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Attributions and coping in sexually abused adolescents referred for group treatment

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Abstract

This study aims to assess the predictive value of two sets of variables, attributions and coping behaviors on outcomes, while controlling for abuse-related variables. One hundred and three female adolescents completed self-reports (Trauma symptoms checklist, Self-injurious behaviors questionnaire, Antisocial behaviors checklist and Drug use). Final regression models indicate that, together, attributions and coping behaviors significantly explain unique outcome variance when controlling for SA distress and concomitant family violence in a majority of outcomes. Personal attributions of blame for negative events are the strongest predictors of outcome variance. Implications for future research and intervention are highlighted.

Key words: sexual abuse, coping, attributions, adolescence

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Introduction

Numerous difficulties such as depression, anxiety, PTSD, dissociation, low self-esteem, somatic problems, behavioral problems such as self-destructive, delinquency, substance abuse, sexual promiscuity, prostitution, as well as aggressivity and relational problems have been reported in sexually abused (SA) adolescents (Beitchman, Zucker, Hood, DaCosta, & Akman, 1991; Forbey, Ben-Porath, & Davis, 2000; Green, Russo, Navratil, & Loeber, 1999; Grilo, Sanislow, Fehon, Martino, & McGlashan, 1999; Kendall-Tackett, Williams, & Finkelhor, 1993; McLeer, Callaghan, Henry, & Wallen, 1994; Mennen & Meadow, 1993; Silverman, Reinherz, & Giaconia, 1996). Reviews of the literature to this day underline that a number of constellation of symptoms exists in SA survivors (Kendall-Tackett et al., 1993; Putnam, 2003). Recovery of SA children can present complex trajectories and some symptoms may persist during several years well into adolescence and even into adulthood (Briere & Elliott, 1994; Rorty & Yager, 1996; van der Kolk, Perry, & Herman, 1991). However, one of the most consistent findings in the literature is that notwithstanding the difficulties they face, some SA children and adolescents do not appear to develop later problems. Kendall-Tackett et al. (1993) concluded that about one out of three children with a history of sexual abuse (SA) do not show significant observable impairment following the abuse. Considering this, several authors have now called for a next wave of research investigating the factors that promote wellness in children or adults with a history of SA (Anderson, 1997; Briere & Elliott, 1994; Polusny & Follette, 1995). Identification of such factors may help the design of appropriate interventions. These factors may be conceptualized as a) related to the SA endured, b) to the family and larger environment and c) as personal factors such as attribution and coping.

Characteristics of SA and the family

Analyses of abuse-related variables have found that SA of a shorter duration or of lesser severity (without penetration) is linked to fewer symptoms or behavioral difficulties (Beitchman et al., 1991; Cohen & Mannarino, 1988; Fergusson, Horwood, & Lynskey, 1996; Fergusson, Horwood, & Lynskey, 1997; Thériault, Cyr, & Wright, 2003). Children and adolescents also fare better when the aggressor is not a closely related adult, when there is no force involved, or when they suffer this single type of abuse and no other maltreatment within their family (Feiring, Taska, & Lewis, 1998; Gomes-Schwartz, Horowitz, & Cardarelli, 1990; Green et al., 1999; Naar-King, Silvern, Ryan, & Sebring, 2002; Ruggiero, McLeer, & Dixon, 2000; Thériault et al., 2003; Wagner, 1991).

Some researchers, however, fail to find significant relationships between abuse-related variables and outcomes in SA survivors (Calam, Horne, Glasgow, & Cox, 1998; Koverola, Pound, Heger, & Lytle, 1993; Ligezinska, Firestone, Manion, McIntyre, Ensom, & Wells, 1996; Spaccarelli & Kim, 1995), suggesting that other factors may influence the risk of negative or resilient outcomes following abuse. Given the unchangeable nature of abuse-related variables, investigating the potential role of other factors such as attributions and coping strategies as correlates of outcomes in SA adolescents may prove to have more clinical utility for the design of future interventions.

