

Exploration of Recovery Trajectories in Sexually Abused Adolescents

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This paper is part of the first author's doctoral dissertation. The authors wish to acknowledge financial support from the *Conseil québécois de la recherche sociale* (CQRS), the *Institut de recherche pour le développement social des jeunes* (IRDS – a research institute for youth's social development) as doctoral Fellowships to the first author as well as financial support from CRIPCAS.

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Journal of Aggression Maltreatment & Trauma, Vol. 14, No. 1/2, 2007, pp. 165-184.

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Abstract

This study documents recovery status and symptom changes in a one-year follow-up of sexually abused (SA) adolescent girls in child protection services in the province of Québec, Canada. Sixteen French-speaking participants were interviewed using the Multidimensional Trauma Recovery and Resiliency Interview (*MTRR-I*), which was in turn rated by interviewers using the companion rating scale, the *MTRR*, and completed questionnaires assessing symptoms, types of maltreatment endured and services received. Participants were between the ages of 13 and 17 years ($M = 15.2$ years) when first interviewed and had experienced severe sexual abuses. Analyses of one-year follow-up data revealed statistically significant changes towards better functioning on multiple domains and less symptomatology for a majority of the girls interviewed. The recovery status of a minority of research participants seems to have worsened in the interval. The discussion considers these findings and addresses relevancy of the *MTRR* measures in cases of SA adolescents.

Key words: child sexual abuse, adolescence, recovery, resilience, child protective services

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In Quebec, the involvement of Child Protective Services (CPS) in cases of child sexual abuse (CSA) includes the application of legal or voluntary measures designed to protect the child from further abuse. When necessary, psycho-educational or therapeutic services are also offered. Nowadays, CPS workers face the dual challenge to deal with the most serious cases of behavioral problems in sexually abused (SA) adolescents and to assure their sustained psychosocial development. However, these SA adolescents constitute a heterogeneous group who has suffered a wide range of abuses (Putnam, 2003). Because of this diversity, the security and developmental achievements of these adolescents vary considerably when they first come to the attention of CPS. Thus, their need for services may vary and evolve quite differently from case to case. When planning interventions, CPS workers must take into account many variables, including the child or adolescent's adaptation in several areas of functioning. Given such heterogeneity, there is a great need for reliable and comprehensive assessment of both complex traumatic adaptations and resilience.

Mental Health Impacts of CSA

As of now, three important conclusions have been drawn from studies on symptoms of SA children and adolescents. First, they show a wide range of symptoms, but no single one seems to exemplify the experience of a majority of victims across gender and age categories (Beitchman, Zucker, Hood, DaCosta, & Akman, 1991; Kendall-Tackett, Williams, & Finkelhor, 1993). Second, approximately one third of child and adolescent survivors presents no measurable symptom (Kendall-Tackett et al., 1993). Third, SA adolescents present with more diagnostic comorbidity than do other adolescents, sometimes more than those under psychiatric care who were not sexually abused (Brand, King, Olson, Ghaziuddin, & Naylor, 1996; Silverman, Reinherz, & Giaconia, 1996). This high level of comorbidity may reflect a "failure of syndromic integrity" rather than truly separate and co-occurring "diseases" (Sroufe, 1997, p.257). That is why, in the past decade, researchers and clinicians have developed new diagnostic categories to describe these complex symptomatic presentations, which are regarded as forms of post-traumatic stress resulting not from single events but from prolonged and repeated interpersonal violence (Herman, 1992a; Herman, 1992b; Roth, Newman, Pelcovitz, van der Kolk, & Mandel, 1997; van der Kolk, 1996). This syndrome, called Complex PTSD, includes symptoms such as post-traumatic stress, dissociation, somatization and addiction problems that indicate alterations in systems of self-regulation, self-concept and interpersonal functioning (Herman, 1992b; Pelcovitz et al., 1997).

