

Correlates of Behavioral Outcomes in Sexually Abused Children

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Abstract The present study attempted to identify individual and contextual factors associated with outcomes in a group of 63 latency-aged children disclosing sexual abuse (SA). Children reporting SA were found to display greater internalizing and externalizing behavioral difficulties as well as more sexualized behaviors relative to same-age non-abused peers. Mothers also reported these children as less socially competent than their peers. Family contextual factors appeared to be associated with behavioral difficulties and made a unique contribution to the prediction of externalizing and sexualized behaviors. Of the personal variables, avoidance coping was found to be linked to poorer outcomes. In examining possible factors linked to ‘resilient’ outcomes in a 6-month time-frame, family conflict and avoidance coping were found to be associated to clinical status in children reporting SA.

Keywords Child sexual abuse · Consequences · Coping · Family relationships

The problem of child sexual abuse (SA) has received increased attention in the past few years. Although prevalence rates vary depending on the definitions and the methods used, community samples generally identify that between 12 and 35% of women and 4 and 9% of men report SA before

age 18 (Putnam, 2003). While incidence surveys are solely based on reported cases, their rates are still considerable. The Canadian incidence survey revealed that 14,406 cases of SA were reported to Child Protection Services (CPS) from January to December 1998 (Trocmé *et al.*, 2001). Although a recent American study indicated a decline in the number of substantiated cases from 1992 to 1999, the percentage of this decline attributable to a real decrease in the number of incidents remains unclear (Jones, Finkelhor, & Kopiec, 2001). Prevalence and incidence estimates of SA are substantial, but still are most likely underestimates since many children do not disclose the abuse to anyone. In fact, retrospective studies suggest that approximately only 10% of those experiencing SA report the abuse at the time of the incident (Edgardh & Ormstad, 2000).

Given the high prevalence of SA, both clinicians and researchers have attempted to better define the repercussions and subsequent symptoms or behavioral patterns of children and adults experiencing sexual victimization. Documentation of the consequences of SA may indeed provide crucial information to health planning agencies in terms of need for services. As well, examination of potential protective factors linked to better adjustment or resilience in survivors of SA may offer clues for the design of prevention interventions. Data collected thus far suggest that, in terms of long-term consequences, SA children appear to be at higher risk of later revictimization, to present a greater likelihood of being involved with a violent partner, of having alcohol and drug consumption problems and to be at risk for a variety of emotional problems including anxiety and depression (Finkelhor, 1997; Gidycz, Coble, Latham, & Layman, 1993; Johnson *et al.*, 2002; Paolucci, Genuis, & Violato, 2001; Polusny & Follette, 1995).

While most studies have evaluated adults reporting SA, recent empirical data has also provided a clearer picture of

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the short-term impact of SA and the behavioral outcomes of young victimized children (Trickett & Putnam, 1998). Researchers report that SA children display a variety of adjustment difficulties in the affective, social, and cognitive domains (Kendall-Tackett, Williams, & Finkelhor, 1993; Wolfe & Birt, 1995, 1997). Several authors have underlined that the symptomatic sequelae of SA can be best conceptualized as post-traumatic stress disorder (Briere, 1997; Rodriguez, Ryan, Rowan, & Foy, 1996). Factors most often linked to the development of PTSD include threat of physical violence, extreme fear, sense of helplessness and perception of life threat, which are often present in cases of SA.

One of the most consistent findings in the SA literature is that notwithstanding the difficulties they face, some sexually victimized children and adolescents do not appear to develop later problems (Finkelhor, 1990). Kendall-Tackett et al. (1993) concluded that about one out of three children with a history of SA do not show significant observable impairment following the abuse. Several authors have called for a next wave of research investigating the factors that promote wellness in children or adults with a history of SA (Briere & Elliott, 1994; Leventhal, 1998; Polusny & Follette, 1995). However, still at issue is how circumstances surrounding the abuse may affect the severity of the impact (Mennen & Meadow, 1995), or what factors may be linked to a better adjustment in those children experiencing abuse. Analyses of abuse-related variables have found that SA of a longer duration or of greater severity (involving penetration) is linked to greater behavioral difficulties (Black, Dubowitz, & Harrington, 1994; Caffaro-Rouget, Lang, & van Santen, 1989; Cohen & Mannarino, 1988; Finkelhor & Browne, 1986; Friedrich, 1988). Victimized children also fare worse when the aggressor is a closely related adult (Black et al., 1994; Browne & Finkelhor, 1986; Conte & Schuerman, 1987; Wagner, 1991) and when force is involved (Friedrich, Urquiza, & Beilke, 1986; Gomes-Schwartz, Horowitz, & Cardelli, 1990; Koverola, 1988). Some researchers, however, have failed to find significant relationships between abuse-related variables and outcomes in SA survivors (Calam, Horne, Glasgow, & Cox, 1998; Koverola, Poud, Heger, & Lytle, 1993; Ligezinska et al., 1996; Spaccarelli & Kim, 1995), suggesting that other factors may influence the risk of negative outcomes following abuse. Given the unchangeable nature of victimization-related variables, investigating the potential role of other factors such as coping and family relationships as correlates of resilience in SA children may prove to have more clinical utility for the design of future interventions.

