

# **Abuse History, Child Age and Gender as Predictors of Sexual Behavior Problems of Sexually Abused Youth Pre- and Post-Treatment**

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**Poster Presented at the 38<sup>th</sup> Annual Convention of the Association for the Advancement of Behavioral Therapy, New Orleans, Louisiana, November, 2004**

## **Introduction**

The impact of child sexual abuse has received widespread attention in the family violence and child maltreatment literature. Sexually abused children and adolescents display a wide range of symptoms, including depression, anxiety, poor self-esteem, substance abuse, self-harm behavior, post-traumatic stress symptoms, and sexual behavior problems. However, there is no unified clinical presentation or pattern of post sexual abuse problems experienced by the majority of the victims. While the majority of research on child sexual abuse has focused on internalizing symptoms, several studies have demonstrated that sexual behavior problems are useful in discriminating between sexually abused and nonabused children (Friedrich, 1993; Kendall-Tackett et al., 1993). In fact, a review of the literature identified two symptoms clusters as the most reliable identified outcomes: sexual behavior and symptoms related to post-traumatic stress disorder (Kendall-Tackett et al., 1993).

Understanding which factors contribute to sexual behavior problems in sexually abused youth can have important implications for future functioning. Recent studies indicate that sexual behavior problems may be associated with permissive sexual attitudes, sexual risk-taking behavior, prostitution, and sexual offending in adolescence and adulthood (e.g., Burton, 2000). Research has found correlations among multiple abuse factors (e.g., penetration, physical force, frequency, duration) and increased sexual behavior problems, but little is known about what factors lead to increased difficulties with sexual behavior problems. Additionally, it is important to examine the factors related to changes in sexual behavior and the role of treatment in that process. The existing literature suggests that cognitive-behavioral treatments are effective in reducing sexual acting out behaviors (Cohen & Mannarino, 1996; Deblinger, Stauffer, & Steer, 2001), but further research is needed to determine which factors are influencing the decrease in sexual behavior problems seen in these studies.

The purpose of the present study was to examine the contribution of abuse history characteristics (e.g., duration, frequency, severity, relationship of perpetrator) and child demographic variables (e.g., age, gender) to sexual behavior problems. A primary goal was to improve understanding of how these variables may differentially influence sexual behavior problems in sexually abused youth at both pre- and post-treatment. A second goal of the study was to explore how these influences and the presence of sexual behavior problems change over treatment.

## **Method**

### ***Participants***

Participants included 61 youth and their nonoffending caregivers who completed Project SAFE, a 12-session cognitive-behavioral group treatment for sexually abused children and their nonoffending caregivers (e.g., Hansen, Hecht, & Futa, 1998; Hsu, 2003). The children ranged in age from 3.92 to 16.08 years with a mean age of 11.52 years ( $SD = 2.87$ ). Fifty-three (82.8%) of the youth were female and 76.6% were Caucasian. Of the nonoffending parents, the mean age was 37.35 ( $SD = 6.73$ ; range of 23 to 60). The majority of non-offending caregivers were a biological parent with forty-five (73.8%) being the biological mother and nine (14.8%) being the biological father. The vast majority of caregivers (91.8%) identified themselves as Caucasian. The sample was predominately lower to lower-middle class and approximately half were married.

## Measures

Caregiver report was utilized to obtain demographic information on both the child and caregiver as well as information regarding the child's sexual abuse history. Also, caregivers completed the Child Sexual Behavior Inventory (CSBI; Friedrich et al., 2001). Initial participants completed the CSBI Version 2 (Friedrich et al., 1992), however, more recent participants have completed the updated CSBI Version 3 (Friedrich et al., 2001). While most of the items are similar, the CSBI-2 was converted to be on an equal scoring system with the CSBI-3 for purposes of interpretation.

## Procedures

All participants completed an initial assessment consisting of the above measures prior to treatment as well as upon treatment completion.

## **Results**

### Descriptive and Correlational Analyses

For the youth, the average age of onset of abuse was 8.56 years, ranging from 0 to 15 ( $SD = 3.49$ ). Thirty-four (56%) were perpetrated on by someone within their family (e.g., biological parent, step-parent, sibling). Twenty-seven (41%) youth experienced intercourse (i.e., vaginal, anal, and/or oral sex) during the offense, while the other 34 offenses involved fondling, digital penetration, exposure to pornography, and/or genital exposure. Twenty-four of the youth were offended 1 or 2 times and the other 37 children were offended 3 or more times. Lastly, at pre-treatment the mean CSBI Total Score was 8.45 ( $SD = 11.03$ ), while at post-treatment it was 6.14 ( $SD = 5.70$ ). Results indicate that a significant reduction in sexual abuse problems occurred over the course of treatment  $t(60) = 2.16, p < .05$ .

Prior to conducting the regression analysis, a correlation matrix of the selected variables for the entire sample ( $N = 61$ ) was constructed (Table 1). Surprisingly, overall child sexual behavior problems was not correlated with demographic or sexual abuse history variables. The one exception was that higher levels of sexual behavior problems at post-treatment was related to a child whose perpetrator was outside of the family.