Attributions and Coping

Theoretical models explaining the impact of SA suggest pathways from SA to outcomes that are influenced by third variables such as attributions and coping strategies (Finkelhor & Browne, 1985; Spaccarelli, 1994). A growing number of researchers have investigated these attributions-based theories linking SA with outcomes. For instance, studies have shown that SA children

present more internal attributions for negative events than do non-SA children (Mannarino & Cohen, 1996). A recent review of the literature on the role of attributions on adjustment in SA children and adolescents attests that abuse-specific internal attributions are related to poorer adjustment, low self-esteem, greater PTSD symptoms and depression in children and adolescents, while they are inconsistently related to children and adolescent's social self-efficacy or social competence (Valle & Silovsky, 2002). General self-attributional style for negative events is also related to higher levels of depression, anxiety and low self-esteem in abused children and adolescents, while it is inconsistently related to PTSD and social competence (Runyon & Kenny, 2002; Valle & Silovsky, 2002).

Feiring, Taska and Chen (2002) studied both general and specific attributions of blame and found that self-attributions of blame specific to SA were more consistently related to post-traumatic symptomatology (intrusive thoughts, avoidance, hyperarousal), whereas general internal attributional style had a stronger relationship to non-abuse specific outcomes such as depression and poor self-esteem. These results underscore the importance of early interventions to reduce self-attributions of blame, both general and specific to the abuse, in SA children and adolescents in order to foster positive adaptations and resilience (Kolko & Feiring, 2002). They also attest to the importance of assessing attributions specific to the SA situation in addition to general self-attributions (Fincham, 2002).

Furthermore, the possible role of coping behaviors in influencing the adaptation of youth reporting SA has been investigated in a few empirical reports. Recently, Bal, Van Oost, De Bourdeaudhuij and Crombez (2003) found that SA adolescents use more avoidant strategies than non SA adolescents who experienced another stressful event. Avoidant coping was also found to mediate the effects of SA on distress (Bal et al., 2003; Shapiro & Levendosky, 1999), whereas

active coping was not (Shapiro & Levendosky, 1999). Avoidant coping strategies have also been directly related with increased difficulties in SA populations (Chaffin, Wherry, & Dykman, 1997; Johnson & Kenkel, 1991; Tremblay, Hébert, & Piché, 1999), whereas approach coping strategies have not shown significant relationship to SA outcome (Tremblay et al., 1999). Results of these studies seem to show a stronger and more stable relationship between avoidant coping and outcomes as compared with approach coping strategies, which seem to be more inconsistently related across studies.

While attributions and coping are being more often investigated in relation to psychological adjustment following SA, their contributions have not been considered simultaneously (Valle & Silovsky, 2002). The goal of the present study is to take into account attributions and coping behaviors in predicting the variability in outcomes of SA adolescents in terms of anxiety, depression, anger, PTSD, sexual preoccupations, dissociation, self-injurious behaviors, antisocial behaviors and drug use. Characteristics of past abusive experiences within the family have often been studied for this purpose, but have shown inconsistent results and are not readily amenable to change in the course of therapy. However, self-attributions of blame regarding SA and negative events as well as coping strategies are amenable to therapeutic interventions. The present study considers two types of attributions (specific self-attributions of blame for SA and general self-attributions of blame for negative events) and two coping behaviors (avoidant and approach coping) simultaneously to examine their unique contributions to the functioning of SA adolescents referred for treatment, while controlling for characteristics of the abuse and the family.

Method

Participants

The 103 participating female adolescents were on average 14.6 years old ($SD = 1.2$). The majority did not live with their biological parents at the time of the study (Table 1). Most reported being from Canadian origins (88%), while the remainder stated their origins as being First nations (4%), Chinese, Greek and Russian (1% each – 5% missing).

Measures

All questionnaires were completed by the teenagers except the one on information about the SA, which was completed by the practitioners to whom they were referred for group therapy. Questionnaires were all administered in French.

Socio-demographic characteristics and abuse-related variables.

Socio-demographic information. The socio-demographic questionnaire evaluates the family composition (number of siblings, number of siblings living with her, rank in the family), living arrangements (living with mother, father, foster family, foster care, etc.), age, etc.

Sexual Abuse Rating Scale, or SARS (Friedrich, 1992). This questionnaire consists of 23 items that describe abuse-related variables (severity, frequency, identity of the perpetrator, age at first episode, etc.). Twenty-one items are coded yes/no and three items are coded in number of months.

SA outcome measures.

Trauma Symptoms Checklist for Children, or TSCC (Briere, 1996). This instrument, a 54-item questionnaire of the degree of distress associated with traumatic events in children 8 to 17 years of age, assessed psychological symptoms of depression, anxiety, sexual preoccupations,

PTSD, dissociation and anger. Il faudrait ajouter un peu d'information sur la validité. Voici le paragraphe que nous utilisons ailleurs.

