EFFICACY OF AN OPEN GROUP THERAPY FOR SEXUALLY ABUSED ADOLESCENT GIRLS

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Abstract

A first aim of this study is to evaluate the efficacy of an open group therapy for sexually abused teenagers using a quasi-experimental pre-test/post-test treatment design. A second aim was to explore possible differences relating to the efficacy of an open group format relative to a closed group format. The psycho-educational intervention consisted of an average of 20 weekly two-hour meetings. Results indicate that sexually abused girls involved in an open group therapy showed greater gains than control group girls for the majority of the variables considered. Thus ANCOVAs revealed significant changes for the open group therapy participants for all subscales of the TSCC except for anger; concerning attributions, self-harming behaviors, optimism and approach-type coping strategies and a reduction of behavioral problems. No significant gains were noted concerning the teenager's perception of her relationship with her mother and her father, avoidance type coping strategies and delinquent behaviors. Analyses contrasting the two formats of group therapy fail to identify any statistical differences suggesting that both open and closed group formats are likely to be associated with the same significant gains in sexually abused teenagers.

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Introduction

The proliferation of research on the consequences of child sexual abuse (CSA) and the questioning of so called "traditional" approaches of intervention have paved the way for the development of innovative modalities to treating sexual abuse victims, that pursue a variety of objectives, and rely on varied therapeutic tools (Glaser, 1991; Keller, Cicchinelli, & Gardner, 1989; Putnam, 2003). Group therapy represents one of the most frequently used therapeutic modalities with this clientele (Kruczek & Vitanza, 1999; Tourigny, 1997). In a social context where demands for services is high and resources limited, Kruczek and Vitanza (1999) underline that group therapy offers important economic advantages relative to other forms of treatment. Furthermore, group intervention may be especially pertinent to reduce the social withdrawal and stigmatization so often expressed by CSA survivors (Friedrich, 1997; Silovsky & Hembree-Kigin, 1994). Finally, group intervention may be particularly suitable for adolescents who are at a stage of development where the presence of peers is particularly important and valuable (Kruczek & Vitanza, 1999).

Despite the proliferation of programs and the widespread use of group intervention, few evaluative studies have been conducted (Finkelhor & Berliner, 1995; Putman, 2003 ; Saunders, Berliner, & Hanson, 2003; Tourigny, 1997). A review of evaluative studies on the efficacy of group interventions offered to CSA children and adolescents concludes that group intervention is a promising mode of intervention. However methodological limits in the majority of current studies precludes definitive conclusions as to their efficacy (Finkelhor & Berliner, 1995; Saunders et al., 2003; Tourigny, 1997).

Studies that have specifically examined the effects of group interventions for adolescent CSA victims are few in numbers. In general, these studies identify beneficial effects of group therapy namely concerning the following aspects: 1) behavioral problems, 2) self-esteem, 3) depression, 4) anxiety, 5) post-traumatic stress, 6) symptoms linked to sexuality, and 7) positive coping strategies (Ashby, Gilchrist, & Miramontez, 1987; Baker, 1987; Kruczek & Vitanza, 1999; Larzelere, Smith, Collins, Collins, Sinclair, Osgood, & Daly, 1995; Lindon & Nourse, 1994; Mackey, Gold, & Gold, 1987; Nolan et al., 2002; Sinclair et al., 1995; Verleur, Hughes, & de Rios, 1986).

Studies conducted to this day have not however explored the different characteristics of group treatments (such as length, format, etc.) nor their possible contribution to the effects of the therapy. Among potential variables to be explored, the setting of an open versus closed group therapy is probably the question still open for debate regarding the respective advantages and inconveniences of each format. In the previously mentioned evaluative studies, the vast majority have focused on therapy using a closed group format (Ashby et al., 1987; Baker, 1987; Larzelere et al., 1995; Lindon & Nourse, 1994; Mackey et al., 1987; Sinclair et al., 1995; Verleur et al., 1986), while only one study examined the outcomes of CSA teenagers following participation in a therapy relying on an open group format (Kruczek & Vitanza, 1999).

Using standardized measures of behaviors and a homemade questionnaire on knowledge of positive coping strategies, Kruczek and Vitanza (1999) evaluated the efficacy of their intervention with 41 adolescent girls (13 to 18 years old) hospitalized in a psychiatric setting. The average hospital stay was two weeks, and researchers have implemented a service where adolescents were able to benefit from the maximum of possible meetings during that period. Thus, a seven meeting intervention (one individual meeting for evaluation/orientation and six group meetings), consisting of three weekly meetings, allowed adolescent girls to alter their

coping behaviors. Indeed, a significant difference between the pre-test and post-test is noted in the *Solution Focused Recovery Scale for Survivors of Sexual Abuse.* On the other hand, the results did not indicate any statistically significant changes at post-test regarding their knowledge of positive coping strategies.

No study has, until now, compared the effects of an open group format to that of a closed group for CSA victims. Moreover, there does not seem to exist any empirical report comparing the therapeutic efficacy of open and closed group modalities (Smith, 1997) in other fields of child or adolescent behavior.

Open or closed group treatment

Mackenzie (1996) defines an open group as a group in which some members can join or leave the group provided they reach the pursued objectives or according to their progression inside the group. On the other hand, the closed group distinguishes itself by the fact that once it has begun, no new members can join in. This format of group therefore implies that all the members will start and complete the therapeutic process together and at the same time. The preferred format in group therapy has not yet reached a consensus in the clinical literature; with one exception, almost all evaluative studies involving CSA adolescent girls has been carried on closed group interventions.

