Proximate effects of a child sexual abuse prevention program in elementary school children☆,☆☆

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Abstract

Objective: The effects of the sexual child abuse prevention program ESPACE were evaluated by means of a Solomon-type design with first and third grade children. ESPACE is an adaptation of the American Child Assault Prevention Program (CAP). Possible side effects of the program were also examined.

Method: A total of 133 children (64 first-graders and 69 third-graders) participated in the study. Children completed a knowledge questionnaire and a video vignette measure designed to evaluate preventive skills towards abusive and potentially abusive situations. A follow-up measure (2 months) was administered to verify whether knowledge and skills were maintained.

Results: Results indicated that children participating in the prevention program showed greater preventive knowledge and skills relative to children not participating. Follow-up data showed that knowledge gains were maintained while the preventive skill gains may attenuate. However, while global skill scores decreased between post-test and follow-up, children still showed greater preventive skills at follow-up than before the program. In terms of unanticipated side effects, results revealed that almost half of the parents noted positive reactions following children’s participation in the ESPACE program. Furthermore, the majority of parents did not identify negative reactions in their children following their participation in the workshop.

Conclusion: The findings suggest that the Quebec adaptation of the CAP program was effective in

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☆☆Information regarding the ESPACE program may be obtained by contacting the Regroupement des organismes ESPACE du Québec, 59 Monfette, Local 235, Victoriaville, Québec, Canada, G6P 1J8.

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Introduction

While reliable estimates of the prevalence of sexual abuse are difficult to obtain (Wynkoop, Capps, & Priest, 1995), retrospective studies suggest that an important number of adults have been victimized during childhood. In one prevalence study conducted in the United States, Finkelhor, Hotaling, Lewis and Smith (1990) for example, found prevalence rates of 27% for females and 16% for males. In analyzing over 50 different reports, Rind, Tromovitch and Bauserman (1998) note that 27% of women and 14% of men have reported sexual abuse. In Canada, a recent survey conducted in Ontario reveals that 13% of women and 4% of men report having been sexually abused in childhood or adolescence (MacMillan, Fleming, Trocmé, Boyle, Wong, Racine, Beardslee, & Offord, 1997). Finkelhor (1994) argues that prevalence rates are similar in different countries, and approximates 20% for females and between 3% to 11% for men. Sexual abuse often involves young children—data suggests that most abuse episodes occur during prepubertal years (Finkelhor & Baron, 1986; Finkelhor et al., 1990). Sexual abuse has been linked to a number of subsequent behavioral difficulties and adjustment problems in victims. Indeed, several empirical studies have now documented the various negative short-term impact of child sexual abuse (Kendall-Tackett, Williams, & Finkelhor, 1993; Trickett & Putnam, 1998). Moreover, child sexual abuse appears to increase the risk of subsequent mental health problems, and later revictimization in adolescent dating relationships, and in adult life (Finkelhor, 1997; Gidycz, Coble, Latham, & Layman, 1993; Hébert, Lavoie, & Tremblay, 1999; Polusny & Follette, 1995; Romans, Martin, & Mullen, 1997).

Given the high prevalence of child sexual abuse and the subsequent consequences for victims, prevention programs have been elaborated and implemented in elementary schools on a wide-scale basis in the past years, both in the United States and in Canada (Dubé, Heger, Johnson, & Hébert, 1988; Finkelhor & Dziuba-Leatherman, 1995; Wurtele & Miller-Perrin, 1992). Most of these programs are designed for preschool and elementary school children (Reppucci & Haugaard, 1993), and aim to empower young children by teaching concepts and skills believed to enable them to resist sexual abuse. Thus while prevention initiatives in the area of physical abuse and neglect have adopted an approach identifying high-risk situations (for instance, poverty), and have focussed on potential aggressors (parents), sexual abuse prevention has adopted an educative strategy focussing on all potential victims (children) (Finkelhor & Daro, 1997; Wurtele, 1998). While programs may vary in format of presentation, most are nevertheless similar in regards to the core concepts taught. Preventive interventions thus aim to empower children to recognize potentially abusive situations, and teach them strategies such as saying NO or yelling, and encourage children to disclose the abuse to a trusted adult (Wurtele & Miller-Perrin, 1992). Most prevention programs also
emphasize that children should not blame themselves in the event of an occurrence of sexual abuse (Finkelhor & Dziuba-Leatherman, 1995).

Notwithstanding the similarities in terms of their objectives, sexual abuse prevention programs may differ in terms of length, modalities of presentation and materials proposed (puppets, books, videos, theatrical presentation, etc.) (Dubé et al., 1988; Hébert & Tremblay, 2000; Kohl, 1993). Programs may also differ as some are led by known adults (teachers, parents), while others involve specialized workers (community workers, police officers) (Wurtele & Miller-Perrin, 1992). Only a minority of programs offer concomittant workshops for parents (Daro, 1996; Kolko, 1988; Olsen & Widom, 1993). While parents’ involvement is considered essential by most, the actual participation rate in workshops has been found to be rather low (Berrick, 1988; Tutty, 1993). However, the reasons invoked for this low participation relate more to lack of time and scheduling conflicts rather than to negative opinions of parents toward prevention programs, or to the belief that their children are not at risk of sexual abuse (Hébert, Piché, Fecteau, & Poitras, 1997; Reppucci, Jones, & Cook, 1994).