While diverse definitions have been proposed, resilience usually refers to manifested competence despite significant challenges or exposure to stress-related events or trauma (Masten & Coatsworth, 1998). In the resilience paradigm, instead of focusing on adverse outcomes, attempts are made

to explain why positive outcome are demonstrated despite the trauma or stress experienced (Werner, 1990; Wolff, 1995). The underlying premise is that we may apply the knowledge gained about how some individuals successfully overcome adversity to prevention programs and thus maximize adaptation and competence (Kinard, 1998; Rutter, 1987, 1993). Resilience can be viewed as an adequate balance between stress and the capacity to react to stressors; protective factors being a set of personal competencies and support factors which contribute to resilience (Health Canada, 1997). Studies examining the adaptation of children faced with other stressors (such as parental divorce, bereavement) have described potential protective factors in three categories: individual variables or attributes of the child (such as locus of control and coping skills), familial factors (support within the family system, parental attachment) and support from the extra-familial environment or the community (Emery & Forehand, 1996; Garnezy, 1991; Margolin, 1998).

In the SA literature, studies have mainly investigated the influence of family factors that might contribute to the adaptation of sexually abused children. A supportive relationship with the non-offending parent (the mother in most cases) and the absence of conflict in the family environment are found to contribute to the adaptation of the child reporting SA (Cohen & Mannarino, 1988; Elliott & Carnes, 2001; Esparza, 1993). Chandy, Blum, and Resnick (1996), in analyzing the resilience of adolescents disclosing SA, found that perceived health, degree of religiosity and the availability of support resources as well as living with biological parents were correlates of resilience. Feiring, Taska, and Lewis (1998) have found that while parental support may help adolescents cope with sexual victimization, reliance on support from friends does not act as a protective factor but is linked to poorer outcomes such as depressive symptoms. Spaccarelli and Kim (1995) note that while resilience in young girls with SA was not associated with coping, it was related to a warm and supportive relationship with the non-offending parent and abuse-related stressors. In a study involving a sample of young adults from New Zealand, Lynskey and Fergusson (1997) identified two factors that contributed independently to the prediction of resilience. Their data indicate that those adults with a history of SA who reported low affiliations with delinquent/substance using peers in adolescence, and who described their father as providing support and nurturance, were found to be resilient.

One aspect that has been neglected in the literature concerns the importance of sibling relationships and the potential supportive function they may serve. Franco and Levitt (1998) underline that social acceptance of young children is linked to the presence and the quality of support from siblings and extended family members. In a recent analysis involving college students, Caya and Liem (1998) found that for youth living in high conflict families, the support

received from siblings was related to adjustment. The protective function of a close and positive relationship with a sibling for SA children's adaptation following disclosure has not been the subject of investigation up to now. In the case of intra-familial SA, siblings may also be evaluated and interrogated during the CPS investigations. While the abuse may be found to involve only one child, siblings may nevertheless also be subjected to some environmental changes (e.g., residential move) or familial reorganization (e.g., following divorce for instance or placement in foster care).

Strategies used by children to cope with common problems may also be a factor linked to psychological adaptation following stressful events. In recent years, there has been a growing literature documenting the variety of strategies used by children to cope with a stressful situation (Brodzinsky, Elias, Steiger, & Simon, 1992; Kliwer, 1991; Ryan-Wenger, 1992). Cognitive and behavioral efforts in the face of stressful events are usually described as either problem-focused/approach strategies (efforts to act on the source of stress to change it) or emotion-focused/avoidance strategies (efforts to regulate emotional states that are associated with stressful events). Empirical results suggest that coping behavior may provide a crucial link between the experience of distressing events and children's adjustment. Approach or "active" strategies are found to be associated with positive functioning while reliance on avoidance strategies is related to increased distress (Brodzinsky *et al.*, 1994; Compas, Malcarne, & Fondacaro, 1988; Ebata & Moos, 1991, 1994; Holahan, Moos, & Schaefer, 1996). The possible role of coping in influencing the adaptation of youth reporting SA has been investigated in a few empirical reports. In one study involving adolescents, Johnson and Kenkel (1991) found that wishful thinking, detachment and distancing were linked to worse outcomes. Chaffin, Wherry, and Dykman (1997) reported that SA children who relied on internalizing or externalizing coping strategies were perceived as manifesting more behavioral difficulties in teachers' reports. Children using avoidance strategies (wishing it never happened, trying to forget about it, etc.) were however, contrary to expectations, found to display better outcomes as revealed by parental reports.

The present study attempted to identify individual and contextual factors that are associated with outcomes in latency-aged children disclosing sexual abuse. In the present study, in addition to considering abuse-related variables, the outcome of SA latency-aged children was examined while considering aspects of the child's personal characteristics (coping strategies used to face common stressors) and his or her environmental context (family relationships and quality of sibling relationships) as possible factors linked to adaptation. As well, in analyzing the outcomes of SA children, it appears necessary to consider the possibility that other forms of victimization may co-occur. While this aspect

has up to now been rarely analyzed (Chalk & King, 1998; Crowell & Burgess, 1996), the co-occurrence of other forms of victimization is essential to understanding the outcomes of SA children (Margolin, 1998). Indeed, children who have been subjected to more life stressors are likely to display greater adjustment difficulties (Masten & Wright, 1998; Rutter, 1987). The present study took into account several limitations of previous investigations, such as evaluating children soon after the disclosure of the abusive episode (less than six months) and using referral cases from a pediatric hospital rather than limit the sample to a subgroup of children in treatment. A follow-up evaluation was included in an attempt to better identify "resilient" children and to examine the factors that may differentiate those SA children displaying a better adjustment over a six month course. The study may offer data susceptible to help us identify pathways to resilient outcomes in SA children.

