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Sexual behavior problems in sexually abused children: a preliminary typology

Darlene Kordich Hall[a,*], Fred Mathews[b], John Pearce[c]

[a]*The Crèche Child and Family Centre, Toronto, Ontario, Canada*
[b]*Director of Research & Programme Development, Central Toronto Youth Services, Toronto, Ontario, Canada*
[c]*Child Abuse Programme, Alberta Children's Hospital, Calgary, Alberta, Canada*

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Abstract

Objective: The goal was to develop an empirically derived typology for sexually abused children exhibiting sexual behavior problems to assist practitioners in differential assessment, treatment, and case planning.
Method: Data were systematically gathered from the clinical records of 100 sexually abused children, aged 3 years to 7 years, enrolled in two treatment programs. Twelve indexes were created corresponding to major areas of child and family history, functioning, and treatment response. After initial sorting into subgroups based on the presence or absence of interpersonal sexual behavior problems, further subdivision was based on hierarchical cluster analysis.
Results: Five distinctive sexual behavior profiles emerged: (1) developmentally expected; and developmentally problematic (2) interpersonal, unplanned, (3) self-focused, (4) interpersonal, planned (noncoercive), and (5) interpersonal, planned (coercive). Elements of the child's sexual abuse experience, opportunities to learn/practice problematic sexual behavior, and familial variables best differentiated between the types.
Conclusions: The five types differed not only in child sexual behavior but in most areas of child and family functioning, including treatment outcome. The findings offer support for the development of an empirically-based typology for children with sexual behavior problems utilizing a range of variables which go beyond typical classification systems based on offender and victim characteristics.

Keywords: Sexual behavior; Sexually abused children

* Corresponding author.

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Introduction

Clinicians are recognizing that children with sexual behavior problems are not a homogeneous group, and that different treatment approaches may be required for various "types" of sexual behavior (Araji, 1997; Cantwell, 1995; Johnson & Feldmeth, 1993; Pithers, Gray, Busconi, & Houchens, 1998b). Unfortunately, empirical research exploring the relationship between types of child sexual behavior problems and treatment outcomes is in its earliest stages. Of the five published typologies created specifically for the pre-adolescent child with sexual behavior problems (Berliner, Manaois, & Monastersky, 1986; Johnson, 1993a; Johnson & Feldmuth, 1993; Pithers et al., 1998b; Rasmussen, Burton, & Christopherson, 1991), only one has been developed empirically (Pithers et al., 1998b). A recent study conducted by Bonner, Walker, and Berliner (1999) also provides additional information about child and family characteristics associated with treatment outcome in children with sexual behavior problems.

Berliner et al. (1986) advanced a typology to guide treatment consisting of three categories on a continuum from the least to most problematic developmentally unexpected sexual behaviors including: Sexually Inappropriate Behavior, Developmentally Precocious Behavior, and Coercive Sexual Behavior.

The categorization system developed by Rasmussen et al. (1991) focuses primarily on the legal accountability of children, rather than treatment considerations. Two main categories were proposed: Sexually Reactive (for children less than 9 years old) and Pre-adolescent Offenders (aged 9–12 years). Each of these two main categories was further divided into three subcategories including: Victim Perpetrator, Delinquent Perpetrator, and Family Perpetrator. This system combines general characteristics of both victim and offender in defining its categories, as well as some aspects of the context and assumed motivation.

Johnson and Feldmeth (1993) described a sexual behavior continuum which has elements of a taxonomic system. Four anchor points along their continuum correspond to the child's level of sexual disturbance including Type I—Normative Sexual Exploration, Type II—Sexually Reactive, Type III—Extensive Mutual Sexual Behaviors, and Type IV—Children Who Molest. Each type is distinctive, varying in developmental appropriateness and pervasiveness of sexuality, primary affect associated with sexual behavior, resistance to limit-setting, level of coerciveness, and responsiveness to treatment.

Most of these clinical typologies share a common notion, that is, that child sexual behavior exists on a continuum, and that aggression, coercion, and force represent the most pathological end of that spectrum. They also share many of the same difficulties. Some do not consist of mutually exclusive categories. Others rely on designations more relevant to the social service and criminal justice systems as opposed to the treatment sector. Most are based on offender and/or victim characteristics and exclude developmental (nonsexual) and familial characteristics which may be related to treatment outcome. Since none of these typologies for children or youth were created through full-scale empirical research, all have yet to be validated. As such, they may best be used as heuristics for research.

An empirically derived typology for children aged 6- to 12-years-old with sexual behavior problems has been developed by Pithers et al. (1998b). It is based on a theory-driven

selection of 14 demographic, psychometric, and "offense-related" variables entered into multivariate cluster analyses. Five types were identified: Sexually Aggressive, Nonsymptomatic, Highly Traumatized, Rule Breakers, and Abuse Reactive. Each of the types was examined in relationship to two treatment approaches—relapse prevention and expressive therapy. Their work moves typology development beyond categorization systems based solely on clinical comparisons and victim and offender characteristics.

Despite these advancements, none of the typologies has considered developmental and caregiving environments. The current pilot study adopts an ecological perspective to examine an array of variables associated with child and family histories and functioning, maltreatment and other negative experiences, response of others/community to the abuse, as well as demographics. The children's attachment and maltreatment histories are combined to incorporate developmental factors and capture the cumulative nature of these experiences. Clinical, theoretical, and multivariate approaches are utilized in developing the typology. Given the paucity of research in this area and the age of the children in this sample (3–7 years), an exploratory, as opposed to a theory-driven, approach to variable selection is chosen. Subgroups are based on statistically and clinically significant differences in key areas of child and family functioning, and the resulting types are examined in relationship to child sexual behavior and treatment outcome.

Because sexually abused children are reported to exhibit more developmentally problematic sexual behavior than comparison groups (Berliner, 1991; Friedrich, 1993, 1995; Gale, Thompson, Moran, & Sack, 1988; Kendall-Tackett, Williams, & Finkelhor, 1993) and are over-represented among children (12 years and under) with sexual behavior problems, this study was designed to create a typology specifically for this group.

Method

Participants

Clinical records of 100 sexually abused children (37 males and 63 females) from 3 years to 7 years of age ($M = 59$ months; $SD = 13.4$ months) were drawn consecutively from the most recent "closed" treatment files of two child abuse treatment programs in Toronto ($n = 60$) and Calgary ($n = 40$). The gender ratio and mean age were comparable for both sites.

Cases were included if: (1) the child had been in active treatment for sexual abuse (not "assessment only" or early dropout cases), and (2) the child's sexual abuse had been validated by a mandated child protection agency. Three cases were excluded in Toronto because of family relocation or nonattendance. In Calgary, 91 cases were selected and 51 excluded (42 families never attended or were early drop outs, sexual abuse was not validated in eight cases, and one family moved out of the catchment area). The higher rate of exclusion in Calgary was because of its open community referral policy, which allowed families to self-refer and did not require abuse to be validated. The net effect of these differences in referral policy was for the Calgary sample to include a broader clinical range of sexual abuse cases in comparison to Toronto. Data collection protocols were reviewed by the appropriate

institutional review boards concerning the rights of human participants in research before data collection began.