Despite considerable advances in the assessment of exposure to CSA and its impact, most measures generally fail to evaluate these complex responses across all

areas of functioning. An exception is the Structured interview for disorders of extreme stress (SIDES), which assesses alterations in six areas of functioning: regulation of affect, consciousness, self-perception, relationships, somatization and meaning or sustaining belief system (Pelcovitz et al., 1997; Roth et al., 1997). Despite a paucity of studies focusing on short-term forms of complex PTSD, there is some evidence that this syndrome may be present in SA children and adolescents (Hall, 1999; Roth et al., 1997; Tremblay, Hébert, & Piché, 2000) and is a “fit” conceptualization of the impact of CSA (Wolfe & Birt, 1995). Consistent with this point of view, in a previous study, we found that the majority of the 30 adolescents assessed were at least partly affected in most of the domains assessed and that the symptomatic profile for many participants was consistent with a diagnosis of Complex PTSD (Daigneault, Tourigny, & Cyr, 2003).

Resilient or Adaptive Outcome Post Trauma

While there is an increasing recognition of the need to develop and use multidimensional and integrated measures to describe CSA impact, a growing number of researchers and clinicians underscore the importance of also studying resilience (Gore & Eckenrode, 1994; Luthar & Cicchetti, 2000). This concept has been studied in varied populations. For example, some disadvantaged, homeless or maltreated children have shown positive adaptations in the face of adversity (Cicchetti & Garnezy, 1993; Garnezy, 1993; Rew, Taylor-Seehafer, Thomas, & Yockey, 2001).

Questions of “how to” measure and conceptualize resilience have been at the center of interest and a consensus has yet to be reached. Very few studies report the number of asymptomatic adolescents (Boney-McCoy & Finkelhor, 1996; Morrow, 1991; Naar-King, Silvern, Ryan, & Sebring, 2002), which is often used as a resilience criterion (Dufour, Nadeau, & Bertrand, 2000) and fewer directly assess resilience (Spaccarelli & Kim, 1995). Some researchers suggest considering different sources of evaluation and different definitions of resilience to determine a “true” or global resilience over all areas of functioning (Spaccarelli & Kim, 1995), such as in asymptomatic college students who have managed to overcome adversity (Jumper, 1995). Others instead propose to examine “relative” resilience in the presence of symptoms or distress (Harvey, 1996; Anderson, 1997; Luthar, 1993; Luthar, Cicchetti & Becker, 2000). Luthar et al. (2000), for instance, recommend assessing positive adaptation in areas of functioning that are theoretically or empirically linked to the adversity or risk factor investigated. Despite the increasing complexity of how resilience is defined in these various perspectives, current instruments used to assess the impact of sexual trauma neglect the phenomenon of resilience and the possibility of adaptive functioning.

Recovery and Associated Factors

Longitudinal studies of SA children have found that even without treatment, symptoms significantly abate over time (Bolger & Patterson, 2001; Kendall-Tackett et al., 1993; Oates, O'Toole, Lynch, Stern, & Cooney, 1994). However, between 10% and 33% of SA children appear to develop more symptoms and symptom clusters that become increasingly complex and persist for many years (Briere & Elliott, 1994; Dembo et al., 1992; Oates et al., 1994; Rorty & Yager, 1996). To explain this increase, Downs (1993) proposes that when the impact of the trauma is not resolved or treated, the dynamics resulting from CSA may affect later development causing a "progressive accumulation" of symptoms over the years, which could explain the complex traumatic adaptations seen in adult survivors (van der Kolk, McFarlane, & Weisaeth, 1996). These findings underscore the importance of protecting children from further abuses and of immediately treating CSA trauma to limit the accumulation of detrimental impact.

Factors such as participation in psychotherapy have been related to symptom changes in SA children, both symptom improvement and, more rarely, deterioration (Bagley & LaChance, 2000; Berliner & Kolko, 2000; Finkelhor & Berliner, 1995; Oates et al., 1994; O'Donohue, 1992; Sinclair et al., 1995; Tourigny, 1997; Tourigny, Péladeau, & Doyon, 1993). Other factors, such as co-occurring physical abuse, have been related to poorer outcomes (Green, Russo, Navratil, & Loeber, 1999; Naar-King et al., 2002; Ruggiero, McLeer, & Dixon, 2000). Additionally, a significant percentage of children are known to have suffered additional sexual abuse while in CPS' care, which can affect the course of recovery for both children who receive treatment and those who do not (Bagley & LaChance, 2000; Daigneault, Tourigny, & Cyr, 1999; Faller, 1991; Lynn, Jacob, & Pierce, 1988; Messier, 1986).

