree of force and recall.

If violence or trauma contributes to a dissociative forgetting about the abuse as a protective response (Putnam, 1991) then factors that alleviate the trauma or stress of the event such as maternal or other support may reduce the likelihood of forgetting the abuse. In addition, maternal support may aid memory by contributing to encoding, storage and recollection of the abuse if such maternal support is associated with a framing of the experience in a way that helps the child understand what happened to her while reducing the stress associated with the experience (see, generally, Fivish, 1993). A relationship between maternal support and fewer

symptoms of stress for the child victim of sexual abuse has been demonstrated (Everson, Hunter, Runyan, Edelson, & Coulter, 1989; Waterman, 1993). Goodman and Quas (1994) have also demonstrated that mothers' communications about a traumatic medical procedure and level of emotional support affected memory accuracy. The relationship of social support to long-term memory of child sexual abuse has not been explored.

The literature on so-called "false memories" questions the reality of recovered memories but relies primarily on descriptions of anecdotal accounts from legal cases, the reports of adults recently accused by their adult children, and laboratory studies on general issues of memory and suggestibility (Loftus, 1993; Wakefield & Underwager, 1992). The conclusions that "repressed memory" often returns during therapy and that the recovery of such memories is due to suggestive probing by the therapist or the influence of popular culture (Lindsay & Read, 1994; Loftus, 1993; Wakefield & Underwager, 1992) are not supported by any systematic, empirical, ecologically valid evidence (Berliner & Williams, 1994).

Although there is anecdotal evidence that a core central trauma may be misremembered (see Loftus, 1993) research has not focused on this, in part because of the difficulty in conducting the longitudinal research required to follow the course of memory for traumatic events from childhood into adulthood. Terr (1988) has, for 12 years, followed 20 children who suffered psychic trauma before the age of 5 when they were kidnapped from their Chowchilla, California school bus. She concludes that behavioral memories of trauma remain quite accurate and true to the events that stimulated them and that traumatic remembrance is clearer, longer-lived and more detailed than is ordinary memory (Terr, 1990). She has not, as yet, been able to study forgetting and remembering with this sample.

Laboratory studies of memory and suggestibility have documented problems with the memories of both children and adults (Lindsay & Read, 1994). But children, like adults, are more likely to be mislead about peripheral information than to accept misleading suggestions for critical information (Ceci & Bruck, 1993; Ceci, Toglia, & Ross, 1987; Cole & Loftus, 1987; King & Yuille, 1987). Loftus (1993; Loftus & Coan, in press) claims to have experimentally implanted "memories" for events that (if they had occurred) would have been traumatic. Loftus used a paradigm designed to instill a specific "memory" for a universally feared and high base rate childhood event (separation from a parent). This "memory" was actively confirmed by older family members who were also collaborators of the author and who claimed to have been present. Herman and Harvey (1993) question the generalizability from these findings to the situation of adult survivors of child sexual abuse. Indeed, it is difficult to conceive of an

experiment which would be ecologically valid, given the need to protect human subjects.

The study reported here explores and overcomes some of the methodological problems inherent in research on memories for traumatic events of childhood. It relies on a sample of women with contemporaneously recorded histories of sexual abuse in childhood who were asked about their memories of such abuse 17 years later. Because the details of the abuse as reported by the child and family members were documented in medical and research records, it is possible to assess the consistency of the women's current reports of their memories with the initially reported abuse. This study examines the following questions: (1) How common were prior periods of no recall of sexual abuse among women who now recall their victimization? (2) Is the forgetting and later recall of child sexual abuse associated with young age at time of the abuse or are other factors, such as relationship to the perpetrator, severity of the trauma, or maternal support associated with forgetting and later recall, independent of age at time of the abuse? (3) Are the recovered memories of child sexual abuse consistent with the contemporaneously recorded reports and how does the accuracy of the recovered memories compare with the accuracy of the memories of those who report that they always remembered the abuse?

Method

Sample

One hundred twenty-nine women were interviewed in 1990–1992 as part of a study of recovery from child sexual victimization (Williams, 1994; Williams, Siegel, Hyman, & Jackson-Graves, 1993). These women were initially seen 17 years earlier in the early 1970s (all were under 13 years of age at the time) when the sexual abuse was reported. At the time of the abuse they were examined and treated in a hospital emergency room where all sexual abuse victims in that jurisdiction were taken. Details of the sexual assault were recorded contemporaneous to the report of the abuse and documented in both hospital medical records and research interviews with the child and/or her caregiver (see McCahill, Meyer, & Fischman, 1979).