Each format of group therapy has its associated advantages and disadvantages. A first advantage of closed group intervention is that each member is allowed to live together different phases of the therapeutic process (the beginning, the commitment, the differentiation, the conflicts, the consolidation of gains, treatment end). This possibility ensures that the therapeutic potential of each stage can be explored, exploited and maximized for all participants.

Kesterberg and Decobert (1966) note that the limited duration of closed group offers a more structured framework for children/adolescents, which help them better manage their

anxieties or their pathological defense mechanisms. The absence of a temporal limit in the majority of open groups may be more susceptible to favor a regressive attitude harmful to the cohesion within the open group.

Several authors also believe that the closed group offers children and adolescents the possibility to create a better confidence bond and a feeling of security since the social environment of the group remains stable, no new members being added each week (Bergard, 1986; Douglas, 1991; Grotsky Camerer, & Damiano, 2000). This group therapy format therefore offers to each participant a predictable environment that may contribute to the group's cohesion; rules and routines being stables and understood by all the members «at the same time» (Grotsky et al., 2000).

Another advantage of closed group relative to open group is that it allows to set an end to the treatment. On the other hand participants in open groups may have a tendency to prolong their treatment creating a sense of dependence to the therapist or to the group itself. Finally, closed groups allows for a better interpretation of therapeutic regressions and progress. On the other hand, the end of the group process can be complex and painful since each participant must mourn the disappearance of the group in his own reality. The group must then undertake the psychic elaboration of separation and anxieties brought on by this end (Chapelier, 2000; Douglas, 1991).

Since trust is often difficult to establish between members of the group, Grotsky et al. (2000) suggest that a stable group facilitates the process of disclosure. Also, the members of an open group that do not have the same seniority may present great gaps in their progression level which could contribute to set a distance between each other (Chapelier, 2000; Douglas, 1991; Grotsky et al., 2000). Grotsky et al. (2000) underline however that open groups have the advantage of providing senior adolescent girls the opportunity to take a role of leader.

Open group may present other advantages. While some authors suggest that closed group allows for the reconstruction of a family model (Grotsky et al. 2000), others believe that the open group format represents it better (Chapelier, 2000; Ganzarain, 1989). Through the conflicts that arise inside the group, as in all families, participants may learn new conflict management strategies. Moreover, group therapy may provide a setting to tackle separation anxiety and fraternal rivalry issues. In an open group, the disappearance of a peer can increase feelings of abandonment for some participants. Bianchi-Ranci (1995) strongly suggest considering in the group setting feelings of loss felt by the members following each departure to prevent heightened sense of anxiety. The arrival of a new member is susceptible to stir up memories of abandonment and regressive defenses. According to Ganzarain (1989), the arrival of new members may even be associated with regressive behaviors of some members, which, by analogy, are confronted with the arrival of a newborn in a family, may fear that the new sibling request all the attention of the caregiver. For these authors, the open group format may therefore provide an ideal setting to tackle some unresolved psychological issues for some participants. Douglas (1991) compares arrivals and abandonment in group therapy to the process of creation and dissolution of social links. Group therapy allows the members to learn to live with those changes in a protected setting.

Other advantages of an open group format may be mentioned. Open groups are easier to implement, as they allow for avoiding waiting lists and they preclude group ending linked to desertion of participants (Chapelier, 2000; Douglas, 1991; Grotsky et al., 2000). Open groups may, however, involve repetition of some key concepts and slow down or even prevent covering all the foreseen content since the arrival of new members may require the repetition of conveyed notions (Galinski & Schopler, 1985; Grotsky et al., 2000).

In the context of intervention with CSA children, Grotsky et al. (2000) strongly believe that groups must be « closed » because the establishment of a beginning and an end of

treatment gives the child a glimpse of the work he will have to accomplish in a limited period of time. In their exploratory study, Kesterberg and Decobert (1966) noted that the time limitation seemed to present a structured value and may help overcome anxiety or pathological defense mechanisms within stable (closed) groups. This temporal value, that was not pre-establish in the case of open groups, seems to entail a regressive attitude harmful to the cohesion within the open group. This said, the majority of authors agree in saying that the group, itself, represent an in-vivo mode of experimentation rich in therapeutic content.

Given the paucity of evaluative studies in the area of child sexual abuse, it is imperative to document the possible beneficial outcomes in sexually abused teenagers participating in group therapy. The present study has two objectives. The first aim is to evaluate the efficacy of an open group intervention for adolescent girls who have experienced CSA. The second objective is to verify whether the efficacy of an open group format differs from that of a closed group format[1].

Method

Design

The study rests on a quasi-experimental design involving two waves of measurement (pre-test/post-test). The first experimental group consists of 13 adolescent girls who have participated in an open group therapy and received weekly two-hour meetings for 20 weeks. The control group consists of 15 adolescent girls who have requested services from the center but did not receive treatment for one of the following reasons: the teenagers finally decided not to participate in the group intervention, has abandoned treatment in the first two weeks or the practitioners evaluated that the group therapy format was not suitable for them (for instance because of excessive timidity or of difficulties expressing emotions in a group setting).

[1] Results concerning the evaluation of the closed intervention group have been reported elsewhere (Tourigny, Hébert, Daigneault, Sénéchal and Simoneau, accepted).

The second experimental group consists of 31 adolescent girls who have received the same intervention but in a closed group format.

