

DISCLOSURE OF CHILD SEXUAL ABUSE What Does the Research Tell Us About the Ways That Children Tell?

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The empirical basis for the child sexual abuse accommodation syndrome (CSAAS), a theoretical model that posits that sexually abused children frequently display secrecy, tentative disclosures, and retractions of abuse statements was reviewed. Two data sources were evaluated: retrospective studies of adults' reports of having been abused as children and concurrent or chart-review studies of children undergoing evaluation or treatment for sexual abuse. The evidence indicates that the majority of abused children do not reveal abuse during childhood. However, the evidence fails to support the notion that denials, tentative disclosures, and recantations characterize the disclosure patterns of children with validated histories of sexual abuse. These results are discussed in terms of their implications governing the admissibility of expert testimony on CSAAS.

Although it is widely acknowledged that the sexual assault of children is a major societal concern, it is not known how many children are victims of sexual abuse in the United States (Ceci & Friedman, 2000). There are two major reasons for this lack of data. First, present estimates of the incidence of child sexual abuse (CSA) are primarily based on reports received and validated by child protection agencies. These figures, however, do not reflect the number of unreported cases or the number of cases reported to other types of agencies (e.g., sheriff's offices) and professionals (e.g., mental health diversion programs). Second, the accuracy of diagnosis of CSA is often difficult because definitive medical or physical evidence is lacking or inconclusive in the vast majority of cases (Bays & Chadwick, 1993; Berenson, Heger, & Andrews, 1991), and because there are no gold standard psychological symptoms specific to sexual abuse (Kendall-Tackett, Williams, & Finkelhor, 1993; Poole & Lindsay, 1998; J. M. Wood & Wright, 1995). Given these limitations of medical and psychological evidence, children's statements typically represent the central evidence for judging the occurrence of

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CSA. In making these judgments, professionals must often address the delicate issue concerning how children disclose abuse.

According to some experts, a major problem with relying on children's statements in forensic investigations is that many sexually abused children remain silent about abuse; they may deny that abuse ever occurred, or they may produce a series of disclosures of abuse followed by recantations of these disclosures. In 1983, Roland Summit, a psychiatrist, published a formal description of how sexually abused children disclose abuse. The purpose of this model, termed *child sexual abuse accommodation syndrome* (CSAAS),¹ was to outline for clinicians why child victims of intrafamilial abuse may be reluctant to disclose abuse.² Summit's model included five components: (a) secrecy; (b) helplessness; (c) entrapment and accommodation; (d) delayed, conflicted, and unconvincing disclosures; and (e) retraction of disclosure. Summit argued that children who have been sexually abused may respond with self-blame and self-doubt. They may fear the perpetrator and the possible consequences of disclosure. Hence, in order to survive sexual abuse by a trusted family member, children make accommodating efforts to accept the abuse and to keep the abuse secret. Furthermore, according to Summit (1983), when children do reveal their abuse, disclosure will be incremental over time, a process that often includes outright denials and recantations of prior disclosures, and then reinstatements of the abuse. It is important to keep in mind that there are two separate aspects of this model, each with its own components. The first stipulates the psychological consequences of abuse (fear, blame, and accommodation). The second aspect, the focus of this article, stipulates the consequences that these psychological states have on behavior (secrecy, denial, and recantation).

Summit's (1983) model has received much attention and has had a significant impact in the area of child sexual abuse. His 1983 article was rated by professionals as one of particular influence in the area of child sexual abuse (Oates & Donnelly, 1997). The components of his CSAAS model have been endorsed by many clinicians and scholars who continue to base clinical and forensic judgments on its tenets (e.g., Adams, 1994; Browne, 1991; Carnes, 2000; Elias, 1992; Ford, Schindler, & Medway, 2001; Kelley, Brant, & Waterman, 1993; King Mize, Bentley, Helms, Ledbetter, & Neblett, 1995; Leonard, 1996; MacFarlane, 1992; Reichard, 1992; Reiser, 1991; Waterman, Kelly, Oliveri, & McCord, 1993; see also Conte, Sorenson, Fogarty, & Rosa, 1991, for a survey of professionals' beliefs). For example, Browne (1991) stated, "Disclosure is almost always an ongoing process. It may begin with an initial quite dramatic first step, or it may manifest itself as a series of tentative revelations, hints, and explorations" (p. 153). Similarly, Kelley et al. (1993) wrote, "Disclosures are often delayed and gradual" (p. 82). Salter (1995) declared, "The child is viewed as having betrayed the family by telling 'strangers,' and such children are frequently pressured to recant" (p. 231). Salter also stated, "Denial is not a door that victims exit; it is a

¹A similar model posited by Sgroi (1982), child sexual abuse accommodation (CSAA), provided a checklist of 20 hypothesized behavioral indicators of CSA. MacFarlane and Krebs (1986) also proposed a model of reluctant disclosure, one that they termed "no-maybe-sometimes syndrome."

²In 1992, Summit (1992) expanded the model to include victims of extrafamilial abuse.

line that victims walk back and forth many times before moving forward” (Salter, 1995, p. 243).

Today these beliefs are echoed in guidelines for assessment and diagnosis of CSA. For example, Children’s Institute International,³ a California-based child abuse assessment and treatment center that has trained over 40,000 professionals worldwide, recommends training and offers a course on CSAAS for all professionals and paraprofessionals who work with children. Another influential organization, the National Children’s Advocacy Center (Carnes, 2000), states in one of its publications, “Forensic evaluation is a process of extended assessment of a child when that child is too frightened or young to be able to fully disclose their experiences on an initial forensic interview” (p. 14). “For many children, abuse disclosure is a process, not an event” (Carnes, 2000, p. 21). “Reluctance is commonplace and difficult to overcome in suspected child sexual abuse cases” (Carnes, 2000, p. 42).

Some professionals have gone as far as suggesting that children who readily disclose abuse should be considered suspect. Rather, only those children who initially deny abuse, then make a sexual abuse allegation, then recant it, and later re-disclose, should be considered reliable cases of sexual abuse. For example, Summit (1983) states, “The more illogical and incredible the initiation scene [of the abuse] might seem to adults, the more likely it is that the child’s plaintive description is valid” (p. 183). These beliefs are echoed in the courtroom, as demonstrated in the following examples.

Finally, the majority of children who are sexually abused underreport the extent and severity of the abuse. If I would have heard about lengthy disclosures with a specific beginning, middle, and end to the story, I would have been less impressed since that type of recounting is not likely with sexually abused children, particularly preschoolers. The two most common types of reports that I hear from a sexually abused child of this age are either flat denials or fragmented segments of an incident. (Expert testimony in *Lillie v. Newcastle City Council*, 2002, p. 42)

In the following, a prosecutor questions his expert witness:

Q: Doctor, you mentioned earlier that with respect to child victims, it is not unusual that they would fully describe all of the events in your first interview.

A: No.

Q: And if they do, is it suspicious to you?

A: To me, yes. (*People v. Carroll*, 2001, p. 70)

Although Summit (1992) wrote that he did not intend to imply that CSAAS is present in all abused children, or that it should be treated as diagnostic of abuse, many professionals have adopted CSAAS as a template by which to diagnose sexual abuse (Fisher, 1995; Kovera & Borgida, 1998; Robin, 1991; Summit, 1992). Perhaps the best example of this practice is reflected in *State v. Michaels* (1993). Margaret Kelly Michaels was accused and convicted of 115 counts of sexual abuse involving 20 children from the Wee Care Day Nursery in Maple-

³See <http://childrensinstitute.org/> for Children’s Institute International’s description of their contemporary interview training procedures.

wood, New Jersey. Expert testimony was presented at trial by Eileen Treacy, who stated that children in the case showed behavior consistent with CSAAS and thus their testimony and conduct was consistent with CSA. After 5 years in prison, Michaels' conviction was overturned for reasons including the inadmissibility of testimony that uses CSAAS as a tool to diagnose abuse.

In keeping with the legal rule of excluding expert testimony that seeks to tell the jury to believe a witness (i.e., that the child witness is being truthful, or in general that children are truthful), the courts have uniformly excluded CSAAS evidence that is used to persuade the jury that a child's testimony about sexual abuse is truthful or diagnostic of abuse (e.g., *People v. Duell*, 1990; *Snowden v. Singletary*, 1998; *State v. Gokey*, 1990; *State v. JQ*, 1993; *State v. Jones*, 1993; *State v. Myers*, 1984; see also Freckelton, 1997, for a review of New Zealand and Australian rulings). When a child's inconsistency has been the subject of an attack on credibility during cross-examination, however, most courts have assumed that CSAAS rests on a reliable scientific foundation and have permitted the prosecution to introduce evidence of CSAAS to explain "what would be expected of, or what would be consistent with, facts surrounding other victims of childhood sexual abuse" (*State v. Huntington*, 1998, p. 698).

