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Variants of intrafamilial sexual abuse experience: Implications for short- and long-term development

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Abstract
This study examines short- and long-term maladaptive outcomes in a sample of sexually abused females and a comparison group. The sample consists of intrafamilial sexual abuse victims ages 6–16 years at entry into the study and a demographically similar comparison group. The outcomes examined included measures of behavior and psychological problems such as aggressive behavior, depression, dissociation, and low self-esteem; and measures at two time points, first at entry into the study (median age 11 years) and approximately 7 years later (median age 18 years). The specific questions being addressed were (a) whether subgroups or profiles, based on the specific characteristics of the sexual abuse experienced, can be identified in this sample of abused females; and (b) whether these profile groups predict different patterns of adverse short- or long-term outcomes.

Research on the developmental impact of different forms of child abuse and neglect has increased rapidly in the last 2 or 3 decades. Throughout this period, this research has been plagued by definitional problems, including issues of a lack of consensus or commonality of definitions used in research and, even more basically, in the explicitness of definitions in publications of this research (Aber & Zigler, 1981; Barnett, Manly, & Cicchetti, 1993; Cicchetti & Rizley, 1981; Haugaard, 2000; National Research Council, 1993). Thus, for example, two studies of physically abused children may have defined physical abuse differently and as a result selected very different samples of physically abused children. Moreover, as is true of many studies, these studies may well have described their samples in publications simply as "physically abused," with no other details provided. This lack of consensus and specificity of definitions may be a major contributor to the inconsistency of research findings which has also been a hallmark of child abuse and neglect research (Ammerman, Cassis, Herson, & Van Hasselt, 1986; Beitchman, Zucker, Hood, daCosta, & Akman, 1991; Trickett & McBride–Chang, 1995).

In some sense this definitional problem has not been as extreme in the field of sexual abuse research as it has been in other areas (especially research on psychological abuse or neglect), because there is a greater consensus on what constitutes sexual abuse. A commonly accepted definition would be sexual activity with a minor child perpetrated by a person significantly older than the child (Trickett & McBride–Chang, 1995). Clearly, however, there is still considerable vagueness to this definition especially in terms of what

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constitutes "sexual activity" and what relationship the perpetrator has to the child. This vagueness has resulted in considerable inconsistency in research in the characteristics of the sexual abuse experienced by samples. For example, some sexual abuse samples include cases in which a child is exposed to pornographic films or forced to watch others engaged in sexual activity, while other samples include only cases in which sexual contact of some form has been experienced. Similarly, although in research on other forms of child abuse cases are usually limited to those in which the perpetrator is a parent or parent figure, in sexual abuse research samples often have cases in which perpetrators include not only parents but also other relatives, or nonfamily members (family friends, neighbors, even strangers). And, all too frequently, in published research neither the nature of the sexual activity nor the relationship of the perpetrator to the victim is specified. Furthermore, there may be no, or scanty, details provided on other important characteristics of the abuse, such as the age of the child at the onset of abuse, the duration or frequency of the abuse, and whether the abuse was accompanied by violence or the victim also experiences other forms of abuse or neglect. This is an important lack because theory would suggest that different characteristics of sexual abuse may be associated with more adverse outcomes. For example, the identity of the perpetrator and his relationship to the victim of sexual abuse is likely to be important for the understanding of the effects of abuse. The role of father, in particular, is to protect and nurture and promote the child's development (e.g., Parke, 1996). Sexual abuse by such a person is an extreme betrayal of that role and relationship (Freyd, 1996), with different implications for the victim's development than abuse perpetrated by someone who has no such role or relationship with the child (e.g., a distant relative or family friend). It is impossible to know, just from a label, whether a stepfather, or for that matter another relative, has taken the role of father to a child. It is also likely that the degree of trauma associated with the abuse is related to the severity of the abuse (as indexed by the type of abuse—e.g., penetration—and the frequency and duration of the abuse) and by the presence of physical violence, pain, and threats (Finkelhor, Hotaling, Lewis, & Smith, 1990; Trickett & Putnam, 1993). Severe, violent abuse may result in particularly high levels of stress with psychobiological consequences (see Trickett & Putnam, 1993).

Some research has been conducted investigating the relationships between certain characteristics of sexual abuse and the impact on development. In an earlier work (Trickett, Reiffman, Horowitz, & Putnam, 1997) we reviewed this research, which examined (a) severity of the abusive act (i.e., penetration), (b) duration or frequency, (c) presence of force or violence, (d) relationship to perpetrator, and (e) age at onset of abuse. This review indicated the following: first of all, although in each of these areas there were studies showing the predicted results, in all cases there were studies not showing that association. The characteristics most consistently associated with more adverse impact are longer duration of the abuse, force or violence accompanying the abuse, and father or father figure as perpetrator. But even for these characteristics there is research that did not support the association with more adverse outcomes.

Second, all these studies focussed on *severity* of impact only rather than *differential* impact. That is, no studies examined whether certain types of abuse are associated with different outcomes as compared with other types of abuse. For example, theory would suggest that early onset of abuse would be associated with higher levels of dissociation than would later onset abuse (Cole & Putnam, 1992).

Third, all of these studies examined only one characteristic of abuse (i.e., identity of perpetrator or penetration) and none examined whether there was a correlation between any of these characteristics (e.g., whether abuse by a father was associated with earlier onset). If such associations exist, it may be difficult to discern which of the characteristics is having the effect. Similarly, no studies examined whether the experience of sexual abuse varies systematically as a function of ethnicity, socioeconomic status (SES), or some other cultural or contextual factors.

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As a result of this review, we examined the interrelationships of abuse characteristics and relationships with demographic characteristics in our sample of female children and adolescents abused by a family member (Trickett et al., 1997). We found that, for this sample, early onset of abuse, abuse severity, and duration of abuse were all positively and significantly intercorrelated. Abuse perpetrated by a biological father was associated with earlier onset and longer duration. Significantly, being abused by an "other father figure" (stepfather or mother's live-in boyfriend) was significantly associated with *later* onset of abuse and *shorter* duration. Being abused by multiple perpetrators was associated with physical violence. Also in these analyses, we found relationships between abuse characteristics and ethnic minority status (minority status was associated with later onset of abuse and shorter duration) and SES (higher SES was associated with earlier onset, abuse severity, longer duration, and perpetrators other than fathers or father figures).

We then examined the relationships of these abuse characteristics to adverse developmental outcomes (Trickett et al., 1997). Because of the interrelationships among the abuse characteristics, we conducted multiple regression analyses to determine which characteristics predicted outcomes when controlling for the others. The predictor variables entered were abuse severity, early onset of abuse, duration of abuse, perpetrator identity (biological father, other father figure, other relative), presence of physical violence, and multiple perpetrators. In contrast to the findings using zero order correlations, when many of the abuse characteristics were associated with some outcome variables the multiple regressions indicated two characteristics to be primary. The first of these was abuse severity, which predicted DSM diagnoses of depression and a Child Behavior Checklist (CBCL) factor measuring bizarre, destructive behavior. The second was being abused by a biological father, which was predictive of a DSM disruptive disorder diagnosis and scores on several CBCL factors indexing acting-out behaviors. Significantly, being abused by an "other father figure" was not predictive of these same outcomes, and in fact the coefficients were in the other (negative) direction and significantly different from the coefficients for "biological father." The particular importance of this is that most other research and theory concerned with the importance of identity of perpetrator tend to view "father" and "father figure" as synonymous. Had we done so in this study (i.e., combined biological fathers and other father figures into one category), we would have washed out our findings because the two predictors were operating in opposite directions.