The current exploratory longitudinal study aimed to find more comprehensive ways to assess complex traumatic adaptations to CSA and to employ a new measure of trauma impact, recovery and resiliency with SA youths for the CPS in Québec. We also attempted to describe changes in multiple domains of functioning of adolescents in CPS during a one-year interval. Individual, small groups and group trajectories were explored.

Method

Procedures

All adolescents between 13 and 17 years with an active case in CPS for confirmed SA were eligible for the study unless they were diagnosed with an active phase psychotic disorder. Caseworkers were initially asked to solicit eligible adolescents and refer those interested in taking part in the study. The first author then contacted these adolescents to inform them of the content and duration of the interview and to schedule a first meeting. Participants were interviewed individually either at their residence, the Université de Montréal or the CPS offices,

according to their preference. All participants provided informed consent, as did a legal guardian in the case of adolescents who were less than 14 years old. Participants were informed that they could terminate the interview at any time. In addition to the semi-structured interview and self-report measures, CPS files of all eligible adolescents were screened and scored for sexual abuse characteristics and sociodemographic variables by a trained research assistant. Adolescents were also asked if they agreed to be contacted for a second interview one-year later.

Participants

Time 1 (T1) study sample consisted of 30 French-speaking female adolescents aged 13 to 17 years. During the one-year interval, 29 of the 30 adolescents who agreed to be contacted for a follow-up interview received birthday cards and Christmas cards to maintain contact. However, 13 of them did not participate in the second interview: five refused to participate, one had run away and seven had moved, changed telephone numbers and were unreachable. Thus, for the present study, 16 adolescents (53%) were interviewed at follow-up. No significant difference was found between the 16 participants and the 14 non-participants in any of the variables studied (*TSCC*, *MTRR*, sociodemographic, CSA characteristics, services and family violence). Since this study is specifically interested in changes over the one-year period, only those adolescents who participated in both interviews were kept for the analyses.

Measures

All measures described have been used at T1 and T2, except for the CSA characteristics that were collected from CPS files at T1. Self-report measures were administered in a structured interview format.

Multidimensional trauma recovery and resiliency: interview and scale. The *Multidimensional Trauma Recovery and Resiliency Interview (MTRR-I*, Harvey et al., 1994) is a semi-structured clinical interview designed to elicit information concerning a trauma survivor's psychological functioning in eight domains of trauma and recovery, namely: authority over memory, integration of memory and affect, affect tolerance and regulation, symptom mastery, self-esteem, self-cohesion, safe attachment, and meaning making (for a detailed description see: Harvey, 1996; Harvey et al., 2003; Lebowitz, Harvey, & Herman, 1993). All interviews were audiotaped and scored by the first author using the *MTRR-99* scale (Harvey, Westen, Lebowitz, Saunders, & Harney, 1998). The 99 items composing the eight domains of the *MTRR-99* were rated on a 5-point Likert scale ranging from 1 ("Not at all descriptive") to 5 ("Highly descriptive"). An average score was computed for each domain. Higher scores are associated with more adaptive functioning in all domains. A study using the *MTRR-99* with a sample of 164 incarcerated women found an average internal reliability of the subscales of .85 (ranging from .76 to .89 -- Liang, et al, 2004, this issue). These investigators