Given the widespread appeal and currency of CSAAS in the mental health community and its acceptance in the forensic arena, especially when used to rehabilitate an inconsistent child witness on redirect, it is important to examine the empirical basis for this syndrome. In his original article, Summit (1983) stated that the CSAAS model was based on an empirical foundation:

This study draws in part from statistically validated assumptions regarding prevalence, age, relationships and role characteristics of child sexual abuse and in part from correlations and observations that have emerged as self-evident within an extended network of child abuse treatment programs and self-help organizations. (Summit, 1983, p. 180)

Despite this claim, however, Summit's (1983) article contained no data and seemed to be predicated solely on clinical intuition. Almost a decade later, Summit (1992) clarified, "It should be understood without apology that the CSAAS is a clinical opinion, not a scientific instrument" (p. 156).

In the rest of this article, we review and evaluate the existing empirical data to assess the scientific support for the behavioral components of CSAAS—secrecy/silence, denial, and recantation. We draw on two major sources of empirical data on children's disclosure patterns, each with its own limitations: (a) retrospective accounts from adults who claimed to have been abused as children and (b) examinations of children undergoing sexual abuse evaluations. To foreshadow the results of this review, we conclude that although a substantial proportion of children delay reporting or altogether fail to report incidents of CSA (the secrecy stage), there is little evidence to suggest that denials, recantations, and re-disclosures are typical when abused children are directly asked about abuse. As is seen later in the present article, this emerges as an important distinction on both scientific and applied grounds.

Patterns of Disclosure Among Adults in Retrospective Surveys

Disclosure Rates

The studies discussed in this section include those in which adults with self-reported histories of CSA were asked in a survey whether and at what age they first disclosed their abuse. Table 1 lists 11 studies that yielded rates of childhood disclosure of CSA. Studies that did not provide relevant statistics are not listed in the table but are cited when relevant for related topics (e.g., predictors of disclosure patterns). Finally, we focused on studies that were conducted since 1990 in order to control for cohort effects; in other words, the rates obtained in older studies might reflect practices of several decades ago that are no longer current because of changes in education, advocacy, increased sensitivity, and legal procedures.

As shown in Table 1, the modal childhood disclosure rate (in 6 of the 11 studies) is just over 33%. Three other studies (7, 8, 9) reported slightly higher rates of disclosure that are still low and are consistent with the claims of the CSAAS model that nondisclosure of sexual abuse (silence) in childhood is very common. The disclosure rate of 87% reported by Fergusson, Lynskey, and Horwood (1996) is much higher than those found in other studies, an issue to which we later return. In summary, these data indicate that two thirds of adults who claimed in retrospective surveys to have been abused as children reported that they did not disclose the abuse during childhood.

Disclosure rates were similar for studies that specifically recruited adults with childhood histories of CSA (see Table 1; Studies 3, 4, 5, 8, and 9) and for studies that recruited adults from the general population (Studies 1, 2, 6, and 10). For example, Somer and Szwarberg (2001) questioned 41 Israeli women who reported that they were sexually abused as children and who at the time of the interview were attending rape crisis centers. (It is unclear whether the women were seeking treatment at the centers for the childhood abuse incident or for some more recent incident.) Less than half (45%) reported that they had disclosed abuse by age 17, and the average delay between abuse onset and disclosure was 15 years. Lamb and Edgar-Smith (1994) questioned 48 women and 12 men who responded to a city newspaper advertisement seeking research participants who had been sexually assaulted during childhood. Although a high proportion of these respondents reported severe intrafamilial abuse, only 36% of the participants disclosed the abuse during childhood (defined in this study as before age 14). The same childhood disclosure rate of 36% was obtained from a sample of women who reported sexual abuse by a relative before the age of 16 (Roesler & Wind, 1994). In another study (Roesler, 1994), 37% of adults with childhood histories of abuse involving genital contact disclosed abuse during childhood. Finally, a slightly higher rate of childhood disclosure was obtained in Ussher and Dewberry's (1995) survey of 775 women who responded to a questionnaire published in a women's magazine. Approximately 54% of these participants disclosed CSA during childhood. These women reported a range of abuse severity, from unwanted sexual attention to severe and repeated abuse from family members. The mean age at disclosure for this group was 26 years, 12 years after the average time when the abuse had ended.

Table 1

Childhood Disclosures of Sexual Abuse: Retrospective Studies

Study	<i>n</i>	Sample source ^a	Definition of CSA	Reports abuse at survey	Childhood disclosure	Report to authorities	Avg. age at time of abuse (yrs.)	Avg. age of sample (yrs.)
1. Arata (1998)	860 (f)	College sample	Unwanted contact before 14 yrs.	24.0%	31% (at time of abuse)	10%	8.50	23
2. Smith et al. (2000)	3,220 (f)	National probability sample	Rape	9.0%	34% (within 6 months of abuse)	12%	10.90	45
3. Roesler & Wind (1994)	286 (f)	CSA hotline callers	Intrafamilial before 16 yrs.	100%	36%		6	41
4. Lamb & Edgar-Smith (1994)	48 (f) 12 (m)	Newspaper ad	Not specified	100%	36% (by age 13)		8.15	30
5. Roesler (1994)	168 (f) 20 (m)	Abuse center	Genital contact before 16 yrs.	100%	37%		<16.00	41
6. Tang (2002)	1,151 (f) 887 (m)	Hong Kong Chinese college students	Unwanted sexual experiences before 18 yrs.	6.0%	38%		11.00	21
7. Finkelhor et al. (1990)	1,481 (f) 1,145 (m)	National probability sample	Before 18 yrs.	27.0% (f) 16.0% (m)	42% within 1 yr. of abuse		9.70	30
8. Somer & Szwarcberg (2001)	41 (f)	Israeli abuse center	CSA survivors	100%	45% (by age 17)		7.11	32
9. Ussher & Dewberry (1995)	775 (f)	Magazine survey	Unwanted sexual attention	100%	54%	18%	8.50	38
10. Fergusson et al. (1996)	1,019 (m & f)	New Zealand longitudinal study	Unwanted experience before 16 yrs.	10.0%	87% (by age 18)		<16.00	18
11. Hanson et al. (1999)	4,008 (f)	National probability sample	Nonconsensual penetration assaults before 18 yrs.	8.5%		13%	<18.00	38

Note. CSA = child sexual abuse; Avg. = average; yrs. = years; f = female; m = male.

^aUnless noted, all studies were conducted in the United States.

One might argue that the rates of childhood disclosure obtained in these five studies may not be reliable population estimates because they were obtained from samples of participants who had to declare before study enrollment that they had been abused as children. Perhaps such procedures draw victims with very late disclosures and exclude those who had disclosed at much earlier ages. Alternatively, it could be argued that these rates underestimate the failure to disclose because those who never told anyone may be less likely to respond to such advertisements. Notwithstanding these competing suggestions, however, similar findings have been obtained in studies that included convenience samples of college students as well as national probability samples that were not selected on the basis of childhood histories. For example, Smith et al. (2000) examined data from a nationally representative telephone survey on women's experiences with trauma and mental health (Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993). In this study, 9% of the women retrospectively reported at least one incident of rape (i.e., vaginal, oral, and/or anal penetration by a penis, finger, or object) prior to their 18th birthday. Approximately 27% of these abused women remembered disclosing the rape to someone within 1 month of the sexual abuse; another 34% said they had disclosed within 6 months of the abuse; an additional 18% were not sure when they had first disclosed the abuse. Thus, a considerable number of women delayed or altogether failed to disclose the childhood rape; 47% waited more than 5 years to report the abuse, and 28% said that they had never told anyone about the incident prior to the telephone interview.

Similar rates of nondisclosure were obtained by Finkelhor, Hotaling, Lewis, and Smith (1990) in their national telephone survey of 2,626 American men and women. In that study, 27% of women and 16% of men reported a history of CSA. Of those with histories of CSA, 42% reported having disclosed abuse within 1 year of the incident, 20% told someone of the event later, and 38% had never told anyone of the abuse prior to the telephone interview. Abused men were more apt than abused women never to have disclosed the abuse (42% vs. 33%).

Low rates of disclosure also characterized two college student samples. Arata (1998) found that 24% of female undergraduate students attending a southeastern university reported unwanted sexual contact before age 14 by someone 5 or more years older. Of those with CSA histories, 31% reported having disclosed the abuse to someone around the time of the abuse. Tang (2002) found that in a sample of Hong Kong Chinese college students who reported abuse, 38% disclosed abuse in childhood.

Only 1 of the 11 studies in Table 1 reported high rates of disclosure. The study was carried out in New Zealand by Fergusson et al. (1996) and involved a longitudinal study of 1,265 children. Sexual abuse was defined broadly in this study, ranging from noncontact activities, such as indecent exposure or lewd suggestions (including experiences with same-aged peers), to rape before age 16. At 18 years old, 87% of the abused subsample reported having told someone about the abuse. There are several factors that may account for Fergusson et al.'s finding of high disclosure rates relative to the other studies. As the authors noted, such high rates of disclosure may partially reflect the young age of the adults in their sample: possibly some were still denying the abuse, thus producing lower rates of CSA with concomitantly inflated rates of disclosure. Another factor that could explain high rates of disclosure is that many of their participants reported

noncontact activities such as lewd suggestions, which reportedly the participants did not consider as incidents of CSA. This could also explain why many of these participants denied abuse history 3 years later, during a follow-up interview (Fergusson, Horwood, & Woodward, 2000).