These complex findings of intercorrelations among abuse characteristics and differential predictiveness to maladaptive outcomes suggested to us the possible usefulness of determining whether, within our sample of girls abused by a family member, meaningful subgroups of participants could be formed and whether these subgroups would show differences in the nature or severity of developmental outcomes. The research questions of the present study are (a) Are there subgroups or profiles, based on the specific characteristics of the abuse experienced, that can be identified in a sample of females sexually abused by a family member? and (b) Do these profile groups predict different patterns of adverse outcomes, such as behavior problems and psychological distress or maladjustment, shortly after the abuse is disclosed or approximately 7 years later?

Methods

Subjects

Subjects are participants in a longitudinal study of the psychobiological impact of child sexual abuse on female development. Abused females were referred by protective service agencies in the greater Washington, DC, metropolitan area. Eligibility criteria for inclusion in the study were (a) the victim was female, age 6–16 years; (b) disclosure of referring abuse occurred within 6 months of participation; (c) sexual abuse involved genital contact or penetration; (d) the perpetrator was a family member, including parent, stepparent, or mother's live-in boyfriend, or other relative

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(e.g., older sibling, uncle, grandparent); and (e) a nonabusing parent or guardian (usually the child's mother) was willing to participate in the project. A group of comparison females recruited via community advertising were similar to the abused subjects in terms of ethnicity, age, predisclosure SES, neighborhood of residence, and family constellation (one- or two-parent families). All families ranged from low to middle SES, with mean Hollingshead (1975) scores of approximately 35 (defined as "blue collar" or working class).

The initial assessment (Time 1) sample consisted of a total of 166 subjects, roughly half of whom met criteria for the abused group, the other half consisting of the comparison group. Two follow-up interviews (Time 2 and Time 3) were conducted at 1-year intervals after the initial assessment, and a third follow-up (Time 4) was conducted 2–3 years subsequent to Time 3 (an average of 7 years after the initial assessment). Finally, a fourth follow-up (Time 5) was conducted approximately 2 years subsequent to Time 4 (on average, 9 years after the initial assessment). Data for the present analysis comes from the initial assessment (Time 1) and the Time 4 follow-up assessment. However, there were 15 subjects who attended the Time 5 assessment but did not attend the Time 4 assessment. In order to maximize the sample size for follow-up analyses, data from Time 5 was utilized for these 15 subjects (abused, 10; comparison, 5; $\chi^2 = 1.36$, *ns*). These 15 subjects did not significantly differ from the Time 4 sample with respect to SES ($M = 30.58$, $SD = 12.58$, compared to $M = 35.96$, $SD = 12.71$, respectively; $p = .31$) or percent minority (31.25% compared to 54.62%, respectively; $p = .27$). However, the average age for these 15 subjects was slightly older than the average age for the Time 4 sample ($M = 21.33$, $SD = 3.09$, compared to $M = 18.17$, $SD = 3.62$, respectively; $p < .05$).

Follow-up data were available for 158 (143 from Time 4 and 15 from Time 5) of the initial 166 subjects, resulting in a retention rate of 95.18%. Twelve subjects who entered the study in the comparison group but later revealed some form of sexual abuse that occurred prior to the initial assessment were dropped from analyses. The present analyses thus are based on 154 subjects from the initial assessment (abused, 78; comparison, 76) and 146 subjects from the follow-up assessment (abused, 76; comparison, 70). Table 1 includes demographic summaries for the sample at the initial assessment (Time 1 data) and at follow-up (chiefly Time 4 data).

Abuse characteristics and development of profile groups

Information about the abuse was obtained with the Caseworker Abuse History Questionnaire (CAHQ); this was designed to record information that led to referral of a case to a protective service agency and then resulted in the classification of abuse. (The CAHQ is included in an appendix in Trickett et al., 1997.) Six principal characteristics of abuse were identified:

1. *Age at onset of abuse*, coded in years.
2. *Duration of abuse*, coded in months.
3. *Primary perpetrator identity*, classified as either primary father; other father figure, including mother's live-in boyfriend; or other relative. The "primary father" category mainly included "biological father," but an adoptive father and two stepfathers, all of whom had been the sole father from infancy, were also included in this category.
4. *Severity of abuse*. This variable was a count of whether or not the abuse included vaginal penetration, anal intercourse, digital penetration; oral sex; masturbation; fondling, sexual kissing. The count ranged from 1 to 6. This severity indicator is referred to as "abuse count."
5. *Multiple perpetrator*. This indicator was recorded as 1 if the child had experienced sexual abuse with a person additional to the one identified as the perpetrator or as 0 if this was not the case. The other person need not be a family member.
6. *Physical violence*. This was a count of 1–3 depending on how many of the following factors operated:

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Table 1. *Sample means (and standard deviations) of demographic variables for Times 1 and 4*

Time 1 Variables	Total (N = 154)	Sexually Abused (n = 78)	Comparison (n = 76)
Age	11.11 (3.02)	11.38 (2.97)	10.85 (3.07)
SES[a]	35.42 (12.52)	35.50 (14.16)	35.35 (10.67)
Percent minority	51.95	49.25	64.48[b]
Time 4 Variables	**Total (N = 146)**	**Sexually Abused (n = 76)**	**Comparison (n = 70)**
Age	18.52 (3.52)	18.86 (3.59)	18.14 (3.41)
SES[a]	35.44 (12.63)	35.87 (14.05)	34.98 (10.95)
Percent minority	52.06	40.79	64.29[b]

Note: Bonferroni correction employed for group contrasts.
[a]SES, socioeconomic status (Hollingshead, 1975).
[b]Different from abused group, $p < .01$.

(a) the abuse was accompanied by physical force or violence;
(b) the abuse was accompanied by threats of violence or threats were made concerning disclosure of abuse;
(c) the child experienced physical abuse separate from that accompanying the sexual abuse, not necessarily from the same perpetrator. Missing data on any of these indicators was coded 0. Thus any nonzero score represents *known* violence, threats, or physical abuse. This composite index had alpha reliability of .80 in the present sample.

A hierarchical cluster analysis was performed in order to determine how the sample might be partitioned into meaningful profile groups based on abuse characteristic measures. Cluster analysis is an exploratory data analytic technique that allows one to group and classify entities based on their similarity on a set of attributes. First, measures of similarity between the subjects were calculated based on Gower's (1971) similarity coefficient, which accommodates dichotomous, ordinal, and interval level variables. Second, the cluster analysis procedure grouped individuals based on their degree of similarity. In determining the distance between the clusters, the average group distance method was employed. Examination of vertical icicle plots indicated support for a three-cluster solution. These will be referred to as profile subgroups.