Participants

The 59 adolescent girls were recruited within a two-year period following a request for services at the Center for Sexual Abuse and the Family (*Centre d'intervention en Abus Sexuels pour la Famille – CIASF*). At the first contact, the practitioner gave details about the study and solicited their participation. In accordance with Canadian Law, for participants younger than 14 years of age, the teenager's consent and that of her parents were requested. Only 4% of the 74 adolescents solicited refused, the 71 other participants signed a written consent form and participated at their first interview, but 17% abandoned the therapy or the study and did not participate at the second interview. The interviews lasted about 90 minutes and were performed by a trained research assistant at the Center or at the participant's home.

All adolescents are French Canadian except for one teenager of Russian ethnic background and one teenager of Greek ethnic background. Mean age of the participants was 14.9 years at pre-test evaluation. Close to one out of three teenagers (29%) was living in a foster family or in a foster care center while 32% were living with both parents and 31% with their mother.

Abused-related variables indicated that the sexual abuse experiences were severe and characterized by penetration (oral, anal or vaginal) in 69% of the cases, frequent (at least once a week) in 67% of the cases, and involved use of physical force in 29% of the cases. A total of 22% of the adolescents were abused by more than one perpetrator and 15% were also victims of physical abuse. Regarding the identity of the perpetrator, all were known to the victim except for two (4%), the perpetrator was an adult in 82% of the cases, 40% were members of the immediate family and 33% were members of the extended family. Adolescents from the

three groups did not present any statistically significant differences concerning socio-demographic and abuse related variables (see Table 1).

Insert Table 1.

Measures

Socio-demographic characteristics and abuse-related variables

All questionnaires were completed by the teenagers except for the *Sexual Abuse Rating Scale* (SARS - Friedrich, 1992) which was completed by the CIASF practitioner. The two following questionnaires were administered only at pre-test evaluation. First a socio-demographic questionnaire evaluating the family composition (number of siblings, number of siblings living with her, rank in the family), the teenagers' and parents' education level, the teenagers' age and living arrangements (living with mother, father, foster family, foster care, etc.) was completed by the teenager. The French version of the *SARS* (Friedrich, 1992) consists of 21 yes/no items.

Outcome measures

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.

The *Youth Self-Report and Profile* (*YSRP*; Achenbach, 1991) is the adolescent (11 to 18 years) version of the Child Behavior Checklist (*CBCL*) and evaluates the teenager's perception of behaviors problems such as withdrawal, somatic complaints, anxious/depressed, social problems, thought problems, attention problems, delinquent behavior and aggressive behavior. The *YSRP* consists of 112 items evaluated on a 3-point scale the frequency of the behavior in the last three months. Two dimensions define Internalizing behavior problems and Externalizing behavior problems. Stability coefficients vary from .67 to .91 for a delay of one week for the different subscales. A higher score reflects greater behavior problems.

A French version of the *Ways of Coping Questionnaire* (Bouchard, Sabourin, Lussier, Richer, & Wright, 1995; Folkman & Lazarus, 1988; Knussen, Sloper, Cunnigingham, & Turner, 1992) evaluates the coping strategies of adolescents and adults. The scale consists of 21 items measuring the frequency of a given strategy (never used, sometimes used, often used, always used). Scores are regrouped into three coping subscales: seeking social support, planful problem solving and escape-avoidance. A higher score reflects a greater frequency of use of the given coping strategy.

The French version of the *Children's Attitude and Perception Scale* (CAPS, Mannarino, Cohen & Berman, 1994) has been elaborated to assess general self-attributions for negative events. The questionnaire consists of 18 items evaluated on a 5-point frequency Likert scale ranging from never to always. The measure provides a global score as well as four subscale scores: Feeling different from peers, Interpersonal trust, Personal attributions for negative events and Perceived credibility. For the global score, higher scores indicates that the teenager present negative attributions and perceptions. The internal consistencies of the subscales vary from .64 and .73 and the test-retest stability indexes vary from .60 and .82.

Self-harming behaviors were evaluated by the *Self-Injurious Behaviors Questionnaire* (Sadowsky, 1995). The scale measures the presence of 21 self-harming behaviors in the last three months, such as the self-harm behaviors (cutting veins, burning skin, pulling out hair, etc.), suicidal behaviors (taking poisonous substances, suffocating, etc.), eating-related disorders (refuse to eat and binging, self-induced vomiting, etc.), and dangerous behaviors that can provoke injuries. A total score of self-harming behaviors is used in the present study. A homemade questionnaire was used to evaluate *Delinquent and criminal behaviors*. A series of 16 items (theft, police arrest, running away from home, alcohol and drug use, prostitution etc.) was used and a total score was derived.

The *Child's Attitude toward the Mother* (CAM) and the *Child's Attitude toward the Father* (CAF) evaluates the teenager's perception of the quality of her relationship with each of her parents. The scale consists of 25 items and the total score can evaluate the presence or absence of conflicts in the teenagers/parents relationship. A score ranging between 30 and 69 corresponds to a score in the clinical range revealing significant relationship difficulties while a score greater than 70 indicates the teenager is sustaining severe stress and that it is likely he/she might or is thinking of using violence to face the problems (Giuli & Hudson, 1977). Giuli and Hudson (1977) report internal consistencies of 0.94 and 0.95 and stability of 0.89 and 0.96 for a one-week interval and a good factorial validity and adequate discriminant validity.