Despite the growing number of initiatives that have been developed to teach children preventive concepts, few studies have evaluated the effects of such programs (Finkelhor & Strapko, 1992). Indeed, while several authors have underlined the necessity of evaluating the effects of such programs, only a limited number have been subjected to a formal evaluation (Durlak, 1997; Olsen & Widom, 1993). Research to date has often been hampered by the lack of adequate measures to evaluate abuse-related knowledge and prevention skills, and few studies have examined elements of program implementation, such as the actual adequacy of program content to the proposed model. Moreover, little information is available concerning the ability of children to retain the knowledge gains for an extended period of time (MacMillan, MacMillan, Offord, Griffith, & MacMillan, 1994). As well, still at issue is whether possible side effects are associated with such interventions; there is available data highlighting contradictory findings in this regard (Daro, 1994; Daro & McCurdy, 1994; Olsen & Widom, 1993; Reppucci, Land, & Haugaard, 1998). In one largely cited study, Garbarino (1987) reports that close to half of 4th graders were more anxious after reading a Spiderman comic discussing sexual abuse. However, Hazzard, Webb, Kleemeier, Angert and Pohl (1991), in an evaluation of the Feeling Yes/Feeling No program, found no differences in the self-reported anxiety level of children participating in the program compared to control children who were involved in a fire prevention session. Parents’ reports of behavioral reactions did not reveal any differences in terms of fear of strangers, nightmares, or disobedience between children participating in the prevention program and control children.

Although studies evaluating sexual abuse prevention programs are still few in number, available data suggest that prevention initiatives do indeed produce knowledge and skills gains in school-aged children (Araji, Fenton, & Straugh, 1995; Berrick & Barth, 1992; Daro, 1994; Tutty, 1992; 1997). A recent meta-analysis situates the size of the effect at .71 (Rispens, Aleman, & Goudena, 1997) which is close to the .80 point qualifying a large intervention effect (Cohen, 1988). Evaluation studies have up to now mostly relied on indirect analogue measures such as verbal vignettes, role-playing, or videotaped vignettes to evaluate the effects of programs. School-aged children appear to learn prevention concepts, to be better able to recognize potentially abusive situations, and to gain behavioral skills
(saying NO, telling an adult, etc.) if they participate in prevention programs. Whether preschoolers benefit from such preventive lessons is much more a matter of debate (Croteau, Hébert, & Lavoie, 1998; Hazzard, 1990).

In the province of Quebec, the program ESPACE proposes workshops to preschoolers and elementary school-aged children. The program is an adaptation of the widely implemented American Child Assault Prevention Program (CAP; Cooper, 1991). While most programs have focused exclusively on sexual abuse prevention, the ESPACE program also incorporates issues related to verbal and physical abuse, as well as bullying behavior. The program also supports the idea that parents must be an integral part of the prevention intervention, and as such workshops designed for parents and members of the school personnel are concurrently offered.

In one analysis of the effects of the original American CAP version, Binder and McNiel (1987) using a pre/post-test design with no control group, found that 5 to 12 year old children showed higher knowledge scores after participating in the workshop. Parents were invited to complete a short questionnaire on children’s anxiety before and after the program. Binder and McNiel concluded that the CAP program did not produce any negative effects. The same conclusions were reached by Nibert, Cooper, and Ford (1989) in their analysis of the responses of 223 parents whose children participated in the preschool version of the workshop.

In an initial evaluation of the Quebec adaptation of the CAP program, Lavoie (1987) relied on a pre/post-test design to evaluate the preventive skills of a group of children from kindergarten to grade 6. Children listened to audio vignettes illustrating potentially abusive situations and were asked what they would do if confronted with such a situation. The results showed that some skills (for instance, ask a parent for help) were improved after program participation, while others (for example, try to escape the situation) were improved only for a subgroup of participants (older boys). While providing an initial analysis of the effects of the ESPACE program, several problems limit the findings of this preliminary study. The audio vignettes contained long dialogues which required sustained attention not typical of the younger participants at the kindergarten level. Participants were not all involved in the same version of the program, and the absence of a control group precludes from reaching firm conclusions about the effects of the program. In this first evaluation, the program was in its initial version, and since then several important modifications have been made. The program is now being presented in three different formats [preschool, first level of elementary school (grades 1–3), and second level of elementary school (grades 4–6)] in order to respect the cognitive and affective developmental level of children.

