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# Interventions for Sexually Abused Children: Initial Treatment Outcome Findings

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*This study evaluated treatment outcome for 49 recently sexually abused children aged 7-14, who were randomly assigned to receive either sexual abuse-specific cognitive behavioral therapy (SAS-CBT) or nondirective supportive therapy (NST). Respondents and their nonoffending parent were provided with 12 individual treatment sessions, which were closely monitored for adherence to the assigned treatment modality. Participants and parents completed several standardized assessment instruments pre- and posttreatment. Results indicated that there was a significant group-by-time interaction on the Children's Depression Inventory and the Child Behavior Checklist Social Competence Scale, with the SAS-CBT group improving more than the NST group on both of these instruments. Clinical findings also suggested that SAS-CBT was more effective than NST in treating sexually inappropriate behaviors. Implications for clinical practice and future research are discussed.*

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Until recently, very little empirical information was available to inform therapists about optimal therapeutic interventions for sexually abused children. This was due to a lack of treatment outcome studies that used rigorous experimental designs. Finkelhor and Berliner (1995) provided a comprehensive review of current knowledge about treatment outcome for this population, with recommendations that more scientifically rigorous treatment outcome studies be conducted. Since that article appeared, three well-controlled treatment outcome studies have been published. These studies are distinguished from previous research in that they included random treatment assignment to manualized and monitored distinct treatments, the use of standardized outcome instruments, and posttreatment follow-up assessments.

All three of these studies used abuse-focused cognitive behavioral interventions as the index treatment.

There is growing evidence to suggest that although sexually abused children experience a wide variety of symptoms, there are certain clinical issues that are common to most of these children. Finkelhor (1987) synthesized these issues into a theoretical model of the impact of sexual abuse on children. He discussed four traumagenic dynamics, which included traumatic sexualization, stigmatization, powerlessness, and betrayal. Mannarino, Cohen, and Berman (1994) developed the Children's Attributions and Perceptions Scale (CAPS) to measure similar issues and demonstrated that feeling different from peers (stigmatization), personal attributions for negative events, impaired trust (betrayal), and decreased perceived credibility (i.e., not being believed by others—one aspect of betrayal) were significant issues for sexually abused children compared with a normal control group. These four dynamics were also shown to be strong indicators of symptom formation in this population (Mannarino & Cohen, 1996a, 1996b). Theoretically, cognitive behavioral interventions would appear to be particularly appropriate for addressing these issues. Specifically, feeling permanently damaged from sexually abusive experiences, blaming oneself for the abuse, and feeling generally helpless or powerless after having been abused are all issues related to cognitions that can be monitored and modified through cognitive reframing. Traumatic sexuali-

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zation and developing other inappropriate behaviors after sexual abuse may result from distorted cognitions about appropriate behaviors as well as modeling and reinforcement of inappropriate behaviors, which would suggest that these difficulties should also be amenable to cognitive behavioral interventions. Thus, there are theoretical reasons to believe that abuse-focused cognitive behavioral therapy (CBT) would be effective in decreasing behavioral and emotional problems in this population.

Berliner and Saunders (1996) randomly assigned sexually abused children aged 4-13 to either standard or enhanced trauma-focused cognitive-behavioral group therapy. The index group received stress inoculation training and gradual exposure procedures in addition to the comparison group treatment approach on the basis of the strong empirical evidence that these interventions are effective at decreasing generalized anxiety symptoms. Specifically, the index-group participants were required to discuss their own sexual abuse experiences, whereas the participants of the control group were not required to do so. Although both groups improved significantly on most measures, there were no differences between the groups with regard to improvement on fear and anxiety symptoms. The authors hypothesized that the two treatment interventions may not have been different enough to detect differential treatment effects.

Deblinger, Lippman and Steer (1996) also provided sexual abuse-focused CBT in a controlled treatment outcome study. Participating families were randomly assigned to one of four treatment conditions: child treatment only, parent treatment only, parent and child treatment, or a community control condition. The investigators found that including the child in treatment resulted in greater improvement in post-traumatic stress disorder (PTSD) symptoms, whereas including the parent in treatment resulted in greater improvement in the child's externalizing and depressive symptoms as well as in effective parenting skills.

Cohen and Mannarino (1996a, 1996b, 1997, in press-b) randomly assigned sexually abused preschool children and their parents to either sexual abuse-specific CBT or nondirective supportive therapy (NST). This study demonstrated that the CBT intervention was significantly more effective than NST in improving total behavior problems, internalizing symptoms and sexually inappropriate behaviors, and that these differential treatment effects were sustained over the course of a 1-year follow-up.

The present study attempted to further expand our understanding of effective treatment interventions for older sexually abused children. It examined treatment outcome of children and adolescents and their

parents randomly assigned to sexual abuse-specific CBT (SAS-CBT) or NST. These treatment modalities were selected, in part, because they appeared to be representative of interventions commonly used by therapists who regularly treat sexually abused children (Conte, Fogarty, and Collins, 1991). It was not clear whether the superior effectiveness of the CBT approach found in preschoolers (Cohen & Mannarino, 1996a) would also be present when treating older sexually abused children. It was hypothesized that SAS-CBT would be more effective than NST at reducing psychological difficulties, particularly depression (by decreasing stigmatization and powerlessness), and sexually inappropriate behaviors (by decreasing traumatic sexualization).