A 23-items scale evaluating *Sense of Empowerment* was also used (Roger, Chamberlin, Langer, & Crean, 1997). The original instrument contains 28 items consisting of 5 subscales (Optimism, Community participation, Self-efficacy, Helplessness and Justified anger). For each item, the teenager responds whether she agrees or not with the statement on a 4-point Likert scale. In the present study, the subscale «community participation» was not used. A higher score is associated with a higher sense of empowerment. Internal reliability is high, Rogers,

Chamberlin, Langer, Ellison and Crean (1997) reported an alpha coefficients of .86 while Wowra and McCarter (1999) obtained an alpha coefficient of .85 in a sample of 283 adult outpatients from a population receiving mental health public services.

Independent variable – Open or closed group intervention

The CIASF, a community agency located in the province of Quebec (Canada), offers group treatment for adolescents girls since 1993. The open group-treatment has been offered until 1999 and the closed group-treatment is offered since September 1999. By closed group, we refer to a group that does not accept new participants once the intervention has began while in an open group, adolescent girls can join the group at any given time. In the two types of groups, the therapeutic content is the same as in the duration of therapy (20 sessions). Other than the fact that adolescents arrive and leave the group at different moments, the main difference between the two groups relates to the fact that adolescents from the open group do not participate to meetings in the same sequence while for the closed group, adolescents participate to meetings in the same sequence.

The services are offered to teenagers aged 13 to 17 years old whom have disclosed intra-familial (nuclear or extended family) or extra-familial sexual abuse. Participants may have been oriented to the CIASF by different agencies such has Youth protection services and Local Centers of Community Services.

The closed group involves 6 to 10 participants. The open group format involves a variation in the numbers of participants ranging from 4 to 10 depending of the sessions. The two groups involve 20 weekly meetings[2] each lasting two hours. The psycho educational approach used involves different therapeutic activities such as group discussions, personal testimonies and stories, individual and collective exercises and lectures. Each session has a

[2] The number of meetings for each of the groups can slightly vary depending on the group and its specific needs.

similar format and centers on a specific theme (see appendix 1). The main topics discussed relate to the disclosure of the abuse, the consequences of the abuse, the relationship to the perpetrator, different issues related to sexuality, the prevention of revictimization and, intimate and romantic relationships. The weekly sessions are lead by two practitioners (generally one woman and one man) supervised if needed by the director of the Center. While specific group dynamics are taken into account, the homogeneity of the intervention is insured by means of a treatment manual (Sénéchal, 1999).

The objectives of intervention are: a) to reduce the negative and traumatic consequences of the sexual abuse (anxiety, depression, low self-esteem, behavior problems, difficulties linked to sexuality, aggressiveness, post-traumatic stress, academic and school-related difficulties) to insure survivors may attain a normal development; b) to reduce social isolation by enabling exchanges and supportive relationships with other teenagers also victims of sexual abuse; c) to reduce shame and culpability from the sexual abuse and, d) to help teenagers to rely and use their personal resources and develop skills to manage the repercussions of the sexual abuse.

In the present study, the 31 teenagers from the closed group were involved in five different intervention groups. Four adolescents (13%) have abandoned closed group treatment in the course of this study while two (13%) adolescents have abandoned the open group. Excluding those abandoning treatment, the level of participation to the weekly meetings varied from 64% to 100%. On the average, adolescents participated to 90% of the proposed meetings from their group, representing a mean of 17 meetings per adolescent. No differences between the two types of group intervention were noted at the level of participation (Table 2).

Insert Table 2.

Results

Because of the quasi-experimental design used, analyses of covariance (ANCOVA) were performed. The ANCOVA allows the comparison of the effect of therapies by controlling for initial differences between the groups related to the fact that participants were not randomly distributed in the experimental groups. The means observed at pre-test and at post-test as well as the adjusted post-test means are presented in Table 3. The results of the global test comparing the three groups and the 2 (groups) x 2 (time) comparisons contrasting the open group versus closed group treatment are presented. The presumptions involved in the statistical analysis (normality of the errors, equality of variances, linearity and equality of the slopes) were verified prior to running the main analyses.

Efficacy of the open group intervention

Analyses of covariance were performed to determine if the adolescents from the open group improve significantly more than control group teenagers. Table 3 shows that adolescents who have participated in a group intervention improve significantly relative to control group teenagers for several of the variables evaluated. Thus, participants involved in the open group intervention obtained significantly lower post-traumatic stress scores. Indeed all TSC-C subscales, with the exception of Anger, are associated with significant changes for the experimental group. A decrease in abuse related attributions is also noted, and this, more specifically at the level of Interpersonal trust and Feelings of responsibility. Furthermore, concerning the reliance on coping strategies, the adolescents participating in a open group intervention were found to use more frequently support seeking and problem re-evaluation as coping strategies following the therapy relative to control group teenagers. No significant differences were noted concerning the reliance on avoidance type strategies.

The results also show that CSA adolescents from the open group see their behavioral problems decrease in a significant manner compared to those from the control group. Data reveals a significant decreases of social withdrawal and anxiety scores of the Internalizing behavior problems and social and attention problems, while scores of the externalizing behavior problems are marginally significant. Finally, we also observe a significant reduction of self-harming behaviors for adolescents who have participated in the open group intervention compared to control group teenagers.

The adolescents' perception of the quality of her relationship with her mother or her father does not however show any difference with results obtained from the control group. Sense of empowerment does not improve for the adolescents who have received therapy although a significant improvement is noted concerning the Optimism subscale. No significant difference distinguishes the adolescent from the groups concerning the frequency of delinquent behaviors.

Insert Table 3

Comparison of the open and closed intervention group

Results obtained from participants involved in the open group intervention were compared to results from teenagers participating in the closed group modality. Results are reported in Table 3. Data reveals no significant difference between the two formats of treatment. Open group intervention and closed group prove, therefore, as efficient one as the other in producing significant changes for the variables considered.