The present investigation provides data concerning the proximate effects of the Quebec adaptation of the CAP program in grades 1 and 3 children. The present study attempted to overcome difficulties identified in the literature by elaborating a skill outcome measure based on the ESPACE program, and by evaluating knowledge and skills gains as well as retention by means of a follow-up assessment 2 months after program participation. Parents also completed questionnaires pertaining to possible side effects of the program, in terms of behavioral changes following participation. The research design used permitted evaluation of possible pre-testing effects influencing the results, and a measure of the adequacy of the program presented was used.
Method

Participants

The sample consisted of 133 children (67 girls and 66 boys) from two schools in the area of Quebec City situated in middle-income areas. Both schools served similar communities, and were equivalent in terms of size and resources. A total of 64 of participants were in 1st grade (Mean age = 7 years 2 months), and 69 were enrolled in 3rd grade (Mean age = 9 years 2 months). The program was offered to participants of the control conditions after the post-test evaluation.

In order to evaluate the possible influence of pre-testing effects, a Solomon-type design was used (see Table 1). In a classical model of this design, children would be randomly assigned to experimental or control conditions. However, the possible problems encountered to control interactions between children from a same class having participated in the program and those who did not led to an adaptation of the design. Thus, the two experimental conditions were assigned to the same school, and the two control conditions were assigned to the second school. Assignment of schools to conditions was determined randomly.

Measures

To evaluate the proximate effects of the ESPACE program, two measures (knowledge and skills) were completed by children. As well, children were invited to complete a short satisfaction questionnaire. Two weeks following the program presentation, parents were invited to complete a questionnaire pertaining to possible side effects of the program.

Knowledge questionnaire. An 11-item knowledge questionnaire was derived from previous existing questionnaires (“Children’s Knowledge of Abuse Questionnaire,” Tutty, 1995; “Personal Safety Questionnaire,” Wurtele, Saslawsky, Muller, Marrs, & Britcher, 1986; Wurtele, Kast, Miller-Perrin, & Kondrick, 1989), and from items elaborated by the research team. The initial item pool (82 items) was pretested and reduced to a brief version adapted to both 1st and 3rd graders. The questionnaire was administered collectively in class; children answering YES, NO, or I DON’T KNOW to each item. Internal consistency was found to be satisfactory (Cronbach’s alpha = .70), as was the stability of the total score (Test-retest correlation = .80) estimated with a 2 week interval in a sample of 36 children.

Vignette measure of skills. A vignette measure was elaborated to assess children’s preventive abilities in face of abusive situations. Five vignettes depicting four abusive situations...
and one non-abusive situation were filmed on video. A video medium was used in order to present the vignettes in a standardized fashion, and to enhance realism to the situations depicted. Scenarios were first submitted to a panel of three experienced researchers in the field and three members of the community group in order to insure the realism of the situations depicted. These vignettes include a bullying scene by a group of peers; a potentially abusive situation involving a stranger; a potentially abusive situation involving a known adult; a disclosure by a peer of sexual abuse by a known aggressor; and a non-abusive scene involving a close adult. After presentation of each scene, children were asked to describe how they would react in such a situation in a face-to-face interview. A standard list of questions was used to determine the degree to which they can recognize the inappropriateness of the situation and display prevention behaviors (say no, tell someone, etc.). Children watched each vignette in small groups of four or five children, and then answered questions individually. Verbatim responses were tape recorded and later transcribed. A coding form was elaborated following a content analysis of the program and distinguished four categories: assertiveness, disclosure, getting peer support, and self-defense skills. A maximum of two points was given for each type of ability for each of the four abusive vignettes, while one point was given for recognition of the depicted situation as abusive or not. Thus the recognition score could vary from 0 to 5, while the global score of ability ranges from 0 to 32. Intra-class correlations computed from 25% of the protocols, and revealed a high inter-judge agreement (.86 to .97) for the different abilities and for the global score (.95). Internal consistency of the global score calculated from the answers of the children participating in the pre-test was satisfactory (Cronbach’s alpha = .69). The stability of the global score evaluated from a sample of 36 children with a 2 week interval was .74.

Satisfaction. A short five-item questionnaire was collectively administered in class, following program participation to evaluate children’s satisfaction towards the workshop.

Parent questionnaire. Parents completed a questionnaire adapted from the “Parent Perception Questionnaire” (Wurtele, Kast, & Melzer, 1992) evaluating behavioral changes following program participation. Parents had to comment on positive (for instance, seems to displays confidence in herself/himself) as well as negative (for example, seems to be afraid of strangers) behavioral changes. For potential negative behaviors, parents were invited to indicate whether or not the behavior reflected a problem or not. The questionnaire also asked parents if they had discussed abuse with their child before the ESPACE program, whether their child had been exposed to prevention material (books, videos, etc.) prior to the program, and if they attended the parent meeting. A total of 94 parents completed the questionnaire, reflecting a participation rate of 71%. The questionnaires were completed by mothers (84%), fathers (14%), or tutor of the child (2%). Demographic characteristics of the respondents indicated that about half (55%) had completed high school, 32% had finished Cegep (post-secondary education), while 13% had at least an undergraduate degree. Most children were living in intact families (90%). Of the invited parents, 26% attended the adult workshop offered by the community workers.

Adequacy of program. In order to verify whether the different workshops given to the experimental groups were homogenous and reflected the general program orientation, a checklist was completed by both a research assistant and one of the community workers from an audiotape of all the workshops. Both had to fill in information concerning the general atmosphere in class
(number of children present, children’s participation, level of involvement of the teacher, etc.), and check whether or not each specific objective and each activity were presented as planned.