In summary, although one study yielded extremely high disclosure rates (Fergusson et al., 1996), the results of the 10 other retrospective studies indicated that only one third of adults who suffered CSA revealed the abuse to anyone during childhood. Given the differences in methodology, definitions of abuse, and sample characteristics, the general consistency of these findings across these studies is noteworthy.

Predictors of Nondisclosure

In addition to providing overall disclosure rates, some studies also examined predictors of disclosure rates. In this section, we examine associations of some of these predictors from data within studies and, when possible, across studies.

Summit's (1983) original model was based on disclosure patterns of children who were victims of familial abuse. Thus, one would expect that such children would be less likely to disclose than children who were abused by nonfamilial perpetrators. The results of two studies (Hanson, Resnick, Saunders, Kilpatrick, & Best, 1999; Smith et al., 2000) are consistent with these claims; CSA disclosure was more likely when the perpetrator was a stranger rather than a family member. Consistent with these findings, Ussher and Dewberry (1995) reported longer delays to disclosure among intra- versus nonfamilial abuse. In contrast to these three supporting studies, five studies failed to find an association between relationship to perpetrator and CSA disclosure (Arata, 1998; Kellogg & Hoffman, 1995; Kellogg & Huston, 1995; Lamb & Edgar-Smith, 1994; Roesler, 1994). These are surprising findings given the fact that Summit (1983) originally constructed his model to account for nondisclosure in the context of intrafamilial abuse.

Age at time of abuse has not been consistently associated with failure to disclose. Although Smith et al. (2000) found that younger victims were more likely to delay disclosure than older child victims, other researchers (e.g., Arata, 1998; Kellogg & Hoffman, 1995) failed to find any relationship between age and delay of disclosure. There is one important caveat to this conclusion. When study participants reported experiencing CSA during adolescence, this was consistently accompanied by high disclosure rates (Everill & Waller, 1995; Kellogg & Hoffman, 1995; Kellogg & Huston, 1995). For example, in the Everill and Waller (1995) study, in which the mean age at time of abuse was 14 years, 69% of this female sample reported having disclosed to a friend, most around the time of the incident. Kellogg and Huston (1995) found that 85% of their sample of young adults (mean current age = 19.5 years, mean age of abuse = 14 years) had also disclosed at some point in the past. In these cases, the most common confidant was another adolescent (Lamb & Edgar-Smith, 1994; Tang, 2002). In contrast, adults reporting that they revealed CSA as school-aged children did so to a parent rather than to a peer (Arata, 1998; Lamb & Edgar-Smith, 1994; Palmer, Brown, Rae-Grant, & Loughlin, 1999; Roesler, 1994; Roesler & Wind, 1994; but see Smith et al., 2000; Somer & Szwarcberg, 2001). These studies, taken together,

imply that disclosure rates may vary as a function of age at CSA onset, which in turn is associated with the availability of a same-aged confidante.

Finally, no systematic relationships have been reported between demographic variables, such as race and ethnicity, and childhood disclosure rates (e.g., Arata, 1998; Hanson et al., 1999; Kellogg & Hoffman, 1995; Kellogg & Huston, 1995; Smith et al., 2000). However, most of the retrospective studies have too little variability in their sample's demographic composition to test for differences. (For discussions on how demographic variables—race and gender—may be related to CSA disclosure, see Fontes, 1993; Kazarian & Kazarian, 1998; Kenny & McEachern, 2000; Levesque, 1994; Toukmanian & Brouwers, 1998.)

We examined the existing data to determine its support for one of the major assumptions of the CSAAS model; that is, disclosure is related to the amount of fear or violence associated with the abuse. According to the model, children do not disclose because they are afraid of the perpetrator who physically coerced or harmed them. In addition, children also do not disclose because they are threatened with consequences of disclosure that involve harm to family members or to the self. On the basis of these assumptions, it is predictable that the more severe or frightening the abuse or the more the child is threatened postabuse, the less likely the child would be to disclose.

In general, the data do not support the hypothesis that disclosure rates are related to severity of abuse. Although Arata (1998) found lower disclosure rates for contact versus noncontact abuse, there was no relationship between disclosure and method of coercion (e.g., threat, gift, curiosity, appeal to authority, or physical force). To further call into question the validity of this assumption of the CSAAS model, most researchers have either found the opposite pattern—that is, higher disclosure rates are associated with incidents that are life threatening and involve physical injury (Hanson et al., 1999; Kellogg & Hoffman, 1995)—or have not found any significant relationship between severity and method of coercion and disclosure (Lamb & Edgar-Smith, 1994; Roesler, 1994; Smith et al., 2000).

Another method to examine the relationship between severity/coercion/physical harm and disclosure is to compare the rates among studies in Table 1 in terms of the types of abuse that were included in the study. Some experimenters defined CSA broadly (i.e., unwanted sexual attention by anyone), and some defined it more narrowly (e.g., forcible penetration). Despite the differences in definitions (excluding the outlier study by Fergusson et al., 1996), disclosure rates reported across studies were very similar. In summary, the data indicate no consistent association between severity or method of coercion and disclosure.

Next, we searched for studies that examined the relationship between threats that were used to secure the child's silence ("Don't tell or else...") and disclosure. The major problem encountered was that the few studies that reported threat data did not stipulate whether the measure of "threat" referred to statements or actions during the commission of the assault to engender physical compliance or to threats used to engender silence (see, e.g., Arata, 1998; Hanson et al., 1999; Roesler, 1994; Smith et al., 2000). This failure to provide operational definitions of threats is problematic on methodological grounds (How did the study participant interpret the question?) and on interpretational grounds (How does the consumer of the literature interpret the statistics?). Hence, the extant retrospective

data are insufficient to examine whether childhood disclosure rates vary as a function of whether the child was threatened to remain silent.

Summary

The results of the retrospective studies make two important contributions to our knowledge about the patterns of children's disclosure of abuse. First, these data, when taken at face value, reveal that approximately 60%–70% of adults do not recall ever disclosing their abuse as children, and only a small minority of participants (10%–18%) recalled that their cases were reported to the authorities (see Table 1, Column 7). Furthermore, to underscore the results of nondisclosure, many of the adults reported that their first disclosure was during the study survey. Thus, the retrospective studies provide evidence to support the assumption that many incidents of CSA go unreported and that the stage of silence in the CSAAS model has a strong empirical foundation. Second, analyses of predictor variables in these retrospective studies provide few insights into the factors associated with disclosure. They do suggest, however, that commonly held assumptions, such as fewer disclosures among more severe cases of CSA, or in cases of intrafamilial abuse, lack empirical support. We must await further data to examine these issues definitively.

There are two limiting aspects, however, of the adult retrospective literature. The first is common to all retrospective studies; namely, the design raises concerns about the accuracy of the informants' reports. Specifically, it is possible that some adults in these retrospective studies had been abused but continued to deny abuse. Such false denials would work to reduce the overall CSA prevalence rates and inflate the disclosure rates. Alternatively, it is possible that some adults in these retrospective studies had not been abused but claimed to have been. Such false allegations would inflate the incidence of CSA and render the data on disclosure nonmeaningful. Finally, some adults may have disclosed abuse in childhood, despite their reports to the contrary. In some cases, participants may have misdated their disclosure, placing it much further from their victimization than was the actual case. In a related vein, they may in fact have told someone but failed to remember having done so. A rich cognitive psychology literature demonstrates the myriad of retrospective biases, even when the events in question are highly emotional (e.g., Freyd, 1996; Neisser, 1997; Read & Lindsay, 1997; Ross, 1989). In their investigation of flashbulb memories, Schooler and colleagues (Schooler, Ambadar, & Bendiksen, 1997; Schooler, Bendiksen, & Ambadar, 1997) coined the term "forgot-it-all-along-effect" to describe the finding that people sometimes inaccurately recall to whom, when, and whether they reported an important life event. Adults' denial of CSA reports that were actually made during childhood would not affect prevalence rates of CSA but would lead to an underestimation of childhood disclosure rates.

A second constraint in the interpretation of the adult retrospective literature is that although the studies indicate that delayed disclosure or silence is common among sexually abused children, these studies are uninformative as to the frequency that abused children deny or recant abuse reports. This is because participants in these retrospective surveys were not asked if as children anyone had ever asked them about abuse, and, if so, what they had replied. Thus, it is not

known whether the high rates of childhood silence reflected the fact that survey participants had never been asked about abuse, or whether it reflected denial to abuse-related questions. In order to examine the probability of this latter outcome, the literature on children's patterns of disclosure must be examined.

Patterns of Disclosure Among Children Treated or Evaluated for Sexual Abuse

In this section, we review studies of disclosure patterns of children who were specifically assessed or treated for sexual abuse. We examine studies that yielded data on (a) delay of disclosure, (b) denial, and (c) recantation. We also searched for studies that reported data on the correlates of delay, denial, and recantation. As with the retrospective studies reported above, we excluded studies published prior to 1990 because of possible cohort effects that could be due to the changes in interviewing practices and prevention programs (for children) that have occurred in the decade of the 1990s.