reported adequate inter-rater reliabilities for each subscale using 20 pairs of rated interviews (average of .67). The *MTRR* measures operationalize a multidimensional definition of trauma recovery and have demonstrated the ability to distinguish between traumatized patients who are “largely to fully recovered”, “partially recovered” or “largely unrecovered” and as such provide some evidence for the validity of a three-stage model of recovery from interpersonal trauma (Harvey et al., 2003). No standard cutoffs have been proposed for this scale and different ones have been used for different reasons (e.g.: cutoff score in the middle of the scale -- 3 -- to distinguish between “resilient” and “non-resilient” women). We wanted to distinguish three recovery groups, thus we needed two cutoffs. However, since no participant scored at the extreme ends of the scale (i.e. 1 or 5) on any dimension, save for one, to set cut-offs at equal intervals of the scale would have under-represented those who were both largely unrecovered and largely recovered and over-represented those partially recovered. In Harvey and colleagues’ study (2003), although the average for stage 1 was significantly lower than the average for stage 2, which was significantly lower than the average for stage 3, results showed that average scores for each of the three recovery groups tended to center around the mean of the scale for all the domains as well as for the total 99 items (average of 2.71, 2.86 and 3.04 for stages 1, 2 and 3 respectively). This prompted us to use the average of the 99 items ($M = 3.0$) and its standard deviation ($SD = 0.5$) to set cutoffs which better reflected clinician-assessed stages of recovery. Thus, for all the domains, stage 1 (“largely unrecovered”) was operationally defined by mean item scores below 2.5, stage 2 (“partially recovered”) by mean item scores between of 2.5 and 3.5 inclusively, and stage 3 (“largely to fully recovered”) by mean item scores above 3.5.

Trauma Symptoms Checklist for Children. Psychological symptoms of depression, anxiety, sexual preoccupations, post-traumatic stress, dissociation and anger were assessed using the *Trauma Symptoms Checklist for Children* or *TSCC* (Briere, 1996), a 54-item questionnaire evaluating the degree of distress associated with traumatic events in children 8 to 17 years of age. Clinical norms from American populations were used (Briere, 1996). The factorial structure and internal consistency of the French-language translation of the instrument were comparable to those of the original version with alphas of .70 to .84 (Jouvin, Cyr, Thériault, & Wright, 2001).

Sexual abuse characteristics. Physical contact, penetration, frequency (at least once a week), duration, age at onset, time elapsed since last abuse, relationship with the principal perpetrator and total number of perpetrators were assessed from information in CPS files.

Services. The time since the case has been opened and if the case has been closed during the one-year interval were documented on the basis of information

contained in the adolescents' CPS files. Many reasons can justify closing a case: adolescent has moved out of territory, is no longer in need of protection, is 18 years old, etc. In the present study, we could only document if cases were closed because the adolescent was legally an adult and no longer eligible for CPS. Adolescents also reported all professional services, including the number of sessions they received in the past year. Services included those given by a psychologist or an educational-therapist (psycho-educational therapy focused on day-to-day living and behavior problems). Adolescents were considered to have received professional services in addition to regular CPS if they reported more than one session a month with either professionals.

Concomitant family violence. Psychological (belittling, shouting, etc.) and physical violence towards adolescents as well as psychological (belittling, shouting, etc.) and physical partner violence (between parents) were assessed through self-report by adolescents using a questionnaire on events during childhood and adolescence (Thériault, Cyr, & Wright, 1996). Adolescents reported if each of these events ever happened in their family, if so, how old they were and how long these events lasted. Each type of violence was scored as present (1) or absent (0) and then were all combined to yield a global score of family violence. At follow-up, adolescents reported if they experienced these four types of violence since T1.

Analyses

T-tests were conducted on all scales of the *MTRR* and the *TSCC* to verify if scores at T2 significantly differed from those at T1. Because of the very low number of participants and the exploratory nature of this study, a significance level of $p < .01$ was used instead of a Bonferonni correction. We also examined effect sizes using Cohen's *d* formula (1988) for independent groups as suggested by Dunlop, Cortina, Vaslow, and Burke (1996). In addition, since the low number of subjects precluded analyses of factors contributing to changes over a year, individual or small group recovery trajectories were qualitatively examined according to specific characteristics of the participants, namely racial identity, services received and further SA or family violence during the study.

Results

Participant Characteristics Across Variables at T1

At T1, the adolescents participating in the study were on average 15 years of age. The majority was living in an out-of-home placement (group home, readaptation center, etc.), while two lived with a biological parent (see Table 1). A significant number were of Haitian origin. There were no statistically significant differences between Haitian adolescents and others on any outcome or factor assessed.