Procedure

The community group offers the ESPACE program to schools in the province of Quebec. The decision to include or not the program in the curriculum is taken by school authorities. For the present study, two schools in the area of Quebec City, which had planned for the program in the curriculum, were randomly chosen and accepted to participate. The research was first explained to school personnel and parents in a meeting. Written parental consent for children’s participation in the study was then solicited. Children in the first condition were pre-tested 1 week before the ESPACE program, while post-test evaluation took place 1 week after the program. Children also participated in a follow-up evaluation 2 months later. Children in the second condition were evaluated in the same period, but participated in the program only following post-test. Children in the third condition participated in the workshop, then the post-test and the follow-up measure. Finally, children assigned to the fourth condition only participated in post-test evaluation, and took part in the program afterwards. The program was delivered in class by three female community workers. Six graduate students were recruited as interviewers, all of whom had extensive experience with children in school settings.

Program description

The ESPACE program is the Quebec adaptation of the CAP program (Cooper, 1991), the latter being widely implemented in American elementary schools. The in-class program, led by specialized community workers, consists of a 60–75 minute workshop, and uses role-playing, guided discussions, behavior modeling, and rehearsal. The content of the program is designed to enhance children’s awareness of their personal rights, and to teach them basic prevention concepts and skills. Children are taught self-assertion skills, a self-defense yell, and are encouraged to ask friends for help and to tell a trusted adult if an incident of abuse occurs. Contrary to other prevention programs, the workshop not only focuses on sexual abuse but also includes a discussion of verbal, physical abuse, and bullying behaviors. Following the workshop, children, if they wish, may meet individually with one of the community workers. Parents are also invited to attend a meeting. The parent meeting’s objectives are to reduce common misperceptions about child abuse, teach parents the possible indicators of abuse, how to report and react to a disclosure of abuse, and how to engage in prevention activities at home. Parents are also introduced to the child workshop. In the course of the last thirteen years, 167,096 children and 58,441 adults have participated to the ESPACE prevention workshops in the province of Quebec.

Results

Results will be presented in three sections. First analysis of the adequacy of the workshops presented and the participants’ satisfaction will be discussed. In the second section, results
pertaining to the proximal effects of the program on children’s level of knowledge and prevention skills will be summarized. Finally, data collected through parents’ questionnaires will be described in relation to potential positive and negative side-effects of the program.

**Analysis of the conformity of the workshops and participants’ satisfaction**

Analysis of the conformity of the eight workshops presented to the different classes revealed a high degree of homogeneity. In fact, of the 61 content elements of the program, 58 were respected in an integral fashion for all presentations of the program. In two cases, the writing of the strategies taught on a blackboard was not done since the class did not have a blackboard. Finally, in one of the workshops, the self-defense skill was not discussed following the presentation of one of the four role-playing situations. Children’s participation was rated as good to excellent in all classes except in one class were participation was evaluated as satisfactory. The number of children in the workshop varied from 18 to 26, and between 11 to 23 children in each workshop asked to meet one of the community workers afterwards.

Students appear to appreciate the prevention program. The vast majority of children mentioned having liked the workshop (95%), and wanting the community workers to come back in their class next year (96%). Most students felt the workshop enabled them to learn concepts (72% a lot; 21% a little). The workshop appears to incite children to discuss abuse with their parents, as 76% reported they had discussed the program at home with their parents. The majority of children (66%) felt they had understood the prevention notions presented, while some kids (34%) reported not having understood some of the concepts discussed. Parents were unanimous in their report of the perceived benefits of the prevention program. Thus the vast majority (95%) felt they were now more aware of the problem of child abuse, and believed their child benefited from attending the workshop and developed preventive abilities. Two-thirds of the parents reported that their child had in fact initiated discussion of the program’s content and of prevention notions at home following their participation in the workshop.

**Proximal effects of the prevention program**

Analysis were first performed to verify the equivalence of the two groups in regards to prior exposition to prevention material. Parents of children in the experimental group indicated that 68% were exposed to prevention information prior to their participation in the program. The percentage was similar for control group children (72%) \(\chi^2(1) = .17, ns\]. Parents reported that children were exposed through television programs or films on the topic (58%), or by books and pamphlets (30%). Parents were also asked whether they had talked with their child about physical, verbal, and sexual abuse prior to the presentation of the program using a 4-point scale of frequency (from never to often). A score of communication (from 0 to 12) was derived. Children in the experimental group \(Mean = 8.23, sd = 2.12\) and children in the control group \(Mean = 8.32, sd = 2.26\) were comparable in this regard \[t(81) = .18, ns\]. More than half of the parents reported having discussed on five or more occasions verbal abuse (55%), sexual abuse (60%), and physical abuse (64%) before the
program presentation. Only a minority of parents (less than 7%) reported having never 
discussed abuse with their child.