At the time of abuse the girls ranged in age from 10 months to 12 years (0-3, n = 11; 4-6, n = 31; 7-10, n = 36; 11-12, n = 51). At the time of reinterview, the women ranged from age 18 to 31. The majority of the women (86%) were African-American. The sexual abuse these women reported in childhood ranged from sexual intercourse to touching and fondling. In 60% of the cases, sexual penetration had been 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 males. In 34% of the cases, the offender was a member of the immediate or extended family, 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. Sexual abuse was defined as sexual contact which was against the child's wishes, involved force or coercion or involved a perpetrator who was 5 or more years older than the victim.

In 1990-1992 the women were located and asked to participate in a follow-up study of women who during childhood received medical care at the identified hospital. Informed consent following human subjects' guidelines was obtained. The women were not informed of their victimization history, although some women connected the hospital visit to their experiences with child sexual abuse. Ten women refused to be interviewed (see Williams, 1994).

During the private face-to-face interview, which averaged 3 hours in length, the women were asked questions about their childhood and adult life experiences. Their current social and psychological health was assessed using a variety of measures. A series of fourteen separate and detailed screening questions were asked, following the approach of Russell (1986), to elicit any history of sexual victimization. The interviewers were blind to the circumstances of the sexual abuse reported in the 1970s. Eighty (62%) of the women recalled and reported the details of the sexual abuse which was documented in the hospital records, the "index abuse" (Williams, 1994).

Two raters reviewed the interviews to assess whether the woman had or had not recalled the "index" abuse and to document the differences between the 1970s and 1990s account of the abuse. Usually the woman gave details about the abuse or its disclosure (e.g., where it took place, such as in a movie theater; who was there, such as a cousin visiting from the South; whom she told, such as the cashier at a convenience store) that made it quite evident that she was referring to the abuse recorded in the records from the 1970s. Frequently, however, there were discrepancies in some of the details about the abuse experiences and these were noted and coded by the rater.

The women who remembered the "index" abuse were asked a specific series of questions about the sexual acts, the disclosure, the responses of others, and the impact of the abuse on their lives. They were asked how clear their memories were of the abuse and they were asked: "Was there ever a time when you did not remember that this had happened to you?" and, if yes, "What was your age at the time you forgot and the time you remembered?" and, "What resulted in your remembering?" The inter-

viewer took a neutral stance and used probes, such as, "Tell me more" or "What happened then?" to elicit fuller response to the open-ended questions. Of the 80 women who remembered the "index" abuse 5 were inadvertently not asked these questions. Therefore, 75 women comprise the sample in the analyses that follow.

Measures

Three measures of abuse characteristics were used: degree of force was based on the 1970s report (0 = none, 1 = coercion/intimidation, 2 = roughness, 3 = beating, 4 = 1, 2, or 3 plus choking); genital penetration included penile-vaginal or digital penetration; and closeness of the relationship to the perpetrator was coded (0 = stranger, 1 = acquaintance, peer, friend of family, 2 = extended family member, 3 = nuclear family member). Multiple perpetrators were coded according to the closest relationship to the victim. A measure of weak maternal support was based on the woman's 5-point rating of the level of maternal support she had received at the time of the abuse. The responses were dichotomized (0 = high levels of support, 1 = weak/no support). Other indicators of social support included reported pressure to recant, being called a liar, no criminal justice system response, and no counseling received.

A measure of emotional upset at the time of the abuse was based on the woman's reports of the presence of each of nine emotions (see Table 3). The Cronbach's alpha for the scale is .80.

Results

Recovered Memory

Sixteen percent (12) of the 75 women who recalled the "index" child sexual abuse (the abuse documented in our records from the 1970s) reported that there was a time when they did not remember that this had happened to them. The small sample size reduced the power of these analyses and may mask some differences. Only five (42%) of the women with recovered memories believe that they now can remember most of what happened. In contrast, more than three quarters (77%) of the women who told the interviewer that they had always remembered said that they believe they now remember most or all of what happened (t = 2.55, df = 71, p = .01).

