Child Abuse & Neglect, Vol. 16, pp. 369–384, 1992
Printed in the U.S.A.

0145-2134/92 $5.00 + .00

THE ABILITY OF ELEMENTARY SCHOOL CHILDREN TO LEARN CHILD SEXUAL ABUSE PREVENTION CONCEPTS

LESLIE M. TUTTY

Faculty of Social Work, University of Calgary, Alberta, Canada

Abstract—This research was designed to address several of the methodological problems in the current body of knowledge on the efficacy of child abuse prevention programs for elementary school-aged children. A new measure, the Children's Knowledge of Abuse Questionnaire (C.K.A.Q.) was developed, and its psychometric properties assessed. In total, 400 children were tested in four groups. Half of the sample participated in a child abuse prevention program *Touching*, and the other half were in a waiting list control group. Half of each group were pretested, and the other half were not, in order to determine whether the pretesting sensitized the students. All children were tested again 5 months afterward to investigate the long-term retention of prevention concepts. Results showed that children who participated in the prevention program scored significantly higher on the C.K.A.Q. than children in the control condition. Age was a critical factor, with significant improvements as age increased between the kindergarten, Grade 1, Grade 3 and Grade 6 students. All participants maintained their level of knowledge after 5 months had passed. The relevance and practical implications which stem from this research are discussed.

Key Words—Elementary school children, Prevention, Child sexual abuse.

INTRODUCTION

THE LAST DECADE has seen a proliferation of sexual abuse prevention programs directed to children, in response to the growing recognition of large numbers of children who have been sexually abused. Although only one of a range of prevention options to address sexual abuse (Tutty, 1991), child-directed programs have become the preferential mode of teaching abuse prevention concepts. The programs present similar concepts (Conte, Rosen, Saperstein, & Shermack, 1985), typically challenging such widely held beliefs that children are at more risk of abuse from strangers than from familiar adults, and that boys are not at risk of abuse. Children are given permission to say no to adults in some circumstances. They are offered directions as to how to proceed if abused, in the hope that such information would empower a child to either escape the abusive incident, or to disclose the incident to a trusted adult. By working within school systems, these programs are viewed by large numbers of children. Many programs include teacher training components as well as the opportunity for parents to

Research conducted under the auspices of the Centre for Social Welfare Studies, Faculty of Social Work, Wilfrid Laurier University, Waterloo, Ontario, Canada. A grant from the Ontario Ministry of Community and Social Services is gratefully acknowledged.

Information on *Touching* can be obtained from Darlene Sykes, AATD, 1957 Main St. W., Hamilton, Ontario, Canada L8S 1B7.

Received for publication December 27, 1990; final revision received April 19, 1991; accepted May 7, 1991.

Requests for reprints and copies of the Children's Knowledge of Abuse Questionnaire may be sent to Leslie Tutty, D.S.W., Faculty of Social Work, University of Calgary, 2500 University Avenue, N.W., Calgary, Alberta, Canada T2N 1N4.

view the prevention materials, thereby providing prevention to a wide segment of the community. Despite recent questioning as to whether children are the appropriate prevention audience (Cohn, 1986), child-directed programs are offered in many communities across the North American continent (Dube, Heger, Johnson, & Hebert, 1988; Finkelhor & Araji, 1983).

Approximately 26 research studies evaluating the effectiveness of child sexual abuse prevention programs for elementary and for preschool-aged children have been published since 1981 (for reviews see Tutty, 1990; Wurtele, 1987). Several recurring methodological problems in this research have resulted in an inability to wholeheartedly endorse the use of the programs on the part of some (Wurtele, 1987), and in strong criticism of the programs on the part of others (Reppucci & Haugaard, 1989). The research has been hampered by relatively little use of appropriate control or comparison groups, a paucity of psychometrically sound instruments, and small sample sizes. A discussion of each of these problems will both clarify the difficulty in extrapolating clear findings from the review of the research and will present the rationale for the development and the design of the current research.

