

The Relationship of Sexual Abuse to Symptom Levels in Emotionally Disturbed Girls

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ABSTRACT: This research study examined symptom levels and sexual abuse status of emotionally disturbed girls in residential treatment. Sexually abused girls had poorer self esteem, higher levels of anxiety, and a trend toward more depression than the nonabused girls on self-report measures. Measures completed by the residents' therapists also found sexually abused girls as being more symptomatic in a number of areas.

The human service and mental health professions have begun to recognize sexual abuse as a relatively common problem in the populations they serve (Briere & Zaidi, 1989; Finkelhor, Hotaling, Lewis, Smith, 1990; Sansonnett-Hayden, Haley, Marriage & Fine, 1987; Stiffman, 1989). This awareness has led to a corresponding interest in understanding the effects of this phenomenon in clinical populations of children and adolescents. In recent years, researchers have begun to examine whether or not the experience of sexual abuse results in unique or more serious symptoms and problems in children and adolescents seeking treatment.

Research studies which compare symptom levels in adults abused as children to non abused adults in the general population have found higher rates of depression, anxiety, and lower self esteem in those who were sexually abused (Beitchman, Zucker, Hood, DaCosta, Akman, & Cassavia, 1992) Research on children has been much more

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equivocal with some studies finding higher rates of those problems in sexually abused children than "normal" populations, and others finding no difference between the two groups (Mennen & Meadow, in press).

Much less attention has been given to evaluating the impact of sexual abuse and symptom levels in child and adolescent clinical populations. A number of researchers have employed non standardized behavioral problem checklists and chart reviews of symptoms to determine if differences exist. These studies have linked sexual abuse to more depressive symptoms (Goldston, Turnquist, & Knutson, 1989; Livingston, 1986; Sansonnet-Hayden, et al, 1986) and psychological withdrawal (Gale, Thompson, Moran & Sack, 1988; Kolko, Moser, & Weldy, 1988). One of the most consistent findings is the tendency of sexually abused children to have higher rates of inappropriate sexual behaviors (Gale et al, 1988; Goldston et al, 1989; Kolko et al, 1988; Sansonnet-Hayden et al, 1986). While a number of researchers found that differences existed between the abused and non-abused children in treatment, these differences were minor (Gale et al, 1988; Goldston et al, 1989; Kolko et al, 1988).

The small number of studies which have employed standardized measures have somewhat contradictory findings. Using a parental report measure, Friedrich, Beilke, & Urquiza (1987) found that sexually abused children could be discriminated from other outpatient populations only by their lower levels of externalizing behaviors and more frequent sex problems. Similarly, another study (Hart, Mader, Griffith, and deMendonca, 1989) found that a socialized aggression measure was the only dimension on which the sexually abused children had higher scores. In looking at self-esteem, Hotte and Rafman (1992) found sexually abused children had lower self esteem scores on two different measures than non abused girls from similarly dysfunctional families. Stovall and Craig (1990), using a third self-esteem measure, found no differences by sexual abuse status.

Drawing conclusions about differences between clinical samples of sexually abused and non sexually abused children from these studies is problematic. Few investigations employed standardized measures. When standardized measures were used, some studies did not discriminate between physically and sexually abused subjects (Cavaiola & Schiff, 1989). Clearly, the research literature does not present distinct dimensions on which to discriminate clinical populations of sexually abused and non-abused youngsters.

The Study

This study was designed to evaluate whether a history of sexual abuse would differentiate symptom levels in a sample of emotionally disturbed adolescent girls. In order to help clarify some of the confusion arising from previous studies, both multiple measures and multiple informants were used.

Method

The sample was obtained from a residential treatment center serving emotionally disturbed girls with a wide variety of problems. Residents come to the facility on referral from both the foster care and juvenile court systems, and most have a number of previous placements before their admission (study subjects previous placements $X = 3.68$, $s.d. = 3.14$). The facility serves pre-adolescent and adolescent girls, among whom are pregnant teens and teenage mothers with their babies.