The French version of the *Trauma Symptoms Checklist for Children (TSC- C; Briere, 1996)* is used with youths aged from 8 to 17 years and evaluates different post-traumatic stress outcomes following trauma. The TSC-C produces six clinical subscales scores and measures the teenager's level of anxiety, depression, post-traumatic stress (PTSD), sexual concerns, dissociation and anger. In addition the TSC-C includes two validity scales; one evaluating the tendency to deny symptoms and a fake bad scale (tendency to show more symptoms than the norms). Cutoff scores are provided to identify invalid profiles on the two validity scales as well as clinical scores on the symptom scales. Internal reliabilities are adequate (ranging from .77 to .89) (Briere, 1996) and convergent and discriminant validity indices are reported to be satisfactory (Briere, 1996). Higher scores indicate a greater frequency of symptoms.

Self-Injurious Behaviors Questionnaire. Self-harming behaviors specific to the adolescence period were evaluated using the *Self-injurious behaviors questionnaire*, or *SIBQ* (Sadowsky, 1995). The scale measures the presence of 22 self-harming behaviors in the last three months, such as suicidal behaviors (cutting wrists/veins, jumping in front of a moving vehicle, medication overdose, self-strangulation and swallowing poison) and eating disorder-related behaviors (refuse to eat and binging, self-induced vomiting, etc.). A total score was used ($\alpha = .84$).

Inventory of antisocial behaviors. Youth completed a homemade inventory of antisocial behaviors assessing the presence of ten antisocial behaviors in the past year (running away, being arrested, assaulting someone, etc.). A total score was used ($\alpha = .81$).

Alcohol and drug use. The use of five types of drugs (soft, hard, hallucinogens, prescriptions and solvents; $\alpha = .66$) and alcohol was assessed as well as their frequency of use in the past year (never, less than once a month, 1 to 4 times a month, 2 to 3 times a week or everyday). Since both measures were highly correlated ($r = .80$; $p = .000$), only the “type of drug” was used in regression analyses.

Characteristics of the family.

Events of childhood and adolescence. Psychological (belittling, shouting, etc.) and physical abuse towards adolescents as well as being a witness of psychological and physical partner violence were assessed through self-report by adolescents (Thériault, Cyr, & Wright, 1996). The four events were combined to yield a total score of lifetime concomitant family violence ($\alpha = .62$).

Attributions and coping.

Children’s Impact of Traumatic Events Scale-Revised -- Blame/guilt. The Self/Blame Guilt subscale of the *Children’s impact of traumatic events scale-revised* (CITES-R - Wolfe, Gentile, Michienzi, Sas, & et al., 1991), was used to assess specific self-attributions of blame for SA (“I am to blame for what happened”, etc.). Since each item directly referred to the experience of sexual abuse, this subscale reflects the degree to which adolescents feel they are to blame for their SA. Adolescents rated the 12 items on a three-point scale (“not true” to “very true” - $\alpha = .85$). Higher scores can be interpreted as reflecting heightened self-blame for the sexual abuse.

Children’s Attributions and Perceptions Scale. The subscale of “Personal Attributions for Negative Events” from the *Children’s attributions and perceptions scale*, or CAPS (Mannarino, Cohen, & Berman, 1994), was used to assess general self-attributions for negative events (“Do you blame yourself when things go wrong?”, etc.). Four (4) items were scored according to their

frequency of endorsement on a five point scale (“never” to “always” -- $\alpha = .71$). Since none of its items directly refer to SA, but rather negative events in general, higher scores can be interpreted as reflecting “heightened self-blame for negative events” (Mannarino, et al., 1994, p. 206).

Ways of Coping Questionnaire. This instrument’s brief version (Bouchard, Sabourin, Lussier, Richer, & Wright, 1995; Folkman & Lazarus, 1988) evaluates the coping strategies of adolescents and adults facing everyday stressors. Thus, it assesses general coping and not coping strategies used specifically to deal with the abuse situation. The scale consists of 21 items measuring the frequency of a given strategy for everyday situations (“never used”, “sometimes used”, “often used”, “always used”). Scores are regrouped into three coping subscales: seeking social support ($\alpha = .81$), positive reevaluation ($\alpha = .81$) and escape-avoidance ($\alpha = .55$). Higher scores for a given coping strategy reflect its more frequent use. Because of the high correlation between seeking social support and positive reevaluation ($r = .75, p < .001$), these two coping strategies will not be entered together in regression analyses. We computed a new composite scale of “approach” coping ($\alpha = .90$), as opposed to “avoidant” coping, by adding items from these two scales.