Characteristics of the Abuse

Women with recovered memories were on average three years younger at the time of the abuse than the women who reported that they had always remembered (6.5 years old vs. 9.5 years old). Those with recovered memories ranged in age from 2 to 12 at the time of abuse, while none of the women who reported that they always had remembered were younger than 3 at the time the abuse occurred. Five of the 12 women with recovered memories were 2 or 3 years old at the time of the abuse, while over 50% of the women who say they always remembered were 11 or 12 at the time the abuse occurred.

In the bivariate analysis (Table 1), those women who reported recovered memories were less likely to have been subjected to other physical force during the molestation. The women with recovered memories also had lower

Table 1. Recovered Memory and Characteristics of Abuse (1973 Dat.	Table 1.	Recovered Men	ory and Char	acteristics of	Abuse (1973	Data
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A. χ ² Analyses	Total Sample $(N = 74)$	Always Recalled (84%) (n = 62)	Recovered Memory (16%) $(n = 12)^a$	χ²(1)
Physical force used % yes	64	70	30	5.97 ^b
Physical trauma documented % yes	27	26	33	0.29
Genital trauma % yes	23	23	25	0.03
Perpetrator family member % yes	34	31	50	1.68 ^d
Perpetrator nuclear family member % yes	14	11	25	1.62 ^d
Perpetrator a stranger % yes	30	32	17	1.17
B. t-tests		Always recalled	Recovered memory	t
Age at time of abuse Degree of force Closeness of relationship to perpetrator		9.5 yrs. 1.74 .95	6.5 yrs. .75 1.50	2.48^{c} 2.35^{b} -1.46^{d}

^aSample size varies for each analysis due to missing cases.

 $^{^{}b}p$ < .01 (1-tailed).

 $[\]frac{\dot{c}p}{p} < .05.$ $\frac{d}{p} < .10.$

Table 2. Recovered Mem	ry and Social Response	to Abuse (1990s Data)
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Social Response to Abuse	Sample Total $(N = 74)$	Always Recalled $(n = 62)$	Recovered Memory $(n = 12)^a$	$\chi^2(1)$
Pressured by others to recant % Yes	41	38	55	1.06
Others called her a liar % Yes	39	36	55	1.31
Weak or no support from mother % Yes	33	28	60	3.90*
Arrest of perpetrator % Yes	61	61	60	0.00
Court hearing % Yes	35	37	25	0.42
Spoke to a counselor % Yes	41	44	25	1.54

^aSample size varies for each analysis due to missing cases.

scores on the *degree* of force measure (Table 1, part B). This contrasts with Briere and Conte (1993) and Herman and Schatzow's (1987) findings of a positive association between use of force and former periods of forgetting about the abuse in clinical samples. My findings may reflect the association between age and recall—the older girls were more likely to have been subjected to physical force (see Table 4) and were also more likely to have always remembered the abuse (see multivariate analyses, below).

There was no association found between genital trauma from the abuse and having lost and recovered a memory of the abuse. The association between incestuous abuse and recovered memory did approach significance, as did the association between the measure of the degree of closeness of the relationship to the perpetrator and recovered memory (Table 1). The closer the relationship to the perpetrator the more likely it was that the women had forgotten and then later recovered a memory of abuse.

Social and Maternal Support Following the Abuse

In Table 2 the relationship between support received by the victim and recovered memory of abuse is examined. These data come from the 1990s interview. The findings suggest that women who forgot and later re-

^{*}p < 0.05.

Table 3. Recovered Memory and Women's Reports of Emotions at Time Abuse Occurred (1990s Data)

	Sample Total $(N = 74)$	Always Recalled $(n = 62)$	Recovered Memory $(n = 12)^a$	$\chi^2(1)$
A. Reports of Emotions Confused				1.39
% Yes	69	66	83	
Frightened				0.41
% Yes	88	89	82	
Angry				0.54
% Yes	53	52	64	
Shocked	50	60	55	0.10
% Yes	59	60	55	
Guilty				0.97
% Yes	41	39	55	
Ashamed				1.24
% Yes	77	79	64	
Disgusted				0.01
% Yes	53	53	55	
Embarrassed				0.01
% Yes	71	71	73	
Paralyzed				1.58
% Yes	34	31	50	
	Always	Recovered		
	Recalled $(n = 62)$	Memory $(n = 12)^a$	t	p
B. Emotional Upset Score				
Score (M) $(\alpha = .80)$	5.3	5.8	0.56	0.58

^aSample size varies for each analysis due to missing cases.

covered memories of the abuse had received weak support from their mothers. Interestingly, the women with recovered memories were somewhat less likely to have received any counseling. Although this difference was not statistically significant, it suggests, as do the women's accounts (see below), that recovery of memories for these women was generally unrelated to therapy.