Delay of Disclosure (Silence)

The results of the studies using child samples echo the adult retrospective finding regarding delay of abuse disclosure; namely, when children do disclose, it often takes them a long time to do so. For example, disclosure rates of children whose cases were referred for prosecution were examined by Goodman et al. (1992) and by Sas and Cunningham (1995). Although 37%–42% of the children had disclosed within 48 hr of the abuse, it took more than 6 months or even 1 year for many of the children to make a disclosure. Even higher rates of delayed disclosure were obtained in Elliott and Briere's (1994) study, in which 75% of children did not disclose CSA within the first year following the abuse, and 18% waited more than 5 years to disclose the abuse. Similarly, Henry (1997) found that, among 89 criminal CSA records, there was an average 2-year delay between abuse and disclosure. Some of the variability in the length of delay in the child studies may reflect the settings in which the data were collected. Shorter periods of delay may show up in surveys of children in criminal trials simply because delayed disclosure cases might be excluded from consideration because of the inherent difficulty in obtaining convictions. Therefore, it may be that cases in the prosecutor's office are unrepresentative of those that never reach the courtroom.

Few of the studies on delay of disclosure examined individual differences. Nonetheless, there are some data on gender differences, suggesting that boys may be more reluctant to disclose than girls (e.g., DeVoe & Faller, 1999; Goodman-Brown, Edelstein, Goodman, Jones, & Gordon, 2003; Gries, Goh, & Cavanaugh, 1996; Sas & Cunningham, 1995; Stroud, Martens, & Barker, 2000; but see DiPietro, Runyan, & Fredrickson, 1997; Keary & Fitzpatrick, 1994, who report null gender findings). However, as Goodman-Brown et al. (2003) discuss, gender differences in disclosure rates may be suppressed by other abuse-related variables associated with gender (e.g., prior disclosure or relationship to perpetrator).

With regard to empirical findings on disclosure and ethnicity or race, Shaw, Lewis, Loeb, Rosado, and Rodriguez (2001) found that Hispanic girls waited longer to disclose (average delay = 19 months) than African American girls (average delay = 9 months). This finding is consistent with the report that African

American children received more maternal support to disclose abuse than did Hispanic children (Rao, DiClemente, & Ponton, 1992). Although it has been suggested that children raised with values typifying Eastern cultures (e.g., collectivist values, preservation of family, etc.) may be more apt to conceal abuse than children raised in Western cultures (e.g., Futa, Hsu, & Hansen, 2001; Rao et al., 1992; Toukmanian & Brouwers, 1998; Wong, 1987), data are needed to address this hypothesis. In short, there are reasons to suspect that members of certain ethnic groups, as well as boys, may face additional and culture-specific barriers to CSA disclosure. However, the studies that have examined children's disclosure patterns to date do not present a coherent canvas of the effects of demographic variables on abuse disclosure.

Some researchers have examined the association of the abuse characteristics and delay of disclosure. At times, when associations between abuse variables and disclosure are reported, the researchers fail to provide adequate operational definitions of the abuse variables. For example, as was the case with the retrospective studies, the data on "threats" are difficult to interpret because researchers do not specify whether threats are defined tactics to gain the child's compliance during the commission of the assault or as tactics to scare the child into not revealing the abuse. When clearly defined data on abuse characteristics do exist, they are sparse and do not consistently support assumptions underlying the CSAAS model. For example, Sas and Cunningham (1995) found that children waited longer to disclose abuse when the perpetrator "groomed" them and established a close relationship than if the perpetrator used force. Some researchers have found that children who are victims of familial abuse tend to delay disclosure longer than those experiencing extrafamilial abuse (Goodman-Brown et al., 2003; Sjöberg & Lindblad, 2002). However, these studies are exceptional because the majority of studies we examined either failed to find such an association or failed to report an association.

As the analyses of Goodman-Brown et al. (2003) demonstrated, the relationship between delayed disclosure and abuse characteristics is mediated by a complex interplay of variables. These researchers found that in a sample of 218 CSA cases referred for prosecution, older children and victims of familial abuse tended to perceive that more negative consequences would result from disclosure, which in turn was associated with the time taken to disclose. Goodman-Brown et al. (2003) also found increased delays among children feeling responsible for the abuse; additionally, older children were more apt than younger children to feel responsible for the abuse. It is clear from the results of this study that future work must focus on a multivariate model that attempts to provide a causal explanation for the timing of disclosure. Note that none of the studies covered in this section addressed issues concerning denial of abuse. These are addressed in the next section.

Rates of Disclosure (Denial)

In this section, we review 16 articles that were published since 1990 that contained statistics on the frequency of denial. These are listed in Table 2, Column 4, in ascending order of disclosures. When relevant, we cite other studies

Table 2
Disclosure and Recantation Rates From Child Clinic Studies

Study	<i>n</i>	Age (range)	Disclosing	Recantations	No. SSI citations	Type of interview
Gonzalez et al. (1993)	63	(2-12)	24%	27.0%	9	Therapy
Sorenson & Snow (1991)	116	Mode = 6-9 (3-17)	25%	22.0%	70	Therapy
Lawson & Chaffin (1992)	28	<i>M</i> = 7.00	43%		31	Social worker
Carnes et al. (2001)	147	<i>M</i> = 6.00 (2-17)	45%		not listed	CSA team
B. Wood et al. (1996)	55	<i>M</i> = 5.70 (6-11)	49%			CSA team
Bybee & Mowbray (1993)	106	<i>M</i> = 5.60 (2-11)	58%	11.0%	2	CPS and therapy records
Cantlon et al. (1996)	1,535	Mode = 4.00 (2-17)	61%		3	CSA team
Gries et al. (1996)	96	<i>M</i> = 8.30 (3-17)	64%	15.0%	2	CSA clinic
Stroud et al. (2000)	1,043	<i>M</i> = 8.40 (2-18)	65%		1	CSA clinic
Gordon & Jaudes (1996) ^a	141	<i>M</i> = 6.40 (3-14)	74 ^b		4	CSA team
DiPietro et al. (1997)	179	<i>M</i> = 7.50 (1.4-22)	76% (47%) ^c		4	CSA team
Dubowitz et al. (1992)	132	<i>M</i> = 6.00 (< 12)	83% (59%) ^c		22	CSA clinic
Elliott & Briere (1994)	399	<i>M</i> = 11.03 (8-15)	85% (57%) ^c	9.0%	31	Clinician
DeVoe & Faller (1999)	76	<i>M</i> = 6.80 (5-10)	87% (62%) ^c		7	Social worker
Keary & Fitzpatrick (1994)	251	Mode = 6-10	91% (50%) ^c		16	CSA team
Bradley & Wood (1996)	234	<i>M</i> = 10.00 (1-18)	96% ^c	4.0%	16	CPS
Faller & Henry (2000)	323	<i>M</i> = 11.70 (3-21)		6.5%	1	CPS/police

Note. SSI = Social Sciences Citation Index; CSA = child sexual abuse; CPS = Child Protective Services.

^aWe do not report Gordon and Jaudes's (1996) "recantation" rate because the child was not interviewed under the same clinical watch, but rather the first interview was a brief medical screening. Also, the authors include parents' disclosures (i.e., as historian) in the base rate. ^bThis rate is the percentage of children from the total sample disclosing during the investigative interview. The authors do not report the percentage of disclosing during the investigative interview for substantiated cases. ^cDenotes studies based on cases classified as probable abuse cases; the first disclosure rate is that of children classified as substantiated, high probability, and so forth, the second disclosure rate is for all children examined, regardless of classification of abuse likelihood.

that did not provide data on the rate of disclosure in their sample but that do shed light on the correlates of disclosure.

Most of the studies listed in Table 2 involved “chart reviews” of children who were interviewed by child protective services (CPS), mental health, or medical professionals specializing in the assessment and treatment of sexual abuse (see Table 2, Column 7, for the type of assessment in each study). Children presented at these various settings for a variety of reasons that included a prior disclosure to an adult, a suspicion of abuse by an adult or an agency, or the need for a second opinion or more extensive interviewing. Thus, across and within studies, there is often great variability in the methods by which children were interviewed, in the information collected, and in the procedures of diagnosing CSA. Furthermore, in some studies, as is later noted, researchers categorized the children according to the likelihood of abuse (e.g., highly probable, unclear, or not abused); in other studies, only children who met some prespecified criteria for abuse were included; and in still other studies, the certainty of abuse status was not specified. For those studies that categorized children by likelihood of abuse, the rates for substantiated cases are presented first in Column 4 of Table 2.

The pooled mean of disclosures for studies listed in Table 2 is 64% (range = 24%–96%), or the mean of denials is 36%. For reasons discussed below, however, these figures should not be viewed as the best estimate of central tendency. We focus on four factors that account for the enormous between-study variability in disclosure/denial rates in order to highlight methodological and design factors that need to be considered in evaluating the generalizability, validity, and reliability of the findings in Table 2. These factors are age of the child, previous disclosure of abuse, substantiation of abuse, and representativeness of the selected sample. We conclude that when such factors are considered, mean denial rates are quite low when children are explicitly asked about sexual abuse.