Aside from eight studies which utilized control groups (Conte et al., 1985; Downer, 1984; Fryer, Kraiser, & Miyoshi, 1987a, 1987b; Kolko, Moser, Litz, & Hughes, 1987; Nelson, 1981, cited in Dube et al., 1988; Saslawsky & Wurtele, 1986; Volpe, 1984; Wolfe, MacPherson, Blount, & Wolfe, 1986), few of the research studies were well enough designed to yield definitive results, although most interpreted their results as supporting the effectiveness of the programs (Garbarino, 1987; Plummer, 1984; Scott, undated; Sigurdson, Strang, & Doig, 1987; Swan, Press, & Briggs, 1988). Several of these performed no statistical analysis on results, looking only at the proportion of correct responses for each item (Dawson, 1986; Herring, 1983; Olson, 1985), despite the fact that the questionnaires could have been analyzed using inferential statistics. Similarly, some studies performed statistical analyses on changes in individual items only (Christian, Dwyer, Schumm, & Coulson, 1988; Kolko et al., 1987; Plummer, 1984; Sigurdson et al., 1987; Wolfe et al., 1986), when total scores comparing pre- and post-results might have been calculated. Volpe (1984), using a posttest-only design, with a control group and a large sample size (experimental $N = 298$; control group $N = 315$), was the only researcher who reported finding no improvement after a program, although Wurtele, Saslawsky, Miller, Marrs, and Britcher (1986) found that children who saw a prevention film did not score any better than control group children at posttest. The scores of the children in the experimental group were, however, significantly greater than the control group participants at a 3-month follow-up testing.

Most of the research instruments utilized in past research have been very short, from 7 to 13 items. Given the complexity of the prevention concepts, it is questionable whether such brief measures can adequately assess if children understood the ideas. Only five of the questionnaires were investigated for their psychometric properties: A 13-item "Personal Safety Questionnaire", and the "What If Situations Test" (Saslawsky & Wurtele, 1986; Wurtele, Marrs, & Miller-Perrin, 1987), a 29-item "Personal Safety Questionnaire" (Sigurdson et al., 1987), a 9-item instrument composed of knowledge and opinions, experience and action questions (Kolko et al., 1987), and a 13-item knowledge questionnaire (Binder & McNeil, 1987). Gilbert, Berrick, LeProhn, and Nyman (1989) recently developed an interview format for preschoolers; however, they concluded that its validity was questionable, especially for use with very young children.

Sample sizes were small in several studies. Miltenberger and Thiesse-Duffy (1988) included thirteen 4/5-year-old children in one group and eleven 6/7-year-old children in another group, for a total of 22 participants. Poche, Brouwer and Swearingen (1981) trained three preschool-aged children intensively with behavioral techniques. In another study, the loss of participants (initial $N = 103$, posttest $N = 11$) precluded interpreting results (Christian,

Dwyer, Schumm, & Coulson, 1988). Even in several of the best designed studies, the numbers of participants in each group was small considering the type of statistical analysis utilized. Conte et al. (1985) had 10 students in each group; Downer (1984) had only 15 children in the control group; Saslawsky and Wurtele (1986) had 16 students in each group.

Notably, those studies which employed strong post-only or pre-post control designs group designs found statistically significant improvements in children's knowledge after participation in a prevention program (Conte et al., 1985; Downer, 1984; Fryer et al., 1987b; Saslawsky & Wurtele, 1986; Wolfe et al., 1986). These differences, though statistically significant, were not large. In the Saslawsky and Wurtele (1986) study, the resulting significant difference between the control and experimental groups was two points on a 13-point scale. The Wolfe et al. study (1986) found that the significantly higher performance of the experimental group on their 7-point scale was never more than one point higher than that of the control group. These results raise the issue of how to practically interpret such small average gains.