## METHOD

### *Participants*

Eighty-two participants were recruited for the study within 6 months of having experienced independently validated contact sexual abuse perpetrated by someone at least 5 years older than the participants. Exclusionary criteria included mental retardation, pervasive developmental disorder, active psychosis or substance abuse, serious medical illness, lack of long-term (at least 12 months) caretaker, and active psychosis or substance abuse in the primary caretaker. Participants were referred from a variety of sources, including victim advocacy programs, Child Protective Services, police, juvenile and family court, private practitioners, and other mental health providers. No recruitment ads were placed.

Of the 82 participants completing the initial assessment instruments, 4 did not return for any treatment. Of the 78 remaining participants, 10 dropped out after completing three or fewer sessions (early dropouts), and 10 dropped out after completing four to eight sessions (late dropouts). In addition, 9 participants (2 SAS-CBT, 7 NST) were removed from the treatment protocol because of persistent contact sexualized behaviors. (Although reduction in sexualized behaviors was a specific hypothesis of the study, we believed that ethical considerations required removal of participants exhibiting contact sexual behavior if this behavior persisted beyond three consecutive treatment sessions. Such behavior was considered too dangerous to the participant and/or other children with whom these behaviors occurred to be allowed to continue without intensive interventions that would violate the constraints of the study treatment modalities.) Thus, a total of 49 participants (30 SAS-CBT and 19 NST) completed the treatment and posttreatment

(T2) assessment instruments and are included in the data analysis.

The three types of noncompleters (early dropouts, late dropouts, and removed individuals) did not differ from each other or from the treatment completers with regard to any demographic (age, gender, socioeconomic status [SES]), abuse-specific (type of sexual abuse, number of abuse episodes, identity of perpetrator), or initial symptomatology variables. There were no significant differences on any of these variables between SAS-CBT and NST attrited cases.

With regard to treatment completers, 15 (31%) were male and 34 (69%) were female. The mean age at time of entry into the study was 11 years, 1 month (range 7 years, 2 months to 15 years, 4 months). Fifty-nine percent of the participants were Caucasian, 37% were African American, 2% were Hispanic, and 2% were biracial. With regard to perpetrator identity, 10% were abused by biological father, 13% by stepfather, 10% by mother's male paramour, 2% by uncle, 5% by grandfather, 15% by an older minor, 13% by an older brother, and 32% by a perpetrator other than the above.

Regarding the most severe type of abuse experienced (many experienced more than one type), 54% of these participants experienced anal and/or vaginal intercourse, 2% experienced oral intercourse, and 44% experienced genital fondling only. Thirty-six percent of participants reported having experienced a single episode of sexual abuse, 21% were abused on 2 to 5 occasions, 8% were abused 6 to 10 times, and 33% were abused more than 10 times. Two percent did not report the number of abuse episodes.

For most of the participants, the sexual abuse was accompanied by the use of threatened or actual force. Fifteen percent were beaten, 28% were threatened with beating, 26% were physically restrained (held down), 13% were threatened with physical punishment other than beating, and 18% reported no physical force being used.

Most of the participants (69%) were living with one or both biological parents; another 4% were living with long-term adoptive parents. Two percent were living with each of the following caretakers: stepfather only, grandparents, foster family, and long-term residential placement. Four percent were living with other extended family members, and 15% were living with other caretakers.

Mean socioeconomic status as computed by Hollingshead classification was 46.77 (range 22-69). There were no significant differences between the two treatment groups with regard to any of these demographic variables. These demographic and abuse characteristics are summarized in Table 1.

### **Instruments**

The following instruments were used to assess symptomatology at pre- and posttreatment:

*Child Behavior Checklist (CBCL)-Parent Form.* This measure was developed as a descriptive rating instrument to assess both adaptive competencies and behavior problems (Achenbach & Edelbrock, 1983). It is completed by the parent and can be used with children aged 2-16. The CBCL includes items that identify a variety of behavioral and adjustment problems. There are also questions related to children's activities and interests, social relationships, and academic functioning at school (referred to as social competence scales).

This study used the Child Behavior Profiles for girls and boys aged 4-11 and 12-16. Factor analysis yielded four broad band factors: Social Competence, Behavior Problems Total, Internalizing, and Externalizing. Test-retest reliability over a 1-week time interval was calculated to be .88. There are norms for both the social competence scales and behavior problems scales.

*State-Trait Anxiety Inventory for Children (STAIC).* This instrument was initially developed as a research tool for the study of anxiety in elementary school children (Spielberger, 1973). It is completed by the child and is composed of separate, self-report scales for measuring two distinct anxiety concepts: state anxiety and trait anxiety.

For both the A-State scale and the A-Trait scale, each item has a 3-point rating scale for which values of 1, 2, or 3 are assigned for each of the three alternative choices. The STAIC has been demonstrated to have adequate internal consistency, with alpha reliabilities of .84 and .80 for the A-State and A-Trait scales, respectively. There is strong evidence of concurrent validity with other trait anxiety measures in children. There are normative data for the STAIC based on the responses of more than 1,500 school-age children.