Procedures

All participants were recruited between September 1998 and December 2003 following a request for group therapy at two treatment centers (n = 69 from the Center for Sexual Abuse and the Family “*Centre d'intervention en Abus Sexuels pour la Famille*” – CIASF and n = 34 from an assessment and intervention program for SA “*Programme d'évaluation et de traitement en abus sexuel*” – PÉTAS). [Isabelle tes adolescents ne sont pas dans ces analyses?](#) Eligible adolescent girls were those aged between 13 and 17 years who could speak and read French who reported SA that were confirmed by Child protection services. At first contact, the practitioner

gave details about the study and solicited the adolescent's participation. Only three of the 106 adolescents refused (2.8%). The 103 participants signed a written consent form. [Ici dans cette phrase j'ajouterais que cette procedure est conforme à la loi \(on s'est fait demander cela dans un autre article\)](#)For participants younger than 14 years of age, the teenager's consent and that of her parents were requested. A trained research assistant performed the interview, lasting about 90 minutes, at one of the two treatment centers or at the participant's home. Interviews at *CIASF* were done individually while those at *PETAS* were done in small groups of two or three adolescents (each completed self-report questionnaires individually in the same room where a research assistant explained how to complete questionnaires and was available to answer questions individually). Finally, this research protocol was assessed and accepted by two independent ethics committee, that of the [Université du Québec en Outaouais](#) University of Montreal ([enlever U de Mtl si tes adolescents ne sont pas dans l'échantillon](#)) and that of the Youth center where the participants were recruited.

Data analysis

We first describe basic results of all variables assessed (SA, family, predictors and outcomes). Second, correlational analyses were run to verify whether characteristics of SA and family violence were related to each outcome so they could be controlled-for in subsequent analyses. Third, a correlation matrix was computed to ascertain the degree to which predictors were correlated amongst themselves. This was done to avoid multicollinearity and redundancy in regressions. Fourth, multiple hierarchical regression analyses were performed on the nine outcome measures with specific self-attributions for SA, general self-attributions for negative events, approach and avoidant coping behaviors as predictors. Significant SA or family factors were also forced into each regression in a first step as covariates.

Results

Preliminary analyses revealed three multivariate outliers ($\pm 3 SD$) for antisocial behaviors; those who reported more than four behaviors were recoded at the 95th percentile (four behaviors). Age was not significantly related to the outcomes assessed except for types of drugs used. Older adolescents reported using more different types of drugs ($r = .26$ and $p = .008$) than younger adolescents did. Age was thus entered in the first step of the multiple regression on drug use as a covariate.

SA outcomes

On average, respondents reported almost two clinical symptoms on the six *TSCC* scales ($M = 1.90$, $SD = 1.80$), while a third reported no clinical symptom (31%). Thirty-one percent reported no self-destructive behavior, another 31% reported no alcohol or drug use and 63% reported no antisocial act in the past year. Eight adolescents (7.8%) showed an absence of difficulties or behavior problems in all outcomes and ten adolescents (9.7%) showed more than two problems or clinical symptoms in all outcomes assessed.

Abuse-Related Variables

Characteristics of SA are described in Table 1 and reveal that abuse endured by the participants was principally perpetrated by immediate family members, was very severe, involved frequent episodes of abuse and often lasted more than a year. The last episode of SA occurred an average of three years prior to the study. Adolescents also reported that the SA endured was on average “very” to “extremely” distressing to them: 76% said it was extremely distressing, 19% very distressing and 5% little or not distressing at all. Of all SA characteristics, the degree of self-reported distress was the only one related to outcome (see Table 2).

Insert Table 1 about here

Concomitant Family Violence

The proportion of adolescents reporting at least one other form of family violence is high (Table 1 - between 21% and 52% according to type of abuse). On average, SA adolescents experienced at least one other form of violence in their family ($M = 1.38$, $SD = 1.11$). Concomitant family violence was related to outcomes apart from anxiety and sexual preoccupations (see Table 2).

Attributions and Coping

Results on the *CITES-R* scale assessing blame/guilt for the SA, show adolescents had an average score of 1.90 ($SD = .50$), indicating they felt it was “somewhat true” they were to blame for the SA. Frequencies showed that 31% did not blame themselves much, 51% blamed themselves moderately and 18% strongly blamed themselves for the SA. Specific self-attributions of blame for SA were significantly related to outcomes, excluding dissociation, antisocial behaviors and types of drugs used (Table 2).