The Profile 1 subgroup was comprised of girls who had been abused by multiple perpetrators, none of whom were their biological fathers; the abuse was over a relatively short period of time but was likely to have been accompanied by pronounced physical violence. Approximately one third of the perpetrators were nonbiological father figures (stepfathers or mothers' live-in boyfriends) and the remainder were other relatives (see Table 2). Abuse by a single perpetrator who was not the biological father characterized the girls of the Profile 2 subgroup. For this subgroup, the perpetrator was a nonbiological father figure in about half of the cases and an other relative in the other half. Duration of the abuse for this profile was relatively short, and violence was not frequent. The third profile subgroup (3) was characterized by abuse by the primary father (in all but three cases the biological father) over a long period, beginning at a relatively young age. In several cases, the clustering indicated for a particular child that the primary perpetrator was the biological father *and* that there were also multiple perpetrators; these cases were placed in the Profile 3 subgroup. This decision was based on reasoning that abuse by the primary

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Table 2. *Characteristics of sexual abuse for profile groups*

Abuse Characteristics	Profile 1 (n = 24)	Profile 2 (n = 34)	Profile 3 (n = 20)	Total (N = 78)
Age at onset (years)	7.96	8.37	6.67	7.85
Duration (months)	18.76[c]	21.63[c]	44.47[ab]	26.22
Multiple perpetrator (%)	100[bc]	0[ac]	45[ab]	42
Physical violence				
Any violence (%)	58[b]*	44[a]*	50	50
Mean level	1.42	.71	1.20	1.05
Primary perpetrator (%)				
Biological father	0[c]	0[c]	85[ab]	23
Father figure	38	47[c]*	15[b]*	36
Other relative	63[c]	53[c]	0[ab]	41
Severity of Abuse				
Penetration (%)	75	68	68	70
Abuse count (mean)	2.83	2.68	2.89	2.78
Resided with perpetrator (%)	90	76	95	85

Note: Bonferroni correction employed for group contrasts.
[a]Different from Profile 1, $p < .05$.
[b]Different from Profile 2, $p < .05$.
[c]Different from Profile 3, $p < .05$.
*Difference is $p < .10$.

father was the major characteristic of Profile 3 and was likely to represent a kind of betrayal and violation that would produce conditions likely to set this subgroup apart from the others. The multiple perpetrator experiences, of course, could well add to these conditions and produce another category of abuse, but sample size was not sufficient to reliably identify such a separate cluster.

With respect to severity of abuse, age, and SES, the three profile groups do not differ significantly. However, there were proportionately fewer minority group members in Profile 3 (5 of 20, 25%) than in Profile 1 (10 of 24, 42%) or Profile 2 (16 of 34, 47%).

Measures

Behavior problems. Ten measures were obtained from two sets of items to measure behavior problems: (a) five measures at Time 1, based on the Child Behavior Checklist (CBCL/4–18; Achenbach, 1991, 1992), in which the mother checks one of three possible responses for each of 120 items to indicate the extent of a particular problem a child may have (e.g., fears going to school); and (b) five measures at Time 4, based on the Youth Self Report (YSR; Achenbach, 1991), a set of items that parallel those of the CBCL but in which the child herself checks one of three possible responses to indicate extent of a behavior problem. The composite measures proposed for these items in the manuals are overlapping (hence will yield spuriously dependent intercorrelations) and have inadequately low alpha reliabilities (less than .60). To obtain a better basis for measurement, the polychoric intercorrelations among the CBCL items within a sample of 944 maltreated children were factored, and the factors were tested for invariance (Noll, Trickett, Horn, Long, & Putnum, in preparation). In a random one half of the sample, the scree test (Cattell, 1966; Horn & Engstrom, 1979) suggested five factors. These factors were rotated in accordance with the criteria of Promax based on Equamax target to obtain an estimate of oblique simple structure. This five-factor solution was shown to be metrically invariant in the second random one half of the sample and across gender and occasion of assessment (Time1 and Time 2 over a 2-year follow-up of 496 subjects). The factors could be interpreted as indicating (a) delinquent misbehaviors (13 items), (b) immature or bizarre be-

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haviors (38 items), (c) aggressive or bullying behaviors (21 items), (d) expressions of withdrawal and depression (33 items), and (e) expressions of physical problems (13 items). Simple linear composites of the items indicating the factors were obtained to provide the measures. The intercorrelations among these measures in the present sample, their correlations with other variables, and their alpha reliabilities (in italics along the main diagonal) are presented in Table 3.

Psychological maladjustment.

Depression. At Time 1, a self-report measure of depressive symptoms were obtained with the 27-item Child Depression Inventory (CDI; Kovacs, 1981, 1992). Alpha reliabilities for this measure (total scores) have ranged from .71 to .89 in various samples; sensitivity and specificity values of 61% and 57%, respectively, have been reported, and the measure has been shown to correlate at a substantial level with other measures of childhood depression (Kovacs, 1992).

At Time 4, self-report measures of depressive symptoms were obtained via a slightly modified version of the CDI. The CDI, as such, was designed for use with children ages 6–18 years. Approximately half of the Time 4 sample was more than 18 years old. For this sample, the wording of a few items was changed to reflect the somewhat broader range of experiences possible in a sample that included persons both over and under age 18 years. In particular, items that had referred exclusively to school experiences were changed to include school and work experiences.

The alpha reliabilities for these measures of depression in the present sample and their correlations with other variables are shown in Table 3. Scores on either measure can range from 0 to 54. Typically scores greater than 12 are thought to reflect mild depression, while scores of 19 or above have been found to indicate clinically significant levels of depression (Smucker, Craighead, & Craighead, 1986).

Trait anxiety. Self-report measures of trait anxiety were obtained at Times 1 and 4 using the 20-item State-Trait Anxiety Scale (STAIC; Speilberger, 1973). The alpha reliabilities for the trait measures in this study—.87 and .88 (see Table 3)—are comparable to those found in other studies. Scores can range from 1 to 60.

Global perceived competence. These measures were obtained through self-reports using the Self Perception Profile for Children (Harter, 1985) at Time 1 and the Perceived Competence Scale for Adolescents (Harter, 1988) at Time 4. The scale intended for use with children has 36 items; the adolescent scale has 5 items. Both scales have been found to have internal consistency reliabilities in the .80s, as here, where the alphas were found to be .88 and .86 for the child and adolescent scales, respectively. Factorial invariance has been established across several subsamples. Time 1 scores can range from 1 to 144, and Time 4 scores can range from 1 to 20.

Dissociation. Time 1 measures of the mother's perception of dissociative symptoms in her child were obtained with a 20-item version of the Childhood Dissociation Checklist (CDC; Bernstein & Putnam, 1987). At Time 4, this kind of measure was obtained using the self-report data provided by responses to the 30-item Adolescent Dissociative Experiences Scale (ADES; Armstrong, Putnam, Carlson, Libero, & Smith, 1997). These two devices yield information about the extent of dissociative experiences (while not under the influence of alcohol or drugs) such as those of amnesia, perplexing forgetfulness, absorption and enthrallment, depersonalization and derealization, and passive influence phenomena of children and adolescents. Scores for the CDC can range from 0 to 40; scores above 11 indicate dissociative pathology (Putnam, Noll, & Steinberg, 2000). Scores on the ADES can range from 1 to 10 (an average of over 30 items). It can be seen in Table 3 that the reliabilities for these two measures in the present sample were .90 (for the CDC) and .94.