The characteristics of this sample have been described elsewhere in detail (Hall, Mathews, & Pearce, 1998). About half of the children (49%) lived with their mothers in single parent homes, while approximately 15% of the Toronto subsample and 28% of the Calgary group lived with both parents. Child welfare agencies were involved with less than one third of the families before the sexual abuse investigation (Toronto = 32%, Calgary = 23%). Approximately one quarter of the children had been "taken into care" by a child welfare agency at some point in their lives (Toronto = 28%, Calgary = 18%).

Nearly half (49%) of the children in both centers were from lower income families receiving some form of public assistance. About half of the single mothers (51%) classified themselves as low income, compared to only 15% of two biological parent families. The remaining 51% consisted of mostly middle-income and a few upper-income families. Approximately one-third of the children from both sites came from homes where the mothers were high school dropouts and had never, or only sporadically, worked. The Toronto sample was generally urban with some suburban families, while the Calgary sample was a blend of urban, suburban, and rural families. The majority of children were White of European origin in both sites, but the Toronto group also included 18% Black, 5% Asian, 7% Native Canadian, and 2% Hispanic families, with several new immigrants from the Mediterranean and Latin America.

The children's sexual abuse experiences ranged from a single episode to regular abuse spanning several years, and from fondling to full penetration with and without coercive elements. The perpetrators of this sexual abuse were biological parents (45%), other primary caregivers (31%), other relatives (36%, not primary caregivers), other individuals known to the child (43%), strangers (7%), and of unknown identity (10%).

Procedures and instruments

A structured, scanner-readable 14-page coding form was designed by the DISC (Development of Intrusive Sexuality in Children) Research Project team to systematically collect data from clinical records and to serve as the basis of a computerized clinical data base. The tool contains 357 items (257 quantitative and 100 qualitative) grouped into 12 areas identified through (1) a review of the literature, (2) a survey of 30 child sexual abuse (CSA) experts, and (3) detailed interviews with one third of the experts. These 12 areas represent those typically found in children's mental health assessments, as well as demographic information, child and family maltreatment histories, sexual issues, and treatment outcome (see Appendix A for details).

Most of the items required coders to make a dichotomous choice indicating whether the area had been identified by therapists as problematic or nonproblematic for a child or family. A category for missing data as well as unknown information was provided for each item. The clinical records in the two research-oriented programs were structured, comprehensive, and largely complete in the 12 areas. Emphasis was placed on therapists' typed assessment, progress, and termination reports, although therapists' notes were also

utilized to gather details about child and family sexual behavior, maltreatment, and caregiver histories.

To develop the typology, 257 items (treated dichotomously) appropriate for quantitative analysis were grouped into 12 indexes corresponding to the 12 areas of functioning in the children and families. Of these items, 63 were eliminated because of missing data for more than 20% of the subjects or low inter-item correlations within a specific index. The arithmetic sum of item scores for each index was calculated to create a total score. Item values were arranged so that higher item scores indicate more problematic conditions or behavior, and consequently higher index scores reflect more identified areas of difficulty. The number of items and specific content areas for each index are provided in Appendix A. These indexes are preliminary in nature and under further psychometric development for potential use in assessing risk factors associated with problematic sexual behavior in children.

The data collection instrument was piloted on clinical records of sexually abused children who were not part of the study. Based on the results of the pilot study, changes were made in the instrument to make it easier for coders to use and to improve its reliability and validity. The clinical supervisor at each treatment program (the first and third authors) coded the clinical data because of ethical and resource issues. It was not possible to calculate inter-rater agreement because of the confidentiality policies at both institutions. To enhance consistency of ratings across sites, common definitions of terms were incorporated into the instrument, and coders were in contact with each other to resolve coding issues. A partial check for consistency of coding decisions within coders was completed by having 5% of the Toronto records rated twice by the same coder (several months apart) with greater than 95% agreement. Internal consistency was measured through inter-item correlations for each of the 12 indexes (mean inter-item correlations ranged from .3418 to .5419 except for Biological Factors at .1746). Items which did not account for index variance were eliminated from the index and from multivariate analyses.

The issue of validity was addressed in two ways. The data collection instrument was composed of items (and areas) considered by key informants to be critical variables in the field of child sexual abuse, and were also those most frequently cited in the children's mental health literature. The 12 index scores were compared to formal assessment and treatment reports on half of the Toronto subjects, with satisfactory agreement (85%) between the severity of problems detailed in the formal reports and the 12 index scores.

Operational definitions and child sexual behavior categories

Developmentally "expected" and developmentally "problematic" sexual behaviors were operationalized according to the developmental framework set out in Sgroi, Bunk, and Wabrek (1988) as well as Friedrich, Grambsch, and Boughton (1991) and Friedrich et al. (1992), who systematically studied child sexual behavior in community and clinical samples. The study also followed Johnson's (1994, 1996) recommendation that the determination of the appropriateness of child sexual behavior should not be based on the behavior alone, but should also include its context. Nine of Johnson's 26 contextual categories were included in the data collection form: (1) nonmutuality, (2) harm/discomfort caused in others or self, (3) complaints by others, (4) differential power/not peers, (5) persistence despite limit-setting by others, (6) coercion/bribery, (7)

force/threat of force, (8) premeditation/planning/forethought, and (9) extensive adult-type sexual behavior. These nine categories were chosen by the authors because they are most frequently cited in the literature (Gil & Johnson, 1993; Ryan, 2000). To determine the nature and developmental appropriateness of the sexual behavior including its contextual characteristics, coders utilized therapists' notes and formal assessment and treatment reports.

Categorization of the children into subgroups consisted of two stages. First, each sexually abused child ($N = 99$; one child unable to be classified) was assigned to one of three primary groups based on his or her presenting sexual behavior and contextual patterns as discussed in a previous report (Hall, Mathews, & Pearce, 1998). Given that the major focus of this research was on children with interpersonal sexual behavior problems, the primary group with problematic interpersonal sexual behavior served as a "research" group. The two primary groups containing children without interpersonal sexual behavior problems (i.e., developmentally "expected" sexual behavior and developmentally problematic "self-focused" sexual behavior) served as internal "comparison" groups. Next, all three primary groups were examined for heterogeneity. The research group (problematic interpersonal sexual behavior) was found to be heterogeneous and was further subdivided into three clusters using multivariate procedures. In all, five subgroups or types were identified and operationalized as follows.

Comparison group (children with no problematic interpersonal sexual behavior)

Primary Group 1: Developmentally expected;
Primary Group 2: Developmentally problematic, self-focused (children who exhibit sexualized interests/sexual preoccupation or behaviors which are exclusively self-focused, without interpersonal sexual contact/touch).

Research group (primary Group 3; children with interpersonal sexual behavior problems)

Cluster 1: Unplanned, developmentally problematic interpersonal (children who engage in spontaneous interpersonally focused sexual contact/touch with others, with or without self-focused interests or behaviors;
Cluster 2: Developmentally problematic planned *noncoercive* interpersonal (children who engage in planned noncoercive sexual contact/touch with others, with or without self-focused interests or behaviors);
Cluster 3: Developmentally problematic planned *coercive* interpersonal (children who use coercion to engage in planned sexual contact/touch with others, usually exhibiting self-focused interests and behaviors).

Results

Given the exploratory nature of this pilot using study, alpha was set at $p = .05$ to reduce the risk of a Type II error. However, given the number of analyses involved, Bonferroni's correction was used to reduce Type I error (revised $p \leq .0002$).