Before beginning data collection, the researchers met with the residents in their living groups to discuss the project, the girls' participation, confidentiality, and to answer any question. Participation was voluntary. The instruments were administered in small groups on two subsequent occasions. The researchers were blind to sexual abuse status. The girls' therapists completed the Impact Checklist-Social Worker (Conte & Schuerman, 1987), indicated the sexual abuse history of the girl, and supplied some history. Demographic information was obtained from the case file.

Measures

The measures utilized were chosen because of their ability to evaluate symptoms frequently present in sexual abuse. Each had established reliability and validity.

Children's Depression Inventory (CDI). This depression measure, designed for children and adolescents, has 27 items which can be scored from 0 to 2 resulting in a possible score of 54 with higher scores reflecting higher levels of depression (Kovacs, 1983). Standardization samples had an average score of 9 (Smucker, Craighead, Craighead, & Green, 1986). In two samples of children hospitalized with a diagnosis of major depression, mean scores were 15 (Kazdin, French, Unis, and Esveldt-Dawson, 1983) and 14 (Kovacs, 1983).

The Revised Children's Manifest Anxiety Scale (RCMAS). This anxiety measure for ages 6-19 consists of 37 items which can be answered yes or no. It results in a Total Anxiety Scale, three subdimensions of anxiety, Physiological Anxiety, Oversensitivity, Social Concerns, and a Lie Scale which measure the tendency to report "ideal" behavior. Standardized scores have been developed to allow comparisons across age, gender, and race. The Total Anxiety Score has a mean of 50 and a standard deviation of 10. Subscales have a mean of 10 and a standard deviation of 3. Higher scores reflect higher levels of anxiety (Reynolds & Richmond, 1985).

Self Perception Profile for Children (SPPC). This 36 item scale can be used with both children and adolescents. It includes six specific domains of self concept: Scholastic Competence, Athletic Competence, Physical Appearance, Behavioral Conduct, Social Acceptance, and Global Self Worth. Scores on each domain can range from 1 to 4 with higher scores reflecting better self-concept. Means in standardization samples averaged about 3.0 (Harter, 1985).

Impact Checklist-Social Worker. This checklist was developed for professional evaluation of the presence and frequency of symptoms in sexually abused children and adolescents. It contains 38 items representing common symptoms. Each item is scored according to frequency from 1 (never) to 5 (very often). Ten symptom clusters are generated: Post Traumatic Symptoms, Relationship Problems, Drug/Alcohol Abuse, School Problems, Psychosomatic Problems (which include dissociation, hearing voices, ritualistic behaviors, self-mutilation, as well as somatic complaints), Mood/Affect, Acting Out/Conduct Disturbance, Self-Concept, Sexual Problems, and Eating Problems. Symptom cluster scores are developed by averaging the individual items in each cluster and can range from 1 to 5 with higher scores reflecting more frequent symptoms (Conte & Schuerman, 1987).

Demographic Information Form. Information about the resident's history was completed by the therapist and gathered by the researchers from her record. Each girl could be categorized as sexually abused, not sexually abused, or as suspected sexual abuse. The latter category was developed to account for those children whose symptoms suggested the possibility of abuse, but who had not revealed an abuse history during treatment. Information about the sexual abuse included the kind of abuse, relationship of the perpetrator, frequency of occurrence, and presence of force.

Results

Fifty four girls participated in the project. It was a racially mixed group including White (N=19), African-American (N=20), Latino (N=11) and Asian-American (N=4). Of the sample 31 were sexually abused, 21 were not sexually abused, and 1 was categorized as suspected; this case was eliminated from further analysis.

The sexually abused and non sexually abused girls did not differ significantly in age ($X = 15.63$ years, $s.d. = 1.40$), time in this placement ($X = 5.21$ months, $s.d. = 4.47$), number of previous placements ($X = 3.68$, $s.d. = 2.14$), number of pregnancies ($X = .67$, $s.d. = .08$) or racial composition ($X^2 = 5.27$, $p = .153$). The sexually abused girls were however, significantly more likely to have a history of substance abuse ($X^2 = 3.98$, $p = .046$) See Table 1).