MANOVAS were conducted to analyze the scores of children in the four research 
conditions. Analyses included the evaluation of possible pre-testing effects by verifying the 
equivalence of the two experimental conditions (O2 vs. O6), and the two control conditions 
(O5 vs. O8). Orthogonal contrasts indicated that post-test scores were similar whether or not 
participants were subjected to a pre-test [knowledge score: F(1, 125) = 1.43, ns; recognition 
score: F(1, 125) = .48, ns; global skill score: F(1, 125) = .15, ns]. Post-test scores of control 
children were also similar whether or not they had been pre-tested [knowledge score: F(1, 
125) = 2.07, ns; recognition score: F(1, 125) = .06, ns; global skill score: F(1, 125) = .23, 
ns]. Since no pre-testing effects were found, both control conditions were thus combined as 
were experimental conditions.

Means and standard deviations of the post-test scores for knowledge, global skill, and 
recognition scores are presented in Table 2. Analysis of post-test scores of the final 
experimental and control group indicated significant differences in terms of knowledge 
scores [F(1, 125) = 7.97, p < .01] and global skill score [F(1, 125) = 22.95, p < .001]. Effect sizes calculated using the pooled standard deviation of both groups indicated a moderate effect (d = .41) for knowledge scores and a larger effect for skill scores (d = .75).

Results failed to reveal any significant difference between children in the experimental and control group in regards to recognition skills [F(1, 125) = .79, ns], possibly due to low variability and a ceiling effect on this measure. Results also highlight a grade effect for knowledge scores [F(1, 125) = 73.46, p < .001] and global skill score [F(1, 125) = 30.48, 
p < .001], suggesting that grade 3 children, whether in the experimental or control condi-
tions, achieved better scores than grade 1 students.

The possibility of a differential gain related to the age of the participants was examined 
in a 2 (experimental vs. control) × 2 (grade 1 vs. grade 3) factorial analysis of variance on 
the post-test scores. The results showed a significant effect for grade level, in addition to the 
previously established significant effect for participation in the program for both the knowl-
edge and the skill measures. There were no interactions between the variables, indicating the 
grade differences were consistent across conditions, and that both grade 1 and grade 3 
children benefited from the program.

Children in the experimental group also participated in a follow-up evaluation, 2 months 
after program participation. Analysis contrasting post-test and follow-up scores indicate that 
knowledge [F(1, 55) = 1.55, ns] and recognition scores [F(1, 55) = .78, ns] are maintained

<table>
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<tr>
<th></th>
<th>Experimental group</th>
<th>Control group</th>
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<tr>
<td></td>
<td>Mean (sd)</td>
<td>Mean (sd)</td>
</tr>
<tr>
<td>Knowledge</td>
<td>8.54 (2.02)</td>
<td>7.68 (2.15)**</td>
</tr>
<tr>
<td>Recognition</td>
<td>4.81 (0.39)</td>
<td>4.72 (0.75)ns</td>
</tr>
<tr>
<td>Skills</td>
<td>9.85 (4.78)</td>
<td>6.65 (3.78)***</td>
</tr>
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</table>

** p < 0.01; *** p < 0.001
at follow-up. However, global skill score may slightly decrease \( F(1, 55) = 7.04, p < .01 \). Again, the analysis underlines a grade effect for both the knowledge scores \( F(1, 55) = 29.09, p < .001 \), and the global skill scores \( F(1, 55) = 14.54, p < .001 \). To further explore the maintenance of skill scores over time, analyses were run on children who participated in the pre-test, the post-test, and the follow-up evaluation. Using Dunn’s test, the results showed that while global skill scores may decrease between post-test and follow-up \( \Psi(D) = 1.95, p < 0.05 \), children still show a greater knowledge of preventive skills at follow-up relative to before the program \( \Psi(D) = 1.85, p < .05 \). These results are illustrated in Fig. 1.

Finally, results of experimental group children were analyzed in relation to whether or not their parents participated in the adult workshop. Data suggest that post-test scores of children whose parents took part of the meeting were similar to that of students whose parents did not attend in regards to knowledge \( t(42) = .45, ns \), and recognition scores \( t(42) = .71, ns \). However, for the global skills score, children of attending parents obtained a higher mean post-test scores \( Mean = 11.83, sd: 5.27 \) than children of non-attending parents \( Mean = 8.41, sd = 4.25 \) \( t(42) = 2.23, p < .05 \). These results must be considered tentative given the fact that only one parent out of four (26%) attended the adult meeting.