*Children's Depression Inventory (CDI).* The CDI is a 27-item, self-rated, symptom-oriented scale suitable for school-age children and adolescents (Kovacs, 1985). Each of the 27 items on the CDI consists of three choices. Item choices are keyed from 0 to 2 in the direction of increasing symptom severity. The respondent is instructed to select the choices for each item that best describes him or her over the immediately preceding 2 weeks. The CDI has been found to be highly reliable. Internal consistency ranges from .71 to .87. Test-retest reliabilities for time periods ranging from 1 month to 9 weeks have been computed to be from .72 to .84. There are norms for the CDI based on the responses of 860 public school children.

TABLE 1: Demographic and Abuse Characteristics of Treatment Completers by Treatment Group (in percentages)

Characteristic	Total Sample (N = 49)	SAS-CBT <sup>a</sup> (n = 30)	NST <sup>b</sup> (n = 19)
Gender			
Female	69	70	68
Male	31	30	32
Race			
Caucasian	59	60	58
African American	37	37	37
Hispanic	2	3	—
Biracial	2	—	5
Perpetrator ID			
Father	10	8	14
Stepfather	13	12	14
Mother's paramour	10	4	21
Uncle	3	4	—
Grandfather	5	—	14
Older peer	15	20	7
Brother	13	25	7
Other	31	36	22
Abuse type			
Intercourse	54	56	50
Fondling	44	40	50
Oral-genital	2	4	—
No. of abuse episodes			
1	36	40	29
2-5	20	20	21
6-10	8	4	14
> 10	33	36	29
Unknown	3	—	7
Current caretaker			
Both bio parents	10	10	11
Mother/stepfather	6	3	11
Father/stepmother	4	3	5
Adoptive parents	4	7	—
Mother/boyfriend	4	3	5
Mother only	33	33	32
Father only	6	3	10
Stepfather only	2	3	—
Grandparents	2	3	—
Other relatives	4	3	5
Foster parents	2	3	—
Other/missing	21	26	21
Age			
Range	7 years 2 months- 15 years 4 months	7 years 6 months- 15 years 4 months	7 years 2 months- 14 years 11 months
Mean	11 years 1 month	11 years 4 months	10 years 8 months
Socioeconomic (Hollingshead)			
Range	22-69	22-69	22-65
Mean	46.77	47.08	46.08

a. SAS-CBT = Sexual Abuse Cognitive-Behavioral Therapy.

b. NST = Nondirective Supportive Therapy.

*Child Sexual Behavior Inventory (CSBI)*. This instrument is a 42-item inventory of sexual behavior ranging from normal behaviors (e.g., "Pretends to be opposite sex when playing") to explicit sexual activity, and is completed by parents (Friedrich, Grambsch, et al., 1992). On a 4-point scale, the frequency to which the child has shown each behavior within the last 6 months

(from *never* to *at least once a week*) is rated by the parent. Test-retest reliability after 1 month has been found to be .80. The CSBI has been administered to parents of normal children ( $N = 1,100$ ) and psychiatric outpatients as well as to parents of sexually abused children. Norms are available for these populations.

## Treatment

Participants were randomly assigned to one of two treatment modalities, as described below. Several elements were common to both treatments. Each consisted of 12 sessions over a 12-week period, with 18 total hours of therapeutic intervention (each session included 45 minutes with the child and 45 minutes with the parent). Both groups were provided with appropriate referrals to nontherapeutic ancillary care when indicated, such as specialized medical evaluations and child advocacy services. Finally, any mother in either group who had a *DSM-III-R* Axis I diagnosis (as determined by the Structured Clinical Interview for *DSM-III-R*) was offered a referral for individual therapy in addition to participation in the child's treatment study.

### Sexual Abuse-Specific Cognitive-Behavioral Therapy (SAS-CBT)

SAS-CBT was designed to target clinical issues with which sexually abused children frequently present. These issues were determined by the clinical-descriptive and empirical literature regarding symptomatology in sexually abused children, which was summarized above. SAS-CBT specifically focused on the following areas with the child:

- *Depression*: Addressed feelings of helplessness/powerlessness (including not being believed about the abuse), distorted attributions (self-blame) about the abuse and other negative events, feeling damaged/different because of the abuse, and resulting lower self-esteem
- *Anxiety*: Addressed anxiety reduction techniques (thought replacement, positive imagery, relaxation), enhancement of safety, and management of intrusive thoughts
- *Behavioral difficulties related to the above*: Addressed education about the connections between thoughts, feelings, and behaviors; education about age-appropriate behavior (including sexual behaviors); behavioral interventions for inappropriate behaviors; and problem-solving skills

SAS-CBT also targeted specific issues for parents of sexually abused children. These issues were, in part, determined by the empirical research of the investigators, which demonstrated that the parent's emotional reaction to the abuse (including fear, guilt, anger, embarrassment, and feeling emotionally upset) strongly mediated the child's long-term symptomatology (Mannarino & Cohen, 1996a, 1996b). Another basis for identifying specific issues was the hypothesized strong relationship of appropriate maternal support to positive child outcome (Friedrich,

Luecke, Beilke, & Place, 1992b; Hewitt, 1991) after a sexual abuse disclosure.