Method

Participants

The sample consisted of 63 children (50 girls and 13 boys) who were referred for evaluation of alleged sexual abuse to the Socio-Judicial Pediatric Clinic of Ste-Justine Hospital, a tertiary care pediatric hospital located in Montreal. The definition of sexual abuse used is the one proposed by the regional CPS: "an action by a person giving or seeking an inappropriate sexual stimulation considering the age or the developmental level of the child, thus affecting the physical and/or emotional integrity of the victim, wherein the aggressor has a blood relation with the victim, or exerts a responsibility, authority or domination position over him or her" (Centre des services sociaux du Montréal métropolitain, 1990).

A total of 204 children consulted the clinic between the one-year recruiting phase of the study, and 101 cases met the criteria to be solicited for participation in the study (children aged between 7 and 12; no medical chronic conditions). A total of 63 children and their parents agreed to take part in the study, reflecting a participation rate of 62%. Comparative analyses were performed and revealed that participants were similar to non-participants regarding socio-demographic characteristics (sex and age of the child) and abuse-related characteristics (length and severity of the abuse, identity of the aggressor, concurrent victimization).

A comparison group of 63 children (50 girls and 13 boys) with no known history of sexual abuse also participated in the study. This group was recruited in public schools in the same geographical region of the SA children. Particular attention was given to selecting schools with socio-economic levels

comparable to that found in the SA group. The control group was matched with the SA group for sex and age.

The equivalence of the two groups with regards to socio-demographic variables was assessed. Participants in both groups had comparable mean ages (SA group: $M = 9.45$, $SD = 1.56$; Control group: $M = 9.46$, $SD = 1.53$; $t(125) = 0.26$, n.s.). In comparing socio-demographic characteristics of families in the SA and the control group, results revealed that the mother's education level was similar in both groups (SA group: $M = 10.89$, $SD = 2.14$; Control group: $M = 11.64$, $SD = 2.42$; $t(123) = 1.85$, n.s.) as was the number of children in the family (SA group: $M = 2.38$, $SD = 1.12$; Control group: $M = 2.40$, $SD = 1.10$; $t(125) = 0.40$, n.s.). In the SA group, 50% of the mothers were employed and 60% of the mothers in the control group held a job ($\chi^2(1) = 1.44$, n.s.). Both groups of participants were also similar with respect to socio-economic level as estimated by Blishen's occupational scale (Blishen, Carroll, & Moore, 1987) (SA group: $M = 38.38$, $SD = 10.95$; Control group: $M = 43.39$, $SD = 13.18$; $t(96) = 1.96$, n.s.). However, mothers in the SA group were younger ($M = 33.70$, $SD = 4.97$) than mothers in the Control group ($M = 36.74$, $SD = 5.08$; $t(124) = 3.40$, $p < 0.001$). Family structure was also found to be different in the two groups of participants. The children in the SA group were more likely to be living in a single-parent family (44% vs. 16%) or stepfamily (27% vs. 19%), and less likely to be living in an intact family (29% vs. 65%) relative to participants in the control group ($\chi^2(1) = 18.35$, $p < 0.001$).

Measures

The child's level of behavioral problems and aspects of family functioning were assessed using parent self-report measures. The coping strategies used to face common stressors and the quality of sibling relationships were evaluated by means of child self-report measures. Abuse-related variables were coded from medical records.

Child behavior checklist

The Child Behavior Checklist (CBCL; Achenbach, 1991) is a widely used questionnaire designed to assess children's level of social competence and behavioral difficulties. This measure, completed by the parent, includes 113 items scored on a three-point scale indicating the frequency of different behaviors over the past six months (e.g. nightmares, shy, etc.). Narrow band syndromes are evaluated and are summarized in two broad-band factors (Internalizing score consisting of the Withdrawal, Somatic complaints, Anxious and Depressed subscales and Externalizing score consisting of the Delinquent behavior and Aggressive behavior subscales). A sexualized behavior score can also be computed and was used as

an outcome measure in the present study. For the behavior problem scores, higher scores reflect greater behavioral difficulties. The section evaluating the child's social competence includes items relating to the number of activities and sports the child participates in, the parent's evaluation of the quality of the interpersonal relationships of the child and his or her school performance. A total social competence score can be obtained; a lower score reflecting lower social competence. The CBCL's manual presents clinical norms derived from percentiles (97.7 percentile) and raw scores are converted to T scores.

Self-report coping scale (SRCS)

A brief version of the Self-report Coping Scale (Causey & Dubow, 1992) consisting of 21 items was derived in order to assess children's coping strategies. The SRCS evaluates coping strategies used when confronted with a common stressor following Roth and Cohen's (1986) conceptualization of approach-avoidance strategies. The original scale consists of 34 items classified in five subscales (problem-solving, seeking social support, distancing, externalizing and internalizing). To derive the brief version, the SRCS was first translated and administered to 131 children aged seven to ten. The items showing the highest item-total correlations with their respective scale were retained. Internal consistencies were found to be satisfactory and a factor analysis of the French version replicated the original version (Hébert, Parent, & Daignault, submitted). For each item, the child answered on a 5-point Likert scale (never to always) how often he/she used the strategy to cope with the common social stressor (for example: "When I have an argument with a friend, I tell a family member what happened"). In the present study, an approach coping score (problem-solving and seeking social support subscales; Cronbach's $\alpha = 0.77$) and an avoidance coping score (distancing, internalizing and externalizing subscales; Cronbach's $\alpha = 0.75$) were used.