The sexually abused girls were all abused by a male perpetrator; 90.3% of the perpetrators were known to the victims, and 71% were

TABLE 1
Demographic Information

	Sample X	Sexually Abused X	Non Abused X	t	p value
Age	15.63	15.77	15.60	0.49	0.62
Time in Placement (months)	5.21	4.32	6.39	-1.43	0.16
Number of Previous Placements	3.68	3.87	3.24	0.71	0.48
Number of Pregnancies	0.67	0.55	0.77	-1.37	0.18
Substance Abuse History (number of residents)	20	15	5	3.98 ^a	0.05 ^b

^aPearson Chi Square

^bStatistically Significant Results

relatives. They were 7.8 years old (s.d. = 3.2) when the abuse began; it lasted for an average of 4.7 years (s.d. = 3.3); some kind of penetration (vaginal, oral, or anal) occurred in 76.2% of the cases; and force was used with 50.0% of the girls.

Symptom Measures

Symptom scores of the sexually and non sexually abused girls were compared using parametric t-tests for normally distributed variables and Wilcoxon non-parametric tests for non normally distributed variables. Sexually abused girls scored significantly differently in the direction of more pathology on a number of measures (See Table 2). On the CDI, there was a trend for sexually abused children to score higher ($p=0.087$). The sexually abused girls had significantly higher levels of anxiety on Total Anxiety ($p=0.0037$) and the subdomains of Physiological Anxiety ($p=.0182$) and Social Concerns ($p=0.0105$). They were not significantly different on the dimension of Oversensitivity or the Lie Scale.

Sexually abused girls scored lower (poorer self concept) on all aspects of the Self-Perception Profile for Children, however the level reached significance only on the Global Self Worth domain ($p=0.0518$).

On the Impact Checklist-Social Worker, the girls' therapists evaluated the sexually abused girls as having more frequent problems in relation to Post Traumatic Symptoms ($p=0.0042$), Relationship Problems ($p=0.0119$), Psychosomatic Problems ($p=.0174$), Mood/Affect ($p=.0174$), Sexual Problems ($p=0.0265$) and there was a trend toward more problems with Self Concept ($p=0.0702$). School problems was the only area in which the sexually abused girls were seen as having fewer symptoms, although this was not at a significant level.

Discussion

The sexually abused girls in this sample showed higher symptom levels in all but two of the measures, school problems and the Lie scale of the RCMAS. The levels reached statistical significance on three dimensions of RCMAS, on Global Self Worth, and on five of the ten dimensions on the Impact Checklist. It is probable that with a larger sample size, the differences on the CDI and the Self-Concept cluster of the Impact Checklist would have reached statistical significance. These sexually abused girls seem to be more symptomatic than their non-abused peers.

TABLE 2
Symptom Measures

	Sexually Abused X	Non Abused X	t	p value
CDI	16.612	12.727	1.74	0.087
Revised Children's Manifest Anxiety Scale				
Total Anxiety	59.226	50.667	3.04	0.004 ^b
Physiological Anxiety	12.645	10.429	451.00 ^a	0.018 ^b
Oversensitivity	11.355	10.286	1.33	0.190
Social Concerns	11.710	9.000	462.00 ^a	0.010 ^b
Lie	10.355	11.143	264.00 ^a	0.246
Self Perception Profile for Children				
Global Self Worth	2.653	3.096	221.50 ^a	0.052 ^b
Scholastic Competence	2.864	2.999	310.00 ^a	0.772
Athletic Competence	2.381	2.604	-1.05	0.298
Physical Appearance	2.271	2.605	-1.44	0.156
Behavioral Conduct	2.658	2.725	-0.32	0.747
Social Acceptance	2.738	3.013	246.00 ^a	0.137
Impact Checklist—Social Worker				
Post Traumatic Symptoms	2.94	2.32	3.00	0.004 ^b
Relationship Problems	3.10	2.78	2.61	0.012 ^b
Drug/Alcohol Problems	2.81	2.44	1.23 ^a	0.268
School Problems	2.52	2.71	1.05 ^a	0.304
Psychosomatic Problems	2.05	1.67	5.66 ^a	0.017 ^b
Mood/Affect	3.23	2.75	2.64	0.017 ^b
Acting Out/Conduct Disturbance	2.46	2.20	0.80 ^a	0.318
Self-Concept	3.81	3.27	3.28 ^a	0.070
Sexual Problems	1.91	1.42	4.93 ^a	0.026 ^b
Eating Problems	2.07	1.77	1.50	0.142