SAS-CBT specifically addressed the following issues for the parent:

- *Decreasing parental emotional distress*: Addressed distorted attributions (child blame, parental self-blame, or both) regarding the abuse; parental feelings toward the perpetrator, including anxiety and anger management techniques; parental feelings of stigmatization (of the child, parent, and/or family) ascribable to the abuse; parental history of sexual abuse (if applicable); increasing available support for the parent
- *Enhancing parental support for the child*: Addressed parental belief in the child's disclosure, appropriate supportive management of child's distress symptoms, and appropriate limit setting
- *Management of child behavioral difficulties related to the abuse*: Addressed recognition of, and interventions for, inappropriate behaviors (including sexually inappropriate actions); problem-solving skills

Specific interventions used in SAS-CBT included CBT methods, which have been described in detail elsewhere (Ammerman & Hersen, 1993; Kazdin, Esvelt-Dawson, French, & Unis, 1987; Van Hasselt & Hersen, 1993): relationship-social skills building; monitoring and modification of automatic thoughts, assumptions, and beliefs (cognitive reframing); thought-stopping and positive imagery; problem-solving skills training, including self-monitoring of behaviors and exploration of alternative coping mechanisms; contingency reinforcement; modeling, role-playing, social reinforcement, and positive feedback.

### Nondirective Supportive Therapy (NST)

NST was used as an alternative treatment to SAS-CBT. This form of NST was believed to be representative of supportive, noncognitive behavioral treatments commonly provided to sexually abused children in the community, with the caveat that, to clearly distinguish it from the SAS-CBT intervention, NST therapists did not provide specific suggestions or directive advice. They did encourage exploration of alternative attributions, behaviors, and feelings through the use of *nondirective* interventions ("Is there any other way to look at that?"; "Do you have any other options in this situation?"). NST controlled for nonspecific aspects of treatment such as regular contact with a supportive, caring therapist and the passage of time.

Unlike SAS-CBT, the NST model did not have a structured format in which specific issues were addressed in certain sessions. Rather, issues were addressed as they were raised by the child or parent in

treatment sessions. NST interventions focused on the following for the child and parent:

- Provision of a high degree of nonjudgmental empathy and support through establishment of empathic listening and a strong therapeutic bond
- Encouragement of identification, clarification, exploration and acceptance, and/or resolution of upsetting feelings
- Reestablishment of trust and positive interpersonal expectations based on the therapeutic bond (a "corrective emotional experience")

### *Maintenance of Treatment Integrity*

Several provisions were made to assure that there was close therapist compliance with each of the two different treatment modalities. These included the following: (a) Therapists received intensive comprehensive training from the principal investigators in the specific treatment models, (b) specific treatment manuals for SAS-CBT and NST were used, (c) weekly intensive supervision with the principal investigators was provided, (d) each session was audiotaped with a weekly review of tapes conducted by the principal investigators through the use of a checklist to document compliance with certain essential elements of each treatment modality. A greater-than-90% compliance rate with this checklist was required, and (e) blind ratings of random tapes were conducted to assure that the two treatments were distinct, with compliance to the above checklists being assessed by this rater.

### *Controlling for Therapist Effects on Outcome: Therapist Characteristics*

Each participant-mother dyad was treated by one therapist. Therapists in each of the two modalities were trained and experienced in both the SAS-CBT and NST models. One had primarily used CBT interventions in her earlier training and experience, whereas the other had primarily used nondirective interventions in the past. Each therapist provided treatment in only one of the models for the first half of the study. At the midway point of the study, both therapists switched to the other treatment model. This controlled for therapist bias effect (i.e., each therapist provided treatment to equal numbers of participants in each treatment model.)

The therapists both had a master's-level degree from a clinical social work program and had several years of clinical experience in working with parents and child sexual abuse victims.

### *Procedure*

After phone screening of referred children for appropriateness for the study, an initial evaluation

appointment for the child and nonoffending parent was arranged at the investigators' outpatient clinic. A clinical evaluation was completed by one of the investigators. If the child met criteria for the study, the child and parent received detailed verbal and written descriptions of the project, and each gave informed consent. The project coordinator then administered the research instruments to the child and parent.

At the time of the initial assessment, each child was randomly assigned to one of the two treatment conditions. Efron's (1980) biased coin toss was used to ensure that the two groups were balanced with respect to (a) CBCL Total Behavior Problems, (b) gender, and (c) age.

The first treatment session occurred within 1 week of the initial assessment. Weekly therapy meetings were arranged for the subsequent 11 sessions. If an appointment was missed, two were scheduled during the following week. In general, the child and parent were scheduled for therapy during consecutive hours. All treatment in the proposed study was provided free of charge. At the end of the 12th treatment session, the assessment instruments were readministered by the project coordinator.