Missing data imputation. Data were imputed at both the first and second order. First-order missing data are those in which a mother or girl did not respond to a particular item of a scale (e.g., in the CBCL or CDI). Second-order missing data are those in which there were no responses for an entire set of items (e.g., if the girl did not take the CDI). For

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Table 3. *Zero-order Pearson correlations for behavior problem and psychological adjustment variables*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. T1 delinquent/misbehavior	*.76*																	
2. T1 immaturity/bizarre	.78*	*.87*																
3. T1 aggressiveness/bullying	.81*	.77*	*.90*															
4. T1 depression/withdrawn	.64*	.79*	.75*	*.88*														
5. T1 physical problems	.49*	.48*	.48*	.57*	*.69*													
6. T1 Child Depression Inventory	.23*	.19*	.17*	.13	.05	*.86*												
7. T1 trait anxiety	.21*	.26*	.20*	.25*	.13	.39*	*.87*											
8. T1 global perceived competence	−.23*	−.24*	−.18*	−.27*	−.08	−.41*	−.33*	*.88*										
9. T1 child dissociation checklist	.61*	.76*	.65*	.64*	.36*	.11	.19*	−.15	*.90*									
10. T4 delinquent/misbehavior	.25*	.13	.24*	.07*	.03	.20*	.20*	−.13	.19*	*.68*								
11. T4 immaturity/bizarre	.19*	.30*	.26*	.21*	.05*	.16	.26*	−.23*	.17*	.51*	*.83*							
12. T4 aggressiveness/bullying	.25*	.31*	.33*	.23*	.06	.15	.05	−.15	.12	.63*	.70*	*.86*						
13. T4 depression/withdrawn	.17*	.19*	.26*	.20*	.20*	.11	.23*	−.16	.22*	.51*	.64*	.64*	*.88*					
14. T4 physical problems	.17*	.23*	.25*	.16	.14	.02	.06	−.13	.19*	.36*	.62*	.52*	.54*	*.71*				
15. T4 Child Depression Inventory	.18*	.16	.22*	.09	.10	.21*	.15	−.23*	.09	.30*	.19*	.35*	.55	.26*	*.79*			
16. T4 trait anxiety	.11	.13	.20*	.16	.19*	.19*	.32*	−.18*	.10	.31*	.37*	.44*	.68*	.28*	.58*	*.88*		
17. T4 global perceived competence	−.19*	−.13	−.16	−.06	−.05	−.31*	−.18*	.18*	−.12	−.34*	−.19*	−.34*	−.56*	−.19*	−.56*	−.59*	*.86*	
18. T4 adolescent dissociative experiences scale	.30*	.32*	.32*	.15	.05	.22*	.22*	−.17*	.10*	.49*	.43*	.48*	.39*	.33*	.36*	.46*	−.45*	.94
Profile 1 ($n = 24$)	.16	.22	.14	.14	.05	.02	.00	.08	.28*	−.09	−.06	−.02	−.02	.08	.04	−.02	−.09	.09
Profile 2 ($n = 34$)	−.07	.06	.03	.07	.02	.02	−.04	−.03	.01	.09	.08	.07	.13	.02	.05	.03	.08	.11
Profile 3 ($n = 20$)	.38*	.29*	.29*	.34*	.20*	.28*	.17	.22*	.21*	.06	.14	.18*	.11	.08	.02	.06	.05	.02
Comparison group	−.28*	−.39*	−.31*	−.36	−.18*	−.21*	−.08	−.18*	−.34*	−.05	−.11	.16	−.16	−.13	−.08	−.05	−.03	−.16
Age at T1	−.06	−.19*	−.08	−.04	.11	−.07	−.05	.03	−.23*	−.18*	−.22	−.20*	−.03	−.23*	.01	−.07	.08	−.25*
SES	−.10	−.15	−.12	−.05	−.19*	.03	.01	−.01	−.10	−.01	.03	−.01	−.14	−.22*	−.20*	−.17*	.24*	−.01
Minority status	−.13	−.20*	−.16	−.23*	.03	−.02	−.09	.13	−.17*	−.06	−.18*	−.16	−.01	−.01	−.11	.03	.02	−.01

Note: T1, Time 1; T4, Time 4; SES, socioeconomic status; minority status, 1 if African American, 0 if not minority; Profile 1 subgroup, 1 if in this group, 0 otherwise; Profile 2 subgroup, 1 if in this group, 0 otherwise; Profile 3 subgroup, 1 if in this group, 0 otherwise; Comparison group, 1 if in this group, 0 otherwise.
*Correlation significant at $p < .05$.

both forms of missing data, the Estimation-Maximization (EM) algorithm (Dempster, Laird, & Rubin, 1977; Orchard & Woodbury, 1972), as embodied in Schafer's (1999) NORM program, was used to replace the missing information with a "best guess." These procedures use information (that is related to the missing information) in multiple imputations that converge over iterations to a minimum-error estimation of the missing information.

There were few missing item responses. For no item within any of the scales did missing item responses exceed 2%. Item responses were estimated (first-order imputation) for all of the scales.

The first 20 subjects did not receive the CDI and CDC at the first assessment. These missing Time 1 scores were imputed using the Time 2 and Time 3 scores. Time 1 missingness (a dummy variable coded 1 if missing, 0 otherwise) did not correlate at a significant level with any of the variables. On this basis it could reasonably be assumed that a missing-at-random assumption was not seriously violated (Rubin, 1987).

Results

Demographics of the sample at Time 1 and Time 4

Table 1 provides means and standard deviations for age, SES, and percentage minority within the abused and comparison samples, as well as in the total sample. There it can be seen that the girls were approximately 11 years old at Time 1 and 18.5 years old at Time 4. The small differences in age and SES between the abused and comparison samples were not significant at the .05 level. The difference in percentage minority, however, is significant at this level: there were 11 more African American girls in the comparison group than in the abused group.

The intercorrelations among the variables, including the profile subgroups and the demographic variables are provided in Table 3. These correlations summarize a fair amount of information.

It should be noted, first, that the measures obtained from the CBCL, particularly those based on the mothers' ratings at Time 1, are highly intercorrelated. The correlations are not quite as high as the variable reliabilities. Therefore, there is some independence of measurement in the separate measures, but in some cases the degree of independence is very small. The measures are operationally independent—the high correlations are not due to item-overlap dependence. Rather, the high correlations indicate that people—the mothers of this sample, for example—do not make the fine distinctions in behavior that they are asked to make in the items of the CBCL. They may fail to make these distinctions either because they are unable to perceive them when the distinctions are there or because the distinctions simply do not exist in the sample at hand. For example, mothers of this sample do not finely distinguish between delinquent misbehavior and aggressive bullying, even though in the larger sample on which these two scales were based, in which boys as well as girls were involved, these two kinds of behaviors were distinguished and thus did define separate factors.[1] But in the present sample the girls who are (perceived as) aggressive–bullying are essentially the same girls who are (perceived as) delinquent–misbehaving—or perhaps it is better to view the behaviors from the opposite poles and say that the girls who aren't aggressive–bullying also aren't delinquent–misbehaving. In either case the results of Table 3 indicate that there is very little measurement distinction between the two variables. This is true to a somewhat lesser extent for all of the factors measured with the mother ratings of the CBCL.