Sexual abuses suffered by the research participants were all intrafamilial, with fathers being the principal perpetrator in a majority of cases (see Table 1). On average, the sexual abuses were severe (81%) and frequent (69%) with more than one perpetrator (50%) and had an early onset in childhood ($M = 7.7$ years, $SD = 3.8$) with abuses continuing through to early adolescence. None of the adolescents reported a unique event of CSA: 19% reported SA lasted for less than a year, 19% reported SA lasted one year and the majority, 62%, reported SA lasted for more than one year. The last sexual abuse incident had occurred more than three and a half years prior to the study and all adolescents had been in CPS for more than three and a half years at T1.

Concomitant family violence was also frequent with an average of two out of the four types of violence (Table 1). About two-thirds witnessed psychological partner violence (69%) and experienced physical (69%) and psychological violence (63%) within their family. Forty-four percent experienced both physical and psychological violence towards them and only two did not experience either types of violence (13%).

Table 1.

Description of Demographic Variables, Sexual Abuse (SA), and Family Violence Before the Study as Assessed at Time 1 (N = 16)

Variables	Mean (SD) or %
Mean age (years)	15.2 (± 1.4)
Haitian origin	38%
Place of residence at T1	
With mother	13%
Out-of-home placement (group home, readaptation center, etc.)	81%
Other family member (grandparents)	6%
SA with physical contact	100%
SA with penetration	81%
Principal perpetrator	
Father	56%
Stepfather	13%
Brother	13%
Uncle or grandfather	19%
Multiple perpetrators	50%
Frequent SA (more than once a week)	69%
Age at onset (years)	7.7 (± 3.8)
Duration (years)	3.3 (± 2.6)
Time elapsed since last SA (years) at T1	3.6 (± 1.9)
Time in child protective services (years) at T1	3.5 (± 2.9)
Mean number of types of family violence at T1 (lifetime)	2.4 (± 1.5)
Physical marital violence	44%
Verbal marital violence	69%
Physical violence towards child	69%
Verbal violence towards child	63%

Table 2.

Description of Events Occurring During the Study (Family Violence, Services and Sexual Abuse) as Assessed at T2 (N = 16)

Variables	Mean (SD) or %
Mean number of types of family violence	0.9 (\pm 1.0)
Physical marital violence between parents	13%
Verbal marital violence between parents	25%
Physical violence towards child	13%
Verbal violence towards child	38%
Cases closed	31%
Seen caseworker at least once	69%
Seen educational therapist at least once	63%
Seen psychologist at least once	25%
Sexual abuse	19%

Events and Services Between T1 and T2

At T2, three of the adolescents reported being sexually abused by extra-familial perpetrators during the one-year interval (Table 2). They also reported an average of almost one type of concomitant family violence during that period, with psychological violence towards themselves being the most frequently reported (38%). Seven adolescents experienced neither sexual abuse, nor family violence during that period, while nine experienced at least one type of violence.

During the follow-up year, five adolescents stopped receiving services from CPS. Four of them ceased to be eligible for CPS because they were 18 years old. Three adolescents saw a psychologist in individual therapy more than once a month and seven saw an educational therapist more than once a month. Overall, seven adolescents did not receive services from either professionals more than once a month over the year.

Description of Recovery and Symptom Changes Over a Year

All *MTRR* scale scores were on average higher at T2 than at T1 (Table 3) and four scales showed statistically significant improvements. The group thus showed statistically better integration of memory and affect, self-esteem, safe attachment and meaning making at follow-up than at T1. In addition, the group's average scores on the self-esteem and self-cohesion scales were at 3.6 or higher, indicating that these specific areas of strength were rated as "largely recovered" at T2. Analyses of effect sizes of *MTRR* scales are reported in Table 3 and indicate that most effects were moderate (between .39 and .64). However, the self-esteem scale and the integration of memory and affect scale both showed larger effect sizes (.74 and .71 respectively).

Table 3.