The project included a provision for removal of subjects from the study if they exhibited persistent sexually inappropriate behavior involving physical contact with another person. If such behaviors occurred, the child and parent were provided with two consecutive treatment sessions in the assigned treatment modality during which these sexualized behaviors were addressed. In SAS-CBT, this included cognitive and behavioral interventions aimed at decreasing sexually inappropriate behaviors; in NST, this involved discussion of feelings related to these behaviors, and nondirective attempts to generate alternative behaviors/interventions. If these interventions did not result in a cessation of the behaviors within the two session time periods, the child was removed from the study and provided with open treatment.

### **RESULTS**

Two-tailed *t* tests ( $p < .05$ ) were used to compare SAS-CBT and NST scores on the CBCL broad band factors, STAIC, CDI, and CSBI measures at pretreatment and posttreatment. The only significant difference at pretreatment was on the CBCL Social Competence scale, with the SAS-CBT group scoring significantly lower (more symptomatic) than the NST group ( $t = 2.58, p < .05$ ). At posttreatment, the SAS-CBT group was significantly less symptomatic than the NST group on the CDI ( $t = -2.06, p < .05$ ).

Repeated measures analyses of variance (ANOVAs) were used to evaluate Group  $\times$  Time interactions.

TABLE 2: Pretreatment to Posttreatment Group by Time Interactions on Outcome Measures

Measure	Pretreatment Mean (SD)	Posttreatment Mean (SD)	Group (F)	Time (F)	Group × Time (F)
CSBI					
SAS-CBT ( <i>n</i> = 30)	12.33 (10.18)	8.31 (8.70)	.11	8.77**	1.78
NST ( <i>n</i> = 19)	11.95 (9.43)	10.42 (9.20)			
CDI					
SAS-CBT	12.67 (8.79)	5.89 (5.39)	.11	10.85**	6.37**
NST	10.33 (7.27)	9.89 (8.11)			
CBCL					
Social Competence					
SAS-CBT	34.52 (9.91)	38.75 (10.21)	2.74	1.57	10.11**
NST	42.21 (10.05)	40.11 (8.44)			
Behavior Profile Total					
SAS-CBT	61.77 (11.76)	57.56 (10.17)	.01	4.21*	.33
NST	60.42 (11.23)	58.21 (9.24)			
Internalizing					
SAS-CBT	59.17 (12.12)	55.48 (8.79)	.50	3.04	.22
NST	60.00 (11.34)	58.11 (9.37)			
Externalizing					
SAS-CBT	59.77 (10.94)	57.14 (9.64)	.29	2.22	.12
NST	57.74 (10.15)	56.16 (10.00)			
STAIC					
STAIC					
SAS-CBT	36.67 (8.96)	29.59 (6.19)	.04	22.68***	.49
NST	35.72 (7.95)	30.06 (4.68)			
Trait					
SAS-CBT	39.44 (9.35)	32.78 (7.55)	.20	13.54***	2.86†
NST	36.78 (7.31)	34.06 (6.28)			

NOTE: CSBI = Child Sexual Behavior Inventory; SAS-CBT = Sexual Abuse-specific Cognitive-behavioral Therapy; NST = Nondirective Supportive Therapy; CBCL = Child Behavior Checklist; STAIC = State-Trait Anxiety Inventory for Children.

†*p* = .09. \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

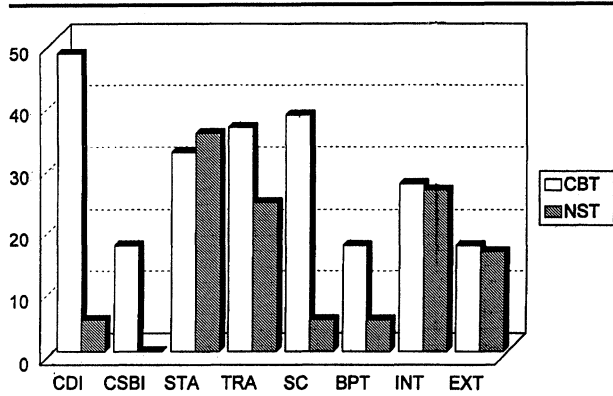
These analyses demonstrated significant Group × Time interactions on the CDI ( $F = 6.37$ ,  $p = .01$ ) and the CBCL Social Competence scale ( $F = 10.11$ ,  $p = .003$ ), with the SAS-CBT group making significantly greater improvement on each measure than the NST group. The STAIC-Trait score also approached significance in this analysis ( $F = 2.96$ ,  $p = .09$ ). These results are summarized in Table 2.