Sibling relationship questionnaire

A 15-item version of the Sibling relationship questionnaire (Burhmester & Furnam, 1985) provided information about the warmth, the degree of closeness and proximity described in the sibling relationship. For each question, the child reported on a 5-point scale how well the description presented describes his/her sibling relationship. The French version of the scale shows an adequate level of internal consistency (Cronbach's $\alpha = 0.89$) (Hébert & Parent, 1998). In the present study, if the child had more than one sibling, he or she was asked to refer to the sibling with whom he/she had the best relationship.

Family relationship index

The Family Relationship Index (FRI; Holahan & Moos, 1991) includes 27 items of the Family Environment Scale (Moos, 1990) designed to assess the quality of family relationships. Three dimensions are evaluated and can be summed, referring to the degree of cohesion, expression and conflict in the family (reversed score). A high score indicates positive functioning for the cohesion and expression subscales, while a low score reveals positive family functioning for the conflict subscale. This index is reported to have high internal consistency and good construct validity and has been used extensively as a summary measure of family support (Moos & Moos, 1994). Internal consistency of the FRI French version was evaluated with a group of 229 French-Canadian families and revealed a Cronbach's alpha of 0.89 (Hébert & Parent, 1998).

Abuse-related characteristics

The Sexual Victimization Questionnaire (Parent & Hébert, 1995) was adapted from the History of Victimization Questionnaire (Wolfe, Gentile, & Boudreau, 1988) to code abuse-related variables. The questionnaire includes six dimensions relating to: (1) the nature of the abuse, (2) the perpetrator's identity, (3) abuse outcomes, (4) post-abuse interventions, (5) abuse disclosure and (6) other forms of abuse experienced by the child. Analysis of inter-rater reliabilities based on a subset of 30 records indicated high agreement between the two judges coding the records. The median intra-class correlation was 0.86 and median inter-rater agreement was 92.8%. In the present study, four abuse-variables were used in the main analyses: (1) severity of abuse (following Russell's classification with lower scores reflecting more severe abuse); (2) length of abuse (on a four-point scale); (3) identity of the perpetrator (evaluated on a four-point scale with higher scores indicating a closer relationship with the victim) and (4) the presence of other forms of abuse (physical abuse, neglect, prior sexual abuse or witnessing parental violence).

Socio-demographic questionnaire

A socio-demographic questionnaire was used to gather information concerning the family structure, the number of children and the employment status and level of education of the parents. Parents from the comparison group were also asked in the first interview about the presence of sexual abuse experiences by answering whether or not a list of events (hospitalization, separation, residential move, adoption, illness, birth of a sibling, sexual abuse, etc.) had occurred in the past history of the child.

Procedure

The objectives of the study were first presented to the mothers (or to the legal guardian) at their first visit to the hospital for the medical examination. If the parent accepted to participate, consent forms were collected and a meeting with the family was scheduled. A trained graduate student administered the questionnaires to the child and later assisted the parent to complete the different measures. The parent's and the child's consent for the second interview, 6 months later, were gathered at the end of the interview. Children from the control group were recruited in public schools. Letters explaining the objectives of the research were first sent to families. Parents who agreed to participate returned the consent form to the teacher. Parents were then contacted and a home-interview was scheduled with the parent and the child.

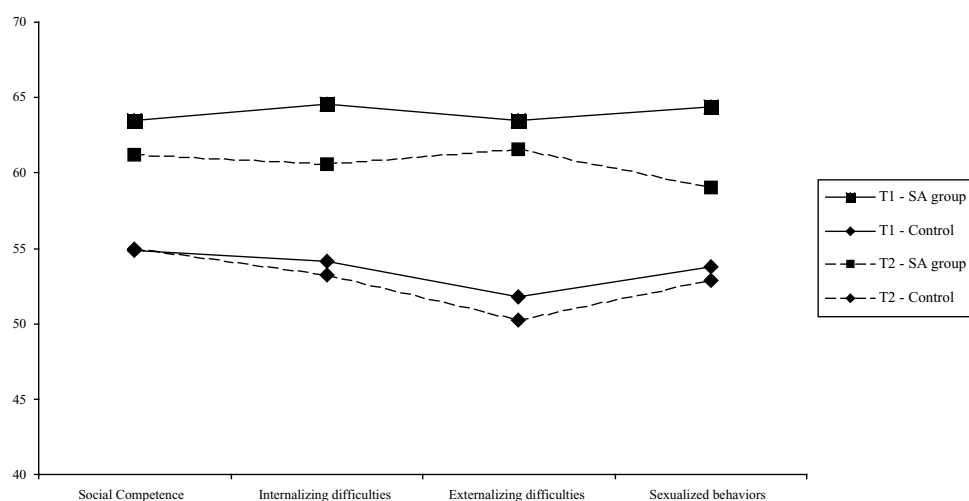
Results

The results are presented in four sections. First, analyses pertaining to the differences between the SA group and the control group in terms of behavioral outcomes will be summarized. A second section will report the characteristics of the abuse in the sample of participants and the following section will highlight the results of the regression analyses evaluating the contribution of the factors in explaining the outcomes of SA children as assessed at the first evaluation. Finally the stability of profiles of SA children over a 6 month time period will be examined.