For these same factors measured through the self-reports of the girls, the intercorrelations are high but not as remarkably similar to the variable reliabilities as is the case for the CBCL mother ratings. The self-report factors thus provide somewhat more independent measurement than is provided by the CBCL mother ratings.

The self-report measures of the same fac-

1. The percent unique variance (PUV) indicated by the correlation of delinquent misbehavior and aggressive bullying and the variable reliabilities is near 0 (Horn, Wanberg, & Foster, 1990).

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tors as are assessed with the CBCL mother ratings are in each case positively correlated—.25, .30, .33, .20, 14, respectively, for delinquent–misbehaving, immature–bizarre, depression/withdrawal, aggressive/bullying, and physical problems—but in each case, too, the self-report factor correlates as highly or more highly with a different mother-rating factor as it correlates with the factor of the same name: for example, the aggressive–bullying factor measured in self-reports correlates .31 with the immature–bizarre factor measured with mother ratings. These results thus suggest that the distinctions seemingly drawn in one form of measurement (mother ratings) at one time (when the girls are younger) do not parallel the distinctions seemingly drawn in another form of measurement (the girls' self-ratings) at another time (when the girls are older). Perhaps, what is recorded reliably by both sets of raters at both ages are individual differences in good, or socially desirable, behavior, on one end of the scale, and undesirable behavior, at the other end of the scale. These features of lack of discrimination need to be kept in mind as results are examined and interpreted in terms of distinctions between different patterns of child sexual abuse.

Table 3 provides the *N*s for each profile subgroup as well as the correlation for each variable of the table, with a dummy variable identifying each profile subgroup, as well as the control group, as distinct from all other groups (scored 1 if in the subgroup, 0 otherwise). These correlations indicate that Profile 3 subgroup accounts for the major distinction between the abuse group and the comparison group. In seven out of eight cases in which there is a significant negative correlation indicating a difference between the comparison group and the abused group, there is a comparable (positive) correlation indicting that the Profile 3 subgroup differs from the other groups (including the comparison group). This is true for two out of the eight cases for the Profile 1 subgroup but in no instance for the Profile 2 subgroup. Thus, at a basic level these results indicate that the girls of the Profile 3 subgroup are most seriously affected by the abuse, insofar as this is recorded in the measures of dissociation, depression, immaturity, delinquency, aggressiveness, and physical symptoms of this study.

It is noteworthy that these results show up primarily and most strongly in the mother ratings obtained at Time 1. Only the CBCL self-rating measures of aggression and depression at Time 4 indicate significant differences between the abused and comparison girls, and these distinctions are at a notably lower level than those obtained with mother ratings at Time 1.

In Table 3 it can be seen that the demographic characteristics of age, SES, and minority status correlate with a few of the outcome variables. In subsequent analyses these effects are controlled by linear partialling.

Time 1 analyses

Table 4 displays group mean differences as tested via the PROC GLM procedures with SAS 6.12. Post hoc comparisons were performed if a significant main effect for profile (a four-level grouping variable with three levels of abuse profile groups and the comparison group) emerged. Bonferroni alpha corrections were performed on each set of post hoc comparisons. A main effect for profile was found for the delinquency–misbehavior variable, F (3, 153) = 9.71, p = .0001. Post hoc comparisons revealed that Profile 1 and Profile 3 displayed significantly higher means scores on this factor than did the comparison group. The Profile 3 mean was also significantly higher than the mean for Profile 2. (This same information for all Time 1 outcome variables—in standard score form—is illustrated in Figure 1.)

A main effect for profile was found when testing the Time 1 immaturity/bizarre behavior factor, F (3, 153) = 12.85, p = .0001. Post hoc results showed that all three profile groups displayed significantly higher means scores on this factor than did the comparison group. In addition, Profile 3 scored significantly higher than Profile 2. A main effect for profile was also found when the Time 1 aggressiveness–bullying factor was examined, F (3, 153) = 7.16, p = .0002. Post hoc comparisons revealed that all three profile groups

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Table 4. *Abuse profile groups and comparison group adjusted raw score means* (*and standard deviations*) *for Time 1 variables*

Variable	Profile 1	Profile 2	Profile 3	Comparison	R^2
T1 delinquent misbehaving	4.67 (4.54)^{b*cd}	3.03 (2.07)^{a*c}	7.23 (4.77)^{abd}	2.43 (2.47)^{ac}	.22
T1 immaturity/ bizarre behavior	14.83 (14.90)^{d}	11.57 (5.60)^{cd}	18.34 (11.45)^{bd}	6.16 (5.86)^{abc}	.28
T1 aggressiveness/ bullying	11.34 (9.21)^{c*d}	9.62 (5.25)^{cd}	15.18 (10.22)^{a*bd}	6.39 (5.38)^{abc}	.19
T1 depression/ withdrawn	15.22 (11.20)^{cd}	13.44 (7.84)^{cd}	20.67 (9.57)^{abd}	8.40 (6.78)^{abc}	.25
T1 physical problems	4.17 (3.69)	4.17 (2.76)	5.56 (4.09)^{d}	3.10 (2.82)^{c}	.12
T1 CDI	10.39 (8.82)^{c}	10.26 (6.69)^{c}	15.85 (7.66)^{abd}	8.13 (5.58)^{c}	.12
T1 trait anxiety	34.54 (7.47)	34.27 (7.52)^{c*}	38.18 (8.48)^{b*d}	33.99 (7.28)^{c}	.04
T1 global perceived competence	102.59 (17.47)	107.78 (18.08)^{c}	96.24 (13.83)^{bd}	108.49 (17.00)^{c}	.07
T1 CDC	7.92 (7.18)^{bd}	4.71 (4.33)^{acd}	7.77 (6.86)^{bd}	2.35 (2.52)^{abc}	.26

Note: Adjustments made for age, socioeconomic status, and minority status. CDI, Child Depression Inventory; CDC, Child Dissociation Checklist.
[a]Different from Profile 1, $p < .05$.
[b]Different from Profile 2, $p < .05$.
[c]Different from Profile 3, $p < .05$.
[d]Different from comparison group, $p < .05$.
*Difference is $p < .10$.

scored significantly higher than the comparison group on this factor and that Profile 3 scored slightly higher than Profile 1 (trend $p < .10$) and significantly higher than Profile 2. A main effect for profile emerged when the depression–withdrawn factor was examined, F (3, 153) = 10.20, p = .0001. In post hoc comparisons, all three profile groups scored significantly higher than the comparison group on this factor and Profile 3 also scored significantly higher than Profile 1 and Profile 2. There was a main effect for profile when the physical problems factor was tested, F (3, 153) = 3.10, p = .02, and post hoc comparisons revealed that the Profile 3 scored significantly higher than the comparison group.

A main effect for profile was found for Time 1 CDI scores, F (3, 153) = 5.87, p = .0008, and post hoc comparisons revealed that the Profile 3 group scored significantly higher on this scale than did all other groups. A main effect for profile was found when examining trait anxiety scores, F (3, 153) = 3.45, p = .03. Profile 3 subjects endorsed significantly more trait anxiety symptoms than did the comparison group and slightly more symptoms than the Profile 2 subjects (trend, $p < .10$). A main effect for profile was found when examining low global competence scores, F (3, 153) = 3.13, p = .02. Profile 3 subjects displayed significantly higher low global competence scores than both the comparison group and the Profile 2 subjects. A main effect for profile was found when examining scores on the CDC, F (3, 153) = 12.51, p = .0001. Post hoc tests revealed that all three profile groups display significantly more dissociative symptoms than the comparison group at Time 1 and that Profile 1 and Profile 3 subjects display significantly more symptoms than the Profile 2 subjects.