^{*}p < .05. **p < .01.

^{***}p < .001.

Emotional Upset and Distress at Time of Abuse

The women were asked about the emotions and feelings they experienced at the time the abuse occurred (Table 3). There was no statistically significant association between experiencing these feelings and recovered memories. The scores on a scale of "emotional upset" (constructed by summing the number of endorsements on these items) were no different for the "always remembered" and "recovered memory" groups. The small sample size, however, reduced the power of this analysis and may have masked some differences. This measure reflects a retrospective report of the number of emotions experienced, but does not measure the intensity of the emotions. Intensity of emotions may be more predictive of recovered memories (see Johnson, Foley, Suengas, & Raye, 1988; Loftus et al., 1994).

Multivariate Analyses

Logistic regression analysis was used to determine the independent contribution of each statistically significant variable to the likelihood of reporting a history of recovered memory of the child sexual abuse. Table 4 gives the correlation matrix for the variables of interest. In Table 5 the results of the logistic regression analysis, after dropping degree of force from the analysis, are presented. Age at time of abuse and weak or no maternal support increased the likelihood of having forgotten and later recovered memory of the abuse. In a separate analysis where age at time of abuse was dropped and degree of force was entered, the contribution of force was not statistically significant, nor was it significant in analyses in which both force and age were entered. The fact that force did not make an independent contribution to recovered memory in multivariate analyses suggests that its association with age was the reason for the previously discussed bivariate relationship.

Inconsistencies in the Accounts

Table 6 provides a comparison of the number and type of inconsistencies between the 1990s and 1970s accounts of the women who always remembered the abuse and the women who reported recovered memories of the abuse. Because of the small number of women with recovered memories, the percentages must be considered descriptive. In general, the women with recovered memories had no more inconsistencies in their accounts than did the women who always remembered. A "minimizes" score was created by summing the items (nine in all) in which the 1990s account

Table 4. Correlation Matrix $(N = 74)^a$

					V			
			DV1 Recovered Memory	X1	X2	х3	X4	X5
X1.	Emotional Upset (90s)	r	.07	·				
X2.	Degree of Force (70s)	r	27**	.01				
X3.	Genital Trauma (70s)	r	.02	.11	.25**			
X4.	Closeness to Perpetrator (70s)	r	.17*	.09	01	.08		
X5.	Victim Age (70s)	r	35***	.27**	.52***	.10	07	
X6.	Weak Maternal Support (90s)	r	.24**	.13	06	.20*	.11	09

^aNote: in some analyses n is smaller due to missing cases.

Table 5. Logistic Regression Analysis of Recovered Memory and Characteristics of the Abuse^a

	Coefficient	SE	P
Closeness to perpetrator (70s)	0.4359	0.338	.197
Age of victim (70s)	-0.2369	0.121	.050
No maternal support (90s)	-1.2911	0.756	.088

 $^{^{}a}N = 70$; Log likelihood = 47.39; Chi square (goodness of fit) = 53.76; df = 66; Sig = .86.

minimized the abuse (or made it seem less serious). "Minimizes" scores ranged from 0 to 3. The mean scores indicate that most accounts had less than one response that minimized the abuse. There was no difference in the "minimizes" scores for the two groups of women. The women's ac-

p < .10.

^{**}p < 05.