### Clinical Findings

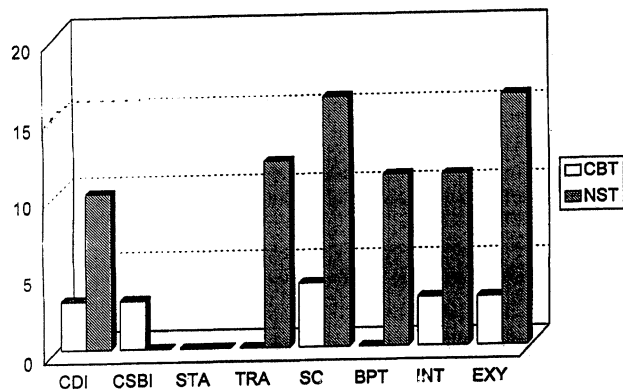
In addition to examining statistically significant improvement, clinical improvement was evaluated. Percentages of participants in each treatment group who experienced clinically significant improvement or deterioration (as defined by at least 1 standard deviation change in score from pretreatment to posttreatment) are presented in Figures 1 and 2. Substantially higher percentages of SAS-CBT than NST participants experienced clinically significant improvement on the CDI, CSBI, CBCL Social Competence scale, and CBCL Behavior Profile Total scales, whereas percentages of participants experiencing clinical improvement on the STAIC and CBCL Inter-

nalizing and Externalizing scales were comparable across the two treatment groups. Substantially higher percentages of NST participants than CBT participants experienced clinical deterioration on the CDI, STAIC-Trait scale, and all four CBCL scales. Interestingly, higher percentages of NST participants deteriorated than improved clinically on the CDI and CBCL Social Competence and Behavior Profile Total scales, whereas the CBT group experienced higher percentages improving than deteriorating on all measures.

Seven NST participants had to be removed from the study because of persistent sexually inappropriate behavior, whereas only two SAS-CBT participants were removed for this reason. This difference approaches statistical significance ( $\chi^2 = 3.44$ ,  $df = 1$ ,  $p < .06$ ) and suggests that the SAS-CBT intervention may have been more effective than NST at decreasing sexually inappropriate behaviors. In addition, 19 of 38 participants receiving NST treatment did not complete the treatment course, either because of dropping out ( $n = 12$ ) or being removed ( $n = 7$ ). This is in contrast to 10 out of 40 participants receiving SAS-CBT who failed to complete the treatment course because of drop-



**FIGURE 1: Percentages of Participants Showing Clinical Improvement Pretreatment to Posttreatment**  
 CDI = Children's Depression Inventory; CSBI = Child Sexual Behavior Inventory; STA = State Trait Anxiety Inventory for Children (State); TRA = State Trait Anxiety Inventory for Children (Trait); SC = Social Competence (Child Behavior Checklist); BPT = Behavior Problems Total (Child Behavior Checklist); INT = Internalizing (Child Behavior Checklist); EXT = Externalizing (Child Behavior Checklist); CBT = Cognitive-Behavioral Therapy; NST = Nondirective Supportive Therapy.



**FIGURE 2: Percentages of Participants Showing Clinical Deterioration Pretreatment to Posttreatment**  
 CDI = Children's Depression Inventory; CSBI = Child Sexual Behavior Inventory; STA = State Trait Anxiety Inventory for Children (State); TRA = State Trait Anxiety Inventory for Children (Trait); SC = Social Competence (Child Behavior Checklist); BPT = Behavior Problems Total (Child Behavior Checklist); INT = Internalizing (Child Behavior Checklist); EXT = Externalizing (Child Behavior Checklist); CBT = Cognitive-Behavioral Therapy; NST = Nondirective Supportive Therapy.

ping out ( $n = 8$ ) or being removed ( $n = 2$ ). This difference in treatment completion rate is statistically significant ( $\chi^2 = 5.22, df = 1, p < .02$ ).

**Client Satisfaction**

Parents of treatment completers were asked to complete a Client Satisfaction Questionnaire (CSQ), which included 8 questions on a 4-point Likert-type

scale. Results indicated a high level of parental satisfaction among treatment completers in both treatment groups, with no significant differences noted between the two groups, SAS-CBT  $\bar{x}$  (SD) = 30.93(2.02); NST  $\bar{x}$  (SD) = 29.65(3.16),  $t = 1.64, p = .108$ . Unfortunately, the CSQ was not given to the child participants themselves, so it is not possible to document child satisfaction with either treatment.

**DISCUSSION**

This study attempted to evaluate the relative effectiveness of two alternative treatment interventions in decreasing symptomatology in sexually abused children. As hypothesized, at posttreatment, children receiving the SAS-CBT intervention reported significantly less depressive symptoms on the CDI than children receiving NST; this differential improvement was supported on the Group  $\times$  Time analyses. There was also a strong Group  $\times$  Time effect for the CBCL Social Competence scale, although the significant pretreatment difference between the groups suggests that the differential improvement of the SAS-CBT group may, in part, represent regression to the mean. Contrary to our prediction, there was no significant difference between the two treatment groups at posttreatment and no significant Group  $\times$  Time interaction with regard to sexually inappropriate behaviors. It is possible that more significant posttreatment differences between the groups would have been detected if the study sample (particularly the NST group) had been larger. At a power = .80, and  $\alpha = .05$ , the current sample size ( $N = 49$ ) would only detect a large effect size ( $d = .80$ ) (Howell, 1992). To detect a medium effect size ( $d = .50$ ), a much larger sample size ( $N > 125$ ) would have been required.