Analyses of differences between the SA and the control group

A series of MANOVA's were performed to ascertain differences in behavioral adjustment and social competence between the sexually abused children and their non-abused control peers both at the first and second evaluation six months later. A repeated measures MANOVA was done on the four dependent variables evaluating the social competence and behavioral difficulties of the participants as evaluated by their mothers. The group \times time interaction was marginally significant ($F(4,97) = 1.98, p = .10$). Univariate tests revealed a significant group \times time interaction suggesting that while sexualized behaviors for the control group remained similar throughout both evaluation times, the sexualized behaviors reported by mothers of SA children decreased from time 1 to time 2 ($F(1,100) = 5.04, p < 0.05$). A marginal interaction was also evident in the univariate test concerning the internalizing scores ($F(1,100) = 2.94, p = 0.08$). Results also revealed a significant group effect ($F(4,97) = 12.47, p < 0.001$). Follow-up univariate tests indicated that the SA children obtained higher scores than non-abused peers

Fig. 1 Means CBCL scores for the SA and control group at both times of measurement



indicating greater internalizing behavior problems ($F(1,100) = 23.80, p < 0.001$), externalizing difficulties ($F(1,100) = 41.22, p < 0.001$) as well as sexualized behaviors ($F(1,100) = 31.16, p < 0.001$). Results also indicated that SA children were perceived by their mothers as less socially competent than non-abused control group children ($F(1,100) = 6.24, p < 0.01$). Means of the CBCL scores for SA and Control group children at both times of measurement are plotted in Fig. 1.

Examination of individual profiles revealed that a significant proportion of the SA children obtained scores greater than the clinical cut-off score recommended by Achenbach (1991). Thus, 47.6% of the SA sample scored at the clinical range for internalizing behavior problems and 47.6% scored at the clinical range for externalizing behavior problems.

Description of abuse-related characteristics for the SA children

Abuse-related characteristics for the SA sample are presented in Table 1. The vast majority of cases involved a known perpetrator (95%) and only 16% of the children sustained a single episode of abuse. The majority of cases (65%) were rated as severe sexual abuse following Russell's classification (penetration or attempted penetration, oral-genital contact) and all of the cases involved a male assailant. Coercion was involved in 35% of the cases and for 30%, the aggressor had also abused at least one other children. For a small percentage of children (8%), the abuse involved more than one perpetrator. Prior or co-occurring victimization was experienced by 25% of the sample.

Consistent with previous reports, physical signs or abnormalities at the medical evaluation were evident for only a minority of cases. For 10 to 13% of the cases, bleeding or itching symptoms in the genital area were evident and 2% of the children were found to have a urinary infection. Finally,

in regards to post-abuse events, 92% were seen at least once by a social worker and the majority of the cases (84%) were seen for a medical examination. For about two-thirds of the cases, the sexual abuse was reported to the police authorities and in 27% there was a formal judicial pursuit. Less than half of the sample (40%) was involved in an intervention and for the vast majority this involved a follow-up with a social worker.

Contribution of factors related to outcome at first evaluation

First, correlational analyses revealed that for abuse-related variables, the perpetrator's relationship with the victim and the length of the abuse were significantly correlated with behavioral outcomes. Thus, children who were abused by a close adult (for example in the immediate or extended family) tended to manifest more internalizing behavior problems ($r = 0.25, p < 0.05$), more externalizing difficulties

Table 1 Abuse-related characteristics of the participants

Level of severity of the abuse	
Less severe	10%
Severe	25%
Very severe	65%
Perpetrator's identity	
Immediate family	46%
Extended family	16%
Known extra-familial	33%
Stranger	5%
Intra-familial	62%
Extra-familial	38%
Length of the abuse	
One episode	16%
2–3 episodes	22%
More than 3 episodes lasting less than 3 months	13%
Chronic	49%

($r = 0.22, p < 0.05$) and more sexualized behaviors ($r = 0.21, p < 0.05$) compared to children subjected to assaults by a more distant perpetrator. Children abused by a closer aggressor were also rated as less socially competent by their mothers than children aggressed by a more distant aggressor ($r = -0.29, p < 0.05$).

Length of the SA was found to be associated with greater behavior problems (for internalizing difficulties: $r = 0.27, p < 0.05$; for externalizing difficulties: $r = 0.27, p < 0.05$; for sexualized behaviors: $r = 0.27, p < 0.05$). Severity of the abuse was not significantly related to any of the four outcomes evaluated. In addition children subjected to multiple forms of victimization were perceived by their mothers as having greater externalizing behavior problems ($r = 0.26, p < 0.05$) and as being less socially competent ($r = -0.23, p < 0.05$).

Bivariate analyses also revealed that children living in more cohesive and more conflict-free families displayed less behavioral difficulties in the months following disclosure of the sexual abuse (all outcomes significant; correlations ranging from 0.25 to 0.50) while the quality of expressiveness of the family environment was not related to outcomes. The results also suggest that the more a child relies on avoidant strategies, the more prevalent are the behavioral difficulties perceived by the mothers (all outcomes significant; correlations ranging from 0.37 to 0.42). No significant relationships were found for approach coping.

