Heterogeneity of Symptom Presentation in Sexually Abused Youth: Complex Profiles of a Complex Problem

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Poster Presented at the 39th Annual Convention of the Association for Behavioral and Cognitive Therapies, Washington, DC, November, 2005

Introduction

In recent decades, considerable attention has been given to child sexual abuse and many studies have focused on the short-term and long-term consequences of the abuse. Results have continually indicated that sexually abused children and adolescents display a considerable breadth of symptoms, including anxiety, depression, poor self-esteem, substance abuse, self-harm behavior, post-traumatic stress symptoms, sexual behavior problems, cognitive distortions, attribution errors, and disturbed relatedness (e.g., Kendall-Tackett et al., 1993; Paolucci, Genuis, & Violato, 2001). From this literature, one theme has continually emerged: victimization does not necessarily have an inevitable pattern or a unified symptom presentation for the majority of youth. Rather, sexually abused youth display a multitude of patterns of symptoms at varying levels of severity. Another important finding within the area of child sexual abuse has been that some youth exhibit little to no symptomatology after the abuse (Hecht & Hansen, 1999; Kendall-Tackett et al., 1993).

Despite the consistent finding that sexually abused youth are a heterogeneous group who display a wide range of symptoms, few studies have examined the within-group variability or attempted to further understand the different patterns displayed by sexually abused youth. Instead, many studies have treated sexual abuse as a single phenomenon, assuming homogeneity of the sample. Friedrich (1998) stated that more studies need to employ multivariate statistical procedures (e.g., cluster analysis) to help better understand the range of symptoms displayed by these youth. To date, only a few studies have utilized cluster analysis to examine the within-group variability of victims of sexual abuse (e.g., Bennett, Hughes, & Luke, 2000; Follette, Naugle, & Follette, 1997), and only one of these used a sample of sexually abused youth (Sedlar, 2001). While these findings provide useful groundwork, the limited examination of sexually abused children and the small sample sizes in the above studies restrict the generalizability of the findings. The purpose of the proposed study is to elucidate the clinical profiles of emotional and behavioral adjustment that are present within a sample of sexually abused children

Method

Participants

Participants included 112 sexually abused youth and their non-offending caregivers. Participants were recruited primarily from a Child Advocacy Center that completed sexual abuse screenings. The children ranged in age from 6.92 to 16.75 years with a mean age of 11.48 years (SD = 2.78). Ninety (80.4%) of the youth were female and 80.2% were Caucasian. Most of the victims were abused by only one perpetrator (83.0%) with 93.6% of the offenders being male and 46.3% being family members. Only nine children experienced non-contact forms of abuse (i.e., exposure, pornography) and the most common type of sexual abuse behaviors identified in this sample was fondling (69.6%).

Of the non-offending parents, the mean age was 36.39 (SD = 7.39; range of 23 to 72). The majority of non-offending caregivers were a biological parent with eighty-one (76.4%) being the biological mother and fourteen (13.2%) being the biological father. The vast majority of caregivers (92.2%) identified themselves as Caucasian. The sample was predominately lower to lower-middle class and approximately half were married.

Measures

Multiple measures were used to provide information on areas of child sexual behavior, internalizing and externalizing problems, and post-traumatic stress symptoms. Child report measures included the Children's Depression Inventory (CDI; Kovacs, 1992), Children's Manifest Anxiety Scale-Revised (CMAS-R; Reynolds & Richmond, 1985), the Coopersmith Self-Esteem Inventory (SEI; Coopersmith, 1981), the Children's Fears Related to Victimization Scale (CFRV; Wolfe & Wolfe, 1986), and the Children's Impact of Traumatic Events-Revised (CITES-R; Wolfe, Gentile, Michienzi, Sas, & Wolfe, 1991). Caregiver report measures included the Child Behavior Checklist (CBCL; Achenbach, 1991) and the Child Sexual Behavior Inventory (CSBI; Friedrich et al., 2001).