 $^{***}_{p} < .001.$

Table 6. Recovered Memory and Inconsistencies Between 1970s and 1990s Accounts of Abuse $(N = 74)^a$

	Always Recalled $(N = 55)$	Recovered Memory (N = 10)	t
Minimizes			
Now says older	15%	20%	
Now says happened fewer times	7%	10%	
Now says duration shorter	4%	0%	
Now says no intercourse	11%	22%	
Now says no threat to hurt	4%	0%	
Now says no force	18%	11%	
Now says no weapon	0%	0%	
Now says no penetration	8%	0%	
Now says no penetration by penis	8%	17%	
Minimizes score (range = $0-3$) (M)	.72	.89	-0.53
Elaborates			
Now says younger	11%	20%	
Now says happened more times	11%	0%	
Now says duration longer	17%	0%	
Now says intercourse	13%	22%	
Now says threat to hurt	27%	38%	
Now says force	11%	11%	
Now says weapon	18%	14%	
Now says penetration	11%	8%	
Now says penetration by penis	7%	8%	
Elaborates score (range = $0-5$) (M)	1.16	1.11	0.10
Inconsistency score (range = $0-5$) (M)	1.88	2.00	-0.23

^aNote: in some analyses n is smaller due to missing cases.

counts, in general, were more likely to reflect inconsistencies that elaborated on the seriousness of the abuse (based on nine items the scores ranged from zero to five). However, there was no statistical difference in the "elaborates" scores between groups.

A total "inconsistency" score was calculated by summing the number of items on which there were inconsistencies when the 1990s and 1970s accounts were compared. On average, the women who always recalled the abuse had inconsistencies in 1.88 of the items and the women who recovered memories had inconsistencies in 2.00 of the items. In short, there was no difference between the two groups in the number or direction of the inconsistencies in their accounts of the abuse. In fact, when one considers the basic elements of the abuse, their retrospective reports were remarkably consistent with what had been reported in the 1970s.

Clarity of Memories of Abuse						
	Reports Memory Clear (N = 49)	Reports Memory Vague (N = 18)	t	р		
Minimizes score (M) Elaborates score (M) Inconsistency score (M)	0.80 1.16 1.96	0.56 1.17 1.72	0.99 -0.01 0.60	.33 .99 .55		

Table 7. Mean Inconsistency Scores and Women's Self-Assessment of Clarity of Memories of Abuse

The women's self-assessments of the clarity or vagueness of their memories of the abuse were not good predictors of the actual inconsistencies in their accounts (Table 7). The accounts of the women who reported their memories to be vague were no more inaccurate than those who reported their memories to be clear. This is consistent with research which indicates that people's beliefs about memory performance are not very accurate (Herrmann, 1982).

Circumstances Surrounding Forgetting and Remembering Child Sexual Abuse

Not surprisingly, half of the women who reported a prior period of forgetting about the abuse documented in their hospital records were unable to reconstruct at what age or how soon after the abuse they had first forgotten about it. Of those who claim to recall how old they were when they first forgot the abuse, two said they forgot right away. Pamela said, "I blocked it out right away, the first time it happened (age 12)." She said, "I didn't remember until it happened again—I was raped when I was 17." Another woman, Mary, was abused at age three by an intruder and said that she "completely forgot about it until (she) saw him on the street at age nine." (N.B. details have been changed to disguise the identities of the women.)

A woman who was 3 years old when her father molested her reported that she did not forget until a couple of years after it happened. She said, "I forgot when I was six and only recalled when I was eight- or nine-years-old and began to have nightmares." Another woman, Joyce, said, "I don't know how old I was, I used to think about it for the first two years, then I just blocked it out. I may not have completely forgot, I just didn't think about it."

Case 1

1975. Mary was aged 3 years and 4 months at the time of the index incident, in the Spring of 1975. She lived with her grandfather who went out one evening to walk a neighbor home. When he returned home his granddaughter came running to him, crying and pointing to her vaginal area, saying that the man had hurt her with his "pee-pee." The man (a stranger who lived in the neighborhood and had entered the house while the grandfather was out) was still in the house and was subdued and arrested. The child was described as very verbal about the events surrounding the abuse but was reported to have "clammed-up" and gotten close to tears when asked about the sexual contact. There was no medical evidence of physical trauma or presence of semen.