Insert Table 2 about here

The average item score for the CAPS’ Personal attributions for negative events scale, reveal that adolescents reported feeling “sometimes” responsible for negative events ($M = 2.7$; $SD = 0.8$). General self-attributions for negative events were significantly related to outcomes with the exception of antisocial behavior and types of drugs used (Table 2).

The results of the average item score for the two types of coping behaviors show that avoidance was the most frequently used strategy ($M = 1.7$ vs. $M = 1.2$). Avoidance was “often” or “always” used by 58% of the adolescents, whereas approach coping, was often or always used by 29% of the adolescents. Avoidant coping was related to all outcomes, whereas approach coping was only related to sexual preoccupations (Table 2).

The matrix of correlations amongst significant SA and family variables and the four predictor variables of attributions and coping is presented in Table 3. Of the 21 analyses done, only four yielded significant correlations. Approach coping was related to three other predictors (SA distress, family violence and general self-attributions), while general self-attributions was also related to specific self-attributions. However, none of the correlations were high enough ($r = .21$ to $.36$) to entail significant problems with multicollinearity in multiple regressions (Tabachnik & Fidell, 1996).

Insert Table 3 about here – correlations-predictors

Attributions, Coping and Outcomes

Results of multiple hierarchical regression analyses on all nine outcomes using both specific and general self-attributions and coping strategies are presented in Table 4. The table contains the percent of explained variance at each step for the two groups of variables (control variables and predictors) and provides summary statistics for the final step of the regression analyses. In the first step, the results showed that anxiety, depression, PTSD, anger, self-injurious behaviors, antisocial behaviors and types of drugs used were partly accounted for by SA distress and concomitant family violence and that types of drugs used was also partly accounted for by age. These control variables were not found to significantly predict scores of sexual preoccupations or dissociation.

In the final step, the two attribution variables and the two coping variables were entered to examine if they significantly added to the prediction of the SA adolescents' *TSCC* and *SIBQ* scores as well as to their scores of antisocial behaviors and drug use. The results indicate that the addition of attribution and coping variables contributed significantly to the equation predicting

all *TSCC* scores, and the *SIBQ* score. However, the addition of attribution and coping variables did not significantly add to the prediction of antisocial behaviors and drug use scores.

Results reveal that the final equation for all *TSCC* scales and the *SIBQ* reached the significance level; the set of predictors accounted for 27% to 51% of the variance in outcomes. General self-attributions of blame for negative events were the strongest predictor across these seven outcomes even when controlling for SA distress and concomitant family violence. All other predictors being controlled for, general self-attributions of blame for negative events explained unique variance of anxiety, depression, PTSD, sexual preoccupations, dissociation anger and self-injurious behaviors. Less generalized self-attributions for negative events was associated with fewer symptoms. Avoidant coping accounted for additional unique variance in explaining depression scores, while approach coping accounted for additional unique variance in explaining sexual preoccupation scores. Less frequent use of both coping strategies predicted lower symptom scores. Specific attributions of blame regarding SA were not a significant predictor of unique variance in any outcome when controlling for all other effects simultaneously.

Thus, SA adolescents who did not blame themselves for negative events in general showed less traumatic symptoms (*TSCC*) and self-injurious behaviors. In addition, those who relied less on avoidant coping reported lower depression scores, while those who relied less on approach coping reported lower sexual preoccupations. In the final regression models, adolescents who reported experiencing less distress following SA also reported less PTSD and those who reported less concomitant family violence in their lives also reported less anger, self-injurious and antisocial behaviors and used fewer types of drugs. Finally, younger adolescents reported using fewer drugs.

Insert Table 4 about here – regressions

Two final models, those for antisocial behaviors and types of drugs used, did not significantly predict additional unique variance once age, SA distress and concomitant family violence were entered in the first step of these regressions. Thus, for these two outcomes, the first regression models using only control variables were the most parsimonious in accounting for 7% and 14% of the variance respectively. Adolescents who reported less antisocial behaviors were those who reported fewer concomitant family violence and adolescents who reported using less types of drugs were younger and also reported fewer concomitant family violence.