Developmental differences. The wide variation in the ages of the children, both within and between studies (see Table 2, Column 3), could account for differences in the rates of disclosure across studies. In order to examine this hypothesis, age–denial associations were examined within studies. Although no significant relationships between age and denial were found in two studies (Bradley & Wood, 1996; DeVoe & Faller, 1999), the more common finding was that school-aged children are more apt than preschoolers to disclose abuse during formal evaluation. For example, B. Wood, Orsak, Murphy, and Cross (1996) found that older children made more credible disclosures of abuse than younger children.⁴ Similarly, DiPietro, Runyan, and Fredrickson (1997) found that older children were more likely to disclose than younger children and that children generally became more likely to disclose abuse after age 4. Keary and Fitzpatrick (1994) conducted a chart review of 251 children assessed by a multidisciplinary team at a CSA unit. Only 29% of children younger than 5 years disclosed during the assessment, compared with 51%, 64%, and 67% of 6- to 10-year-olds, 11- to

⁴B. Wood et al. (1996) defined a *credible disclosure* as one that “was adequate for use as evidence in a future legal and/or child protection proceedings” (p. 84). The “not credible” category included cases “where the child did not disclose, denied sexual abuse, refused to cooperate, provided insufficient detail or was not believable” (p. 84). The authors did not cite the number of children falling into each of the not credible subcategories.

15-year-olds, and 16+ years, respectively. And finally, among foster children receiving therapy for suspected CSA, children who disclosed abuse in the first interview were likely to be older ($M = 9.3$ years) than were children who took two sessions to disclose ($M = 5.8$ years) (Gries, Goh, & Cavanaugh, 1996). Thus, it appears that different rates of disclosure/denial will be obtained depending on the age levels of the children in the sample (see also Cantlon, Payne, & Erbaugh, 1996; Sas & Cunningham, 1995). Of course, these rates are only meaningful if all the children in the sample were actually sexually abused—an issue that we address later in this article.

There are several possible explanations to account for these developmental differences in children's abuse disclosures. They could reflect the single influence or combined influences of linguistic, cognitive, and social-emotional factors. Thus, younger children may not have the same linguistic skills to convey their abuse experience, or younger children may not understand the "meaning" of abusive acts and thus fail to make explicit disclosures. Studies that examine the intent of children's disclosing statements provide some data for this developmental hypothesis. These studies show that younger children are more likely to make accidental disclosures, whereas older children are more likely to make purposeful disclosures (Campis, Hebden-Curtis, & DeMaso, 1993; Fontanella, Harrington, & Zuravin, 2000; Nagel, Putnam, Noll, & Trickett, 1997). That is, younger children are more likely to make spontaneous statements about abuse that are not consistent with the topic of conversation or of the ongoing activity (e.g., stating, while watching TV, "Uncle Bob hurt my bottom"). In contrast, older children are more likely to report the abuse to an adult when asked. Although the conclusions are consistent across studies, the ages of the "younger" and "older" children are not the same across studies. Thus, there is no objective age cutoff that can be inferred from the literature.

A second possible explanation for developmental differences in rates of denial is that there may be higher rates of true denials among younger than older children. This hypothesis is based on several interrelated findings. Younger children may be more likely than older children to be brought for assessment because of their caregivers' concerns about behaviors (rather than an abuse disclosure) that often are ambiguous and do not necessarily reflect CSA (see Campis et al., 1993; Fontanella et al., 2000; Levy, Markovic, Kalinowski, Ahart, & Torres, 1995; Nagel et al., 1997). Thus, in any sample there may be a greater proportion of younger nonabused children than of older nonabused children, and the higher denial rates by younger children would then reflect a higher rate of denial that are true negatives. For example, Keary and Fitzpatrick (1994) were less likely to categorize younger children's presentation as diagnostic of CSA compared with that of the older children; in addition, the younger children were less likely to disclose abuse. Unfortunately, these researchers did not present data on age differences in denial rates among older versus younger children who were classified as "founded" by the assessment team.

Although most of the data indicate that younger children may be less likely to disclose than older children, upon closer investigation, there may also be patterns specific to adolescents. At least among cases that reach authorities, children are most likely to reveal the abuse to their primary caregiver (Campis et al., 1992; Faller & Henry, 2000; Fontanella et al., 2000; Gray, 1993; Henry, 1997;

Sas & Cunningham, 1995). However, adolescents may have a greater appreciation of the consequences of disclosing intrafamilial abuse and thus withhold information. It is also possible that they may not readily disclose extrafamilial abuse to family members or to investigators because they feel it is a personal matter, or they have already disclosed to peers, as noted in the retrospective studies reviewed in the first part of this article. Hence, the rate of CSA disclosure to parents and authorities may resemble an inverted U-pattern, with an increase in disclosure as one moves from preschoolers to school-aged children, followed by an apparent decrease as one moves into adolescence. There are, however, few data on disclosure patterns in adolescence, and we must await these before drawing any definite conclusions. In addition, regardless of potential developmental differences in disclosure patterns, it is highly likely (although not yet researched) that different factors account for denial or disclosure at different age levels.

Prior disclosure of abuse predicts disclosure during formal assessment. The studies included in Table 2 focus on children's reports during forensic interviews and psychotherapy. That is, the children in these studies were specifically brought to a clinic, mental health professional, or law enforcement agency either because they had previously made a claim of abuse or because there was a suspicion of abuse that required further investigation. Thus, most of the children in each study had been questioned by someone (e.g., teacher, parent) about abuse prior to the formal interviews or therapy sessions. This fact is important because, as shown in Table 3, the most significant predictor of disclosure in the formal interview is whether the child had disclosed before (e.g., to a parent, a teacher, a CPS worker, etc.). For example, Keary and Fitzpatrick (1994) reported that of the 123 children who had made a prior disclosure, 86% disclosed again during the formal interview; in contrast, only 14% of the 128 children with no prior disclosures disclosed at interview.⁵ Similar patterns of results were found by Gries et al. (1996), DiPietro et al. (1997), and DeVoe and Faller (1999).

This pattern of consistency of disclosure is most common in older children. Among children who had disclosed prior to formal assessment, older children were more likely than younger children to disclose again during formal assessment (Keary & Fitzpatrick, 1994; see also Ghetti, Goodman, & Eisen, 2002).

In summary, several studies suggest that once children have made an abuse disclosure, they are likely to maintain their allegations during formal assessments. This finding suggests that if children have already told a professional or a caretaker about an abusive event, then they are likely to repeat the disclosure in a formal investigation. Discrepant cases (in which a child discloses before the formal interview but denies at the time of the formal interview) represent a small minority and may occur most commonly among very young children.

Abuse substantiation. The third and perhaps most important methodological factor that accounts for variation in disclosure patterns across studies concerns the validity of the diagnosis of CSA. In conducting studies of CSA disclosure

⁵When children have made a prior allegation but do not repeat it during a formal investigation, this should not be categorized as a recantation because it is possible that the child's first allegation was incorrect or misinterpreted, and the report during the formal investigation is accurate. In this article, *recantations* are defined as statements that are made to the same assessment team who heard the disclosure.

Table 3
Rates of Disclosure During Forensic Interviews as a Function of Prior Disclosure

Study	% of children disclosing at formal interviews with prior disclosure	% of children disclosing at formal interviews with no prior disclosure
DeVoe & Faller (1999)	74	25
DiPietro et al. (1997)	77	7
Keary & Fitzpatrick (1994)	86	14
Gries et al. (1996)	93	40

patterns, it is of utmost importance to ensure that the group under study had in fact experienced CSA; otherwise, counts of frequency of delay to disclosure, denials, recantations, and restatements are meaningless. That is, children may deny because they in fact never were abused; children may take a long time to disclose because it is only with repeated suggestive interviewing that they will make disclosures that are false; and children may recant in order to correct their prior false disclosures.

In order to address problems of substantiation of abuse, some researchers have classified children in the sample in terms of the likelihood of abuse having occurred. Cases of suspected abuse that meet one or more of the following criteria (depending on the study) are classified as substantiated abuse cases: perpetrator convictions, plea bargains or confessions, medical evidence, other physical evidence, and children's statements. Although the use of such criteria is a good start, it should be noted that there are problems with each. First, the accused may be persuaded to accept a plea bargain because of the stress, financial burden, and uncertain outcome of facing trial. Also, there are some accused who have been falsely convicted despite the absence of direct evidence to prove child abuse, and on appeal, their convictions have been overturned (Ceci & Bruck, 1995). Although this may not be common, it does happen. Next, medical evidence is not always an accurate indicator of abuse. In the statistically rare case in which genital or anal abnormalities are found, similar abnormalities can sometimes be found among nonabused children (Berenson et al., 1991). Finally, in terms of the studies that are included in this article, the children's statements at the time of formal interview are used as indicators of abuse. But this is a circular exercise whereby children who make spontaneous disclosures with much elaboration, for example, are categorized in the "high-certainty" abuse group. The analysis of the disclosure patterns of the high-certainty group indicates that the children disclosed spontaneously and/or with much elaboration (or did not deny).