Analysis of potential side-effects of the program

An analysis of parents’ perception of changes in their children’s behaviors (see Table 3) suggests that most children do not display any negative side effects 2 weeks following participation in the program. However, some children are described as being slightly more afraid of strangers (25%), or as demonstrating more dependency behaviors (13%), however these reactions do not appear to be perceived as being problematic by parents. A subgroup of participants are seen as displaying more aggressiveness towards their peers (14% a little; 1% a lot) or siblings (20% a little; 9% a lot) following program participation, but these behaviors are perceived as reflecting a problem in a minority of parents (between 4% and 10%). However, 29% of parents report that children are more likely to refuse to obey in the
weeks following the in-class program participation, and for 7% of the parents this behavior is qualified as being problematic. Parents do not report major reactions in terms of fear of known adults, sleeping difficulties, or social withdrawal. Analysis contrasting those children for which negative behavioral changes are reported to those who display no changes indicates few contrasting variables. Among the variables considered (age, sex, academic ability, satisfaction towards the workshop, pre-test scores), only parent’s reports of discussion of prevention notions following the workshop was found to be different. Indeed, fewer children found to display negative changes had discussed the program notions with their parents following the workshop (54%) compared to children for which no behavioral changes were reported (78%) [$\chi^2(1) = 4.18, p < .05$]. As for positive effects of the prevention program, about half of the parents mentioned that after the program, their children talked more about what they like (57%) or don’t like (53%), and displayed more self-confidence (54%). Children were also perceived as dealing better with conflict situations (46%), being more assertive (47%), and as showing greater autonomy (42%).

**Discussion**

The objective of the present study was to contribute to the improvement of the evaluation process of a well-known sexual abuse prevention program. In attempting to overcome some of the limits of previous studies, the present study evaluated the conformity of the workshops presented, the possible influence of pre-testing, and the stability of the gains over a 2 month period. Given the debate over potential negative side-effects of sexual abuse prevention

<table>
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<tr>
<th>Table 3</th>
<th>Frequencies (in %) of behavioral changes reported by parents (2 weeks after program participation)</th>
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<tbody>
<tr>
<td></td>
<td>No change</td>
</tr>
<tr>
<td><strong>Positive secondary effects</strong></td>
<td></td>
</tr>
<tr>
<td>Talks about what he/she likes</td>
<td>43.4</td>
</tr>
<tr>
<td>Displays confidence in him/herself</td>
<td>45.5</td>
</tr>
<tr>
<td>Talks about what he/she doesn’t like</td>
<td>46.7</td>
</tr>
<tr>
<td>Shows autonomy</td>
<td>57.8</td>
</tr>
<tr>
<td>Is assertive</td>
<td>53.3</td>
</tr>
<tr>
<td>Is able to deal with conflict situations</td>
<td>54.0</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Negative secondary effects</th>
<th>No change</th>
<th>A little*</th>
<th>A lot*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has sleeping problems</td>
<td>96.2</td>
<td>3.8 (1.3)</td>
<td>0.0 (0.0)</td>
</tr>
<tr>
<td>Is socially isolated</td>
<td>100.0</td>
<td>0.0 (0.0)</td>
<td>0.0 (0.0)</td>
</tr>
<tr>
<td>Seems afraid of known adults</td>
<td>98.7</td>
<td>1.3 (0.0)</td>
<td>0.0 (0.0)</td>
</tr>
<tr>
<td>Seems afraid of unknown adults</td>
<td>73.8</td>
<td>25.0 (0.0)</td>
<td>1.2 (0.0)</td>
</tr>
<tr>
<td>Refuses to obey</td>
<td>70.6</td>
<td>21.2 (2.4)</td>
<td>8.2 (4.7)</td>
</tr>
<tr>
<td>Clings to parents</td>
<td>82.1</td>
<td>13.1 (0.0)</td>
<td>4.8 (0.0)</td>
</tr>
<tr>
<td>Is aggressive towards siblings</td>
<td>70.8</td>
<td>20.3 (3.8)</td>
<td>8.9 (6.3)</td>
</tr>
<tr>
<td>Is aggressive towards peers</td>
<td>85.0</td>
<td>13.8 (2.5)</td>
<td>1.2 (1.2)</td>
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</tbody>
</table>

* Percentage of parents considering the behavior a problem is presented in parenthesis.
program, the study also examined parents’ reports of behavioral changes following program presentation. Results of this evaluation of the ESPACE program with validated measures are encouraging, and extend prior findings obtained in prior sexual abuse prevention program evaluations in the United States (Berrick & Barth, 1992; Binder & McNiel, 1987; Daro, 1994; Rispens et al., 1997). Indeed, young elementary school children involved in a relatively brief prevention program appear to gain knowledge and prevention skills as they were better able to identify appropriate behaviors when faced with situations depicted on video-vignettes compared to waiting-list control children, and this does not appear to be due to a sensitizing effect. Moreover, the knowledge acquired appears to be maintained at follow-up.

Analysis of the retention of skills however indicates a significant decrease after 2 months. However, the follow-up results of children participating in the program are still higher than those found at pre-test, suggesting that youngsters maintain some of their gains. Notwithstanding these results, the decrease in skills points to the relevance of offering means by which to maximize the skill acquisitions, such as a booster review session or subsequent in-class or at-home activities. Elaboration of additional material to be used following program presentation by parents and teachers may indeed provide an opportunity to consolidate the prevention messages discussed in the workshop. In addition, results point to the pertinence of evaluating gains over a longer period in subsequent research in order to examine the timing of possible fading effects. Of interest for further investigation is whether or not the opportunity of rehearsing the skills taught is the key element for greater maintenance of gains. The workshop does rely on role-play and rehearsal of skills, and previous studies have found that programs that include explicit training in self-protection skills are more effective than those that don’t (Rispens et al., 1997).