1992. At age 20, Mary was reinterviewed. She reported one childhood sexual victimization—the index incident—saying that she was about two and a half at the time. She stated, "I was asleep with no covers so it must have been summer, I started to wake up and saw a man leaning over on top of me. I reached up to give him a hug because I thought he was my grandfather. I touched his face and realized he was not my grandfather! He had on glasses and smelled of beer. I started screaming." She reported that when her grandfather found the perpetrator upstairs the man's pants were down. She said she now remembers most of what happened but asserted, "Most of what I remember is what I dreamt." She told the interviewer that she had totally forgotten about the incident until, at age nine, she was frightened by a man who looked like the perpetrator. She began to have disturbing dreams at night. She claimed that she had not spoken to family members about the abuse nor had she gotten more details about the abuse from anyone since she remembered it at age nine. She reported flashbacks (triggered by intimate relations with men who smell of beer), nightmares and fears about the incident. Although she recently received counseling for eating and relationship problems, she did not discuss the sexual abuse with the counselor.

Case 2

1975. Kim was 7-years-old at the time of the index incident. Her mother went upstairs and noticed that Kim's 16-year-old step-brother was out of his bed. In retrospect the mother recalled that she thought she had heard someone in her daughter's room. Later she noticed that her daughter's pajamas and underwear were awry and when she went to straighten them out she discovered a wet sticky substance which she concluded was semen. When confronted, the boy denied any sexual abuse. When ques-

tioned, Kim said she was awakened by her brother who had pulled her pajamas down and rubbed up against her. Her mother suspected that perhaps other incidents had occurred in the preceding months.

1992. At age 24 Kim was reinterviewed and reported child sexual victimization starting at age 6 and ending at age 7 (the index abuse). She said, "I was asleep and was awakened by my step-brother. What I think he used to do was rub up against me and ejaculate. (She thinks this happened 3 or 4 times.) One time my mother came up, noticed my pajamas were messed up, and took me to the hospital." Kim said she remembers that a friend of the family also told her it was all her fault and this made her feel very bad. She told the interviewer that some of what she remembers "is very vague and could be what really happened or it could have been a dream." Kim reported that she forgot about what had happened when she was about 12 or 13 and didn't remember again until she was 22. She said that a boyfriend asked her if she had been sexually abused, and said her cousin said she had been abused. Kim said, "I don't know." Kim told the interviewer, "that made me start to remember. Then a couple days later I saw [a TV talk show] on sexual abuse and it all came back to me." She says that she has talked with no one except the interviewer about the details of the abuse.

Case 3

1973. Jackie was 4-years old and was at her uncle's house for the weekend. Jackie and her older cousin were sitting on the sofa watching TV. The uncle took his pants down and took his penis out. He fondled them and he put his penis in the vaginas of both girls. Both children told him to stop. He told them not to tell anyone. There was no medical evidence of genital trauma. Jackie's mother believed her daughter because she was molested by this man when she was a child. The uncle denied any sexual offense.

1990. When reinterviewed at age 22, Jackie reported two sexual victimizations in childhood. One she said occurred when she was 10. Her grandfather was the perpetrator. The other victimization was clearly the index abuse. She reported that her uncle went to jail for this. At first Jackie said she was 10 when her uncle sexually abused her, then she said that she was unsure of her age. In response to interviewer probing, she said that she "could have been younger, maybe as young as six-years old." During the interview Jackie frequently had a very difficult time remembering her age at the time of key events in childhood. She said she recalled some of what happened in the abuse but reported that many things were vague.

She said that the uncle came into the house where she and her cousin were playing. He had a switch with which he hit them. She said, "We were naked. He had us sit on him. It had to have been sexual intercourse. He touched us and had us touch him. He was arrested." She reported that she had forgotten about it from what she estimates to be about 2 years after it happened until she was 22. Later on in the interview she contradicted herself and said that when she was 17 her mother had "filled her in on the details of what she (Jackie) had told her about the abuse as a child." At this point Jackie said to the interviewer, "Well I guess I may not have completely forgotten about it after my mother talked to me, but blocked it out most of the time, just stopped thinking about it." She indicated that she only has a very vague mental image of what happened and can barely remember what her uncle looked like. She reported fears for her children and also flashbacks. She said she is reminded of her uncle and the abuse if her husband tries to have sex when his penis isn't hard because when her uncle molested her his penis wasn't hard.

Case 4

1974. When Faith was 12 she was home with her father and several younger siblings. Her mother was at church. The kids were in bed when her father called her upstairs to his bedroom. Faith started to leave but her father called her back into the room. He made her kiss him and then had sexual intercourse with her. She reports that this happened a total of four times during a 4- or 5-month period. Her 10-year-old sister saw Faith coming out of the bedroom, adjusting her clothes. She told Faith to tell their mother or else she would tell. Faith told her mother. They went to the hospital but the police did nothing and the father continued to live in the home.