Mean Scores at T1 and T2, Paired *t*-Tests, Number of Adolescents in Each Stage of Recovery Per Domain and Number of Adolescents Showing Clinical Symptoms Per Symptom Scale at T2, Number of Clinical and Stage Improvements and Deteriorations Between T1 and T2 (N = 16)

Domains of recovery and symptoms	T1 Mean (SD)	T2 Mean (SD)	Paired <i>t</i> -tests	Cohen's <i>d</i>	Adolescents in each stage of recovery (n) or adolescents with clinical symptoms at T2 (n)	Adolescents improved and – deteriorated at T2 (n)
<i>MTRR</i> scales					Stage 1 – 2 – 3	
Authority over memory	3.0 (±.6)	3.4 (±.8)	-1.7	-0.56	3 – 5 – 8	6 – 3
Integration of memory and affect	2.8 (±.8)	3.3 (±.8)	-2.8*	-0.71	2 – 8 – 6	6 – 0
Affect tolerance	2.9 (±.6)	3.3 (±.6)	-2.3	-0.62	2 – 9 – 5	4 – 2
Symptom mastery	3.1 (±.6)	3.3 (±.5)	-1.9	-0.40	1 – 10 – 5	4 – 2
Self-esteem	3.5 (±.9)	4.0 (±.6)	-3.2*	-0.74	0 – 4 – 12	6 – 1
Self-cohesion	3.2 (±1.0)	3.6 (±.8)	-1.5	-0.39	2 – 5 – 9	6 – 2
Safe attachment	3.0 (±.7)	3.4 (±.8)	-3.2*	-0.56	3 – 4 – 9	7 – 1
Meaning making	2.5 (±.7)	3.0 (±.8)	-3.2*	-0.64	4 – 7 – 5	9 – 1
<i>TSCC</i>						
Anxiety	11.6 (±4.0)	9.1 (±3.9)	2.1	0.65	2	2 – 1
Depression	12.1 (±5.0)	9.3 (±4.0)	2.7*	0.61	2	2 – 0
PTSD	14.7 (±4.1)	10.3 (±3.8)	3.4*	1.11	0	3 – 0
Sexual preoccupations	8.6 (±4.1)	7.3 (±4.3)	1.4	0.33	7	3 – 1
Anger	11.8 (±5.5)	9.1 (±3.6)	2.8*	0.40	1	1 – 0
Dissociation	10.3 (±6.0)	7.9 (±5.5)	2.2	0.60	0	4 – 0

Note. Cohen's *d* effect sizes : .2 = small, .5 = moderate, .8 = large

* $p < .01$

Furthermore, as a group, the adolescents studied had lower scores on all symptom scales at follow-up, indicating a general reduction of symptoms and a statistically significant improvement on three of the six *TSCC* scales. The group thus showed significantly fewer symptoms of depression, PTSD and anger at follow-up than at T1. Analyses of effect sizes of *TSCC* scales are also reported in Table 3 and indicate that effects were generally moderate. However, the PTSD scale clearly showed a large effect size (Cohen's $d = 1.11$), while the sexual preoccupations scale had a rather small effect size (Cohen's $d = .33$).

Although as a group the adolescents who participated in the study seemed to moderately improve in half of the domains and symptoms, a look at individual changes on the *MTRR* scales reveals that although more adolescents improved in

each domain, up to 19% of them deteriorated (Table 3). Similarly, when using clinical norms as cut-points, results showed that while more adolescents reported symptom improvements from a clinical level to a normal level on all symptom measures, up to 13% of them showed a deterioration in symptoms from a normal level to a clinical level. Furthermore, although four adolescents who had at least one symptom at T1 appeared asymptomatic at follow-up, two of the three initially asymptomatic adolescents have clinical symptoms at follow-up.

In an effort to assess which characteristics or factors contributed to changes over a year, we examined follow-up trajectories of small groups of adolescents. Generally speaking, when looking at scores on *MTRR* and *TSCC* scales, we see that three adolescents seemed to deteriorate (i.e.: more deteriorations than improvements), three seemed to show no changes (no change or equal deteriorations and improvements) and ten seemed to improve over the year (more improvements than deteriorations -- see Table 4.).

Table 4.