Table 1
Means of 12 child and family indexes across three primary sexual behavior groups

Index	Group 1[a] (n = 22)		Group 2[b] (n = 15)		Group 3[c] (n = 62)		df	F
	M	(SD)	M	(SD)	M	(SD)		
Child biological factors	.95	(1.51)	.33	(0.65)	1.19	(1.36)	2, 87	2.11
Attachment/separation history	9.77	(6.13)	7.79	(3.33)	11.61	(5.59)	2, 95	3.16*
Child maltreatment history	1.35	(1.39)	1.36	(1.44)	2.77	(1.41)	2, 93	11.17***
Child's sexual abuse experience	37.80	(5.45)	42.13	(7.21)	48.21	(10.13)	2, 88	11.03***
Child behavior (nonsexual)	11.89	(4.99)	13.83	(6.12)	22.00	(7.75)	2, 80	17.61***
Child sexual behavior	4.95	(0.22)	8.45	(1.29)	15.58	(4.03)	2, 83	85.25***
Caregiver history/functioning	6.08	(6.75)	7.09	(6.17)	14.39	(7.49)	2, 72	9.76***
Parenting/par-child relationship	4.61	(4.77)	6.43	(4.62)	9.66	(5.31)	2, 88	7.68**
Family functioning (nonsexual)	3.56	(3.75)	4.42	(3.40)	5.40	(3.28)	2, 87	2.19
Family "sexual environment"	.40	(0.63)	1.71	(1.68)	2.72	(1.79)	2, 87	12.68***
Housing/household stability	1.16	(1.61)	.57	(1.02)	2.26	(2.01)	2, 91	6.33**
Treatment compliance/outcome	7.13	(1.55)	8.08	(2.23)	9.24	(2.48)	2, 67	3.44*

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .0002$; $N = 99$. (Degrees of freedom change for each index because of incomplete data.)

[a] Developmentally "expected" child sexual behavior.

[b] Developmentally problematic exclusively "self-focused" sexual behavior.

[c] Developmentally problematic "interpersonal" sexual behavior.

Differences between the three primary sexual behavior groups on demographics and the 12 indexes

Socioeconomic and demographic variables were examined for all three primary child groups. No statistically significant differences between groups were found on socioeconomic variables, child age, child gender, or age by gender ($p > .05$). Thus, these variables were not used as covariates in other analyses with these groups.

Group mean scores differed for all 12 indexes in the expected direction, that is, children with no sexual behavior problems generally had the lowest mean scores, and those with interpersonal sexual behavior problems, the highest (most problematic) scores. As reported in Table 1, differences between the groups reached statistical significance using ANOVA ($p \leq .0002$) on 6 of 12 indexes: Child Maltreatment History, Child's Sexual Abuse Experience, Child Sexual Behavior, Child Behavior, Caregiver History/Functioning, and Family Sexual Environment. Children exhibiting developmentally expected sexual behavior (Primary Group 1) had the lowest group mean scores on the following indexes: Child's Sexual Abuse and Sexual Behavior, Child Behavior, Caregiver History/Functioning, Parenting/Parent-Child Relationship, Family Functioning (in nonsexual areas), Family Sexual Environment, and Treatment Compliance/Outcome. The mean scores for Primary Group 1 were comparable to Primary Group 2 (self-focused sexual behavior problems) on the Child Maltreatment History Index and were between Primary Groups 2 and 3 on the indexes for

Child Biological Factors, Attachment/Separation History, and Quality of Housing/Household Stability. Primary Group 3 (interpersonal sexual behavior problems) had the highest group mean score on all of the indexes including Child Sexual Behavior and Treatment Compliance/Outcome.

To assess the homogeneity of the three primary groups, descriptive statistics for 257 variables and cross-tabulations between each variable and the three primary sexual behavior groups were computed. After visual inspection, χ^2 analyses were conducted on 40 variables (footnote "b" in Tables 4–8) showing the largest difference in percentage between the three groups. As reported in a previous study (Hall, Mathews, & Pearce, 1998), statistically significant differences at $p \leq .0002$ were found for 20 of these variables (footnote "c" in Tables 4–8). Examination of the cross-tabulations on all 40 variables revealed minimal variability within Groups 1 and 2 (the comparison groups), but Primary Group 3 (research group) was not homogeneous.

Subgroups of children with interpersonal sexual behavior problems (Primary Group 3)

Hierarchical Cluster Analyses (SPSS, Average Linkage between Groups Method) of Primary Group 3 (research group) was undertaken to ascertain if clinically meaningful subgroups could be identified empirically. Seven of the 12 indexes, chosen because of their theoretical, clinical, and statistical significance, were entered into the case-wise analysis: Child Maltreatment History, Child's Sexual Abuse Experience, Child Behavior, Parenting/Parent-Child Relationship, Family Functioning, Family Sexual Environment, and Quality and Stability of Housing/Household. The Child Sexual Behavior and Treatment Compliance/Outcome indexes were excluded from the cluster analyses since they were considered to be potential grouping and outcome variables in this study. All variables entered into cluster analysis were first converted to Z-scores because of the disparity in range and variances of scores across indexes.

After examination of the similarity and dissimilarity matrices for 2, 3, and 4 cluster solutions, a three-cluster solution was chosen as it appeared to have the greatest clinical utility. There were no statistically significant differences between the three clusters ($n = 39$) on child age or gender ($p > .05$), consequently, these variables were not controlled for in subsequent analyses.

The mean index scores and standard deviations are presented in Table 2 for the three clusters on all 12 indexes, including those for Child Sexual Behavior and Treatment Compliance/Outcome. For each index, Cluster 1 children had the lowest scores and Cluster 3 children the highest. Although the Treatment Compliance/Outcome Index was not entered into the cluster analysis, ANOVA revealed a statistically significant difference between cluster means, $F\ (2, 22) = 17.54$, $p = < .0001$. Cluster 1 children and families had the best compliance with treatment and outcomes, and Cluster 3 was the most problematic. There were also differences between group mean scores on the Children's Sexual Behavior Index, despite this variable's exclusion from the clustering routine. Cluster 1 children exhibited the fewest problematic sexual behavior characteristics and Cluster 3 the greatest. While this

Table 2
Means of 12 child and family indexes across sub-groups of children with interpersonal sexual behavior problems

Index	Cluster 1 (n = 5)		Cluster 2 (n = 13)		Cluster 3 (n = 21)	
	M	(*SD*)	*M*	(*SD*)	*M*	(*SD*)
Child biological factors	.00	(0.00)	.56	(1.33)	1.73	(1.42)
Attachment/separation history	6.60	(2.41)	7.00	(2.69)	15.18	(6.16)
Child maltreatment history	.60	(0.89)	2.54	(1.33)	3.91	(0.30)
Child's sexual abuse experience	37.60	(4.51)	49.67	(7.92)	55.82	(8.57)
Child behavior (non-sexual)	12.60	(7.89)	21.67	(6.44)	28.00	(3.26)
Child sexual behavior	11.80	(1.48)	16.25	(3.77)	19.18	(2.68)
Caregiver history/functioning	1.67	(0.58)	11.67	(4.18)	20.20	(4.34)
Parenting/parent-child relationship	2.80	(1.79)	7.78	(3.35)	13.64	(2.42)
Family functioning (nonsexual)	.80	(1.30)	5.22	(1.99)	7.73	(1.79)
Family "sexual environment"	.60	(0.55)	2.56	(1.33)	4.18	(0.75)
Quality of housing/household stability	.60	(0.89)	1.22	(1.30)	3.45	(2.07)
Treatment compliance/outcome	5.60	(1.14)	8.89	(2.03)	10.45	(1.13)

N = 39.

difference, F (2, 21) = 11.05, p = .0005, did not reach statistical significance at p = .0002, the results were in the expected direction.