1991. At age 29, Faith was reinterviewed. She reported an extensive history of seven child sexual victimizations, including abuse by her older brothers, a cousin, and her biological father (at age 11—the index abuse). She said, "He asked me to bring him his glasses and when I did he told me to give him a kiss. He kissed me on the mouth instead of the cheek. He said, 'stay here,' and went into the bathroom. I prayed to God that he wouldn't do it. Somehow I knew what he was going to do. He touched me, fondled me and attempted intercourse. I cried and he let me go." Later she told the interviewer that he had done this to her three other times. She said, "I remember everything that happened the last time but I don't remember the other times, just that it did happen three times. My sister was a witness, she saw me coming out of the room. The police did nothing.

I've been punished all my life because I told." Faith reported that there are times when she does not remember that this happened to her. She reported that periodically when she is happy, she forgets. She said that she experiences flashbacks and fears, has a history of setting fires as an adult and has been hospitalized four times for depression and suicide attempts. She says she never received any counseling or therapy focused on the sexual abuse by her father.

Case 5

1973. Tanya was eight-years old when she was sexually assaulted by her mother's boyfriend. He pushed her down on the bed and fondled her.

1990. At age 25 Tanya told the interviewer that she and her mother's boyfriend were watching TV in bed when he fondled her genitals. She said she forgot what had happened when she was about 16 or 17 until she was 24 years old. At the time of recall, she was married and reports that she was sitting on the couch with their daughter and husband watching a movie about child sexual abuse. She said, "it all suddenly came back to me."

Discussion

It has been reported elsewhere that a large proportion of women in this sample simply did not recall their victimization (Williams, 1994). The finding that some women who now recall the abuse, including a number who were very young at the time of the molestation, reported that there was a time in the past when they had forgotten the abuse, suggests that some forgetting of early childhood trauma is attributable to factors other than infantile amnesia. Furthermore, while some of the abuse experiences may have been simply forgotten because the incident was not particularly salient to the child, the lack of salience might make later recall less likely. It appears that the abuse recalled by the women in this study after a period of forgetting had or came to have some salience for them.

The multivariate analysis revealed that young age at time of abuse and having no or weak support from one's mother following the abuse increased the likelihood that the abuse would be forgotten and later remembered. These findings suggest that the cognitive, developmental features of the victim and the responses of others to the abuse may be critical in predicting the appearance of recovered memories. Younger victims are more likely to forget, and then later recall, their victimization experiences.

Women sexually abused by known perpetrators were more likely to report that they had forgotten and then recovered memories of the abuse but this relationship disappeared in multivariate analyses. Young age at time of abuse was associated with recovered memories. If the young child has limited resources to cope with abuse she may rely on dissociation as a means for dealing with overwhelming trauma (Briere & Conte, 1993) or she may become adept at altering her state of consciousness (see Herman, 1992, p. 86). Maternal support may help alleviate the trauma associated with child sexual abuse and, thus, increase the child's likelihood of having continuous memories of the abuse. But it may also be that maternal support was associated with an increased likelihood that the mother talked with the child about the abuse and thus gave the child a context for understanding what had happened. Such understanding might increase the likelihood that the event was encoded and available for recall. Future studies with larger samples might document the nature of the maternal support and the child's interactions with significant others who might provide a basis for retention of such autobiographical memories.

The open-ended questions and case descriptions did not provide much information about the types of interactions that might have fostered the development of autobiographical memories. The examples, instead, suggest that forgetting about the child sexual abuse is for some a motivated, volitional forgetting (in a conscious attempt to deal with the abuse by blocking it out) (Pennebaker, 1982) and for others may involve repression of or dissociation from the trauma and confusion of the events experienced (Singer, 1990). Deliberate forgetting may be available as a strategy only for the child who has attained more formal cognitive operations and has at least some limited verbal skills. Indeed, some women reported blocking out memories of the abuse a couple years after it occurred. This is based on their subjective reports and will require documentation in longitudinal research. It may be that active forgetting is more likely to occur when the child is old enough to comprehend the (painful) significance of the event (e.g., in Case 2). Or, it may be that with practice and over time a child may find that a strategy of dissociation or selective inattention to painful stimuli is useful.