Recovery trajectories of 16 adolescents, follow-up clinical status and events occurring between T1 and T2.

Case number	Trajectory	No. of clinical symptoms T2	Case Closed	Educational therapist	Psychologist	Sexual Abuse	Family violence	Haitian descent
1.	Deteriorated	1	yes	no	no	no	yes	no
2.	Deteriorated	1	yes	yes	no	yes	yes	no
3.	Deteriorated	1	no	no	no	no	yes	yes
4.	Unchanged	0	yes	no	no	no	yes	no
5.	Unchanged	0	no	no	yes	no	no	no
6.	Unchanged	2	no	yes	yes	no	yes	yes
7.	Improved	1	yes	no	no	no	yes	no
8.	Improved	1	no	yes	no	no	no	no
9.	Improved	1	no	yes	yes	no	no	no
10.	Improved	1	no	no	yes	no	no	yes
11.	Improved	3	no	yes	no	yes	yes	yes
12.	Improved	0	Yes ^a	yes	no	no	no	yes
13.	Improved	0	no	no	no	no	yes	yes
14.	Improved	0	no	no	no	no	no	no
15.	Improved	0	no	no	no	yes	no	no
16.	Improved	0	no	yes	no	no	no	no

^a This adolescent's case was closed although she was not 18 years old.

First, we looked at the characteristics of the three adolescents whom, generally speaking, seemed to deteriorate over the year on both the *MTRR* and the *TSCC*. Although all three seemed to do worse at T2 than at T1, they had different trajectories over that year. The first adolescent legally became an adult and her case was closed with CPS within less than two months of T1. She did not receive services during that time and reported continued family violence over the year. At

T2, she showed clinical symptoms of anger. The second adolescent also became an adult eight months after T1 at which point her case was closed. She did however see an educational therapist weekly during her eight months in CPS. Nonetheless, she reported experiencing further SA and family violence over the year and showed clinical symptoms of sexual preoccupations at T2. The last adolescent who showed a global deterioration was from Haitian descent and her case remained open throughout the year. She reported receiving no regular services from a professional over that year but reported continued family violence. She showed clinical symptoms of sexual preoccupations at T2.

Second, adolescents who didn't seem to change over the year had similarly different profiles. The first one became an adult and her case was closed within two months of T1. She reported continued family violence but no services during that year. The second adolescent whose profile didn't change received services from a psychologist over the year and reported no SA or family violence. Her case remained open throughout the year. Although neither of these two adolescents changed, they showed no clinical symptoms at T2 and their *MTRR* scores were in the second and mostly third stages of recovery at T2. The third adolescent whose profile didn't change was from Haitian descent and her case remained open throughout the year. She reported continued family violence during the year and received services from a psychologist and an educational therapist. She showed clinical symptoms of anxiety and sexual preoccupations at T2.

The trajectories of the ten adolescents whose profiles improved were equally diverse. In fact, half reported receiving services and half did not, while two reported SA and three reported continued family violence over the year. Two of these cases were closed during the year; one of them legally became an adult and was no longer eligible for CPS. Half of the "improved" adolescents showed no clinical symptoms at T2, while the other half still showed between one and three symptoms. Sexual preoccupations was the most common symptom for all adolescents at T2.

Discussion

Following their exposure to severe and prolonged intra-familial sexual abuse, adolescents interviewed in the present study initially showed evidence of both considerable trauma and substantial resilience. A general decline in symptomatology for the group as a whole was observed at a one-year follow-up, a finding that is consistent with the results of many other studies that have reported symptom abatement over time, with or without treatment (Bolger & Patterson, 2001; Kendall-Tackett et al., 1993; Oates et al., 1994). In addition, *TSCC* scale scores improved over the year with mainly moderate, and one large, effect sizes. This improvement was statistically significant in half of the *TSCC* scales.