Results

Hierarchical Cluster Analyses

Hierarchical cluster analyses were conducted on scores from parent- and child-report measures in order to identify patterns of functioning and adjustment associated with child sexual abuse. The hierarchical cluster analysis was formed using several measures: (a) CBCL Externalizing Problems subscale, (b) CBCL Internalizing Problems subscale, (c) CITES-R PTSD subscale, (d) CSBI Total, (e) CDI Total Scale, (f) SEI Total Self Scale, (g) CMAS-R Total Anxiety Scale, and (h) the CFRV Total. Scores were transformed to standardized z-scores for the cluster analysis. Cases were linked using Ward's method and Squared Euclidean distance was selected as the measure of similarity. Based upon the agglomeration schedule, a four cluster solution was chosen. For the four-cluster solution, 32 youth (28.6%) fell into the first cluster, 16 youth (14.3%) comprised the second cluster, 31 (26.3%) were included in the third, and 33 youth (28.0%) comprised the fourth. Figure 1 provides a graphical representation of the four cluster profiles.

Cluster 1, "Problem Behaviors," is characterized by high scores on the CBCL Internalizing and Externalizing Scales and the CSBI indicating the existence of several problem behaviors. Cluster 2 is termed "Highly Distressed" due to the significant elevations on all of the child report measures. The third cluster (herein termed "Subclinical") revealed a profile in which individuals did not show clinically elevated scores on measures of psychological adjustment. In fact, the means on some measures (e.g., CMAS-R, CDI) were actually below the standard mean of 50. Cluster 4 is characterized by moderate elevations of multiple measures of psychological adjustment, and, therefore, termed "Moderately Distressed." Table 1 presents the results of one-way ANOVAs on the four groups for each measure used in the cluster analysis, including means, standard deviations, and LSD pairwise comparisons. ANOVAs and LSD pairwise comparisons showed significant differences across the profiles on all variables.

Follow-up ANOVAs and Chi-Squares

Follow-up analyses were conducted to examine demographic and abuse history characteristic differences across clusters of sexually abused youth (see Table 2). One-way analyses of variance (ANOVAs) were conducted to assess differences in child age, child age at abuse onset, and child age at offset. The remaining demographic and abuse characteristics were

dichotomous variables and chi-square analyses were conducted to obtain differences across clusters, including child gender, perpetrator relationship to victim, abuse severity/intrusiveness, and abuse duration. Results revealed no significant differences across clusters on any of the demographic or abuse history characteristics.

Discussion

The purpose of the present study was to elucidate the clinical profiles of emotional and behavioral adjustment that are present within a sample of sexually abused children. In this study, the clinical presentation in sexually abused children can be characterized by four distinct and meaningful clinical profiles. First, a "Problem Behaviors" cluster marked by high levels of overt behaviors, including sexual behavior problems and externalizing difficulties. Second, a "Highly Distressed" profile, noted by pervasive elevations across the various measures. Third, a "Subclinical" profile characterized by a lack of clinically significant elevations on the selected measures of behavioral and emotional adjustment. Fourth, a "Moderately Distressed" cluster characterized by moderate levels of difficulties across various measures. Results indicated that the clusters significantly differed from each other on all measures, but that there were no distinct differences across demographic or abuse history variables. Interestingly, the Problem Behaviors cluster and the Highly Distressed cluster differed primarily on who was the reporter of symptoms and adjustment as all parent report measures were elevated on the Problem Behaviors cluster and all child report measures were similarly elevated on the Highly Distressed cluster.

Results provide further evidence for the heterogeneity of symptomatology in child sexual abuse and the importance of examining this complexity when working with sexually abused youth. The multiple, potential psychological and behavioral symptoms experienced by sexually abused youth highlight the challenges and complexity involved in understanding the interrelationship of these symptoms as well as the difficulties researchers and clinicians continually face in their work. Implications for this study include recognizing that treatments for youth may be improved by tailoring interventions to distinct subgroups of sexually abused children.

References

Achenbach, T. M. (1991). *The Child Behavior Checklist manual*. Burlington, VT: The University of Vermont.