In sum, at Time 1 Profile 1 subjects differ from the comparison group on five of the nine outcome variables—four of the five CBCL factors and the CDC. Profile 2 differs from the comparison group on 4 of the outcome variables—three CBCL factors and dissociation. Profile 3 differs from the comparison group on all nine outcome variables and also has scores that are elevated relative to Profile 1 or Profile 2 on eight of the nine outcome variables. In short, all three abuse profile

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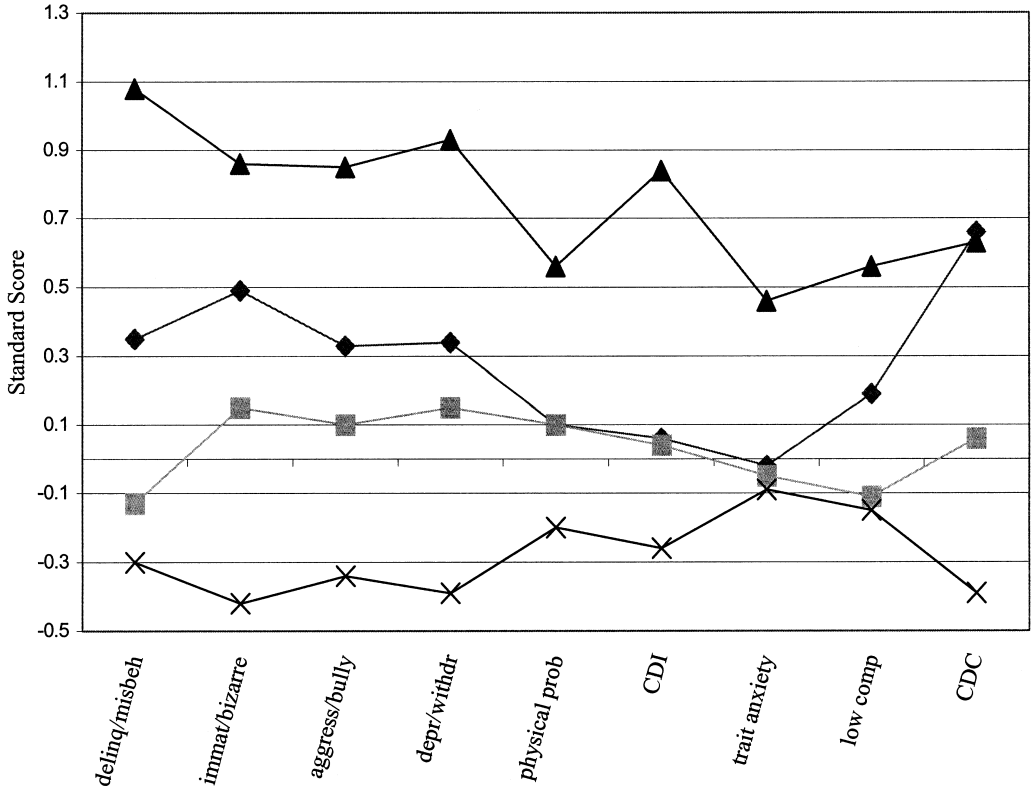


Figure 1. Standard scores for abuse profile groups (◆) 1, (■) 2, and (▲) 3 and (×) a comparison group for Time 1 variables.

groups can be distinguished from a nonabused comparison group shortly after disclosure of the abuse, but Profile 3 subjects—those abused by their biological father for a very long duration—show the most extreme pattern of behavior problems and maladjustment.

Time 4 analyses

At Time 4, a main effect for profile was found when examining delinquency–misbehavior at a trend level, F (3, 145) = 2.46, p = .06. Post hoc tests revealed that Profile 2 and Profile 3 subjects scored slightly higher than the comparison group at a trend level ($p < .10$; see Table 5). Also at Time 4, a main effect for profile was found for immaturity–bizarre behaviors, F (3, 145) = 2.89, p = .04. Profile 3 subjects endorsed more of these behaviors than did comparison group and slightly more than the Profile 1 (trend, $p < .10$). A main effect for profile emerged when examining Time 4 aggressiveness–bullying F (3, 145) = 2.91, p = .03. Profile 3 subjects endorsed significantly more of these behaviors than did the comparison group or Profile 1, and the Profile 2 subjects endorsed slightly more aggressiveness–bullying behaviors than the comparison group (trend, $p < .10$). A main effect for profile was found for the depression–withdrawn factor, F (3, 145) = 2.75, p = .04. Profile 2 and Profile 3 subjects scored significantly higher on this factor than the comparison group.

A main effect for profile was found for dissociation (ADES), F (3, 145) = 2.67, p = .02. Post hoc comparisons indicated that Profile 2 and Profile 3 subjects scored significantly higher on the time for dissociation measure than the comparison group. There were no other significant mean differences at Time 4 for the remaining variables, although one

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Table 5. *Abuse profile groups and comparison group adjusted raw score means and standard deviations for Time 4 variables*

Variable	Profile 1	Profile 2	Profile 3	Comparison	R^2
T4 delinquent misbehavior	3.87 (2.24)	5.22 (3.32)[d*]	5.34 (3.23)[d*]	3.94 (3.16)[b*c*]	.07
T4 immaturity/bizarre behavior	25.82 (9.91)[c*]	28.33 (6.96)	30.76 (9.31)[a*d]	25.56 (8.14)[c]	.12
T4 aggressiveness/bullying	10.39 (6.04)[c]	11.68 (5.58)[d*]	14.21 (6.53)[ad]	9.18 (6.37)[b*c]	.13
T4 depression/withdrawn	17.84 (9.37)	21.64 (9.73)[d]	21.83 (7.38)[d]	16.71 (9.00)[bc]	.08
T4 physical problems	7.26 (4.58)	6.96 (4.42)	7.89 (4.35)	6.30 (3.95)	.11
T4 CDI	13.89 (7.48)	14.65 (5.35)	13.47 (4.47)	13.28 (4.91)	.07
T4 trait anxiety	33.95 (6.51)	35.42 (7.12)	36.13 (6.59)	33.87 (7.69)	.04
T4 global perceived competence	17.84 (3.39)[b*]	15.84 (4.51)[a*]	16.11 (3.01)	16.96 (2.91)	.09
T4 ADES	1.69 (1.19)	2.25 (1.72)[d]	2.34 (1.72)[d]	1.55 (1.45)[bc]	.11

Note: Adjustments made for age, socioeconomic status, and minority status. CDI, Child Depression Inventory; ADES, Adolescent Dissociative Experiences Scale.
[a]Different from Profile 1, $p < .05$.
[b]Different from Profile 2, $p < .05$.
[c]Different from Profile 3, $p < .05$.
[d]Different from comparison group, $p < .05$.
*Difference is $p < .10$.

trend emerged. Profile 2 subjects displayed slightly lower perceived competence scores than Profile 1, F (3, 145) = 2.91, $p = .10$.