Discussion

The present study assessed the contribution of both attributions and coping behaviors in predicting outcomes while controlling for SA distress and concomitant family violence. Results of our study show that general self-attributions for negative events were the strongest predictor of outcomes, while specific self-attributions of blame for the SA did not significantly explain additional unique variance. These results are somewhat different than those of a study showing specific attributions for SA were still related to outcome, especially to PTSD symptoms, even when controlling for a host of factors including general attributional style (Feiring *et al.*, 2002). One explanation of this difference might lie in the populations studied. For example, in our study the majority of adolescents report some degree of self-blame for the mostly intrafamilial SA they experienced, whereas in the Feiring and colleagues (2002) study, few reported internal attributions of blame for the SA and half reported extrafamilial SA. As well, the correlation between attributions specific to SA and self-attributions for negative events in our study was somewhat higher ($r = .30$) than in the Feiring and colleagues study ($r = .20$). Although general

self-attributions about everyday negative events and specific self-attributions of blame for SA seemed relatively distinct, it may be that the negative effect of self-blame for SA manifests itself through a generalized self-blame for negative events rather than in and of itself (Dalenberg & Jacobs, 1994). This effect might be more perceptible in the aftermath of intrafamilial SA than extrafamilial SA.

One result of our study is similar to those presented by Feiring and colleagues (2002) in the sense that the proposed model best predicts the variability in depression scores (adjusted $R^2 = .51$), a less trauma-specific outcome than, for instance, sexual preoccupations (adjusted $R^2 = .27$). Variance in depression scores is uniquely explained by general self-attributions and by avoidant coping strategies revealing that adolescents who used more avoidant coping strategies to deal with SA and who generally blamed themselves for negative events reported greater depression scores. These results are consistent with the attributional reformulation of the learned helplessness theory (Maier & Seligman, 1976; Seligman, 1972, 1975), which claims that internal, stable, and global attributions for negative events are associated with depressive symptoms (Peterson & Seligman, 1984). A pessimistic explanatory style, alone and in conjunction with negative events, is indeed found to be a risk factor for subsequent depression in general populations of children (Nolen-Hoeksema, Girgus, & Seligman, 1992; Seligman & et al., 1984), as well as in SA children and adolescents (Runyon & Kenny, 2002; Valle & Silovsky, 2002).

Coping strategies did not explain much unique variance in outcomes when controlling for all other variables. Avoidant coping was only related to depression and approach coping was only related to sexual preoccupations. Although avoidant coping was associated with depression in the expected direction, previous studies found stronger relationships with a greater range of outcomes (Bal *et al.*, 2003; Chaffin *et al.*, 1997; Shapiro & Levendosky, 1999; Tremblay *et al.*,

1999). In this case, the correlations found between avoidant coping and all outcomes disappeared in the regression equation when all other variables were controlled-for. The fact that avoidant coping was significantly correlated with SA distress, concomitant family violence and general self-attributions might explain why it could not account for any additional unique variance when that of these three variables was accounted for. The correlations between these four variables might have represented their “shared” explained variance that was all taken-up by general self-attributions, which were more strongly associated with outcomes on a bivariate level.

The more frequent use of approach coping (specifically seeking social support) by adolescents in our study was unexpectedly associated with increased sexual preoccupations. One would think that the use of approach coping would be related with more positive outcomes; however, results on its impact are few and contradictory for SA adolescents (Shapiro & Levendosky, 1999). Our results might reflect adolescents’ attempts to be better informed about sexuality or reassured by friends and family to diminish invasive preoccupations with sexuality. Further research is necessary in order to understand the complex relationship between the attempt at active coping with sexual preoccupations (be they on a normative or clinical level) and the impact of such strategies. It might be that reliance on support from friends or peers as opposed to support from parents or trusted adults is related with detrimental outcomes in adolescents (Feiring *et al.*, 1998), or that the wished-for positive impact of social support depends on the quality and type of support received (La Greca & Lopez, 1998; Stevenson, Maton, & Teti, 1999). Seeking support and being well supported are two different aspects of adolescents realities and it is possible that seeking alone without actual support systems to respond to needs would be associated with greater preoccupations whereas seeking support when it is available and helpful responses are offered would not. Besides, the adolescents in our study

are all referred for therapy and one of the reasons may in fact be because neither their coping behaviors nor their actual support systems were efficient in reducing psychological distress. In fact, few of them report using approach strategies as compared to relying on avoidance strategies to cope with stressors. Consequently, therapy with SA adolescents wishing to diminish problems linked to sexuality, such as sexual preoccupations, would do well to address them directly with, for example, sexual education, rather than hoping the enhancement of support-seeking strategies alone could fulfill this role.