Development of the typology

Although the mean index scores point to differences in major areas of functioning in the children and families, development of clinically useful typologies required more detailed inspection of the groups and clusters on an array of single variables. Primary Groups 1 and 2 and the three subgroups (clusters) of Primary Group 3 were compared on the 40 variables previously identified, as well as others of theoretical and clinical importance. Essentially, a linear relationship was found to exist between Primary Groups 1 and 2 and the three clusters of Primary Group 3 in regard to most problematic characteristics, with Primary Group 1 being the least problematic and Cluster 3 the most problematic. However, Cluster 1 children and families appeared to be more like those in Primary Group 1 than those in Clusters 2 and 3, with the exception of some elements in the child's sexual abuse experience (e.g., child's activity level) and sexual behavior. When the clusters and groups are placed on a continuum based on the number of problematic areas endorsed (excluding child sexual behavior), the order is as follows:

Least problematic ⟵ Most problematic

Group 1 ⟶ Cluster 1 ⟶ Group 2 ⟶ Cluster 2 ⟶ Cluster 3

TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5

For ease of reference, the Primary Groups and clusters have been renamed Types 1 through 5.

Table 3
Age and gender across five child sexual behavior types

	Type 1 Develop. Expected (n = 22)	Type 2 Interpersonal, unplanned (n = 5)	Type 3 Self-focused (n = 15)	Type 4 Interpersonal, planned (n = 13)	Type 5 Interpersonal planned, coercive (n = 21)
Group mean age (in months)[a]	55.3	57.8	57.5	62.6	64.1
Gender (% of males)[b]	23%	40%	33%	46%	48%

N = 76.
[a] Differences between the groups were nonsignificant, F (4, 70) = 1.40, p = .244.
[b] Differences between the groups were nonsignificant, χ^2 (4, N = 76) = 3.52, p = .475.

A total of 76 children are included in the five types; a breakdown of the groups by number of children, age, and gender is provided in Table 3. Differences between the types on age and gender were nonsignificant ($p > .05$).

Characteristics differentiating the five types

Child sexual behavior. The percentage of children with problematic elements in their sexual behavior generally increased in step-wise fashion from Type 1 to Type 5 for the following sexual behaviors: compulsive masturbation, sexual preoccupation, sexualized gestures, extensive adult-type sex acts, planning of sex acts, and persistence of the sexual behavior despite adult limit-setting (see Table 4). In contrast to Types 4 and 5, Type 2 children demonstrated neither planning of their sexual acts nor extensive adult-type sexual acts, and their sexual behavior did not persist after limit-setting by adults.

Table 4
Child sexual behavior across five child sexual behavior types

	Type 1 Develop. expected %	Type 2 Interpersonal, unplanned %	Type 3 Self-focused %	Type 4 Interpersonal, planned %	Type 5 Interpersonal, planned, coercive %	n[a]
Child sexual behaviour:						
Masturbation (problematic)[b,c]	0	40	87	100	100	72
Sexual preoccupation[b]	0	40	67	83	95	74
"Sexualized" gestures[b,c]	0	20	33	73	79	71
Extensive adult-type sex	—	0	—	55	75	65
Planning	—	0	—	56	75	55
Persists despite limit-setting[b]	—	0	15	75	76	71

N = 76.
[a] Variability in number of cases is because of missing data or use of subsets of applicable cases.
[b] One of 40 variables showing largest difference between percentages.
[c] Variable found to differentiate between the three primary sexual behavior groups at $p \leq .0002$ in a previous report.

About a quarter of the children with interpersonal sexual behavior problems (10 of 39) used coercion and/or force in their sexual acts with others. Children in Type 5 were virtually unique in their use of coercion/bribery accompanied by force/threat of force. Of the 18 children in Type 5, four children used coercion and force together, and two others employed coercion and were suspected of using force. In Type 4, three children (out of 12) were reported to have used bribery (not coercion), but only one of them combined this with a verbal threat to use force. All of the children engaging in coercion and force in Types 4 and 5 were males. Only one child (a female) in Type 2 was reported to have used force, but this act appears to have been a one-time occurrence involving a mild use of restraint without other forms of coercion.

Child's own sexual abuse experience. As shown in Table 5, the lowest percentage of children experiencing problematic elements in their sexual abuse generally was found in Types 1 and 2 and the highest in Type 5 for the following variables: parent perpetrator, multivictim abuse, siblings abused, sadistic elements, oral-genital stimulation, digital penetration, child's sexual arousal, genital self-stimulation, watching the perpetrator in sex acts, and grooming of the child by the perpetrator. A similar pattern emerged for child-to-child sexual acts, siblings abused at the same time, penile penetration, and abuse by more than one perpetrator, except that in Type 3 children experienced neither child-to-child sex acts nor having siblings abused at the same time, and those in Type 2 did not experience penile penetration or abuse by more than one perpetrator. Fewer children in Types 2 and 3, compared with those in Types 1, 4, and 5, were required to touch their perpetrator's genitals, were abused in a multiperpetrator context, or experienced pain or penile penetration during their sexual abuse. Perverse elements (i.e., drugs administered and photos taken) were virtually nonexistent in Types 1, 2, and 3, involved about a quarter of the children in Type 4, and were commonplace in Type 5. A higher percentage of children with interpersonal sexual behavior problems (Types 2, 4, and 5) were taught/required by their perpetrators to be active during their own abuse, experienced simulated intercourse, and were in situations in which the perpetrator disrobed, compared to children without interpersonal sexual behavior problems (Types 1 and 3).

During child-to-child sexual acts, 11 of the 13 children who were reported to have engaged in an "offender" role were in Type 5 (85%), with the remaining 15% in Type 4. Children in Types 1, 2, and 3, as well as the majority in Type 4, occupied a "victim" role in this child-to-child sexual activity.

Who the child blamed for his or her own abuse varied across the types as reported in Table 5. Children in Types 1 and 2 primarily blamed their perpetrators, although a few of the children in Type 1 blamed themselves. Type 3 children were self-blaming or ambivalent, and Types 4 and 5 were mostly ambivalent, with more children in Type 4 than in Type 5 blaming their perpetrators.

Despite a slight trend towards abuse of longer duration from Type 1 to 5, this difference was statistically nonsignificant. The closeness of the perpetrators's relationship to the child, intrusiveness of the sexual abuse (i.e., penetration, force), and the child's experience of pain also did not distinguish between the types.

Few differences were seen between the groups in the mother's initial response, belief of the child, protection of the child, and assignment of responsibility to the perpetrator.