^aWilcoxon Non Parametric test for Non normally Distributed Data

^bStatistically Significant Results

Of additional interest is the level of agreement between the girls self-evaluation and their therapist's evaluation. The sexually abused girls score higher on Total Anxiety and Physiological Anxiety which corresponds to the kinds of symptoms captured in the dimensions of Post Traumatic Problems and Psychosomatic Problems on the Impact

Checklist. The sexually abused girls report lower levels of Global Self Worth; the therapists see them as having more problems with Self-Concept. Social concerns, higher in sexually abused girls, corresponds to the therapist's evaluation that these girls had more Relationship Problems. Although the higher level of depression as measure by the CDI does not reach statistical significance, it concurs with the therapist's evaluation that sexually abused girls have more problems with Mood/Affect.

In contrast, sexually abused girls do not report more problems in the area of Scholastic Competence or Behavioral conduct; similarly their therapists agree that they do not have more school problems or higher levels of Acting Out/Conduct Disturbance. This agreement is noteworthy since it has been found that multiple measures and multiple informants often yield different results (Lambert, Shapiro, Bergin, 1986). The girls and their therapists concur in the presence of symptoms and their relative severity.

Clearly, in this sample, the sexually abused girls seem more distressed than their nonabused peers. Since there are few differences in demographic characteristics between the two groups, it may be the experience of sexual abuse which results in higher levels of the measured symptoms. The fact that this study found the sexually abused girls to be more symptomatic on a number of dimensions while previous studies have found only minor differences between sexually abused and non abused samples may result from this study's ability to accurately discriminate between subjects on sexual abuse status. These subjects had been in placement for some time working with therapists trained to recognize issues of sexual abuse. Because these therapists categorized abuse status, the likelihood of correct categorization is enhanced. Previous research has found that in clinical populations, children who have been categorized as non abused are found on closer examination to be sexually abused or to have symptoms which suggest sexual abuse. This brings into question whether the comparison groups of some studies are actually a group of nonabused children (Dempster & Roberts, 1991).

The use of multiple measures and multiple informants resulted in a more thorough evaluation of symptoms, and may have resulted in a better ability to capture differences. This study confirms the results of studies that have found higher rates of substance abuse in sexually abused clinical populations (Singer, Petchers, Hussey, 1989; Van Hasselt, Ammerman, Glancy, Bukstein, 1992).

The high level of symptoms in these sexually abused clients is clinically relevant. Their mean level of depression is above that reported

in children and adolescents suffering from major depression (Kazdin et al, 1983; Kovacs, 1983). Their mean anxiety score is nearly one standard deviation above the mean, the level considered relevant for clinical evaluation (Richmond & Reynolds, 1985).

There are a number of factors which may limit the generalizability of these findings. The small sample size may obscure some relevant findings. It is possible that factors other than sexual abuse, such as parental socioeconomic status, or family dynamics, are responsible for the differences between the groups. Furthermore, the study setting, a residential treatment facility differs from other clinical settings such as inpatient psychiatric facilities or outpatient mental health settings, thus limiting the generalizability of the findings.

Future research should focus on larger samples from a variety of clinical settings in order to further clarify the discrepancies between this study and previous research. A larger sample size would increase the power to allow for more complex analyses of data, including effects of specific variables such as use of force, nature of the abuse, relationship to the perpetrator, and interactions of these variables. Additionally, information about socioeconomic status, family dynamics, and other possibly relevant variables could be evaluated to more clearly explain the factors contributing to severity of symptoms.

Conclusion

This study highlights the impact of sexual abuse on one particular population, girls in residential treatment. Children coming into residential care have a multitude of psychological, behavioral, and family problems. It is important that the complexity of these problems not obscure the unique devastation that sexual abuse can bring. These higher symptom levels in sexually abused girls highlight the need for specialized programs to address the particular treatment issues faced by children recovering from sexual abuse.

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