Another interesting finding emerges when looking at two categories of outcomes: internalized (depression, anxiety, PTSD, sexual preoccupations and dissociation) and externalized behavior problems (anger, self-destructive behaviors, drug use and antisocial behaviors). Indeed, concomitant family violence specifically explained unique variance in externalized outcomes only, whereas it did not predict unique variance of internalized outcomes. What's more, in our study, experiencing other types of family violence was the only significant predictor of antisocial behaviors and drug use's scores (except for age predicting drug use). Other research results also showed that concomitant types of abuse were linked with greater number of problems than single type of abuse (Green *et al.*, 1999; Ney, Fung, & Wickett, 1994), and with more drug use than physical abuse alone (Hart, Mader, Griffith, & deMendonca, 1989). Another study found that psychological abuse is associated with internalized problems whereas a combination of psychological and physical abuse is associated with externalized problems (McGee, Wolfe, & Wilson, 1997). In addition, in a recent paper, parent criminal behavior, ineffective, inconsistent and harsh parenting, low levels of parental warmth, affection, and emotional support as well as the presence of marital discord, are some variables cited among parental and familial risk factors for girls' conduct disorders (Delligatti, Akin Little, & Little,

2003). Although we cannot yet conclude on a clear relationship between specific outcomes and specific types of abuse or combinations of abuse, it seems that violence rarely appears in isolation for adolescents sexually abused by members of their family and that their combination more strongly overcomes youths' resilience capacities (Ney, 1994).

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Only one characteristic of the SA was a univariate and multivariate predictor of outcome: self-reported SA distress. The adolescents' perception of the distress experienced during the SA significantly explained part of the variance in PTSD scores even when controlling for all other factors simultaneously. It thus seems that it is the subjective assessment of the SA severity by adolescents themselves, rather than any objective variable reported by practitioners, which is more significantly related to outcome severity, particularly PTSD. This result is similar to those found by Lange and colleagues (1999) who reported that subjective characteristics of the abuse situation were stronger predictors of symptomatology than objective characteristics, such as type of abuse (incestuous or not) in adults sexually abused as children.

Our study's results need to be interpreted in light of its limitations. First, the study does not provide information on whether the relationship between attributions, coping strategies and outcomes are specific to or stronger in SA adolescents than in other at-risk or normal groups. However, given our use of a measure of attributions specific to SA, this study could not have been done using a comparison group of non-abused adolescents. Second, the ecological validity of the results is limited to cases of intrafamilial SA who were reported and investigated by CPS and referred for group therapy. These results should be replicated with a more representative population of SA adolescents and not only those in need of services. Third, the findings are subject to method bias as most variables are self-reported by participants themselves. This bias might explain the fact that general self-attributions almost uniformly explained the *TSCC* scores.

In fact, some TSCC scales are highly intercorelated, share some items and might thus represent a single measure of symptomatic distress rather than truly independent sets of symptoms.

Nonetheless, different sets of factors were associated with the two broad categories of internalized *vs.* externalized difficulties. Fourth, conclusions on the direction of causality are speculative given the correlational nature of the data. Fifth, although we took an innovative look at the importance of both coping strategies and attributions in predicting outcomes, we did not consider the complex interactions among these variables, nor did we consider other types of attributions for SA or negative events in addition to self-attributions (other-blame, mother-blame, etc.). Additional studies are clearly needed to counter such limitations. Specifically, future studies on the importance of attributions and coping strategies in explaining SA outcome variability should explore the interactions among these factors in exploring more complex pathways from SA to outcomes. The addition of third person accounts of the variables assessed, specifically of outcomes such as social functioning and school performance, would improve our understanding of SA outcomes, of adolescents' needs and of the relationship between their coping behaviors, attributions and recovery.

The fact that adolescents experience or witness psychological and physical abuse within their family remains a serious issue that may impact their functioning or their recovery. Although past experiences of abuse are static variables that cannot be changed in the course of therapy, they can greatly inform treatment goals and needs of survivors, especially those with externalized behavior problems, and should be addressed by child protection services. Of the many therapeutic goals which can be pursued with SA adolescents, diminishing self-attributions of blame, especially a general self-attributional style for negative events, could not only have an impact on negative schemata *per se*, but on a range of difficulties as well, especially internalized

symptoms. However, even when empirical evidence supports the relationships between such factors as attributions and coping strategies and psychological functioning, it remains necessary to tailor interventions to the needs of each child and adolescent.