Table 5
Characteristics of the child's own sexual abuse experience across five child sexual behavior types

	Type 1 Develop. expected %	Type 2 Interpersonal, unplanned %	Type 3 Self-focused %	Type 4 Interpersonal, planned %	Type 5 Interpersonal, planned, coercive %	n[a]
Sexual abuse characteristics:						
Duration:[b]						68
Once	37	0	9	0	0	
<6 months	42	50	55	46	38	
>6 months	21	50	36	54	62	
Perpetrator is parent	38	40	47	46	55	74
More than 1 perpetrator (total)	14	0	27	46	62	76
Multiple perps. (same time)	10	0	0	39	50	72
Multiple victims (same time)	19	20	23	46	80	72
Siblings ever abused:	39	60	62	80	93	55
Sibs abused same time	18	[d]	0	67	85	42
Child-to-child sex acts[b]	24	25	0	36	79	67
Grooming by perpetrator[b,c]	40	[d]	60	100	100	53
Perpetrator disrobed	59	80	47	100	95	76
Simulated intercourse[b]	32	60	47	77	95	76
Intrusive physical acts/force	71	60	77	92	80	72
Digital penetration	41	40	60	85	76	76
Penile penetration	36	0	13	62	62	76
Oral-genital on child	9	0	20	46	67	76
Sadistic elements[b,c]	14	[d]	27	80	80	58
Drugs/substances used	0	0	0	20	71	35
Photographs taken	17	0	0	29	91	41
Child's activities and responses:						
Watches perp. in sex acts[b,c]	27	20	33	100	95	76
Child "active" during abuse[b,c]	38	75	50	92	100	63
Child touches perp's. genitals	36	20	20	77	76	76
Genital self-stimulation[b]	5	0	20	39	86	76
Sexual arousal (child)[b,c]	0	[d]	58	100	100	63
Pain/discomfort in child	63	50	53	77	84	70
Who child blames for abuse:[b,c]						
Perperator	79	100	0	25	5	
Ambivalent	0	0	62	67	90	
Self-blame	21	0	38	8	5	
Mother's response to abuse & child:						
Initial response poor	50	40	47	8	48	74
Minimizes/denies	25	0	33	0	33	74
Perp. not fully blamed	22	0	25	15	45	68
Unable to protect	29	0	27	8	38	75
Unable support child	57	20	67	77	100	75

$N = 76$.

[a] Variability in number of cases is because of missing data or use of subsets of applicable cases.

[b] One of 40 variables showing largest difference between percentages.

[c] Variable found to differentiate between the three primary sexual behavior groups at $p \leq .0002$ in a previous report.

[d] One child only; unable to calculate meaningful percentage because of missing data.

Table 6
Child characteristics and histories across five child sexual behavior types

	Type 1 Develop. expected %	Type 2 Interpersonal, unplanned %	Type 3 Self-focused %	Type 4 Interpersonal planned %	Type 5 Interpersonal, planned, coercive %	n[a]
Child behavior/characteristics:						
Pseudomaturity[b,c]	14	25	43	77	95	73
Empathy problems[b,c]	0	20	7	54	57	75
Affect (limited range)[b,c]	18	20	33	85	91	76
Hopelessness[b,c]	5	0	15	46	80	73
Poor self-esteem[b]	18	20	29	92	91	75
Peer relationships problematic[b]	19	[d]	36	58	81	63
Boundary problems (nonsex)[b,c]	0	25	29	62	86	72
Blames others for misdeeds[b]	5	0	0	39	61	68
Poor internaliz. of right/wrong[b]	5	0	0	33	63	68
Trickery used on others	19	20	15	58	74	70
Hyperactivity	18	20	0	25	52	75
PTSD	32	40	40	62	91	76
History of negative events:						
Emotionally abused[b,c]	26	0	46	92	100	71
Physically abused[b,c]	25	40	21	67	100	71
Neglected	45	0	21	46	95	73
Placed in care w/child welfare	23	0	0	0	57	76
Permanent loss of father[b,c]	5	0	14	23	81	75
Cumulative # negative events[e]						
(group mean)	2.60	1.40	2.53	4.00	7.57	74*
(*SD*)	1.98	1.14	2.03	1.87	1.36	

* $p < .0001$.
$N = 76$.
[a] Variability in number of cases is because of missing data or use of subsets of applicable cases.
[b] One of 40 variables showing largest difference between percentages.
[c] Variable found to differentiate between the three primary sexual behavior groups at $p \leq .0002$ in a previous report.
[d] One child only; unable to calculate meaningful percentage because of missing data.
[e] This index is the sum of 10 variables: physical abuse, emotional abuse, neglect, family violence, severe family discord (nonphysical), separation >1 month from primary caregivers, multiple separations, loss of mother, loss of father, or other catastrophic events (deaths, serious illness, accidents, disasters).

However, more variability was seen in the mother's ability to support the child without becoming overwhelmed, with Type 2 showing the most support and Type 5 the least.

Child characteristics/behaviors. The percentage of children with problematic characteristics and behaviors increased in a step-wise fashion, from the lowest level in Type 1 to the highest in Type 5, for the following variables: pseudomaturity, limited affective range, hopelessness/depression, low self-esteem, problematic boundaries (nonsexual), and poor peer relationships (see Table 6). However, for poor internalization of right and wrong, blaming others, problematic use of trickery, problematic empathy, and PTSD, Types 1, 2, and 3 were similar to each other, and their group percentages were lower than

those in Types 4 and 5. Between a fifth and a quarter of the children in Types 1, 2, and 4, and more than half in Type 5 were considered to be hyperactive; however, none of the children in Type 3 exhibited hyperactivity.

Child maltreatment, separations, and cumulative negative events. Childhood maltreatment increased incrementally in this sample, from the lowest levels in Types 1 and 2 to the highest percentages in Type 5, as reported in Table 6. Suffering permanent loss of a biological father was a problem for most children in Type 5, less than a quarter of Type 4, and for only a few of the children in Types 1, 2, and 3. Being removed by child protection services and placed into out-of-home care was experienced by a more than half of the children in Type 5, about a quarter of those in Type 1, and by none of the children in Types 2, 3, and 4.

Cumulative childhood maltreatment, separations, and other negative experiences were measured by the Index of Cumulative Negative Events. The index score is the arithmetic sum (range: 0–10) of 10 reported types of maltreatment and negative events (details are provided in Table 6, footnote "e"). A statistically significant difference was found between the groups, F (4, 69) = 29.52, $p < .0001$, with the group means in the following order: $2 < 3 = 1 < 4 < 5$. Post hoc analyses (Games-Howell) indicated significant differences between Types 2 and 4 and between Type 5 and all other types, $p < .05$.

Mother's history and functioning. The lowest percentage of mothers with problematic histories and functioning generally was found in Type 2, with Type 1 similar or slightly higher, and followed (from lowest to highest) by Types 3, 4, and 5 for: problematic empathy, problematic relationships with friends, exploitation by others, sexualized appearance, boundary problems (general, nonsexual), childhood physical and emotional abuse, childhood neglect, separation from caregivers during childhood, and parental rejection as shown in Table 7. For anger management problems, a tendency to blame others, and depression the following order occurred: $2 < 1 < 4 < 3 < 5$. More than two-thirds of mothers in Type 2 and Type 4, about half that for Types 1 and 3, and all of the mothers in Type 5 experienced serious maternal stress response/PTSD. Four variables indicative of antisocial behavior (i.e., poor internalization of right and wrong, drug use while pregnant, association with persons having a criminal record, and arrest record), as well as having a psychiatric history, were characteristic of mothers in Type 5 and were absent or at low levels in Types 1, 2, 3, and 4.

Cumulative negative experiences in childhood and partner violence in adulthood were measured by adding 10 variables together to create the Maternal Index of Cumulative Negative Events. Higher index scores (range: 0–10) indicate a greater number of types of experienced negative events (see details in Table 7, footnote "e"). There was a significant difference between the types, F (4, 68) = 25.64, $p < .0001$, with group means in the following order: $2 < 1 < 3 < 4 < 5$. Post hoc tests (Games-Howell) revealed significant differences between Type 5 and each of the remaining four types, $p < .05$.