Discussion

Effects of the open group intervention

Results show significant improvements in the group of adolescent girls that participated in the open group intervention, and this, mainly at the level of post-traumatic stress symptoms,

attributions, coping strategies, behavioral problems and, optimism as a construct related to sense of empowerment. The majority of these concepts are tackled directly during the course of the group intervention (see appendix 1). For example, one of the workshops focuses specifically on the question of « intrusive thoughts or flashbacks », and how to manage them. Several workshops are oriented towards a discussion on the attributions following the sexual abuse often seen in survivors and these are dealt within concrete ways through a series of exercises. For instance, an activity referring to the understanding of the cycles of sexual abuse may help participants overcome feelings of guilt regarding the abuse and place back the responsibility for the sexual abuse to the aggressor. Three meetings specifically center on the identification of personal consequences of sexual abuse in adolescent girls and the identification of adequate means to face such consequences (positive coping strategies) (Sénéchal, 1999). The group intervention appears to increase the use of seeking social support coping strategies and the use of reevaluation or problem solving. These approach-type coping strategies are generally associated to more positive outcomes than escape/avoidance coping strategies. The generalization of these more adaptive strategies may act as general protective factor and help CSA teenagers better manage other stressful events faced in other life contexts.

Data failed to reveal any significant gains concerning the adolescent's perception of her relationship with her mother or her father. The detailed examination of the scores obtained for these two scales reveal that at pre-test, adolescent girls who participated in the group intervention obtain a mean score inferior to 27 for the mother scale and 35 for the father scale. These scores reflect an absence of a clinically problematic relationship with the mother for the great majority of adolescents. Interpretation of the mean score on the father scale indicates that the majority of adolescents report slightly problematic relationship with their father (Giuli & Hudson, 1977). The adolescents in this sample seem, therefore, to present few difficulties which could explain the fact that no improvement was noted following treatments. A similar

effect may also apply to scores pertaining to delinquent behaviors. The results indeed indicate a low frequency of these behaviors even at the beginning of the group intervention.

The results therefore corroborate what Kruczek and Vitanza (1999) have shown mainly that open group intervention can attenuate a number of symptoms associated with sexual abuse.

Open or closed group intervention

Results of the present study clearly show that both formats of group intervention appear to be associated with significant gains and seem to be as efficient one as the other. We need to underline that the open group model evaluated in the present study differs from what is generally considered as an open group in the sense that it did not offer an «unlimited possibility» of meetings for each participant. The principal distinction between the two groups evaluated in the present study concerns the arrival and the departure of members in the course of intervention in the open group since the number of meetings and the therapeutic content were similar. This difference between the two groups does not seem to affect their respective efficiency.

In this context, the open group intervention can be seen as efficient as a closed group intervention while presenting the advantage of being easier to implement and maintain especially in settings where the number of potential participants is low. The open group allows for the beginning of treatment with a minimum of number of participants while accepting new members afterward as demands of services flow in. This possibility has the advantage of reducing the delay for those on the waiting list by maintaining services in a more constant fashion (Chapelier, 2000; Douglas, 1991; Grotsky et al., 2000). Furthermore, the open group format may be more suited to cope with withdrawals in the course of treatment since the lost of participants in the group can be compensated by the arrival of new members. In the case of the closed group, a few numbers of members abandoning treatment can threaten the very

existence of the group because of the low number of participants at any given time (Chapelier, 2000; Douglas, 1991; Grotsky et al., 2000).

The open group modality is not however without problems and can demand more intense management from the practitioner, and this, mainly because of the number of participants that varies considerably from one period to the other. Practitioners must then foresee the physical and material resources tied to the demands (for example, a room big enough to receive a maximum number of participants). It is also clear, as some authors have underline, that a regular management of the arrival and departure must be anticipated and that this issue may present additional challenges and burdens for the practitioners. These elements are however predictable and can be managed.

Strengths and methodological limits

This study suggest that open group intervention can prove to be a treatment modality efficient in helping to reduce the negative consequences of CSA and to enhance the psychological health of adolescent CSA survivors. The use of a comparison group, the reliance on a variety of measures directly linked to consequences of sexual abuse, and the documentation of the level of participation of adolescent girls to group intervention represent methodological strengths of the present study. Finally, this evaluation report is the first to explore differentials effects of open or closed group intervention for teenagers reporting SA.

Notwithstanding the strengths, some methodological limits remain. The use of a quasi experimental design, although representing a clear advantage comparing to the pre/post only treatment design frequently used in the evaluation of group intervention, is still a design that present some threats to internal validity. It is possible that adolescent girls from the treatment group present some characteristics that could explain, in part or in totality, the changes observed following group intervention. For instance, it is possible that individual factors such has the motivation of participating in the group therapy, or a more active participation in

services outside the CIASF center may partially explain the noted gains. A second limit concerns the fact that all the measures used in this study are self-administered. The use of several sources of data (parents, teacher, other significant adult) could eventually give a more complete and valid portrayal of possible outcomes following therapy.

Although more and more studies tend to show the efficacy of group intervention for children/adolescents victims of sexual abuse, several challenges remain. One of the most important issues is to achieve a better understanding the role of different characteristics of group intervention on possible outcomes. Should we have one or two practitioners animating therapeutic sessions? Is the practitioner's gender versus that of the victims important? What is the role of therapeutic alliance in the motivation (or possible treatment withdrawal) or efficacy of the intervention? What is the optimal duration of group intervention? Answers to these questions should help us better understand the needs of children/adolescent girls that have been sexually abused and thus enhance therapeutic services offered to this clientele. Hopefully, future studies will shed light on these issues.