In addition to symptom abatement, the present study brings to light both group and individual changes on many domains of the *MTRR* scales. Indeed, this instrument was able to detect improvements in the targeted domains. In this regard, results indicate that concomitant with symptom relief, adolescents were also more able to bring new emotions to bear on their understanding of the past and to find meaning in their lives and in the abuses they had suffered. All *MTRR* changes showed moderate to large effect sizes and half were statistically significant. The data suggest that, even in severely and chronically abused populations such as this one, improvements can be seen over a relatively short period. These changes are not only seen in symptom abatement, they are seen in improved resilience as well. The *MTRR* is a sensitive instrument, which was able to detect these changes.

The *MTRR* data also revealed that these adolescents had particular strengths at T2 in the domains of self-esteem and self-cohesion. However, despite the positive changes achieved by many of these adolescent survivors, another result that is consistent with many findings is the considerable proportion who was symptomatic at follow-up (Cohen, Brown, & Smailes, 2001; Leifer & Shapiro, 1995; Oates et al., 1994). Most of these adolescents were still receiving child protective services at the end of the study, suggesting that their need for security was adequately assessed as compromised by CPS. However, among those adolescents who were most symptomatic at follow-up those whose cases were closed were not better off than those whose cases remained open. In fact, cases were typically closed because the adolescents were 18 years old (four out of five cases) and no longer eligible for CPS, rather than because they were asymptomatic or did not need services. More than half of the adolescents whose cases were closed were clinically symptomatic and experiencing family violence. The question remains as to what happens to these young adults. Do they seek other services? Are there resources in the community for them if they do?

While most of the adolescents studied did improve in most *MTRR* domains and on the self-report symptom scales, some experienced little or no changes and some even worsened in their functioning. Looking at individual changes, no single pattern of recovery emerged. In fact, recovery seemed possible with or without treatment as half of the adolescents whose profile improved over the year did not receive services from an educational therapist or a psychologist. In addition, within the smaller groups of adolescents whose profile either deteriorated or was unchanged after a year, some did receive therapy while others did not. Future longitudinal studies need to observe changes over longer periods with larger groups of adolescents to be able to better describe how life's circumstances interact with personal characteristics in the recovery process. Our study looked at a general profile of recovery taking into account a total of 14 scales and in doing so might have oversimplified the recovery process. In this regard, more specific hypotheses could be made in the exploration of trajectories of change by, for example,

observing how the different domains of the *MTRR* interact with each other or with other factors. It might be that therapy is related to improvements in some specific domains (e.g.: meaning making) and not in others while family violence might be related to deterioration in circumscribed areas of functioning (e.g.: safe attachment).

One particularity of this sample needs to be addressed. One in three adolescent is of Haitian descent and they are thus over-represented in this sample compared to the general population in the same area. Although no significant difference was found on any variable studied between Haitian adolescents and the others, some cultural considerations came up during interviews. For example, “white magic” or “spirits” were referred to as a means of coping with or giving meaning to adversity but were sometimes difficult to differentiate from dissociation or psychotic behavior. Caution needs to be applied when administering the *MTRR* with different cultural groups, especially as it assesses self-perceptions, ways of caring for oneself, or ways of making sense of past trauma. To render the scale more culturally sensitive, for example, it may be suggested that some items addressing very specific and maybe culturally tinted ways of making sense of experience (religious, spiritual or moral values; social or political activism, etc.) be merged into one general item more readily adapted to different cultures. This is true for Quebecois adolescents in general as almost none reported using religious beliefs or social/political activism to give meaning to their lives or to past abuses.

Although these results are promising for the future study of resilience and recovery in SA populations, they need to be interpreted with caution because of the small number of participants, their very specific profile of severe intrafamilial sexual abuse and the fact that all participants were receiving or had received child protection services. In this regard, the cutoff scores used in this study, while useful for interpreting the results, are based on this small sample’s results and should not be used for other populations. Further community studies of traumatized adolescents need to be carried out in order to better appreciate how largely unrecovered, partially recovered and largely recovered participants score on these scales. It might be that some *MTRR* domains always tend to have lower scores in largely unrecovered participants, which would necessitate different cutoff scores for the eight domains. Nonetheless, the *MTRR* measures offer an interesting alternative and/or addition to self-reported symptom measures in describing recovery profiles in multiple domains of functioning of SA adolescents receiving or not receiving treatment.

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