While results indicate that children taking part in the program show greater knowledge and skills than control children, the outcome measures used in this study still represent an indirect measure of program impact. In that sense, it is not known whether children will generalize the knowledge and prevention skills learned to real-life situations. Our study, like the vast majority of previous evaluation studies in the field, cannot conclude in regards to the efficacy of the program to actually prevent sexual abuse. In one study, Fryer and his colleagues (Fryer, Kraizer, & Miyoshi, 1987a; 1987b) used in-vivo situations, in which a stranger (in fact a research assistant) would approach children in their school environment and incite him/her to follow. This methodology has been severely criticized on ethical grounds, authors arguing that such simulations may in fact desensitize children to stranger abuse (Conte, 1987). Another limitation is that such methodology cannot be applied to abuse from known adults, which in fact represents the more prevalent form of sexual abuse (Hazzard et al., 1991; Reppucci et al., 1998). Future studies will need to elaborate alternative methodologies to evaluate the distal impact of sexual abuse prevention program. Finkelhor and his colleagues (Finkelhor, Asdigan & Dziuba-Leatherman, 1995a; 1995b; Finkelhor & Dziuba-Leatherman, 1995) have provided pertinent data in this regards in the context of the National Youth Victimization Prevention Study. Children who had taken part in more comprehensive prevention programs were found to have used the strategies taught in the context of real-life situations, and participation in a prevention program was found to increase disclosure. Since the study compared a number of different programs, it remains
difficult to attribute the effects to any one specific program. MacIntyre and Carr (1999a) have recently offered relevant data on some of the benefits of prevention program participation. In an evaluation of the Stay Safe Program offered in Ireland, the authors have analyzed the records of a child sexual abuse assessment clinic in Dublin. Data relating to the 443 children who had not participated in the prevention program were compared to that of 145 children who had taken part in the prevention curriculum offered in the schools. The number of disclosures was found to be higher among Stay Safe participants especially older girls. Moreover, the number of abuse allegations found to be confirmed was higher among participants than among non-participants, even though abuse-related characteristics were similar.

Data collected in this study underscore the importance of the age variable in prevention knowledge and abilities. While the results do not reveal a differential gain following program participation, 3rd grade youngsters demonstrate significantly greater knowledge and abilities than 1st graders both on pre-test and post-test measures. For instance after participation, older children obtain a mean score of 88% on the knowledge test, while 1st graders average 66%. Thus, while both groups of participants benefited from the intervention, some notions appear difficult for younger children to master, highlighting the necessity of providing developmentally appropriate materials.

One of the positive impacts of the program is that participating children appear to discuss abuse and prevention notions with their parents following program presentation, which represent a strong benefit. Indeed, contrary to in-class programs which often involve one or two sessions, parents are in a position to pursue the transmission of preventive notions in a regular and constant fashion (Tutty, 1993). Moreover, they may reinforce concepts taught in programs in the home environment or clarify the child’s misconceptions, if any, following program participation (Wurtele, Kvaternick, & Franklin, 1992).

One disappointing note is that only about one parent out of four attended the session offered to adults. Previous investigations have shown that parents are better informed after participation in such programs (Hébert, Piché, Poitras, Parent, & Goulet, 1999; MacIntyre & Carr, 1999b; McGee & Painter, 1991). Informed parents may react in a more supportive manner toward a youngster who discloses sexual abuse. This is an important consideration given that parental support is one of the variables influencing the severity of the impact of sexual abuse (Everson, Hunter, Runyon, Edelson, & Coulter, 1989; Tremblay, Hébert, & Piché, 1999). Our data tentatively suggest that children whose parents participate in concurrent adult meetings learn more preventive skills than children whose parents do not attend. Thus it would appear important to find ways to foster parental implication. Previous studies suggest that parents’ lack of participation does not reflect a lack of interest, or the fact that they want to leave the responsibility of sexual abuse prevention to others, nor to their belief that their child is not at risk, but seems to be associated to modalities of implementation of the program (Hébert et al., 1997; Reppucci et al., 1994). While the majority of parents perceived their child to be better able to resist abusive situations if the child attends in-class meetings, parents need to be aware of the potential benefits of their involvement. The community workers of the ESPACE program have recently developed a written guide which can be transmitted to all invited parents, and are considering different options to increase parents’ participa-
tion (for instance presenting the program in workplace or offering some content through a video presentation).

In regards to unanticipated benefits of the program, the data suggest that about half of the parents report an increase in behaviors like displaying more self-confidence, talking about likes and dislikes, asserting himself or herself, and being able to deal with conflict situations. In addition, the majority of parents do not observe negative side effects following the program. However, our results underscore the necessity of further evaluating the unanticipated consequences of participation in sexual abuse prevention programs. Indeed, the data suggest that a subgroup of children participating in such programs may generalize learned skills (for instance, assertiveness, say NO) in their home environment (disobey, aggressive towards siblings) and may be more anxious. These behaviors may be perceived by parents as refusal to obey or aggressiveness towards siblings. Future investigations will need to verify whether these behaviors are short-lived or not, or if they are the result of an adaptation period in which the child practices the skills learned (assertiveness). The results must be interpreted with caution in the absence of data from the control group on the questionnaire completed by parents.