Notwithstanding these problems with the use of certainty criteria, there must be some reliable basis to categorize the children in studies of CSA disclosure, lest the disclosure rates obtained merely reflect the overall responses of children (abused and nonabused alike) who are assessed for sexual abuse. Keeping these reservations in mind, we now review those studies that have examined disclosure patterns as a function of the certainty of abuse diagnosis. We argue that, with a few exceptions, high disclosure rates characterize those samples that contain sexually abused children with high-certainty diagnoses, and low disclosure rates

are associated with samples for which the diagnoses of abuse are either unknown or questionable. If correct, then this conclusion bypasses the sundry assumptions of models, such as the CSAAS, and in their place posits that children are found to disclose least when their history of sexual abuse is least certain.

Referring to the studies listed in Table 2, the highest disclosure rates (76%–96%) were obtained from those studies that focused on children with high-certainty diagnoses of sexual abuse. Disclosure rates are greatly lowered in these same studies when the data from the unsubstantiated or unclear cases are averaged with the substantiated cases (see data in parentheses in Table 2, Column 4). Thus, although only 62% of DeVoe and Faller's (1999) entire sample of 5- to 10-year-olds disclosed abuse, when only substantiated cases are included, the disclosure rate rises to 87%. The overall rate of disclosure in the Keary and Fitzpatrick (1994) study was 50%; however, when only the substantiated cases are included, the rate was 95%. DiPietro et al. (1997) classified each of the children in their sample who were assessed because of suspicions of CSA as unfounded, possible, probable, or definitive abuse. Rates of disclosure during the first visit increased as a function of abuse certainty, with 7%, 8%, 59%, and 76%, respectively, disclosing. The overall disclosure rate in Dubowitz, Black, and Harrington (1992) was 58%; however, among their cases rated by an interdisciplinary team as holding low to possible likelihood, the disclosure rate was only 19%, compared with the disclosure rate of 83% for the moderate to high likelihood cases. Elliott and Briere (1994) examined the case records of 399 8- to 15-year-olds who were seen at a child sexual assault assessment center. Overall, 57% of the 399 cases disclosed abuse, with 20 of these children later recanting. When only the 248 children who were in the "abused" category were included in the calculation, the rate of disclosure increased to 84%. It is interesting to compare the profiles of these children with the 20% of the sample who were categorized as "unclear." The latter sample all made noncredible disclosures or noncredible denials of abuse. These unclear children were more likely to be referred by a mandated reporter because of a suspicion of abuse, more likely to be male, and more likely to exhibit increased sexual acting-out behavior.

Returning to Table 2, studies that include cases without providing information on their diagnostic certainty (in ascending order, Gordon & Jaudes, 1996; Stroud et al., 2000; Gries et al., 1996) yield disclosure rates (61%–74%) that are lower than those of the studies just discussed. In these studies, there is no other evidence to confirm the abuse status of these children, and hence the disclosure rates of true positive abuse cases are not ascertainable from the data.

Table 2 shows that the lowest rates of disclosure are provided by Sorensen and Snow (1991) and Gonzalez et al. (1993). On the basis of our analysis of the cases included in these studies, we conclude that these low rates reflect the unreliable diagnoses of sexual abuse in these two studies. Because the Sorensen and Snow study is most frequently cited as supporting the notion that sexually abused children deny and recant (see Table 2, Column 6), it is important to carefully review this study and the characteristics of the sample.

Sorensen and Snow (1991) selected 116 cases of confirmed CSA from a larger sample of 633 children who were involved in CSA allegations from 1985 to 1989. Sorensen and Snow reported that 72% of children denied abuse when first questioned by either a parent or an investigative interviewer; only 7% of these

deniers immediately moved into an “active disclosure” stage, which involved detailed, coherent, first-person descriptions of the abuse. Seventy-eight percent moved into a “tentative disclosure” stage, with partial, vague, or vacillating disclosures of sexual abuse. Eventually, 96% of children made an active disclosure.

There are several factors to be considered in interpreting these data. First, the authors do not state the criteria by which they selected the 116 cases out of the larger sample of 633. One needs some reassurance that the disclosure patterns of this group were similar to that of the larger sample, assuming that the larger sample also contained “confirmed” cases. Second, the children in this study were selected from the private psychological practice of the two authors, and most had been in therapy with Dr. Snow. Sorensen and Snow (1991) did not note how long the children were in therapy or what type of therapeutic methods were used to elicit these eventual disclosures, recantations, and re-disclosures. (For example, it is unclear how forensically based these therapeutic interviews were, compared with, say, the use of play therapy, empowerment enactments with dolls and props, visualization exercises, or other techniques that have been shown to reduce a child’s report accuracy.) This raises the issue that the reported patterns of disclosure were consequences of the specific therapeutic practices (of the authors) rather than of reflections of the manner in which children disclose abuse under formal interviewing conditions. This raises the hypothesis that many of the children in their sample may not have been abused (see Ceci & Bruck, 1995).

A glimpse of the authors’ clinical practices and cases can be gleaned from a review of the social science and legal records. First, in 1990, Snow and Sorensen (1990) published an article entitled “Ritualistic Child Abuse in a Neighborhood Setting,” in which ritualistic abuse was defined as repetitive, bizarre sexual, physical, and psychological abuse of children that included supernatural themes and/or religious activities. Of the 575 cases of alleged child abuse in which the authors served as therapists and/or evaluators between 1985 and 1988, 52 were identified as ritualistic child abuse. Of the 52 children, 39 were allegedly abused in a neighborhood setting. In a number of these cases, the children were first brought in for therapy because of allegations of ritualistic abuse by a nonfamily member; during the course of therapy, the children came to make the following types of disclosures:

Cross-dressing, masks, and costumes (31%) included red and black robes, men’s wearing of women’s erotic underwear and dresses, clowns and devil’s masks, capes, and costumes such as a lion, bear, snake, witch, devil, Darth Vader, vampires, skeleton, and leather loin cloths. The killing of children and infants was identified by six children in four neighborhoods (15%). Thirteen percent of the children said that they had participated in eating flesh. (Snow & Sorensen, 1990, p. 483)

The disclosures resulted in trials and convictions of two adults. One of the cases, *State v. Hadfield* (1990), was successfully appealed. In addition, five adolescents from other neighborhoods were accused, three of whom were acquitted, and two pleaded guilty.

There is a high probability that a number of the children classified as ritually abused were included in Sorensen and Snow’s (1991) study, which sampled from

the same but slightly smaller population that was described in their 1990 study. In addition, because the accused in their neighborhood cases either made pleas or were convicted, these cases met criteria for substantiated cases of abuse.

The problem with the inclusion of these types of cases into studies of disclosure patterns is that there is no evidence to support the once popular belief that ritualistic sexual abuse is common (see Nathan & Snedekor, 1995, for examples). Numerous authorities have failed to find any physical evidence to support the many allegations that have been made and that were the basis of many of the multivictim, multiperpetrator criminal trials of the 1980s and early 1990s (e.g., Lanning, 1991). Furthermore, it appears that the large proportion of reported cases of ritualistic abuse can be accounted for by the practices of a small minority of clinicians (Bottoms, Shaver, & Goodman, 1996; Lanning, 1991). Because Sorensen and Snow diagnosed so many “ritually abused” children in their practice, this, by inference, leads to the possibility that these children’s allegations were a product of the practices and beliefs of these clinicians. This information would undermine the reliability of the results of the Sorensen and Snow (1991) disclosure study, rendering them scientifically doubtful.

Reviews of the court records for two trials in which patients of Snow testified about allegations of sexual abuse provide support for the view that the children’s allegations were associated with biased suggestive interviewing practices:

Defendant offered several witnesses at trial who described the suggestive and coercive interviewing techniques allegedly utilized by Dr. Snow and one police officer who described how the children in Dr. Snow’s care were able to reproduce specific information after he had suggested to Dr. Snow that such information should be presented in their statements. (*State v. Hadfield*, 1990, p. 508)

On the basis of Snow’s testimony in *State v. Bullock* (1989), one of the judges in the case concluded,

Indeed, Dr. Snow herself admitted that she used interrogation procedures that were not intended to sift truth from error. She forthrightly admitted she was not a neutral interviewer; rather she was “an ally for the child”, “biased”, and not a fact collector like the police. . . . She also testified in effect that there was nothing in her methods that served as a standard for determining the truthfulness of the stories she produced by her interrogation. . . . But since she starts an interrogation with the assumption that abuse occurred, she then proceeds to prove that point. . . . In short, any claim that scientific principles or Dr. Snow’s own expertise and experience validated her conclusions and procedures is devastatingly refuted by her own statement, “I didn’t believe any of those kids when they told me it didn’t happen.” (*State v. Bullock*, 1989, p. 175)

Given the nature of the “validated” cases in the Sorensen and Snow (1991) sample, as well as in the apparently biased and suggestive interviewing/therapeutic techniques, the results of the study are uninterpretable. The patterns of disclosure may merely be characteristic of children who come to make false allegations as a result of suggestion. This would explain why these children originally denied having been abused (because they were telling the truth), why they eventually disclosed (because they were pressured into making allegations), and why they recanted (they wanted to restate the truth).