Mother-child relationship/parenting. Generally, the percentage of mother-child dyads with problematic elements in their relationship occurred in the following order: $2 \leq 1 < 3 < 4 < 5$. As seen in Table 8, this pattern emerged for: role reversal, neediness and competition with child, intrusive/enmeshed relationship, and maternal rejection of the child. Harsh/punitive

Table 7
Maternal history and functioning across five children sexual behavior types

	Type 1 Develop. expected %	Type 2 Interpersonal, unplanned %	Type 3 Self-focused %	Type 4 Interpersonal, planned %	Type 5 Interpersonal, planned, coercive %	n[a]
Mother's characteristics:						
High stress (PTSD)[b,c]	31	67	39	70	100	59
Depression	39	[d]	55	46	95	57
Problematic empathy	22	0	33	46	60	71
Problem relat. with friends	0	0	33	70	95	41
Exploited by others	29	0	57	75	100	69
Blames others	29	0	33	23	86	75
Poor internal. of right/wrong[b]	0	0	7	0	47	66
Problems anger management	20	0	36	8	80	72
"Sexualized" appearance	0	0	17	25	65	43
Boundary problems, general[b,c]	13	0	46	73	100	62
Substance abuse history	25	0	9	9	63	53
Drug use while pregnant	0	0	0	0	60	42
Arrest record	0	0	8	8	53	64
Psychiatric history	18	0	18	0	59	55
History of negative events:						
Neglect[b,c]	8	0	18	60	95	58
Physical abuse	33	25	42	73	100	57
Emotional abuse[b]	46	0	42	89	100	56
Sexual abuse	56	60	62	73	100	66
Rejection by own parents[b]	27	25	42	64	100	57
Separated from own caregivers	10	25	20	31	83	55
Cumulative # negative events[e]						
(group mean)	2.05	1.80	3.07	4.85	8.38	73*
(SD)	1.99	1.64	2.95	1.36	3.41	

* $p < .0001$.
$N = 76$.
[a] Variability in number of cases is because of missing data or use of subsets of applicable cases.
[b] One of 40 variables showing largest difference between percentages.
[c] Variable found to differentiate between the three primary sexual behavior groups at $p \leq .0002$ in a previous report.
[d] One child only; unable to calculate meaningful percentage because of missing data.
[e] This index is the sum of 10 variables: physical abuse, sexual abuse, emotional abuse, neglect, violence in family of origin, substance abuse in family of origin, rejection by parents, major separations or permanent losses of primary caregivers, other catastrophic events (deaths, serious illness, accidents, disasters), and partner violence in adulthood.

parenting was absent in Type 2, present in less than a quarter of Types 1 and 4, a third in Type 3, and more than three-quarters of Type 5. There were also qualitative differences between the groups which were not reflected in the quantitative measurement of role reversal. In Types 1, 2, and 3, role reversal was instrumental (i.e., dealing with age-inappropriate expectations, task assignments, and chores), as opposed to the emotional role reversal characteristic of dyads in Types 4 and 5. In addition, children in Type 5 were not only maternal confidants, in some cases they acted much like partners.

Table 8
Mother/child and family characteristics across five child sexual behavior types

	Type 1 Develop. expected %	Type 2 Interpersonal, unplanned %	Type 3 Self-focused %	Type 4 Interpersonal planned %	Type 5 Interpersonal, planned, coercive %	n[a]
Mother/child:						
Role reversal[b,c]	21	25	58	85	100	64
Needy/competes with child[b]	11	0	58	46	90	68
Harsh/punitive[b]	24	0	33	23	81	75
Intrusive/enmeshed[b]	5	0	29	54	85	71
Rejects child	19	0	36	31	86	74
Family:						
Problematic sexual attitudes[b]	0	0	54	64	100	54
Sexualized interaction[b]	0	0	20	42	100	56
Family violence	42	20	54	58	100	70
Mother associates w/criminals[b]	17	0	14	15	80	70
Frequent moves[b]	5	0	7	23	76	72

$N = 76$.

[a] Variability in number of cases is because of missing data or use of subsets of applicable cases.

[b] One of 40 variables showing largest difference between percentages.

[c] Variable found to differentiate between the three primary sexual behavior groups at $p \leq .0002$ in a previous report.

Family. Differences between the five types were seen in familial sexual attitudes and interaction styles, as well as criminality, transiency, and family violence as summarized in Table 8. There was a general absence of problematic sexual attitudes and interactions in both Types 1 and 2, while more than half of the families in Type 3 had problematic sexual attitudes, but less than a quarter engaged in sexualized styles of interaction. About half of the families in Type 4 and all of the families in Type 5 had problematic attitudes as well as sexualized interactions. Sexuality and violence were linked together in the sexual attitudes of many families in Type 5 in addition to the boundary and privacy issues common to Types 3, 4, and 5.

Family violence was present in all of the families in Type 5, nearly double the percentage found in Types 1, 3, and 4 and five times greater than Type 2. Similarly, most mothers were involved with persons having a criminal record in Type 5, compared to few in Types 1, 3, and 4, and none in Type 2. Frequent moves or transiency characterized more than three-quarters of Type 5, less than a quarter of Type 4, and was essentially absent in Types 1, 2, and 3.

Treatment outcome. The best overall treatment outcome was associated with children and parents in Types 1 and 2, the worst in Type 5, with the remainder in between as reported in Table 9. The greatest resolution of sexual abuse issues in treatment occurred in Type 2, with the remaining types (from good to poor) in the following order: $1 > 3 > 4 > 5$. The mother's ability to utilize counseling for herself showed much the same pattern. Minimization, denial, and an inability to set limits on inappropriate child sexual behavior were least problematic

Table 9
Treatment outcome across five child sexual behavior types

	Type 1 Develop. expected %	Type 2 Interpersonal, unplanned %	Type 3 Self-focused %	Type 4 Interpersonal planned %	Type 5 Interpersonal, planned, coercive %	*n*
Treatment outcome:						
Resolution of sexual abuse issues:						73
Most issues resolved	48	80	27	27	10	
Unresolv. issues	48	20	47	64	76	
Little resolution	4	0	27	9	14	
Problematic sexual behavior ceases:						
Self-focused/sexualized	—	75	54	8	0	49
Interpersonal	—	80	—	18	0	36
Mother able to use counselling	79	100	38	58	16	62
Caregivers minimize/deny/unable to limit sexual behavior	—	20	50	33	74	55

$N = 76$.
Note: Variability in number of cases is because of missing data or use of subsets of applicable cases.

for caregivers in Type 2 and rose steadily for Types 3 through 5. Correspondingly, problematic self-focused sexual behavior stopped by the end of treatment for most children in Type 2, for about half in Type 3, and for virtually none in Types 4 and 5. Problematic interpersonal sexual behavior ceased in nearly all of the children in Type 2, but was resistant to change in Types 4 and 5.