Some authors have suggested that the presence of fears or anxiety following a sexual abuse prevention program does not have to be interpreted as a negative side effect. In analyzing telephone interview data with 2000 children aged 10 to 16 years and their parents, Finkelhor and Dziuba-Leatherman (1995) found that about 15% reported being more anxious or more disobedient following participation. However, those who did were those who reported having used the skills taught in specific situations after the program. Thus, Finkelhor and Dziuba-Leatherman (1995) have suggested that some anxiety may be adaptive in that those children reporting such behaviors were those most likely to use preventive skills acquired in prevention programs in real-life situations. Additional analyses of the present data, suggest however that those children more likely to display negative behaviors following the workshop are not discussing the prevention notions with their parents as much as children who do not display negative reactions, highlighting again the relevance of fostering parental participation in prevention programs. Future studies might consider evaluating parent-child relationship before the program or parent’s general involvement in child’s routine activities to assess whether or not these variables are linked to possible side effects of prevention programs.

In summary, the ESPACE program was appreciated by children. Following participation in this relatively brief workshop, grade 1 and grade 3 children were better able to identify appropriate behavioral responses when confronted with potentially abusive situations in forms of video vignettes. A minority of parents observed negative behavioral reactions and about half reported an increase in positive behaviors. Among other results, data reveal that participating children and their parents appreciate the program. Future studies need to examine solutions to foster parents’ involvement in prevention program, as well as to identify possible longer term effects of the interventions offered to children. Video-vignettes measures, as those developed in the present study, could be useful in such undertakings.
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References


Résumé

Objectif: Les effets du programme ESPACE, visant la prévention de la victimisation ont été évalués à l'aide d'une adaptation du devis Solomon auprès d'élèves de première et troisième années du primaire.

Méthode: Un total de 133 enfants (64 en première année et 69 en troisième année) ont participé à l'étude. Les élèves ont complété une mesure de connaissances et une mesure basée sur des vignettes-vidéos visant à évaluer les habiletés comportementales face à des mises en situation abusives ou potentiellement abusives. Une mesure de relance (2 mois) a été effectuée afin de vérifier la rétention des concepts et des habiletés de prévention.

Résultats: Les résultats indiquent qu'au post-test, les élèves qui ont participé à l'atelier de prévention obtiennent des scores plus élevés à la mesure de connaissances et des habiletés préventives que les enfants du groupe témoin. Les données de la relance indiquent que les acquis au plan des connaissances sont maintenus alors que les gains au plan des habiletés préventives sont susceptibles de s'atténuer entre le post-test et la relance. Par contre les résultats à la mesure des habiletés demeurent plus élevés à la relance que ceux obtenus par les élèves avant leur participation au programme. En termes de conséquences non anticipées du programme de prévention, les données indiquent que près de la moitié des parents interrogés identifient chez leur enfant des réactions positives. En outre, la majorité des parents ne mentionnent pas observer de réactions négatives à la suite de la participation de l'enfant à l'atelier ESPACE.

Conclusion: Les données suggèrent que le programme ESPACE tel qu'adapté au Québec permet d'augmenter les connaissances et les habiletés préventives des jeunes élèves du premier cycle du primaire.

Resumen

Objetivo: Se evaluaron los efectos del programa de prevención del abuso sexual a los niños ESPACE utilizando un diseño tipo Solomon con niños de primer y tercer grado. ESPACE es una adaptación del Programa Americano de Prevención del Asalto a los Niños (CAP). Se examinaron también posibles efectos secundarios del programa.

Método: Participaron en el estudio un total de 133 niños (64 primer grado y 69 tercer grado). Los niños completaron un cuestionario de conocimiento y una vignette en video como medida para evaluar las habilidades de prevención hacia situaciones potencial o actualmente abusivas. Se administró una medida de seguimiento (a los 2 meses) para verificar si el conocimiento y las habilidades fueron mantenidas.

Resultados: Los resultados indicaron que los niños que participaron en el programa de prevención demostraron mayor conocimiento preventivo y habilidades en relación con los niños que no participaron. Los datos del seguimiento demostraron que los conocimientos adquiridos se mantuvieron mientras que las ganancias en las habilidades preventivas fueron atenuadas. Sin embargo, mientras las habilidades globales disminuyeron entre el post test y el seguimiento, los niños todavía mostraban mayores habilidades preventivas en el seguimiento que antes del programa. En términos de los efectos secundarios no anticipados, los resultados revelaron que por lo menos la mitad de los padres notaron reacciones positivas después de la participación de los niños en el programa ESPACE. Además, la mayoría de los padres no identificaron reacciones negativas en los hijos después de su participación en el taller.

Conclusiones: los resultados sugieren que la adaptación Québec del programa CAP fue efectiva en el entrenamiento de niños en los conceptos y las habilidades de prevención del abuso.