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Appendix 1 - Themes discussed in the group intervention

This appendix present in chronological order the different themes discussed in the group sessions and the objectives. These themes may be discussed in more than one session.

Theme 1. Starting the group process: Establish rapport and interpersonal trust, create a setting favorable to exchanges between the participants, present the objectives of the sessions, establish a structure favorable to therapeutic process, enable socialization in order to reduce stigmatization, explore the emotions and affective experiences of the teenagers regarding the sexual abuse episode.

Theme 2. Telling by a sexual abuse survivor: By modeling or imitation, facilitate the telling of the abuse and the discovery of adequate adaptative skills.

Theme 3. Disclosure: Facilitate the expression of emotions regarding disclosure (shame, culpability), cognitive restructuring regarding disclosure (disadvantages, advantages).

Theme 4. Messages set forth by the abuse and defense mechanisms (or adaptation): Identify the coping skills and strategies of the teenager, cognitive restructuring of defense mechanisms, show that internal dialogue has a impact of emotional state and behaviors.

Theme 5. The cycle of sexual abuse (the profile of the perpetrator): Reduce the feelings of culpability concerning the aggression, cognitive restructuring regarding the responsibility of the abuse (demonstrate the manipulation strategies used by the perpetrator, the preparation of the abuse).

Theme 6. Letter to a sexually abused child: Reduce the feelings of culpability towards the sexual abuse, reduce the social isolation by enhancing social support between participants, and facilitate the development of healthy behaviors in teenagers.

Theme 7. Feelings: Validate the feelings regarding the abuse, recognize the necessity to identify, feel, verbalize and cope with emotions, normalize affective reactions, demonstrate that feelings may evolve and change over time.

Theme 8. The consequences of sexual abuse: Help the teenager become conscious of the consequences of the sexual abuse, identify means and strategies to reduce the impact on their global functioning (coping strategies)

Theme 9. Intrusive thoughts (flashbacks): Identify, develop and share adequate strategies to cope with intrusive thoughts.

Theme 10. Letter to the perpetrator: Express feelings towards the perpetrator.

Theme 11. Self-esteem: Identify what is self-esteem, develop tools to enhance and maintain a positive self-esteem.

Theme 12. Romantic relationships: Knowing what is a positive and healthy romantic relationship.

Theme 13. Sexual education: Explore the different stages of sexual development in adolescence.

Theme 14. Thinking about the future and preventing revictimization: Provide an analysis of the progress of the teenagers, develop revictimization prevention abilities, a positive self-esteem and an optimistic outlook on the future.

Table 1

Socio-demographic characteristics of participants and abuse-related variables

	Sample Total n = 59 %	Group Open n = 13 %	Group Control n = 15 %	Group Close n = 31 %	Statistical Tests
Characteristics of the adolescents					
Mean age (years) of victim	14,9	14,4	14,8	15,2	F=3,09
Ethnic group					
Canadian	96,6	0,0	96,8	93,3	$\chi^2 = 4,78$
Greek	1,7	0,0	0,0	6,7	
Russian	1,7	0,0	3,2	0,0	
Victim's tutor					
both parents	32,2	46,2	33,3	32,3	$\chi^2 = 3,02$
mother	30,5	30,8	33,3	22,6	
father	1,7	0,0	0,0	3,2	
extended family	3,4	0,0	6,7	3,2	
foster family	22,0	23,1	13,3	25,8	
foster care	6,8	0,0	6,7	9,7	
independent apartment	3,4	0,0	6,7	3,2	

Table 1 (continued)

Socio-demographic characteristics of participants and abuse-related variables

	Sample Total n = 55 %	Group Open n = 13 %	Group Control n = 13 %	Group Close n = 29 %	Statistical tests
Characteristics of the perpetrator					
Significant person					
Yes	82,3	92,3	84,6	86,2	$\chi^2 = 0,41$
No	17,7	7,7	15,4	13,8	
Adult (18 years and over)					
Yes	81,8	92,3	84,6	75,9	$\chi^2 = 1,72$
No	18,2	7,7	15,4	24,1	
Immediate family					
Yes	40,0	46,2	46,2	34,5	$\chi^2 = 0,78$
No	60,0	53,9	53,9	65,5	
Extended family					
Yes	32,8	30,8	33,3	31,0	$\chi^2 = 0,26$
No	67,2	69,2	66,7	69,0	
Stranger					
Yes	3,6	7,7	7,7	0,0	$\chi^2 = 2,32$
No	96,4	92,3	92,3	100,0	

Table 1 (continued)

Socio-demographic characteristics of participants and abuse-related variables

	Sample total n = 55 %	Group treatment n = 13 %	Group control n = 13 %	Group of comparison n = 29 %	Statistical tests
Characteristics of the perpetrator					
More than one perpetrator					
Yes	21,8	38,5	23,1	13,8	$\chi^2 = 3,22$
No	78,2	61,5	76,9	86,2	
Abuse-related variables					
With penetration					
Yes	69,1	76,9	84,6	58,6	$\chi^2 = 3,33$
No	30,9	23,1	15,4	41,4	
Use of force					
Yes	29,1	30,8	30,8	73,4	$\chi^2 = 0,07$
No	70,9	69,2	69,2	26,6	
Presence of physical abuse					
Yes	14,6	23,1	7,7	13,8	$\chi^2 = 1,27$
No	85,5	76,9	92,3	86,2	
More than once a week					
Yes	67,3	69,2	61,5	69,0	$\chi^2 = 0,26$
No	32,7	30,8	38,5	31,0	