Multiple hierarchic regression analyses were then used to predict the SA children’s level of behavioral difficulties

as evaluated by four outcomes variables (internalizing, externalizing and sexualized problem scores and social competence rating). Three groups of predictors were used: (1) abuse-related variables, (2) familial contextual factors and (3) coping strategies. Table 2 illustrates the percentage of explained variance at each step for each group of variables and provides summary statistics for the final step of the regression analyses.

In the first step, the results showed that externalizing behavior problems and social competence, as evaluated by the CBCL, were partly accounted for by abuse-related variables. The cluster of abuse-related variables was not found to be a predictor of internalizing or sexualized behavior problems.

In the next step, the cluster of family contextual variables (family functioning and quality of sibling relationship) were entered to examine whether family variables significantly added to the prediction of the SA children’s CBCL scores after differences in abuse-related characteristics were accounted for. The results indicate that the addition of familial variables contributed significantly to the equation predicting social competence, externalizing and sexualized behavior problem scores. In the final step, the cluster of personal coping skills variables were entered and provided a significant addition to the prediction of the internalizing behavior problem scores and sexualized behavior problem scores.

Results revealed that the final equation for each behavioral outcome reached significance level; the set of predictors accounted for 35 to 50% of the variance in outcomes. Changes were found in the associations between predictor variables

Table 2 Correlations and beta-weights in the final step of the multiple hierarchic regression analyses^a

	Social competence	Internalizing behavior problems	Externalizing behavior problems	Sexualized behaviors
	β	β	β	β
Abuse-related variables				
Sex of the child	-0.28*	0.07	0.23	-0.13
Severity	0.10	-0.11	-0.03	-0.12
Length	0.16	0.23	-0.08	0.07
Perpetrator identity	0.28*	-0.09	-0.01	-0.13
Other victimization	-0.19	-0.05	0.27*	0.15
R ²	0.22**	0.13	0.23**	0.16
Family factors				
Family expression	-0.02	0.03	0.03	0.06
Family cohesion	0.10	0.10	-0.17	0.22
Family conflict	0.15	-0.26	-0.31**	-0.28
Sibling relationship	-0.14	0.12	0.06	-0.35*
R ²	0.30**	0.22	0.46**	0.31*
Personal variables				
Approach coping	-0.12	-0.16	-0.02	0.13
Avoidance coping	-0.27*	0.34**	0.20	0.34**
Total R ²	0.35**	0.36**	0.50***	0.42**
Multiple R	0.59	0.60	0.70	0.65
F(11,51)	2.49*	2.62**	4.59***	3.36**

^aFor the social competence score, a higher score reflects better competence while for the behavior problem scales, a higher score is indicative of greater behavior difficulties.

and behavioral difficulties when all other effects were taken into account. In considering the prediction of internalizing behavior difficulties, avoidance coping remained a unique predictor of outcomes when controlling all other predictors simultaneously. Multiple experiences of victimization and a high degree of family conflict appeared to make a unique contribution to the prediction of externalizing difficulties. The variables making a unique contribution to the prediction of social competence scores were avoidance coping and the identity of the perpetrator as well as the sex of the child (boys displaying less social competence). Finally, in considering the frequency of sexualized behaviors, the quality of sibling relationships and the frequency of avoidance coping appeared to be the variables contributing to the prediction. Thus children reporting a warm and positive relationship with a sibling and relying less on avoidance coping to confront stressors were rated as displaying less sexualized behaviors.

Follow-up evaluation (6 months later) and analysis of stability of profiles for SA children

Of the 63 SA participants, 49 participated in the follow-up evaluation. Significance tests were performed to evaluate possible differences in socio-demographic characteristics and level of behavioral difficulties or protective factors between follow-up participants and those who did not participate in the follow-up evaluation. Those who did not participate were similar to those who did on initial level of behavioral problem scores (internalizing and externalizing difficulties, sexualized behaviors) and social competence level as perceived by the mothers. Participants in the follow-up interview were also comparable to non-participants in regards to family functioning scores, quality of sibling relationship and frequency of use of approach and avoidance coping skills. Further analyses failed to reveal any significant differences between the two groups concerning socio-demographic variables (socio economic level, mother's age, mother's level of education, family structure) or abuse-related variables (severity of the abuse, identity of aggressor, and length of abuse). Those who participated in the second time of evaluation were also as likely (33%) as non-participants (41%; $\chi^2(1) = 0.22$, n.s.) to be involved in an intervention. One marginal effect was found concerning the number of post-disclosure events (interrogation by police officers, court appearance, multiple interviews with child protection workers, change in living arrangements, etc). Non-participants were involved in more events following the disclosure ($M = 2.80$, $SD = 0.77$) than those who agreed to the follow-up research interview ($M = 2.31$, $SD = 0.88$; $t(61) = 1.92$, $p = 0.06$).

Analyses of the behavior problem reported by mothers at both times of evaluation revealed a high stability of Total

behavior problem scores ($r = 0.71$). Use of the clinical cut-off scores indicated that of the 49 children who participated in the follow-up, only four children changed status between time 1 and time 2. Thus, three children who had obtained a score in the clinical range at time 1 did not at time 2 while 1 child presented a non-clinical score at time 1 but a score reflecting behavior difficulties in the clinical range at time 2 six months later. The remaining participants did not change clinical/non-clinical status. The Total behavior problem T scores were then used to distinguish the two groups of children: 1) those who obtained a score below the clinical range (less or equal to 63T at both measurement times (Resilient outcome: $n = 20$) and 2) those children who scored in the clinical range ($>63T$) at both times of measurement (Clinical outcome: $n = 25$).