### Hierarchical Multiple Regression Analyses

Multiple regression analyses were conducted using the sexual abuse history and child demographic variables as the predictor variables and the CSBI Total Score at pre- and post-treatment as the criterion variables. Initial analyses explored the relationship of these variables at pre-treatment to assess how sexual abuse variables add to age and gender to predict sexual behavior problems. Using the pre-treatment Child Sexual Behavior Inventory Total Score as the criterion variable, the following subsets of variables were entered into the regression in two blocks: first, all demographic variables (i.e., child age and gender) and second, all sexual abuse history variables [i.e., age of onset, relationship of perpetrator (intra vs. extra), frequency (1-2 times vs. 3+ times), and severity (other vs. sex)]. The overall model was not significant [ $F(6,54) = 1.88, p = .10, R^2 = .173$ ]. However, it should be noted that the sexual abuse history variables contributed significantly over and above the demographic variables [ $F\text{-change}(4,54) = 2.56, p < .05$ ] and that in the full model a younger age of abuse onset and the perpetrator being outside of the family were predictive of higher levels of sexual behavior problems.

To explore how the influence of demographic variables and sexual abuse history variables change over the course of treatment, a hierarchical regression analysis was conducted using the post-treatment Child Sexual Behavior Inventory Total as the criterion variable. The pre-treatment CSBI Total was entered into the first block, demographic variables in the second block, and sexual abuse history variables in the third block. The overall model was significant [ $F(7,53) = 8.02, p < .001, R^2 = .514$ ] with higher levels of pre-treatment sexual behavior problems predicting higher levels of sexual behavior problems at post-treatment. None of the demographic or sexual abuse history variables significantly contributed to the model.

## Discussion

The purpose of the present study was to examine the contribution of abuse history characteristics (e.g., age of onset, frequency, severity, relationship of perpetrator) and child demographic variables (e.g., age, gender) to sexual behavior problems at both pre- and post-treatment.

Results indicate that child sexual behavior problems decreased significantly over the course of treatment. At pre-treatment, the overall model did not reach statistical significance, however, a younger age of abuse onset and the perpetrator being outside of family did contribute significantly to the model. It is likely that the small sample size did not produce adequate power to detect the contributions of the variables in the full model. At post-treatment, demographic and abuse history variables were not predictive of sexual behavior problems.

As indicated above, results should be further explored using larger samples in order to more fully understand the relationship between child sexual behavior problems and child demographic and sexual abuse characteristics. Additionally, the assessment of sexual behavior problems should be obtained from the child as well as the parent. Adolescent subjective report on sexual behavior seems especially important given the decreased opportunities for parents to observe teen sexual behavior and decreased sexual self-disclosure to parents. In fact, Friedrich (2004) found that parent and adolescent report on sexual behavior share only 25% of their variance, which reflects their differing perceptions about the adolescent's sexual behavior and the lack of knowledge that parents have about their teen's sexual practices. This study only begins to address some of the gaps in the literature and results indicate that the development of sexual behavior problems after experiencing sexual abuse is complex and deserves continued attention.

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**Table 1: Correlational Matrix of Sexual Behavior Problems, Demographic, and Abuse History Variables**

	1	2	3	4	5	6	7	8
1. Pre-treatment CSBI Total	1.00							
2. Post-treatment CSBI Total	.676**	1.00						
3. Child's Age	-.061	.075	1.00					
4. Child's Gender	.106	.046	.073	1.00				
5. Abuse Age of Onset	-.224	.044	.709**	.076	1.00			
6. Perpetrator's Relationship to Child	.191	.297*	.010	-.011	.210	1.00		
7. Severity of Abuse	.067	-.003	.022	-.129	-.105	-.072	1.00	
8. Frequency of Abuse	.108	-.015	-.015	-.116	-.317*	-.363**	.125	1.00

\* $p < .05$

\*\* $p < .001$

**Table 2: Summary of Hierarchical Multiple Regressions With Pre-treatment Sexual Behavior Problems as the Criterion Variable**

Step and Variable	In $\beta$	Final	R <sup>2</sup>	$\Delta R^2$
Step 1			.016	
Child's Age	-.07	.23		
Child's Gender	.11	.14		
Step 2			.173	.157*
Abuse Age of Onset	—	-.43*		
Perpetrator's Relationship to Child	—	.32*		
Severity of Abuse	—	.05		
Frequency of Abuse	—	.10		

\*  $p < .05$

**Table 3: Summary of Hierarchical Multiple Regressions With Post-treatment Sexual Behavior Problems as the Criterion Variable**

Step and Variable	$\beta$ Step 1	$\beta$ Step 2	Final $\beta$	$R^2$	$\Delta R^2$
Step 1				.46*	
Pre-treatment CSBI Total	.68*	.69*	.70*		
Step 2				.47*	.02
Child's Age	—	.12	-.01		
Child's Gender	—	-.04	-.04		
Step 3				.51*	.04
Abuse Age of Onset	—	—	.19		
Perpetrator's Relationship to Child	—	—	.13		
Severity of Abuse	—	—	-.03		
Frequency of Abuse	—	—	.01		

\*  $p < .001$