In sum, at Time 4, about 7 years on average after the disclosure of the abuse, Profile 1 subjects were not significantly different from the comparison group on any of the outcome measures. Profile 2 subjects differed from the comparison group (at least at the trend level) on four measures—three Youth Self Report (YSR) factors and dissociation. Profile 3 subjects were distinguished on five outcome measures—four of the five YSR factors and dissociation. In short, at Time 4 subjects from all three profile groups are not as different from the comparison group as at Time 1 and, in fact, Profile 1 cannot be distinguished from the comparison group on any of the outcome measures. Profile 3 subjects continue to be the most different.

Discriminant function analyses

Discriminant functions are linear combinations of measures that best (in a least squares sense) discriminate between groups despite variation within the groups. In the present study, entirely within the sample of abused girls, three separate discriminants were calculated, one to define each profile group, rotated to be orthogonal to the other two profile groups. As in stepwise multiple regression analyses, different combinations of the variables were considered. In the tables that follow, the variables that, in stepwise analyses, provide discrimination significant at the .05 level are listed to provide a basis for describing each subgroup.

Profile 3 subgroup. Table 6 provides the t test values significant at less than the .05 level for the variables that distinguished this subgroup from the other subgroups of abused girls at Time 1 alone, Time 4 alone, and over both times. Also provided is an R^2 indication of the magnitude of the discrimination—in particular, the proportion of the variance of the difference between the Profile 3 subgroup and the other subgroups that is accounted for by the discriminating variables.

At Time 1, all of the first 14 variables of Table 3, considered individually, distinguished this group from the other two abused groups. But the correlations among these variables indicate that they measure much of the same things. When this redundancy in measurement is taken into account (i.e., when the variables are put in competition in a multiple

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Table 6. *Summary of statistics indicating discrimination of the three profile subgroups: Adjusted* R^2 *and* t *tests for discriminating variables*

	Profile 3					
	Time 1 Alone (R^2 = .19)		Time 4 Alone (R^2 = .06)		Time 4 and Time 1 (R^2 = .22)	
	t Test	Significance	*t* Test	Significance	*t* Test	Significance
Delinquent/misbehavior	2.94	.01			4.18	.01
Immature/bizarre						
Aggressive/bullying			2.99	.01		
Depression/withdrawal	2.05	.04				
Child depression	3.00	.01			3.03	.01
	Profile 1					
	Time 1 Alone (R^2 = .10)		Time 4 Alone		Time 4 and Time 1 (R^2 = .10)	
	t Test	Significance	*t* Test	Significance	*t* Test	Significance
Child dissociation	4.57	.01			3.68	.01
	Profile 2					
	Time 1 Alone (R^2 = .04)		Time 4 Alone (R^2 = .04)		Time 4 and Time 1 (R^2 = .10)	
	t Test	Significance	*t* Test	Significance	*t* Test	Significance
Immaturity/bizarre	2.87	.01			2.49	.01
Depression/withdrawal			2.56	.01	2.00	.05
	Total Abuse Group vs. Comparison Group					
	Time 1 Alone (R^2 = .20)		Time 4 Alone (R^2 = .11)		Time 4 and Time 1 (R^2 = .20)	
	t Test	Significance	*t* Test	Significance	*t* Test	Significance
Immaturity/bizzare	4.89	.01			4.09	.01
Child depression	2.05	.05			1.94	.05
Aggressive/bullying			2.43	.05		
Adolescent dissociation			2.26	.05		

discriminant analysis), depression and delinquency, as measured in the mothers' ratings, and depression, as measured in the child's responses, are found to most uniquely represent the elements of discrimination. The magnitude of the discrimination is changed only very slightly if one of the other mother-rating variables is substituted for either the depression or delinquency mother rating. In either case, the girls' self-reports of depression continue to discriminate.

At Time 4, aggressive–bullying, depression–withdrawal, and immaturity–bizarre discriminate when considered alone, but when put in competition aggressive–bullying is found to account for the discriminability of the other two variables.

When the variables that discriminate at

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Times 1 and 4 are considered together, only the Time 1 mother rating of delinquent–misbehavior and the Time 1 self-rating of child depression discriminate: the Time 4 discrimination of aggressive–bullying is accounted for by the two Time 1 measures. This suggests that what is viewed by the mother as delinquent–misbehavior and reported by the girl to be her depression at the young age is manifested in the girl's reports as aggressive–bullying at an older age.

Profile 1 subgroup. The summary statistics indicating the way in which this subgroup is distinct from the other two subgroups of abuse are provided in Table 6 at an older age.

Dissociation characterizes the abused girls of Profile 1. At Time 1, when mother ratings of delinquency, aggression, immaturity, or the dissociation measure is considered alone, each distinguish the Profile 1 subgroup from the other groups of abused girls, but only the dissociation measure discriminates at a significant level when all four variables are considered in multiple discrimination analysis.

At Time 4, when the putative discriminators are considered alone or when the variables are considered together in a multiple discrimination equation, no measure discriminates. When Time 1 and Time 4 variables are considered together, only the Time 1 measure of dissociation discriminates.

Profile 2 subgroup. The summary statistics indicating the way in which this subgroup is distinct from the other two subgroups of abuse are provided in Table 6 at an older age.

In this table it can be seen that mother ratings of immaturity distinguish the Profile 2 subgroup at Time 1 and that self-ratings of depression distinguish these girls at Time 4, and these two distinguishing characteristics discriminate when both are considered in a multiple discriminant equation. Thus, the suggestion is that what is seen by the mother as immaturity when these girls are young continues to characterize them when they are older and rate themselves as depressed.

Also included in Table 6 is a discriminant function analysis for the total abuse group (collapsing over profile subgroups) and the comparison group. Here, at Time 1 mother-reported immaturity–bizarre behavior and child-reported depression best characterize the total abuse group in contrast to the comparison group. At Time 4, *either* adolescent dissociation *or* self-reported aggressive–bullying characterized the abuse group. When Time 1 and Time 4 variables are entered simultaneously, the Time 1 measures predominate.

Discussion

The results of this study indicate that even in this relatively homogeneous group of maltreated children (all females, all intrafamilial sexual abuse involving genital contact or penetration), differences in the abuse experience are shown to be important to understanding both acute and long-term behavior problems and adjustment. This illustrates the importance of having detailed information about the abuse experienced by the child and of examining this information in relation to outcomes of interest.

It is important to consider a number of limitations of the present study. First, the relatively small sample size precluded a more fine-tuned look at variations in the characteristics of the abuse. For example, it seems like Profile 3 combined two types of experience that couldn't be teased apart because of power issues. That is, about half of Profile 3 subjects' abuse was perpetrated solely by the biological father for a long period of time. (This might be considered a "classic incest" profile.) But for the other half not only were the girls abused by the biological father but there were also reports of abuse by one or more other perpetrators, and the abuse was different in other ways as well (e.g., it was not as long in duration but was accompanied by more violence than was the abuse experienced by those with the biological father as sole perpetrator).

Second, the entire sample consisted of familial sexual abuse. Profiles surely would have looked different if cases with nonfamilial perpetrators were included. Similarly, the abuse experienced was relatively severe as compared with other sexual abuse samples:

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all cases here had contact abuse, and in fact 70% experienced some type of penetration. In the cluster analysis, although severity of abuse (indexed by abuse count) was a variable entered into the analysis, it did not emerge as something that differentiated the three clusters. This might well have been different if less severe cases of abuse had been included in this sample.