The question of whether children remember the concepts over time has not been studied extensively. Several studies have demonstrated that information learned by kindergarten children who had seen a prevention program was maintained over 3 months (Saslawsky & Wurtele, 1986), and after 6 months (Fryer et al., 1987b; Kolko et al., 1987; Ray & Deitzel, 1985). Other research has suggested that certain concepts and attitudes which children remembered after the initial presentation of a prevention program, tended to be forgotten or confused after 8 months had passed (Plummer, 1984). Some of the items, such as, "It's OK to tell secrets," "even people you know might want to touch you in ways that feel uncomfortable," are key prevention concepts that are not typically reinforced in North American society. Only five of the 25 research studies surveyed performed a follow-up analysis longer than 2 months, indicating a pressing need for research looking at the long-term retention of concepts.

How age affects the ability of children to learn sexual abuse prevention concepts has not yet been clearly answered. Results of research on the efficacy of programs for preschool children have been contradictory (Borkin & Frank, 1986; Gilbert et al., 1989; Poche et al., 1981). Most previous studies of elementary school-aged children were designed for Grade 2 or higher (Downer, 1984; Kolko et al., 1987; Plummer, 1984; Sigurdson et al., 1987; Swan et al., 1985; Wolfe et al., 1986). Only four of the studies reviewed utilized children in kindergarten and Grade 1 (Conte et al., 1985; Fryer et al., 1987b; Herring, 1983; Wurtele et al., 1986). Not unexpectedly, older children obtained higher scores on knowledge tests after participating in prevention programs, (Conte et al., 1985; Garbarino, 1987; Saslawsky & Wurtele, 1985). Few studies have compared the effectiveness of prevention programs for different age groups in a systematic manner, with the exception of Conte et al. (1985) whose sample was very small, and Saslawsky and Wurtele (1986) who looked at kindergarten and Grade 1 as compared to Grades 5 and 6, with no middle comparison group from Grade 3. Given the extensive developmental changes that take place in children between ages 5 to 12, looking at more graduated samples of children is recommended. Only then might it be possible to discover whether there is a gradual increase in scores as children progress in age, or whether children begin to understand the majority of the concepts at a particular stage in their development.

Since one of the major practical questions today is at what age do children begin to integrate abuse prevention concepts, further research with young children is indicated. The younger the child, the more apparent difficulty they have in understanding the concepts. Conte et al. (1985) suspected that the reason that the kindergarten and Grade 1 children in their study remembered so few of the prevention concepts is that younger children find it more difficult to learn abstract ideas. Interestingly however, Kraiser, Witte and Fryer (1989), who do not teach abuse prevention concepts or make reference explicitly to sexual material, but instead help children to develop the skills to say no to any unwanted touches, have suggested that children in preschool and kindergarten may actually learn these skills more easily than older

children. Nevertheless, since the majority of child-directed programs focus on teaching concepts in addition to skills, further investigation of how children learn these concepts remains of interest.

In addition to the above design considerations, the choice of outcome criterion has been criticized by several authors because the typical outcome measure is knowledge gain of the core prevention concepts rather than behavioural change (Fryer et al., 1987a; Reppucci & Haugaard, 1989). Prevention programs can, however, be evaluated by both proximal (immediate) objectives and distal goals (long term). Learning the prevention concepts is the key proximal objective, and clearly one of the initial steps in ensuring that a program is working effectively. Whether a child can then utilize the knowledge and skills taught by the program if actually in an abusive situation is certainly the fundamental distal objective in child sexual abuse prevention programs, but presents several problems to researchers. First, asking children to respond in simulated situations, where a "stranger" approaches children and asks them to accompany him/her, has been criticized on ethical grounds as potentially desensitizing children to the occurrence of such events (Conte, 1987). This has been refuted by the finding that, at 6-month follow-up, children remained sensitive and responded appropriately to another stranger simulation (Fryer et al., 1987b). Second, although several studies have effectively used stranger simulation techniques (Fryer et al., 1987a, 1987b; Poche et al., 1981), it is more difficult and ethically problematic to utilize such simulation techniques to demonstrate that the programs would help children reject advances from familiar adults, the most common perpetrators.