The Gonzalez et al. (1993) study suffers from many of the same problems. These authors examined the disclosure and recantation patterns of 63 children in therapy for sexual and ritualistic abuse in day care facilities. Gonzalez et al.'s source of data was the therapists' retrospective accounts of the behavior they reportedly saw in their child patients. They found that within the first 4 weeks of therapy, 76% of the children had made vague disclosures ("bad things had happened")⁶; that by 8 weeks, 45% of the children had disclosed highly specific terrorizing acts (killing of adults, children, and animals); and that by 20 weeks, 43% of the children had reported aspects of ritualistic abuse (organized cults). However, for the same reasons that apply to the Snow and Sorensen (1990) article, the findings of this study are scientifically problematic. First, the children in this study were from the *McMartin Preschool* case and other cases that arose in the community at the same time. The allegations in this case, which involved claims of ritualistic abuse, arose after multiple highly suggestive interviews with evaluators and therapists (see Nathan & Snedekor, 1995). At the time of their study, the children had been in therapy on average for over 1 year. There was no physical or corroborative evidence of abuse, and the charges in these cases were eventually all dropped. The interviewing methods used by the children's therapists and evaluators have been documented elsewhere (e.g., Garven, Wood, Malpass, & Shaw, 1998), and the scientific evidence now shows that these methods can produce erroneous reports when used in interviews with children. Thus, the patterns of disclosures made by children in the Gonzalez et al. study may represent those of children who make false disclosures as a result of suggestive interviewing practices.

Finally, the results of the Bybee and Mowbray (1993) study may be open to the same criticism as detailed above. The participants in this study were all involved in a Michigan day care case that involved multiple perpetrators. The case eventually resulted in only one conviction, which was overturned on appeal. Compared with the other studies in Table 2, disclosure rates were quite low; of the 106 children, 58% disclosed abuse.

Representativeness of selected sample. In order to examine the rates of disclosure among sexually abused children who are questioned about abuse, the sample in question not only should have substantiated diagnoses of sexual abuse but also should not be selected on the basis of their preinterview disclosure patterns. For example, it would be meaningless to examine disclosure patterns in a sample of children who were selected because they had already disclosed abuse; the results of this type of study would merely indicate the consistency of children's responses across time. Similarly, one would not want to study disclosure rates of children who were selected for study because they had previously denied abuse. The results of the latter type of study would only address the issue of the degree to which deniers disclose sexual abuse with repeated interviewing.

Three studies in Table 2 (Carnes, Nelson-Gardell, Wilson, & Orgassa, 2001; Lawson & Chaffin, 1992; B. Wood et al., 1996) reported the disclosure rates of

⁶We present a disclosure rate of 24% in Table 2 because it seems that 76% of the children merely said that "bad things had happened," thus not making any claims of abuse. But the denial rate could be higher if the remaining 24% clearly denied any wrongdoing.

children who had not disclosed abuse during an initial interview. The Lawson and Chaffin (1992) study is used to illustrate the point because this sample included children with medical substantiations of sexual abuse; thus, the degree of abuse certainty is high in this study. From a sample of over 800 children who tested positive for a sexually transmitted disease (STD) at a large pediatric hospital, cases that met the following criteria were selected: The presenting complaint was solely physical; there was no prior disclosure or suspicion of abuse; the child was older than 3 and premenarcheal. A sample of 28 girls met these criteria; their mean age was 7 years, and most of the children were from minority households without a father. These 28 children and their mothers were called back to the hospital after they tested positive for an STD. During this interview, the mothers were given the diagnosis for the first time and then were interviewed about sexual abuse. Next, their daughters were interviewed by a trained social worker. Only 43% of the girls made an abuse disclosure during this initial interview.⁷ This rate, however, is based on a very different population than sampled in other studies, in which children were brought in either because of a suspicion or disclosure of abuse. Rather, in the Lawson and Chaffin study, children were selected because of their medical history and because they had not disclosed abuse. Because it is not known how many of the 800 children in the larger sample had already disclosed abuse, this subgroup of 28 children with no prior disclosure might compose an unusual sample; that is, they may represent the small hard core of children who do not disclose abuse when directly asked. If they are a small minority, then these results are not generalizable to the entire population of children with STDs. In addition, it should be remembered that very few children who have been sexually abused have any physical symptoms or STDs, and thus this sample again is not representative of the CSA population. There is a second factor that is important to consider. In this study, when the children were called back to the hospital, their mothers were first informed of the STD diagnosis of their children. Children whose mothers accepted the possibility of abuse (the parents were labeled as supportive) were more likely to disclose (63% of this group disclosed), compared with children whose parents were not supportive and did not believe their child had been abused (only 17% of these children disclosed). Elliott and Briere (1994) also found a similar pattern of higher disclosure rates for children with supportive mothers. Among children who disclosed abuse in their sample, 78% had supportive mothers, whereas only 40% of nondisclosers had supportive mothers. Thus, differences among studies might reflect the role of parental support, which might be quite low when parents are first confronted with the fact that their children were abused, as was the case in the Lawson and Chaffin study.⁸

B. Wood et al. (1996) examined 55 videotaped interviews of children referred

⁷In a follow-up study, Chaffin, Lawson, Selby, and Wherry (1997) located 5 of these 28 participants. Though not specifically asked about their children's disclosure, four out of five mothers spontaneously mentioned that the child disclosed CSA subsequent to this initial evaluation.

⁸Although many mothers do not support their children's disclosures of abuse, many are supportive, especially if the defendant is an estranged husband or partner rather than a current one. In many studies, the support rate is between 50% and 85% (see Lyon, 1999, notes 238–239, for details).

by CPS to a multidisciplinary assessment center. All 55 children had been interviewed previously by CPS or law enforcement officials and were included in the study because they had not disclosed. Thus, the disclosure rate of 49% in Table 2 is based on the percentage of children disclosing out of these 55 children who had not previously disclosed during police or CPS interviews. Finally, Carnes et al. (2001) reported that their sample of children undergoing extended CSA assessment because of failure to initially disclose represented approximately 10%–15% of the total population presenting for assessment to the clinics in their study. Thus, the results of this study, as well as the results of the B. Wood et al. study, merely indicate the response patterns of children who had previously failed to disclose abuse during an initial assessment. Furthermore, although this is not the case for the Lawson and Chaffin (1992) study, there are no data on the number of children in both the B. Wood et al. and the Carnes study who met acceptable criteria for diagnosis of sexual abuse. Thus, children who did or did not disclose with extra assessment may or may not have been abused.

Recantations. There are fewer studies on recantations than on denials or disclosures of sexual abuse. All but one of eight studies that have examined this issue (see Table 2, Column 5) also included information on disclosure rates. For the one exception, Faller and Henry (2000) examined the recantation rates of children who testified at trial about their sexual abuse. Thus, all these children had made prior disclosures that were judged as credible by the prosecutors' office. Before reviewing the actual data of the studies, it is important to point out that there could be two different interpretations of recantation. The first is that the child is withdrawing a true statement of abuse. The second is that the child is withdrawing a false allegation of abuse. The child's underlying motivation for a statement is unknowable in each study.

The recantation rates of the studies listed in Table 2 range from 4% to 27%. Our analysis of the variability is very similar to that just carried out with respect to the disclosure rates; namely, the highest rates of recantation are obtained for studies that have the least certain diagnoses of sexual abuse. The two studies with the highest recantation rates were those of Gonzalez et al. (1993) and Sorensen and Snow (1991), in which the recantation rates were 27% and 22%, respectively. Because of concerns about the actual abuse status of the children in these studies, one might argue that these recantation rates reflect the number of children who attempt to discredit their own previous false allegations by setting the record straight.⁹ (In the Gonzalez et al. [1993] and Sorensen and Snow [1991] studies, these attempts appeared to have failed, however, as the authors of both studies reported that most of the children reinstated their earlier accusations.)

The lowest rates of recantation are obtained from samples that have the most certain diagnoses of sexual abuse (4%: Bradley & Wood, 1996; 6.5%: Faller & Henry, 2000; 9%: Elliott & Briere, 1994). The slightly higher rate of 15% reported by Gries et al. (1996) is difficult to interpret because there is no information on the number of children who were diagnosed as clear or unclear cases of abuse.

⁹There were also issues concerning the validity of the sexually abused sample in Bybee and Mowbray (1993), who reported a much lower recantation rate of 11%. Thus, recantation rates do not necessarily have to be high for doubtful cases.

Although our analysis shows that some children recant sexual abuse, the results of this analysis show that recantation is uncommon among sexually abused children. In fact, it shows just the opposite; that is, only a small percentage of children in these studies recant.

Conclusions

We began this article by describing the popular view that sexually abused children do not readily disclose their abuse and that even when they disclose, they commonly recant such disclosures. Given how frequently these claims are made in the literature (as well as in proffered expert testimony), we sought to examine their scientific basis. A review of retrospective studies showed that most adults with histories of CSA recall that they never told anyone about the abuse during childhood. This pattern confirms the view that failure to disclose is common among sexually abused children. However, these findings do not address the issue of whether children will deny abuse or recant their disclosures when interviewed. In order to examine these issues, it is necessary to study how sexually abused children disclose abuse when asked directly. Because it is difficult if not impossible to obtain accurate information if the first disclosure is made outside a formal setting (e.g., to a parent, friend, or teacher), we have to rely on studies in which children are questioned in formal investigative interviews. We identified 17 studies that contained relevant data and found that, when the analysis focused on children with substantiated diagnoses of abuse and on children who have not been subjected to the potentially suggestive techniques, most children do disclose abuse within the first or second interview. Only a small minority of these children recant their abuse reports. Even if analyses were broadened to include children with less certain CSA diagnoses, in all but two studies, the majority of children disclosed abuse when directly asked, and only a minority of them recanted their previous disclosures.