A series of analyses were then performed to explore potential correlates of resilient profiles. Regarding possible protective factors, the results indicated that resilient SA children relied less frequently on avoidance coping both at time 1 ($t(43) = 2.50$, $p < 0.05$) and six months later ($t(43) = 3.31$, $p < 0.01$). However no significant difference between resilient and non-resilient SA children was apparent regarding their use of approach coping strategies to confront common stressors both at time 1 ($t(43) = 0.45$, n.s.) and time 2 ($t(43) = 0.22$, n.s.). The analyses concerning familial contextual variables revealed no significant differences for the mean quality of sibling relationship measure for both measurement times (for time 1: $t(43) = 1.22$, n.s.; for time 2: ($t(43) = 0.12$, n.s.). Mothers of non-resilient children were found to report significantly greater conflict (reversed score) at time 2 ($t(43) = 2.23$, $p < 0.05$), while the effect was marginal for time 1 ($t(43) = 1.78$, $p = 0.08$). Other aspects of family functioning failed to discriminate between the two groups.

Additional variables considered in the analysis of differences between resilient and non-resilient SA children included abuse-related variables (length and severity of the abuse, identity of the aggressor, other forms of victimization), sex of the child, family structure and post-abuse variables (number of interventions and whether or not the child was involved in a follow-up intervention). Only the sex of the child appeared to be related to resilient/non-resilient status ($\chi^2(1) = 4.02$, $p < 0.05$). As mentioned previously, 40% of the participants were involved in an intervention following the disclosure of sexual abuse. A series of analyses were done to identify possible differences in outcomes for children involved in an intervention, however, no significant differences were found (see Table 3).

Discussion

The present study revealed that children consulting for alleged SA were reported by their mothers as having

Table 3 Means and standard deviations of the family contextual and personal variables for the resilient and non-resilient group at both times of evaluation

	Resilient		Non-resilient		
	Mean	(SD)	Mean	(s.d)	
Age	9.41	(17.69)	9.29	(16.97)	
Sex:					
Male	5%		28%		
Female	95%		72%		*
Time 1					
Cohesion	8.05	(1.57)	6.80	(2.75)	
Expression	5.70	(1.22)	5.36	(1.22)	
Conflict	6.80	(1.82)	5.60	(2.53)	(m)
Quality of sibling relationship	46.71	(11.34)	51.89	(12.60)	
Approach coping	3.26	(0.84)	3.32	(1.01)	
Avoidance coping	2.03	(0.74)	2.57	(0.71)	*
Time 2					
Cohesion	8.15	(1.42)	7.20	(2.36)	
Expression	5.40	(1.79)	5.08	(1.82)	
Conflict	7.30	(1.72)	5.84	(2.50)	*
Quality of sibling relationship	48.08	(12.27)	47.50	(13.30)	
Approach coping	3.48	(0.76)	3.59	(0.92)	
Avoidance coping	2.10	(0.64)	2.69	(0.55)	**

(m) Marginal effect; $p = .06$.

* $p < 0.05$.

** $p < 0.01$.

significantly more internalizing and externalizing behavior problems and as displaying more sexualized behaviors than children with no known history of SA. One important finding which extends that of previous studies is that while as a group, SA children appear to demonstrate more behavioral difficulties than their non-abused peers, not all victimized youths present difficulties at a level characteristic of clinical populations. Still, close to half (48%) of the sample evaluated, manifested internalizing problems (withdrawal, anxiety, somatic complaints and depression symptoms) and externalizing problems (aggressiveness and delinquent behaviors) in the clinical range according to the CBCL’s norms. Children who disclosed SA were also rated by their mothers as less socially competent than non-abused children.

In analyzing the factors that may explain variations in SA children’s initial adjustment, the relative influence of the different types of factors (abuse-related variables, family contextual factors and personal variables) depends on the outcome considered. For example, family contextual factors accounted for a large proportion of the variance in predicting externalizing behavior problems and sexualized behaviors but none for internalizing difficulties. Moreover, relationships found between abuse-related variables and outcomes in the bivariate analyses are sometimes reduced in the multivariate analyses, suggesting shared variance with other predictors. For example, while the perpetrator’s identity was associated with all outcomes evaluated in the bivariate analyses, it provided a unique contribution to social competence scores only in the multivariate analyses. Among the other abuse-related variables, only co-occurring forms of abuse maintained a unique con-

tribution to the prediction of externalizing difficulties, suggesting that children subjected to multiple stresses are more likely to present greater distress as shown by externalizing difficulties.

Of the variables which may influence outcomes in SA children, the coping strategies victimized children reported using to confront common social stressors, more specifically reliance on avoidance coping, appeared to predict the intensity of internalizing behavior problems, sexualized behaviors and social competence level. In fact, adding the coping dimensions provided an addition of 4 to 14% to the variance accounted for by abuse-related variables and family contextual factors. The importance of avoidance coping in influencing SA children’s adjustment is also supported by the fact that avoidance coping differentiated those children classified as resilient over six month period from those still displaying behavior problems in a clinical range. Links between reliance on avoidance-type coping strategies and an increase in psychological distress have been established in analyses of children confronted with a variety of stressors (Ebata & Moos, 1991, 1994; Sandler, Tein, & West, 1994). The present data did not find a significant influence of reliance on strategies designed to more actively confront the stressors on SA victimized children’s adaptation level. This finding is similar to that of Spacarelli and Kim (1995) who in analyzing a group of SA girls, did not find evidence that resilient children used more active coping strategies while confronting stressors. Thus, in terms of intervention, encouragement of approach strategies (problem-solving or seeking social support) would likely not be related to more positive outcomes, while a reduction of avoidance-type strategies would appear to have a beneficial effect.