As with the factors associated with forgetting, the case examples illustrate that the factors which stimulate recall of the abuse varied for the women. For some women the return of a memory of the abuse was prompted by triggers (such as, seeing the perpetrator or someone who looked like him, as in Case 1). Interestingly, the women's descriptions of the process of recalling the abuse suggest that remembering may be instigated by a trigger but also often involves further rumination and even recovery of memories from nightmares, vague images or "day dreams." Some

women may, for example, have memories triggered by a traumatic event such as a subsequent sexual assault or a more benign, everyday experience of seeing a TV show or reading a magazine or newspaper article. The memories may be clarified by flashbacks or by images and thoughts which follow the triggering event. Recovery of memory for some women may be related to re-experiencing emotions (such as fears and disgust) or psychological states equivalent to those experienced at the time of the initial sexual assault (van der Kolk, 1989). Several of the cases suggest that the women remembered what they could tolerate (see Briere, 1992) and were more likely to recall the abuse when they were in relatively stable social and emotional states (e.g., Case 5).

Further research might focus on the events surrounding recovery of memories for these women and others who, upon reinterview, report newly accessed memory of the abuse. Focused interviews which examine the circumstances surrounding recovery of memories may reveal an association between recovery of memories and changes in intimate relationships and other major life transitions (see Courtois & Riley, 1992; Herman & Harvey, 1993).

In this community sample of sexually abused females only 10% of the women (16% of those who recalled the abuse) reported "recovered" memories. This may be a conservative estimate of the proportion who forget and later recover memories of child sexual abuse. Many of the women were in their 20s at the time of the most recent interview. If recovered memory is influenced by later adult developmental issues (Kendall-Tackett, 1991), some of the women who did not recall the abuse at the time of the interview may eventually recover their memories.

For all of the women in this study the abuse was reported in childhood, at which time they underwent a physical examination in a hospital setting. Most of the children spoke to someone about the abuse at the time it was reported. This experience may make forgetting about the abuse less likely for this sample. Contrary to the experiences of the women in this sample, most child sexual abuse is not reported to the authorities and most adults say that they never told anyone about the abuse (Finkelhor, 1986; Russell, 1986). Children who never reported may have a different pattern of remembering and forgetting the abuse. Finally, accurate recovered memories may be more likely in this sample. When memories began to resurface, these women may have found it easier to retrieve an accurate account of the incident because they may have been able to recall conversations that they had had with others about the abuse.

This examination of recovered memories of child sexual abuse relied on a small sample and thus the statistical analyses must be considered preliminary. But these findings are important because they are based on a

prospective study of all reported cases of child sexual abuse in a community sample. Because the abuse was documented in hospital and research records this is the first study to provide evidence that some adults who claim to have recovered memories of child sexual abuse recall actual events which occurred in childhood. These findings also are not limited to a clinical sample of women in treatment for child sexual abuse. The findings document the occurrence of recovered memories. There is no evidence from this study of child sexual abuse experienced by this community sample of women that recovery of memories was fostered by therapy or therapists. For this sample of women memories resurfaced in conjunction with triggering events or reminders and an internal process of rumination and clarification. For women with greater economic means than those of the women who comprised this sample, therapy may play a greater role in recovering memories of child sexual abuse.

Regarding the accuracy of the accounts, this study suggests that while the women's reports of some details have changed (N.B., this may be a problem with the original account, not the adult memory) the women's stories were in large part true to the basic elements of the original incident. Interestingly, despite limited discrepancies, the women themselves were often very unsure about their memories and said things such as "What I remember is mostly from a dream." Or, "I'm really not too sure about this." These are statements which may arouse skepticism in individuals who hear the accounts of women who claim to have recovered memories of child sexual abuse (e.g., therapists, judges, family members, researchers, the media). The findings from this study suggest that such skepticism should be tempered. Indeed, the woman's level of uncertainty about recovered memories was not associated with more discrepancies in her account. While these findings cannot be used to assert the validity of all recovered memories of child abuse, this study does suggest that recovered memories of child sexual abuse reported by adults can be quite consistent with contemporaneous documentation of the abuse and should not be summarily dismissed by therapists, lawyers, family members, judges or the women themselves.

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