Discussion

Examination of differences in child and family histories and functioning suggests that three core areas best differentiate between the five types of children and their sexual behavior, as summarized in Table 10. First, elements of the child's own sexual abuse experience appear to be important (sexual arousal of the child, self-stimulation, level of participation in the abuse, and sadistic elements introduced by the perpetrator). Second, social modeling and practice of sexual behavior appear to be associated with interpersonal sexual behavior problems (witnessing other children/siblings being abused, child-to-child sexual activity, and the child's role in that activity). Third, familial variables seem to inhibit or potentiate problematic sexual behavior (sexual attitudes and interaction styles, violence and criminality, multiple maltreatment histories, and maintenance of appropriate parent-child roles). Discussion of each type will focus on these three areas in relation to treatment outcome.

Type 1. Developmentally "expected" sexual behavior

These children do not exhibit any developmentally problematic self-focused or interpersonal sexual behavior. They are not actively involved nor are they sexually aroused during

Table 10
Summary of major characteristics differentiating between the five child sexual behavior types

	Type 1 Develop. Expected %	Type 2 Interpersonal, unplanned %	Type 3 Self-focused %	Type 4 Interpersonal, planned %	Type 5 Interpersonal, planned, coercive %
Childs own sexual abuse experience:					
Active/participates in abuse	Low/mod	Mod/high	Mod	Very high	All
Sexual arousal	None	(1 child)	Mod	All	All
Self-stimulation	(1 child)	None	Low	Low/mod	High
Sadistic perpetrator	Low	(1 child)	Low	High	High
Social modeling/practice opportunities:					
Multiple victims	Low	Low	Low	Mod	High
Child-to-child sexual acts	Low	Low	None	Low/mod	High
Siblings abused at same time	Low	(1 child)	None	Mod/high	High
Family characteristics:					
Problematic sexual attitudes	None	None	Mod	Mod/high	All
"Sexualized" interactions	None	None	Low	Low/mod	All
Parent-child role reversal	Low	Low	Mod	High	All
Family violence	Low/mod	Low	Mod	Mod	All
Criminality	Low	None	Very low	Very low	High
Multiple maltreatment histories:					
Mother (ranking of means)	2	1	3	4	5
Child (ranking of means)	2	1	2	3	4
Treatment outcome:	Good	Excellent	Fair	Fair/poor	Very poor

Note 1: Percentages: None = 0%; Very low = 1–15%; Low = 16–30%; Low/mod = 31–45%; Mod = 45–60%; Mod/high = 61–75%; High = 76–90%; Very high = 91–99%; All = 100%.
Note 2: Ranking: 1 = lowest group mean; 5 = highest group mean.

their CSA. They do experience pain and discomfort, but not sadistic or perverse elements. Abuse is by a single perpetrator who the child blames for their abuse. Although some siblings are also abused, rarely are they abused together. Child-to-child sexual acts are infrequent and involve the child in a victim role. Parents are vigilant and supervision is adequate, thereby limiting private access to other children. The families do not display sexualized attitudes or interaction patterns. Parent-child role reversal is generally absent, and there is no harsh or punitive parenting. Although there is some family violence, there is no criminality. Fewer of these children and their parents have experienced multiple maltreatment histories. Treatment outcome for CSA in children and caregivers is good.

Type 2. Unplanned, interpersonal sexual behavior (developmentally problematic)

Developmentally problematic interpersonal sexual behavior is exhibited in this subgroup. However, it is spontaneous, episodic, and not entrenched (as compared to Types 3, 4, and 5). These children are actively involved in their CSA, but their abuse is less complex and doesn't lead to sexual arousal. They do experience pain and discomfort, but generally no sadistic or perverse elements. They are usually abused by a single perpetrator. Few siblings are abused at the same time, there are few child-to-child sexual acts, and the children never occupy an

"offending" role. They tend to blame their perpetrators. Parental supervision is good, thereby limiting private access to other children. Families show no problematic sexual attitudes or interactions, and limits are set on problematic child sexual behavior. There is virtually no role reversal between parent and child, no harsh or punitive parenting, and fewer histories of multiple maltreatment. There is little family violence and criminality. Treatment outcome for both CSA and child sexual behavior problems is excellent.

Type 3. Self-focused sexual behavior (developmentally problematic)

Children in this subgroup exhibit frequent and compulsive masturbation, as well as sexual preoccupation, but few sexualized gestures and no problematic interpersonal sexual behavior. The children are not active during their CSA. While the abuse involves little pain, discomfort, or sadism, it leads to more sexual arousal. The children tend to blame themselves. Although a few are abused by more than one perpetrator, most are abused alone. Siblings are not abused together, and there are no child-to-child sexual acts. Parental supervision is not adequate, but there is little access to other children. Families in this subgroup show some impaired functioning and role reversal in instrumental areas (e.g., tasks, chores), but there is no harsh or punitive parenting. Multiple maltreatment is on par with Types 1 and 2. The families have problematic sexual attitudes, but there is no sexualized interaction. Family violence is a problem for more than half of the families, but there is virtually no criminality. Treatment outcome for CSA is problematic for the majority of children, and their self-focused sexual behavior is resistant to treatment. More than half of the parents are unable to use counseling and have difficulty setting appropriate limits on their child's sexual behavior.

Type 4. Planned, interpersonal sexual behavior (developmentally problematic)

These children engage in problematic interpersonal sexual behavior involving extensive adult-type sexual acts which are planned, but not coercive. Most are sexually preoccupied and exhibit problematic levels of masturbation. Their CSA involves discomfort, sadism, and arousal; they are active participants. About half are victimized in a multiperpetrator, multivictim context, but only a third are involved in child-to-child sexual acts (as victims). They have private access to other children because of inadequate parental supervision. Most families show impaired functioning, but there is some willingness to seek and use help. The parent-child relationship is characterized by emotional as well as instrumental role reversal. Multiple maltreatment histories are commonplace. Family violence exists in the majority of families, but there is virtually no criminality. Most demonstrate problematic sexual attitudes, but less than half exhibit sexualized interaction patterns. Families see the need to set limits on problematic sexual behavior but seem unable to do so. Treatment outcome is guarded as few are able to resolve their CSA issues, and both problematic interpersonal and self-focused sexual behavior continues.

Type 5. Planned, coercive interpersonal sexual behavior (developmentally problematic)

Children in this group combine coercion and planning in their extensive, adult-type interpersonal sexual behavior which is resistant to limit setting. All show high levels of problematic masturbation, sexual preoccupation, and sexualized gestures. Their own CSA is marked by discomfort, self-stimulation and arousal, and a high degree of participation by the child. Nearly all are abused within a multiperpetrator, multivictim context. Child-to-child sexual activity involves siblings, and the target child is taught to act as a "perpetrator." Sadistic and perverse elements characterize the CSA. Parental supervision is very inadequate, and there is easy access to other children within and outside the family. Role reversal between parent and child is both emotional and instrumental and often places the child in a "partner" role. Problematic sexual attitudes and sexualized interaction exists in all of the families, and sex and violence are paired. Family violence is ubiquitous, and criminality and multiple maltreatment histories are pervasive. Treatment outcome is very poor as few caregivers are able to make use of counseling, and most are unable to set appropriate limits on child sexual behavior because of minimization and denial.