Third, this sample came from one Mid-Atlantic metropolitan region with particular ethnic and cultural characteristics. Again, differences in profiles may well have emerged if the sample had different contextual characteristics.

Fourth, as mentioned earlier, the outcome measures examined in this study also had limitations. Many of the measures were highly intercorrelated. In some cases (e.g., the mother-report measures at Time 1) measures were so highly intercorrelated that they could not confidently be considered independent measures of separate constructs. Another problem with the measures is that most were mother report at Time 1 but self-report at Time 4. And in some cases these were somewhat different measures of the same construct at Time 1 and Time 4. These are not atypical problems for longitudinal studies involving children and adolescents, but they are problematic nonetheless. Finally, the measures included here are limited in scope. They do not include many other important possible outcomes such as sexual development, formation of intimate relationships, educational and cognitive development, and so forth.

Whether looking at mean differences at Time 1 of Time 4 or at the discriminant function analyses, the results support the notion that sexual abuse by the biological (or primary) father is particularly problematic, as would be predicted by the work of Freyd (1996) or Russell (1984). These results show the most elevated scores, across the board, for Profile 3 at Time 1 and for the majority of measures at Time 4. The discriminant function analyses indicate that, at Time 1, these problems are best characterized as delinquency–misbehavior by mother report and depression by both mother and child report. At Time 4, they are characterized by the adolescent as aggressiveness or bullying. These results, and our prior analyses (Trickett et al., 1997), also indicate the importance of distinguishing between perpetrators who are biological fathers and other father figures such as stepfathers or mother's live-in boyfriends. Others (e.g., Daly & Wilson, 1981; Parker & Parker, 1986) have discussed this in terms of *causes* of sexual abuse. This work also indicates its importance in understanding *consequences*.

The findings for Profile 1—those abused by multiple perpetrators with a high likelihood of violence—are confusing. At Time 1, there are exhibiting considerable distress both by mother report and self-report. By Time 4, however, they are not distinguishable by self-report from the comparison group and, in fact, have the highest self-reported global competence rating. Other research has shown distorted perceived competence or self-representations in sexually abused or otherwise maltreated children and adolescents (Calverly, Fischer, & Ayoub, 1994; Vondra, Barnett, & Cicchetti, 1989). Perhaps these high competence ratings reflect this same phenomenon. If Profile 1 girls are highly dissociative, as reported by mothers at Time 1, this could result in inaccurate or attenuated self-reports of distress or problems at Time 4. Also, it may be that dysfunction of other types than what was examined here may characterize these individuals. For example, we are examining sexual attitudes and activities and our preliminary findings suggest important differences between the girls in Profile 1 and those in Profile 3 (Noll, Trickett, & Putnam, in preparation).

At Time 1, the girls in Profile 2—those abused by a single perpetrator who was not a biological father—were reported to demonstrate levels of distress and behavior problems that were intermediate between those in the other profile subgroups and the comparison group. There are hints (as illustrated by comparing Figure 1 and Figure 2) that by Time 4 these girls are doing worse relative to the other profile groups. It may be that these girls got less mental health treatment or other services at the time of the disclosure of the abuse because their distress symptoms were not as observable (see Horowitz, Noll, Trickett, & Putnam, 1997) and that de-

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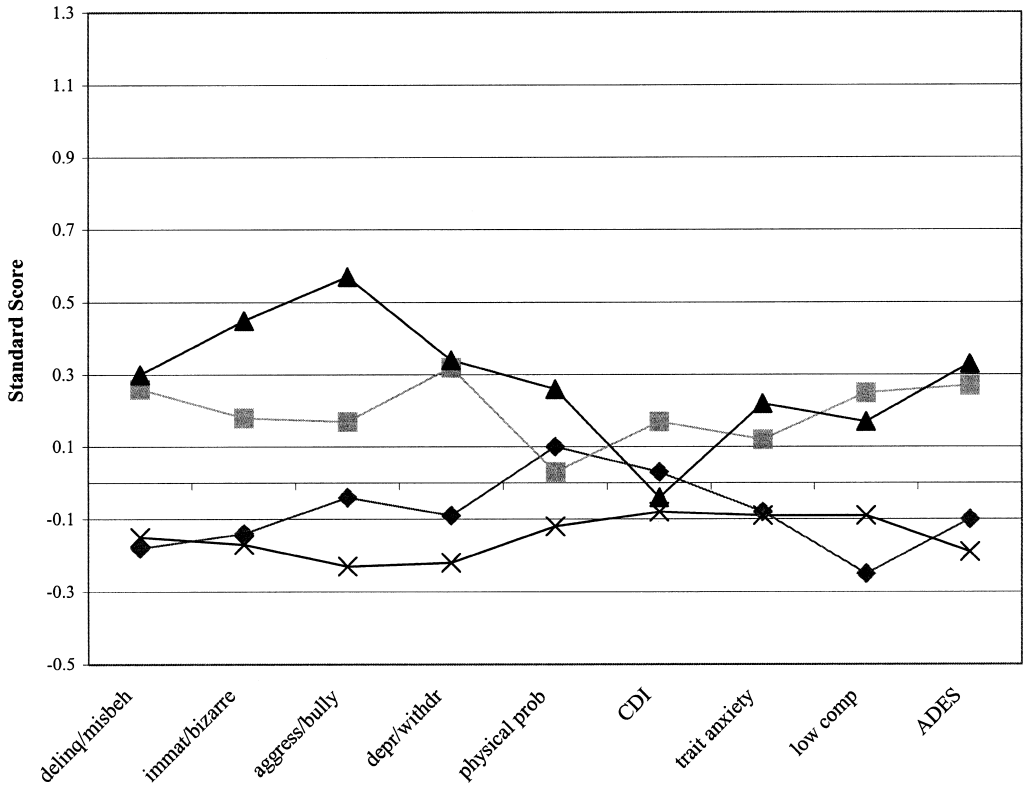


Figure 2. Standard scores for abuse profile groups (◆) 1, (■) 2, and (▲) 3 and (×) a comparison group for Time 4 variables.

pression has persisted and perhaps worsened in this group. Further work should be done to examine the role of therapy or other interventions for long-term adaptation of these individuals.

Another avenue to pursue is the examination of how the families differ for the different profile subgroups discussed here. Other research indicates important differences in family environments and other aspects of family functioning in certain types of maltreating families (e.g., Howes, Cicchetti, Toth, & Rogosch, 2000; Trickett & Susman, 1988). We know that about 45% of the mothers of our total abuse sample report themselves to have been sexually abused as children, and we know that as a group the mothers of the abused girls are somewhat more depressed and more dissociative than mothers of the comparison group girls (Everett, Trickett, & Putnam, 1996; Trickett, Everett, & Putnam, 1995). We do not know if there are "mother differences" in these characteristics for the three profile groups. If so, this has methodological relevance (e.g., depressed or dissociative mothers may well not be as valid reporters of their children's moods and behavior as other mothers). Also, such differences could be associated with differences in access of mental health or other services or in the provision of family support for healthy, adaptive adolescent development.

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