Table 2

Adolescents participation rates

	Sample Total n = 55	Group Open n = 13	Group Control n = 13	Group Close n = 29	Statistical test
Number of effective presence	---*	16,5	---*	17,06	F=4,53
Participation rates	---*	0,9	---*	0,90	F=0,20

* Does not apply

Table 3

Means and adjusted means on the outcome measures and results of the statistical analyses

	OPEN				CLOSE				CONTROL				TESTS		
	T1	T2	adj T2		T1	T2	adj T2		T1	T2	adj T2		ANCOVA	OPEN vs CONTROL	OPEN vs CLOSE
	M	M	M	SE	M	M	M	SE	M	M	M	SE			
Post-traumatic stress symptoms (TSC-C, Briere, 1996)															
Total Score	69.8	43.8	43.6	3.8	71.5	47.0	45.8	2.3	64.5	64.9	67.6	3.5	F(2,53)=15.48, p=.000	t(53)= 4.66, p=.000	t(53)= 0.49, p=.623
Anxiety	13.6	8.8	8.3	0.7	12.9	8.1	8.0	0.4	11.4	12.4	13.1	0.6	F(2,53)=23.29, p=.000	t(53)= 5.10, p=.000	t(53)=-0.38, p=.707
Depression	13.5	7.9	8.1	0.8	14.0	8.9	8.8	0.5	14.1	13.2	13.1	0.7	F(2,53)=14.09 p=.000	t(53)= 4.59, p=.000	t(53)= 0.77, p=.443
Dissociation	12.3	7.0	6.6	0.9	12.0	8.4	8.1	0.6	10.1	9.4	10.3	0.9	F(2,53)= 4.27 p=.019	t(53)= 2.88, p=.006	t(53)= 1.41, p=.165
Post-traumatic stress	15.8	11.5	11.7	1.0	16.9	10.8	10.4	0.6	15.0	16.6	17.2	0.9	F(2,53)=19.96 p=.000	t(53)= 4.24, p=.000	t(53)=-1.10, p=.276
Anger	9.3	6.5	7.2	1.0	11.6	7.5	7.0	0.6	9.8	9.4	9.8	0.9	F(2,53)= 3.18 p=.050	t(53)= 1.91, p=.062	t(53)=-0.12, p=.907
Sexual preoccupations	9.2	4.8	4.4	0.8	7.7	5.7	5.8	0.5	7.1	7.3	7.6	0.7	F(2,53)= 4.97 p=.011	t(53)= 3.12, p=.003	t(53)= 1.59, p=.118
Attributions and perceptions following sexual abuse (CAPS, Mannarino, Cohen & Berman, 1994)															
Total score	51.8	49.2	50.1	1.6	53.7	48.5	48.2	1.0	53.4	55.7	55.6	1.4	F(2,54)= 8.87, p=.000	t(54)= 2.56, p=.013	t(54)=-0.96, p=.339
Feeling different	13.8	14.3	13.9	0.6	13.3	13.5	13.4	0.4	12.0	12.8	13.4	0.5	F(2,53)= 0.30, p=.744	t(53)=-0.61, p=.544	t(53)=-0.75, p=.457
Interpersonal trust	14.8	13.5	14.1	0.7	16.4	14.0	13.9	0.4	16.3	18.2	18.0	0.6	F(2,54)=15.65, p=.000	t(54)= 4.04, p=.000	t(54)=-0.39, p=.696
Personal attributions	10.4	8.9	9.1	0.5	10.8	8.6	8.6	0.3	10.8	11.2	11.2	0.4	F(2,54)=12.18, p=.000	t(54)= 3.17, p=.003	t(54)=-0.92, p=.360
Perceived credibility	12.8	12.3	12.6	0.6	13.4	12.3	12.3	0.4	14.2	13.5	13.1	0.5	F(2,54)= 0.88, p=.421	t(54)= 0.65, p=.517	t(54)=-0.48, p=.634
Self-injurious behaviors (Sadowsky, 1995)															
Self-harming behaviors	5.0	1.9	2.2	0.6	5.8	3.0	2.9	0.4	5.7	4.7	4.7	0.6	F(2,55)= 5.09, p=.009	t(55)= 3.01, p=.004	t(55)= 1.03, p=.308

Table 3 (continued)