Limitations

This exploratory study is the second part of a multistudy research project exploring the development of sexual behavior problems in children and youth. Its purpose was to generate hypotheses and to develop research instruments and clinical tools to assess children at risk for negative outcomes of sexual abuse. While a prospective design would have provided more information about cause and effect relationships, the choice of a retrospective design utilizing a clinical sample was necessitated by ethical and practical considerations. Children in this sample were enrolled in treatment for sequelae stemming from their own sexual abuse, not because of their sexual behavior problems per se. The findings, therefore, may not apply to all children with sexual behavior problems, in particular those without a sexual abuse history. If the study had included children from a wider range of ages and developmental levels, other differentiating variables might have emerged. Family and caregiving variables may have risen to the surface simply because of their importance at this developmental stage. Future research should include larger samples with more diversity in age, cultural background, and treatment status.

The modest sample size made it necessary to group male and female children together for the analyses, thus obscuring gender differences which might exist. The cluster analysis carried out on Primary Group 3 resulted in a subsample of 39 children, rendering questionable the use of inferential statistics to examine differences among the clusters. As such, they were reported descriptively; while the percentages may appear to differ between the clusters, these differences may not be statistically significant.

Because standardized instruments were not available to measure all the variables identified by key informants, it was necessary to develop a data collection tool specifically for this project. Thus, previous reliability data were unavailable. Ethical and practical reasons dictated not only that the clinical supervisors (study authors) at the two research sites code

the data, but also precluded the possibility of calculating inter-rater reliability, limitations that will need to be addressed in future research using this tool.

Implications

While the limitations discussed may limit the generalizability of these findings, with caution some implications for clinical work may be advanced. The results support clinical observations that sexually abused children differ not only in their sexual behavior but in many areas of child and family functioning. Thus, it is unlikely that one type of clinical intervention will be effective for all. The outcome data suggest that prognosis ranges from excellent to poor in the resolution of sexual abuse issues, and that children in each type also vary in their capacity to reduce problematic self-focused and interpersonal sexual behavior. Their caregivers also differ in their ability to use treatment and set limits on inappropriate child sexual behavior.

The three subtypes of children with interpersonal sexual behavior problems identified through cluster analysis are different in many areas, not just in sexual behavior. Unfortunately, they likely would be grouped together in current treatment programs for children with sexual behavior problems. They also might be subject to the same sanctions by school and community authorities (e.g., suspensions, police involvement, and so forth), which could further traumatize and stigmatize some children, especially those in Type 2.

Type 2 children (unplanned, problematic interpersonal sexual behavior) will likely need less treatment time devoted to sexual behavior issues than the other two subgroups with interpersonal sexual behavior problems because their families are higher functioning and their sexual behavior is less entrenched. Their sexual behavior problems may be extinguished simply by dealing with their victimization issues, and providing parallel counseling and education for their caregivers, aimed at validating the parents' own boundaries and limit setting regarding developmentally problematic sexuality, the rights of others, and privacy.

For children in Type 3 (self-focused), the issues are more complex, since these families tend to be more resistant to treatment and drop out prematurely. Because the children do not direct their problematic sexual behavior outwardly toward others and their parents also have problematic sexual attitudes, it is easier for parents to minimize the seriousness of the child's difficulties and not to set appropriate limits. The persistence of the child's sexual preoccupation suggests that specialized support will be necessary and, rather than expecting eradication of the problem, may require teaching the child self-monitoring skills. Both the child's sexual preoccupation and problematic levels of masturbation may increase vulnerability to further sexual abuse, thus preventive work with parents and children should be considered a priority. Regrettably, these children are largely ignored in current treatment programs in favor of those with interpersonal sexual behavior problems.

Type 4 children (planned, problematic interpersonal sexual behavior) have difficulties in many areas, with sexual issues being only one. The family's problematic attitudes toward sexuality suggest that significant support and teaching will be necessary for them to recognize and limit the child's inappropriate sexual behavior. Most seem motivated to help their children and are less angry and blaming than those parents in Types 3 and 5. However, their

histories of serious childhood maltreatment and the resulting stress and PTSD mean that treatment outcomes will be poor unless supportive counseling (individual and/or group) for the parents' own trauma issues is offered. The parent-child relationship may benefit from dyadic work aimed at increasing empathy, emotional support, and improved understanding of appropriate parent-child roles. These families will likely need referral to a range of services, outside of formal treatment, to gain the practical and social supports needed to foster favorable treatment outcomes (Pithers et al., 1998a).

The multiplicity of problems seen in Type 5 (planned, coercive, problematic interpersonal sexual behavior) and the coupling of violence and sexuality point to the need for multimodal intervention which includes regular monitoring by child protection. These children may need to be placed into specialized treatment foster care because of risks to other children. Education and appropriate limit-setting strategies regarding childhood sexuality should be provided to all caregivers, staff, and educators working with these children. Most of the parents are victims of chronic multiple maltreatment and separations during childhood and abusive relationships as adults. As such, they show ongoing signs of serious stress and self-destructive patterns of stress management. They will need comprehensive, seamless community services as considerable outreach, practical support, continuity of service providers, and clear expectations will be required for them to make use of treatment, education, and other community resources.

In summary, the five sexual behavior profiles identified in this study differ not only in regard to child sexual behavior, but also in many other areas of child and family functioning highlighted in other studies (Bonner et al., 1999; Gray, Pithers, Busconi, & Houchens, 1999; Pithers, Gray, Busconi, & Houchens, 1998a). Elements of the child's sexual abuse experience, opportunities for social modeling and practice of problematic sexual behavior, and family characteristics which potentiate or inhibit problematic sexual behavior appear to best differentiate between the types and are related to treatment compliance and outcome.

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Appendix A. Twelve child and family indexes

1. Child Biological Factors [7]: Prenatal and birth details, developmental history, temperamental factors, learning disabilities, developmental assessment, and health history.
2. Attachment/Separation History [14]: Stability of contact with primary caregiver(s) including separations, permanent losses of parents/significant others, history of out-of-home care arrangements, etc.
3. Child Maltreatment History [4]: Physical abuse, emotional abuse, neglect, and family violence (in addition to sexual abuse).
4. Child's Sexual Abuse Experience [31]: Details of child's sexual abuse experience, perpetrator characteristics, access with and attitude toward perpetrator, disclosure process, family and system's response, child's reaction to the abuse, etc.

5. Child Behavior (in nonsexual areas) [29]: Child behavior problems, trauma indicators, school problems, social relationships, areas of resiliency/vulnerability, etc.
6. Child Sexual Behavior [33]: Details of child's sexual behavior and victim information.
7. Caregiver History/Functioning [32]: History of mother's childhood, family of origin, physical health, mental health, relationships, antisocial behavior and affiliations; mother's characteristics and functioning; father figure's functioning, and history of childhood maltreatment and antisocial behavior/affiliations.
8. Parenting/Parent-Child Relationship [16]: Mother and father parenting capacity/attributes, parent-child relationship characteristics.
9. Family Functioning (in nonsexual areas) [10]: Stability, organization, conflict resolution, problem-solving, cohesiveness/support, openness, level and use of supports, etc.
10. Family "Sexual Environment" [5]: Boundaries/privacy, beliefs and attitudes, interaction style between family members (sexualized/non-sexualized), level of intrusiveness/autonomy, etc.
11. Quality and Stability of Housing/Household [6]: Number of moves/transiency, financial problems, stability in membership of household, quality of housing, safety of neighborhood, and child's exposure to anti-social milieu.
12. Treatment Compliance/Outcome [7]: Caregiver involvement, caregiver ability to use treatment, attendance, completion of treatment, child's resolution of child sexual abuse and sexual behavior problems, etc.

Note: Specific content areas and number of items [in brackets] are listed for each index.