Asher, S. R., & Wheeler, V. A. (1985). Children's loneliness: A comparison of rejected and neglected peer status. *Journal of Consulting and Clinical Psychology, 53*, 500-505.

Bennett, S. E., Hughes, H. M., & Luke, D. A. (2000). Heterogeneity in patterns of child sexual abuse, family functioning, and long-term adjustment. *Journal of Interpersonal Violence, 15,* 134-157.

Coopersmith, S. (1981). *Self-esteem inventories*. Palo Alto, CA: Consulting Psychologists Press.

Follette, W. C., Naugle, A. E., & Follette, V. M. (1997). MMPI-2 profiles of adult women with child sexual abuse histories: Cluster-analytic findings. *Journal of Consulting and Clinical Psychology, 65*, 858-866.

Friedrich, W. N. (1998). Behavioral manifestations of child sexual abuse. *Child Abuse & Neglect, 22,* 523-531.

Friedrich, W. N., Fisher, J. L., Dittner, C. A., Acton, R., Berliner, L., Butler, J., Damon, L., Davies, W. H., Gray, A., & Wright, J. (2001). Child Sexual Behavior Inventory: Normative, psychiatric, and sexual abuse comparisons. *Child Maltreatment, 6*, 37-49.

Hecht, D. B., & Hansen, D. J. (1999). Adolescent victims and intergenerational issues in sexual abuse. In V. B. Van Hasselt & M. Hersen (Eds.), *Handbook of psychological treatment with violent offenders: Contemporary strategies and issues* (pp. 303-328). New York: Kluwer Academic/Plenum Publishers.

Kendall-Tackett, K. A., Williams, L. M., & Finkelhor, D. (1993). Impact of sexual abuse on children: A review and synthesis of recent empirical studies. *Psychological Bulletin, 113*, 164-180.

Kovacs, M. (1992). *Children's Depression Inventory*. Toronto, Canada: Multi-Health Systems.

Paolucci, E. O., Genuis, M. L., & Violato, C. (2001). A meta-analysis of the published research on the effects of child sexual abuse. *The Journal of Psychology, 135*, 17-36.

Reynolds, C. R., & Richmond, B. O. (1985). *Revised Children's Manifest Anxiety Scale manual.* Los Angeles: Western Psychological Services.

Sedlar, G. (2001). Heterogeneous clinical presentation of sexually abused youth presenting for treatment: An initial examination of clinical subtypes and correlates of adjustment. Unpublished doctoral dissertation. University of Nebraska, Lincoln.

Wolfe, V. V., Gentile, C., Michienzi, T., Sas, L., & Wolfe, D. A. (1991). The Children's Impact of Traumatic Events Scale: A measure of post-sexual abuse PTSD symptoms. *Behavioral Assessment, 13,* 359-383.

Wolfe, V. V., & Wolfe, D. A. (1986). *The Sexual Abuse Fear Evaluation (SAFE): A subscale for the Fear Survey Schedule for Children-Revised*. Unpublished questionnaire. Children's Hospital of Western Ontario, London, Ontario.

Figure 1. Clinical profiles (based on Z-scores) of adjustment and functioning for four clusters