Clinical findings also lend support to the benefits of SAS-CBT over NST. Disregarding dropouts, a much higher proportion of NST children ( $7/26 = 27\%$ ) required removal from the study than SAS-CBT children ( $2/32 = 6\%$ ) because of persistent sexually inappropriate behavior. The lack of significant differences between the treatment groups on the CSBI at posttreatment may, in part, have been due to this greater removal of NST participants prior to treatment completion. (Unfortunately, CSBI scores were not obtained from the removed participants at the time of removal from the study.) The differential rates of clinically significant improvement between the two treatment groups on the CDI and the CSBI also lend support to the clinical benefits of SAS-CBT intervention.

With regard to SAS-CBT's effectiveness in improving depressive symptoms, it is not possible through this study to determine how much of this effect was due to direct interventions with the child, as opposed to therapeutic efforts with the parent. As noted above, Deblinger et al. (1996) found that it was the parent rather than the child intervention that specifically led to significant improvement in depressive symptoms. As parental emotional distress strongly predicted treatment outcome in sexually abused preschool children (Cohen & Mannarino, 1996a), it is likely that the strong SAS-CBT focus on alleviating such parental distress in this study played an important role in reducing children's depressive symptoms. However, we believe that the strong emphasis on addressing depressive symptoms directly with the child in the SAS-CBT treatment model also contributed substantially to the superior effectiveness of this approach.

The differences between treatment groups in these 7- to 15-year-old children were somewhat less striking than those found in our study of sexually abused preschoolers (Cohen & Mannarino, 1996b). There are several possible explanations for this. The relatively lower number of treatment completers in the present study compared with the preschool study (49 vs. 68) and the fact that given that the preschoolers were much more symptomatic than the 7- to 15-year-olds on the CBCL and CSBI at pretreatment probably decreased the likelihood of finding differences between treatment groups in the present study. These two problems (inadequate sample size and lack of pretreatment symptomatology) in treatment outcome studies have been discussed at length by Finkelhor and Berliner (1995). However, our clinical impression is that there were also differences based on developmental factors in how the NST intervention was used by the child participants in the two studies. Whereas most of the preschoolers receiving NST did not talk directly about the sexual abuse experience at any time during treatment, most of the 7- to 14-year-olds receiving NST spontaneously brought up abuse-related issues during treatment sessions. Although there were clearly some children in the present study who were initially very embarrassed by, and avoidant of, discussing the sexual abuse, these children seemed comfortable with the nondirective approach and several were able to bring up abuse issues of their own accord later in the treatment course. There is a strong clinical consensus that direct discussion of traumatic events is usually necessary to resolve symptoms related to the trauma (Benedek, 1985; Berliner, in press; Friedrich, 1996; Janoff-Bulman, 1985; Wolfe, Sas, & Wekerle, 1994). It may be that the older children's

greater tendency to discuss abuse issues in the NST model contributed to their symptomatic improvement and lessened the differences between the two treatment models. This idea is supported by the findings on the STAIC-State scale, which measures present state anxiety. Both treatment groups experienced high rates of clinical improvement on this scale, and there was a robust main effect for time on this measure as well.

The 7- to 14-year-olds in this study were more adept than the preschoolers in the previous study at generating alternative attributions, coping strategies, and behavioral options with nondirective encouragement from the therapists to do so. Specifically, the therapists noted that many of the 7- to 14-year-old NST participants were able to "figure out" these strategies, even without the directive cognitive interventions that were used in the CBT model, whereas very few of the preschoolers could do this. This difference was expected to some degree, based on cognitive developmental considerations. For older sexually abused children without high pretreatment levels of behavioral problems, nondirective supportive therapy that includes encouragement to explore feelings and alternative explanations related to the abuse may therefore potentially be as effective as a more directive cognitive behavioral treatment model at decreasing some symptoms. However, the findings of the present study strongly indicate that for decreasing depressive symptoms, the CBT model is superior to this form of NST.

There were several limitations of the present study. Most notable was the relatively high drop-out rate, particularly for the NST group, which diminished the study's power to detect statistically significant differences between the two treatment groups and may have implications regarding the generalizability of the study findings. Other limitations have been noted, including our failure to administer assessment instruments (particularly the CSBI) to removed participants at the time of their removal from the study, and the lack of child-rated client satisfaction questionnaires. We hope to correct these shortcomings in future studies. Follow-up assessments are also needed to determine whether the differences in treatment outcome are sustained over a period of time. These evaluations are currently in progress.

Despite these limitations, this study contributes useful information regarding effective treatment interventions for sexually abused children. It provides support for a time-limited sexual abuse-focused cognitive behavioral treatment approach, particularly for alleviating depressive symptoms. Further studies are

needed to more clearly determine the advantages and shortcomings of various treatment approaches for these children, as well as to assess mediating factors in treatment outcome that may allow more accurate prediction of what treatment will most help a particular sexually abused child to regain optimal functioning.