One of the basic problems in interpreting the literature on children's disclosures of sexual abuse involves the issue of the validity of sexual abuse diagnosis. As we stated above, in many of the cited studies, classification of abuse was often based in part on children's disclosures; consequently, the conclusion that abused children do disclose abuse during formal interviews may be circular. However, there is some evidence that shows that when children are classified as abused on the basis of medical evidence or other nonchild factors (confession, material evidence), most of these children do disclose abuse. For example, in the Elliott and Briere (1994) study, there were 118 children involved in cases with external evidence: 84% of these 118 children at one point disclosed abuse. In Dubowitz et al. (1992), the finding that 83% of children disclosed abuse was based on the calculation of the number of children with medical findings (but see Gordon & Jaudes, 1996).

Although there are a number of studies to address issues of patterns of disclosure, several overriding issues remain to be addressed. These issues focus on the central theme of individual differences in rates of secrecy, denial, and recantation. Specifically, although the data clearly demonstrate that most children who are interviewed about sexual abuse do disclose and do not later recant, there does exist a minority of children who fit the behavioral pattern that is put forth in

the CSAAS model. The outstanding issues thus focus on the characteristics of these children, and whether these children fit the psychological profiles of the CSAAS model. For example, although Summit's (1983) CSAAS model was developed to explain why children may not disclose intrafamilial abuse, there are few data on potential differences in disclosure patterns when the alleged abuse is intrafamilial versus extrafamilial. Next, there needs to be a greater focus on developmental differences in disclosure patterns. In many of the studies we reviewed, children ranged in age from early preschool to late adolescence. Clearly, it is not very informative to provide group means when age ranges are so great. Studies are needed to examine potential developmental trends in loyalty to family and peers, reactions to fear, need for privacy, choice of confidants, and then to relate these factors to disclosure patterns in children of various ages. Another important area concerns the potential role of threats, which plays a central role in the CSAAS model. In this future research venture, it is crucial to distinguish threats that were used to coerce the child into molestation from threats that were used to secure the child's silence. Finally, in most of the studies cited in this article, there was little if any detailed information about how the children were interviewed and the degree to which standardized and validated protocols were used. In future studies, it would be important to compare the disclosure patterns of children interviewed with current standardized interviews (e.g., Hunter, Yuille, & Harvey, 1990; Sternberg, Lamb, Esplin, Orbach, & Hershkowitz, 2002). If these protocols do in fact optimize the elicitation of reliable statements from children, then the disclosure patterns produced by these instruments would provide the most reliable data to test various hypotheses about the disclosure patterns of sexually abused children and to explore the factors that distinguish disclosers from nondisclosers.

The status of the scientific findings of disclosure patterns is of importance, not only for diagnostic and assessment purposes but also for issues regarding the interviewing of children. As mentioned above, the CSAAS has provided a basis for experts to advocate that when children deny abuse when directly asked, then they should be questioned further and even should be questioned suggestively (e.g., Carnes, 2000; Faller & Toth, 1995; MacFarlane & Krebs, 1986). In order for such practices to be empirically grounded, it is important to demonstrate first that children will commonly deny abuse when questioned (thus calling forth the need for special strategies), and, second, that the use of special strategies will lead to accurate reports of abuse. The findings presented in this article address the first issue only. The second issue has been addressed by a multitude of researchers in the past decade (e.g., Ceci & Bruck, 1995; Ghetti & Goodman, 2001; Poole & Lindsay, 2002; J. M. Wood & Garven, 2000). Professionals need to be aware that although suggestive techniques may produce correct reports from otherwise silent children, these same techniques, especially when used by biased interviewers, entail a risk of producing false allegations (e.g., Bruck, Ceci, & Hembrooke, 2002; Poole & Lamb, 1998). Part of the bias may include the notion that when children deny abuse, they must be pursued until they disclose their abuse; however, as we demonstrated in this present article, the need for suggestive interviewing is probably overestimated because denial of sexual abuse to professionals is not as rampant as previously suspected. Our analysis clearly shows that

when children who have been abused are questioned in formal settings, they will usually tell, obviating the need for suggestive questioning strategies.

We have provided a host of studies that fail to support the view that children who are sexually abused most commonly deny abuse and frequently recant disclosures. Nonetheless, we find that the strong and unqualified assertions regarding the frequency of denials and recantations continue and are supported by the most scientifically problematic of the many studies we examined (e.g., Gonzalez et al., 1993; Sorensen & Snow, 1991). For example, in some recent reviews of the literature, we find the following statements: "It is appropriate to tell the jury that accommodation frequently occurs among abused children, in order to disabuse the jury of misconceptions regarding about how children ought to behave" (Lyon, 2002, p. 110); "A review of the research on CSAAS clearly supports the conclusion that a substantial proportion of abused children exhibit accommodation" (Lyon, 2002, p. 132)¹⁰; "Furthermore, research reveals that disturbing numbers of children deny their sexual victimization even in the face of compelling evidence to the contrary" (Paine & Hansen, 2002, p. 290); and "Investigations of abuse have frequently been impeded when children fail to disclose abuse, deny abuse that has occurred, or recant a prior disclosure" (Paine & Hansen, 2002, p. 272).

Moreover, even when researchers themselves find low rates of denials or recantations, they still maintain that these are consistent with the popular view. For example, although Elliott and Briere (1994) found high rates of disclosure and low rates of recantation, they concluded their article with the following: "Consistent with Sorensen and Snow's (1991) data, the present results suggest that disclosing sexual abuse is more an ongoing process than a single event" (Elliott & Briere, 1994, p. 274).

The courts have a long history of grappling with how to handle expert testimony regarding characteristics of sexually abused children. In most cases, when courts have permitted expert testimony concerning CSAAS, they have not carefully scrutinized its scientific basis. Instead, they have relied on the unsubstantiated assurances of the proffering expert (as exemplified in the above quotations) or the acceptance of CSAAS by other courts (e.g., *State v. Edelman*, 1999). As shown above, this reliance can result in experts providing incorrect opinions. In recognizing that it makes no sense to accept that an assertion is scientifically grounded "just because somebody with a diploma says it is so" (*United States v. Ingham*, 1995, p. 226), *Daubert v. Merrell Dow Pharmaceuticals, Inc.* (1993) and its progeny in the federal and state courts have directed trial judges to assume the role of gatekeeper and, as such, to examine the relevance and reliability of all proffers of expert testimony. In this role, trial judges are directed to consider falsifiability, error rates, publication, peer review, and general acceptance. In other words, the expert testimony must "rest on a reliable foundation . . ." (*Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 1993, p. 2799; see also *General Electric Co. v. Joiner*, 1997). *Daubert* standards hold for scientific as well as nonscientific experts (*Kumho Tire Company Ltd. v. Carmichael*, 1999).

¹⁰See Lyon, 2002, p. 109, for Lyon's operational definition of child sexual abuse accommodation.

According to these testimonial standards, the only component of the CSAAS that has empirical support is that delay of abuse disclosure is very common. However, the probative value of expert testimony on delayed disclosure, whether for evidentiary or rehabilitative reasons, is undetermined; some evidence suggests that knowledge about delay of disclosure is within the ken of the jury, perhaps therefore obviating the need for expert evidence on the issue of delay. Gray (1993) surveyed a sample of adults from the general public and a sample of jurors regarding whether they agreed that delayed disclosure was common among abused children ranging from 1 (*strongly agree that delay is common*) to 6 (*strongly disagree*). They found that the general public had a mean rating of 2.3, and jurors had a mean rating of 1.7, suggesting that laypeople tend to believe that delayed disclosure is common. Presently, there is insufficient evidence to conclude whether expert testimony on delayed disclosure meets the *Daubert* standard of possessing probative value for jurors.

The research on denial and recantation shows that when directly questioned in a formal setting, only a small percentage of abused children demonstrate these behaviors. In terms of *Daubert's* concern with error rate, our review of the literature revealed that there was high variability in specific behaviors across studies and that in some cases, the reported rates were inaccurate, reflecting methodological flaws of the study. In summary, there is no convincing evidence that CSAAS testimony on denial or recantation provides relevant or reliable assistance to the fact finder to assess allegations of CSA.

Our intention in writing this article was to examine the empirical basis of professional and lay opinions about disclosure patterns of CSA. In so doing, we found that, although there was much support for the silence/secretcy stage of the accommodation syndrome, most of the evidence failed to provide empirical support for the rest of the model. In order to clearly present these conclusions, it was necessary to dissect the methodological sections of each study and to point out major problems when these occurred. It was also our intent to provide the readers with a host of other studies that provided relevant data that were not prone to the same or as many methodological weaknesses. We believe that child abuse professionals should be aware of this information and incorporate it into their clinical practice as well as into their expert courtroom testimony. If the field is to be guided by scientifically validated concepts, then this must be predicated on the literature that comes closest to the standards of science.

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