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Table 1

Socio-Demographic Characteristics, Abuse-Related Variables and Concomitant Family Violence.

	Valid n	% or Mean (SD)
Living situation	101	
Parents		22%
Mother		26%
Out-of-home placement		38%
Other family member		9%
Other		5%
Characteristics of the perpetrator		
Adult (18 years and over)	77	81%
Immediate family	97	54%
Extended family	97	29%
Not family member	97	17%
More than one perpetrator	75	25%
Abuse-related variables		
With penetration	75	68%
Use of force	75	32%
More than once a week	74	62%
Age at onset	83	9.80 (\pm 3.65)
Duration	82	1.61 (\pm 2.43)
Time since last sexual abuse	83	3.08 (\pm 2.96)
Sexual abuse distress	99	3.69 (\pm 0.63)
Concomitant family violence (4)	103	1.38 (\pm 1.11)
Witness of interparental physical violence		33%
Witness of interparental psychological violence		52%
Physical abuse towards child		21%
Psychological abuse towards child		47%

Table 2

Correlations Between Outcomes (TSCC, SIBQ, Antisocial Behavior and Drug Types Used), and Attributions and Coping (N = 103).

	Anxiety	Depression	PTSD	Sexual preoccupations	dissociation	Anger	SIBQ	Antisocial behaviors	Drugs used
Control variables									
- Sexual abuse distress (n = 99)	.27**	.23*	.30**	.10	.10	.21*	.13	-.06	.11
- Concomitant violence	.16	.26**	.21*	.18	.22*	.30**	.35**	.27**	.26**
Attributions									
- General self-attributions (n = 102)	.53***	.68***	.56***	.48***	.55***	.54***	.52***	.15	.12
- Specific self-attributions	.31**	.24*	.27**	.31**	.19	.24*	.21*	.09	.08
Coping strategies									
- Approach coping	.05	.02	-.05	.20*	.07	.01	-.06	.08	.01
- Avoidant coping	.33**	.42***	.36***	.20*	.20*	.30**	.38***	.23*	.23**

Table 3

Correlation Matrix of Seven Predictor Variables (n = 103).

Symptoms (scale alpha)	1	2	3	4	5	6	7
Abuse and family variables							
1. Age	--						
2. SA distress (n = 99)	.05	--					
3. Family violence	-.09	.06	--				
Attributions and coping							
4. Specific self-attributions	.12	.05	.03	--			
5. General self-attributions (n = 102)	-.01	.12	.15	.30**	--		
6. Approach coping	-.06	.21*	.23*	-.00	.36**	--	
7. Avoidant coping	.01	.18	.05	.07	-.09	-.02	--

Two-tailed significance level : * p < .05 ** p < .01 *** p < .001

Table 4

Correlations and Standardized Beta-Weights in the Final Step of the Multiple Hierarchic Regression Analyses (N = 98).

	Anxiety	Depression	PTSD	Sexual preoccupations	Dissociation	Anger	SIBQ	Antisocial behaviors	Drugs used
	β	β	β	β	β	β	β	β	β
Step 1: Control variables									
- Age	--	--	--	--	--	--	--	--	.31**
- SA distress	.17	.11	.22*	-.01	.02	.13	.03	-.05	.05
- Concomitant violence	.07	.14	.11	.12	.11	.18*	.24**	.23*	.23*
Step 1 Adjusted R^2	.08**	.12***	.12***	.04	.03	.11**	.11***	.07*	.14***
Step 2: Attributions and Coping									
- General attributions	.40***	.56***	.42***	.41***	.54***	.45***	.37***	.08	-.01
- Specific attributions	.17	.06	.14	.15	.03	.09	.10	.05	.05
- Approach coping	.05	.04	-.06	.21*	.12	.02	-.04	.08	-.04
- Avoidant coping	.14	.17*	.15	.04	-.04	.07	.18	.20	.17
Step 2 Adjusted R^2	.33***	.51***	.38***	.27***	.29***	.33***	.33***	.09	.14
Final Multiple R	.61	.73	.65	.56	.58	.61	.61	.38	.45
Final $F(7,90)$	9.10***	17.54***	11.09***	7.01***	7.62***	8.80***	8.94***	2.56*	3.17**

Note : additionally controlling for age in regression on drug use.

* $p < .05$ ** $p < .01$ *** $p < .001$

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