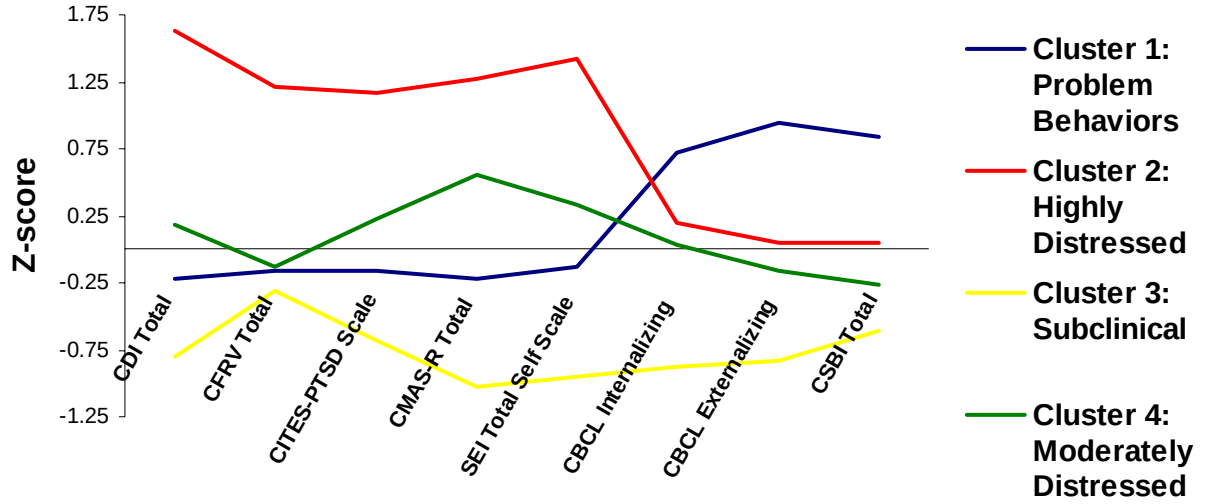

Table 1.
Between-Group Differences Means and Standard Deviations for Measures of Adjustment Across Four Clusters

	Cluster 1 Problem Behaviors (n = 32)		Cluster 2 Highly Distressed (n = 16)		Cluster 3 Subclinical (n = 31)		Cluster 4 Moderately Distressed (n = 33)		F*
Measure	M	SD	M	SD	M	SD	M	SD	
CDI Total	50.78_a	9.87	75.19_b	9.88	43.48_c	5.07	55.91_d	9.07	50.43
CFRV Total	50.22_a	9.12	64.75_b	5.25	48.61_a	9.08	50.52_a	10.90	12.16
PTSD Scale – CITES-R	24.59_a	9.69	38.25_b	6.25	19.32_c	9.59	28.67_a	6.71	19.07
CMAS-R Total	49.47_a	8.18	69.69_b	11.44	38.55_c	8.72	60.00_d	6.28	61.31
SEI Total Self Scale[1]	66.19_a	12.23	35.88_b	12.17	82.26_c	11.90	57.00_d	13.97	51.36
CBCL Internalizing Scale	70.16_a	8.51	64.19_b	12.63	52.03_c	8.44	62.45_b	8.19	21.35
CBCL Externalizing Scale	73.13_a	8.31	61.63_b	11.70	50.19_c	10.45	58.94_b	8.73	30.79
CSBI Total	15.60_a	12.43	8.00_b	9.76	2.54_c	4.13	$5.12_{b,c}$	4.19	15.02

* df = 3, 108; $p > .001$
[1] Higher scores on this measure indicates better functioning. For all other scales, higher scores suggest poorer functioning.
Note. Means with dissimilar subscripts differ significantly at $p < .05$.

Table 2.
Prevalence (%) and Means of Demographic and Abuse History Characteristics Among Four Cluster Profiles.

	Cluster 1 Problem Behaviors	Cluster 2 Highly Distressed	Cluster 3 Subclinical	Cluster 4 Moderately Distressed	F (3, 108)	*p*-value
Child Age	11.64	12.56	10.93	11.31	1.30	.279
Age of abuse onset	8.37	9.73	9.12	8.47	.896	.446
					$\chi^{2\,(3)}$	*p*-value
Child Gender						
Female	25.0%	12.5%	19.4%	18.2%	1.15	.766
Male	75.0%	87.5%	80.6%	81.8%		
Relationship to Perpetrator						
Intrafamilial	46.9%	53.3%	20.0%	33.3%	7.00	.072
Extrafamilial	53.1%	46.7%	80.0%	66.7%		
Severity						
No Penetration	34.4%	43.8%	38.7%	48.5%	4.99	.173
Penetration	65.6%	56.2%	61.3%	51.5%		
Duration						
1 time	52.0%	53.8%	50.0%	33.3%	2.76	.430
More than once	48.0%	46.2%	50.0%	66.7%		