Results of statistical analyses

	OPEN				CLOSE				CONTROL				TESTS		
	T1	T2	adj T2		T1	T2	adj T2		T1	T2	adj T2		ANCOVA	OPEN vs CONTROL	OPEN vs CLOSE
	M	M	M	SE	M	M	M	SE	M	M	M	SE			
Delinquent behaviors (Tourigny et al., 2000)															
Delinquent behaviors	0.7	0.2	0.2	0.3	1.1	0.6	0.6	0.2	0.3	0.1	0.2	0.2	F(2,55)= 1.22, p=.304	t(55)= 0.03, p=.979	t(55)= 1.26, p=.211
Youth self-report and profile (YSR, Achenback, 1991)															
Total score	86.8	73.4	77.9	4.3	99.5	78.2	74.4	2.8	87.5	91.6	95.6	4.0	F(2,55)= 9.50, p=.000	t(55)= 3.01, p=.004	t(55)=-0.69, p=.496
Internalizing behavior	24.7	19.1	21.2	1.8	29.6	19.1	18.0	1.1	27.4	31.6	32.0	1.6	F(2,53)=26.72, p=.000	t(53)= 4.60, p=.000	t(53)=-1.49, p=.141
Withdraw	5.9	4.5	5.0	0.5	7.2	4.9	4.7	0.3	6.5	8.6	8.7	0.5	F(2,55)=27.93, p=.000	t(55)= 5.51, p=.000	t(55)=-0.58, p=.562
Somatic complaints	7.2	4.9	4.9	0.9	6.7	4.2	4.3	0.6	7.7	5.6	5.4	0.8	F(2,53)= 0.63, p=.535	t(53)= 0.41, p=.683	t(53)=-0.56, p=.578
Anxious/depressed	13.5	10.6	11.9	1.2	17.3	10.5	9.6	0.8	14.2	18.9	20.0	1.1	F(2,55)=30.45, p=.000	t(55)= 5.07, p=.000	t(55)=-1.63, p=.109
Thought problems	4.1	2.5	2.4	0.5	3.6	1.9	2.0	0.3	4.1	1.9	1.8	0.5	F(2,53)= 0.31, p=.736	t(53)=-0.77, p=.443	t(53)=-0.60, p=.597
Externalizing behavior	15.4	12.2	13.1	1.6	18.6	15.5	14.4	1.1	14.4	15.8	17.4	1.5	F(2,55)= 2.07, p=.135	t(55)= 1.93, p=.058	t(55)= 0.64, p=.523
Delinquent behavior	4.5	3.4	4.0	0.6	5.9	4.9	4.6	0.4	5.2	5.3	5.5	0.5	F(2,55)= 1.90, p=.159	t(55)= 1.90, p=.062	t(55)= 0.85, p=.401
Aggressive behavior	10.9	8.8	9.0	1.3	12.7	10.6	9.9	0.9	9.2	10.4	11.7	1.3	F(2,55)= 1.13, p=.331	t(55)= 1.45, p=.152	t(55)= 0.55, p=.583
Social problems	4.4	2.8	2.7	0.5	4.3	3.2	3.1	0.3	3.6	4.1	4.4	0.4	F(2,54)= 4.80, p=.012	t(54)= 2.79, p=.007	t(54)= 0.71, p=.478
Attention problems	7.2	5.5	5.7	0.5	8.4	6.5	6.0	0.3	6.1	7.3	8.2	0.5	F(2,55)= 7.80, p=.001	t(55)= 3.41, p=.001	t(55)= 0.42, p=.677
Child's Attitude toward the Mother and the Father (CAM, CAF, Giuli & Hudson, 1977)															

Mother/daughter	27.2	23.4	31.1	4.6	43.3	33.7	30.1	3.0	37.1	41.0	41.7	4.3	F(2,49)= 2.61, p=.083	t(49)= 1.69, p=.098	t(49)=-0.19, p=.852
Father/daughter	35.0	37.8	35.5	3.6	26.9	23.1	27.3	2.7	39.3	42.0	36.3	3.7	F(2,39)= 2.61, p=.086	t(39)= 0.15, p=.882	t(39)=-1.82, p=.077

Table 3 (continued)

Results of statistical analyses

	OPEN				CLOSE				CONTROL				TESTS		
	T1	T2	adj T2		T1	T2	adj T2		T1	T2	adj T2		ANCOVA	OPEN vs CONTROL	OPEN vs CLOSE
	M	M	M	SE	M	M	M	SE	M	M	M	SE			
Sense of Empowerment (Roger, Chamberlin, Langer & Crean, 1997)															
Total score	2.7	2.8	2.8	0.1	2.6	2.8	2.8	0.1	2.6	2.6	2.6	0.1	F(2,54)= 4.12, p=.022	t(54)=-1.94, p=.057	t(54)= 0.41, p=.685
Optimism	3.0	3.2	3.1	0.1	2.9	3.0	3.0	0.1	2.9	2.7	2.7	0.1	F(2,54)= 3.43, p=.040	t(54)= -2.37, p=.021	t(54)=-0.65, p=.520
Justified anger	2.3	2.3	2.3	0.1	2.3	2.4	2.4	0.1	2.4	2.4	2.4	0.1	F(2,52)= 0.21, p=.808	t(52)= 0.53, p=.601	t(52)= 0.63, p=.530
Self-efficacy	3.0	3.0	2.9	0.1	2.8	3.0	3.0	0.1	2.6	2.6	2.7	0.1	F(2,52)= 3.00, p=.058	t(52)=-1.38, p=.172	t(52)= 0.62 , p=.539
Helplesness	2.4	2.4	2.4	0.1	2.4	2.6	2.6	0.1	2.4	2.4	2.4	0.1	F(2,54)= 2.33, p=.107	t(54)= 0.12, p=.909	t(54)= 1.74, p=.087
Coping Strategies (WOC, Folkman & Lazarus, 1988)															
Support seeking	9.5	11.8	11.1	0.8	7.8	11.5	11.4	0.5	5.8	4.5	5.1	0.7	F(2,55)=26.97, p=.000	t(55)=-5.51, p=.000	t(55)= 0.30, p=.766
Planful problem-solving	11.4	12.3	11.7	1.3	9.4	14.4	14.4	0.8	7.3	5.9	6.5	1.2	F(2,55)=14.67, p=.000	t(55)=-2.90, p=.005	t(55)= 1.78, p=.081
Escape/avoidance	7.8	7.8	8.9	0.9	10.1	10.1	9.9	0.5	11.2	11.9	11.1	0.8	F(2,55)= 1.80, p=.176	t(55)= 1.88, p=.065	t(55)= 1.05, p=.299