The analyses further revealed the importance of family contextual variables in influencing the SA children's level of adaptation, thus underlining the pertinence in considering the child's immediate environment as a target for clinical intervention. After differences in abuse-related characteristics had been controlled for, family contextual factors significantly added to the prediction of the level of behavioral difficulties reported. More specifically, of the different aspects of family functioning evaluated, the intensity of initial family conflict was found to contribute to the prediction of externalizing behavior problems. Analyses of factors distinguishing children appearing resilient in the six month time-frame also highlighted the discriminating power of this variable.

The degree of closeness and proximity perceived in the sibling relationship was also linked to the frequency of sexualized behaviors displayed by SA youths. A warm and positive relationship with a sibling may thus help promote more age-appropriate sexual behavior. In analyzing resilience in adults with a history of SA, Liem, James, O'Toole, and Boudewyn (1997) noted that those displaying positive self-worth and an absence of depression were found to have more siblings than non-resilient adults. In proposing possible processes by which a sibling may play a protective role, these authors referred to an increase odd of having an additional source of support. In the present study, subsequent analyses revealed that while the perceived quality of the sibling relationship was a contributing factor in the level of sexualized behaviors manifested, the sheer presence of a sibling or the number of siblings was not related to outcomes for SA children.

In further analyzing the correlates of resilience, those SA youths who obtained a profile within the normal range both at the initial evaluation and six months later were not found to be different from their non-resilient SA peers with respect to length or severity of the abuse or the identity of the perpetrator. Liem et al. (1997) also failed to find significant differences in abuse characteristics between resilient and non-resilient SA adults. Thus, in allocating resources for intervention, exclusive reliance on the categorization of the abusive event itself, such as intra- or extra-familial abuse or the severity of the acts (involving penetration or not) would not prove to benefit the children disclosing sexual abuse. Cases of extra-familial sexual abuse are unlikely to receive services after initial evaluation from CPS if the child is perceived to no longer be at risk of further abuse when the parent offers adequate protection and support. The scarcity of treatment services for children victims of extra-familial sexual abuse does not appear to be justified as children involved in extra-familial abuse appear as likely to continue to show behavioral problems at follow-up.

One of the most perplexing findings concerns the fact that children who showed disturbance at the initial evaluation were likely to continue to show a disturbance six months

later and this did not appear to be related to whether or not they were involved in an intervention. Only 40% of children were found to benefit from some sort of intervention consisting mostly of support from social services. Unfortunately, information regarding the nature of the intervention was scant. Future investigations will need to document more precisely the type, the modalities and the targets of intervention and evaluate in a longer time period the possible benefits for the child. Prior reports have also found that while services are needed they are not always available or that even if families are referred for counseling, clients may not agree or abandon treatment (Lynn, Jacob, & Pierce, 1988; Pierce & Pierce, 1985). In past years, a wave of budget cuts has considerably reduced the availability of counseling services offered to children disclosing sexual abuse and their families. A number of children may experience instability in service provision and/or may be on a waiting list for several months or even years. A recent analysis involving practitioners underscores the need to implement and evaluate intervention services in Quebec for children disclosing SA and their families (Hébert *et al.*, 2002).

While the present study attempted to overcome some of the methodological considerations raised in previous investigations by evaluating children soon after the disclosure and by not being limited to SA children whom are recruited from therapeutic settings, some limitations are apparent. For instance, the small sample size did not allow for an in-depth examination of gender patterns in outcomes of SA children. Given the lower observed prevalence of SA involving boys (in the present study 20% of the participants were males), future investigations would require a longer recruitment phase thereby providing a large enough sample to provide a more complete analysis of the outcomes of male children experiencing SA. The small sample size also limited the number of correlates of outcomes in CSA children considered in the analyses. While a host of potential correlates were measured, some of the variables identified in prior research were not evaluated in the present study (for instance, attributions, support from peers, degree of religiosity, etc.).

Moreover, reliance on a single source of information (mother's report) regarding the child's behavioral difficulties represents a limitation of the study. Previous studies have underlined the somewhat low agreement between measures completed by different informants. In one prior study, classification of resilience status was found to vary greatly; children's self-report data obtaining only a weak agreement with parents' reports of clinical/non-clinical status for anxiety and depression (Spacarelli & Kim, 1995). While few previous reports have included more than one evaluation period of SA children's adjustment, the time frame used in this study was relatively brief to assess resilient patterns. A longer follow-up appears necessary to ascertain whether children continue to display competence as they come to

face developmental milestones and challenges. As well, an evaluation of competence across different spheres or domains of development would provide a better operationalization of the construct of resilience. Notwithstanding these limitations, the present study raises several issues worth exploring in future investigations. Indeed, further analyses of individual, familial and social factors that are linked to outcomes in SA children may offer promising options for the design of prevention interventions and therapeutic services for this clientele.

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