## REFERENCES

- Achenbach, T. M., & Edelbrock, C. S. (1983). *Manual for the Child Behavior Checklist and Revised Child Behavior Profile*. Burlington: University of Vermont, Department of Psychiatry.
- Ammerman, R. T., & Hersen, M. (1993). *Handbook of behavior therapy with children and adults: A developmental and longitudinal perspective*. Des Moines, IA: Allyn & Bacon.
- Benedek, E. (1985). Children and psychic trauma: A brief review of contemporary thinking. In S. Eth & R. S. Pynoos (Eds.), *Post-traumatic stress disorder in children* (pp. 1-16). Washington, DC: American Psychiatric Press.
- Berliner, L. (in press). Intervention with children who experience trauma. In D. Cicchetti & S. Toth (Eds.), *The effects of trauma and the developmental process*. New York: John Wiley.
- Berliner, L., & Saunders, B. (1996). Treating fear and anxiety in sexually abused children: Results of a controlled 2-year follow-up study. *Child Maltreatment, 1*(4), 294-309.
- Cohen, J. A., & Mannarino, A. P. (1996a). Factors that mediate treatment outcome in sexually abused preschool children. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*(10), 1402-1410.
- Cohen, J. A., & Mannarino, A. P. (1996b). A treatment outcome study for sexually abused preschoolers: Initial findings. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*(1), 42-50.
- Cohen, J. A., & Mannarino, A. P. (1997). A treatment study for sexually abused preschool children: Outcome during a one year follow-up. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*(9), 1228-1235.
- Cohen, J. A., & Mannarino, A. P. (in press-a). Factors that mediate treatment outcome of sexually abused preschoolers: Six and twelve month follow-ups. *Journal of the American Academy of Child and Adolescent Psychiatry*.
- Cohen, J. A., & Mannarino, A. P. (in press-b). A treatment study of sexually abused preschool children: Outcome during one year follow-up. *Journal of the American Academy of Child and Adolescent Psychiatry*.
- Conte, J. R., Fogarty, L., & Collins, M. E. (1991). National survey of professional practice in child sexual abuse. *Journal of Family Violence, 6*(2), 149-166.
- Deblinger, E., Lippman, J., & Steer, R. (1996). Sexually abused children suffering posttraumatic stress symptoms: Initial treatment outcome findings. *Child Maltreatment, 1*(4), 310-321.
- Efron, B. (1980). *Biostatistics casebook*. Stanford, CA: Stanford University Press.
- Finkelhor, D. (1987). The trauma of child sexual abuse: Two models. *Journal of Interpersonal Violence, 2*, 348-366.
- Finkelhor, D., & Berliner, L. (1995). Research on the treatment of sexually abused children: A review and recommendations. *Journal of the American Academy of Child and Adolescent Psychiatry, 34*(10), 1408-1423.
- Friedrich, W. N. (1996). Clinical considerations of empirical treatment studies of abused children. *Child Maltreatment, 1*(4), 343-347.
- Friedrich, W. N., Grambsch, P., Damon, L., Hewitt, S. K., Koverola, C., Lang, R., Wolf, V., & Broughton, D. (1992). The Child Sexual Behavior Inventory: Normative and clinical comparisons. *Psychological Assessment, 4*, 303-311.
- Friedrich, W. N., Luecke, W. J., Beilke, R. L., & Place, V. (1992b). Psychotherapy outcome of sexually abused boys: An agency study. *Journal of Interpersonal Violence, 7*, 396-409.
- Hewitt, S. K. (1991, January). *Preschool children's responses to alleged sexual abuse at intake and one year follow-up*. Paper presented at the San Diego Conference on Responding to Child Maltreatment, San Diego, CA.
- Howell, D. C. (1992). *Statistical methods for psychology*. Belmont, CA: Duxbury.
- Janoff-Bulman, R. (1985). The aftermath of victimization: Rebuilding shattered assumptions. In C. R. Figley (Ed.), *Trauma and its wake* (pp. 15-35). New York: Brunner/Mazel.
- Kazdin, A. E., Esvelt-Dawson, K., French, N. H., & Unis, A. S. (1987). Effects of parent management training and problem solving skills training combined in the treatment of antisocial child behavior. *Journal of the American Academy of Child and Adolescent Psychiatry, 26*, 416-424.
- Kovacs, M. (1985). The Children's Depression Inventory (CDI). *Psychopharmacology Bulletin, 21*, 995-998.
- Mannarino, A. P., & Cohen, J. A. (1996a). Family-related variables and psychological symptom formation in sexually abused girls. *Journal of Child Sexual Abuse, 5*(1), 105-119.
- Mannarino, A. P., & Cohen, J. A. (1996b). A follow-up study of factors which mediate the development of psychological symptomatology in sexually abused girls. *Child Maltreatment, 1*(3), 246-260.
- Mannarino, A. P., Cohen, J. A., & Berman, S. R. (1994). The Children's Attributions and Perceptions Scale: A new measure of sexual abuse-related factors. *Journal of Clinical Child Psychology, 23*, 204-211.
- Spielberger, C. D. (1973). *Manual for the State-Trait Anxiety Inventory for Children*. Palo Alto, CA: Consulting Psychologists Press.
- Van Hasselt, V. B., & Hersen, M. (1993). *Handbook of behavior therapy and pharmacotherapy for children*. Des Moines, IA: Allyn & Bacon.
- Wolfe, D. A., Sas, L., & Wekerle, C. (1994). Factors associated with the development of posttraumatic stress disorder among child victims of sexual abuse. *Child Abuse and Neglect, 18*(1), 37-50.

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