Although the research on the effectiveness of child-directed sexual abuse prevention programs, taken as a whole, supports the view that children learn the prevention concepts, there remain questions about which child populations learn the concepts most effectively. For the present time, research focusing on the proximal objectives, continuing to evaluate whether children learn the information and attitudes provided in sexual abuse prevention programs and testing whether they can generalize these prevention concepts to situations not directly demonstrated in the programs continues to be a worthwhile pursuit.

This body of research has encompassed barely 10 years and must be viewed as providing suggestive rather than definitive support for prevention programs for elementary school children. While results from the well-designed studies support the hypothesis that children learn the prevention concepts after participating in a program, most scholars in the area of child sexual abuse prevention have called for further, better designed research (Daro, 1988; Finkelhor, 1986; Trudell & Whatley, 1988; Wurtele, 1987).

METHOD

The above critique of the research suggested several ways in which research on prevention programs could be improved. These methodological considerations were determinant factors in the design of the present study. The current research attempted to address several of the previously described problems by incorporating the major questions into one well-controlled study, testing the same group of children before, and after a prevention program, and at 5-month follow-up. Information was gathered from a large number of elementary school children ($N = 501$), 400 of whom were included in the final data set. The children were from three different grades, Grade 1, 3, and 6, some receiving pretests and some not. In response to the need for new, psychometrically sound instruments which can be used to test children's learning of such complex ideas, a 40-item measure, the Children's Knowledge of Abuse Questionnaire, was developed, and its psychometric properties investigated.

The questions of interest in the present study included: How knowledgeable are children

about prevention concepts before participating in a prevention program; how much do children learn after participating; how well do children remember these concepts after a 5-month time period has elapsed; and how does the age of the child affect the amount of information learned?

The children in the experimental conditions participated in a prevention program commissioned by the Community Child Abuse Council for Hamilton-Wentworth in Ontario. The core of the program is a play, *Touching*, by Michael Adkin, which was further developed in rehearsals with the Toy Towne Troupers, a professional theatre group for children. The play concerns a child named Alex, who is appropriately androgynous in appearance and behaviour. While playing in a park, Alex encounters a number of individuals who touch him/her in uncomfortable ways. S/he is helped to understand how to protect her/himself by Mimi Mime, who holds up signs to Alex (and to the audience) which question whether each touch is good or bad. A friendly bag-lady also helps to resolve each of the preceding situations. Alex receives a "Bill of Body Rights," which clarifies the rights of a child in respect to unwanted touch. Thematically, it is similar to most child abuse prevention programs and has been well received by both child and adult audiences.

The research design is quasi-experimental with nonrandom assignment of children to different age, treatment, and comparison groups. The core of the research design is a Solomon Four Group design, a nonequivalent pretest-posttest control group design (Campbell & Stanley, 1963). This design controls for many internal threats to the validity of an experiment, with the important advantage of assessing whether answering a pretest sensitized the children to the treatment so that they scored better than those children who were not pretested. The children in the present study were tested in one of four conditions:

Condition 1: Experimental pre/post testing. These children were tested before they viewed the play, 2 weeks afterward, and 5 months later. The pretest scores provide a measure of how much the children knew of the key prevention concepts before viewing the play, and thus the amount of change in their knowledge after seeing the prevention program could be calculated. Similarly, by comparing the two week posttest scores and the 5-month posttest scores, the amount of information lost or maintained after 5 months had passed could be determined.

Condition 2: Experimental posttest only. Children in this condition were not given the pretest, but were tested 2 weeks after viewing the play, and 5 months afterward. Not giving this group the pretest permitted a comparison with Condition 1 to assess the possibility that merely responding to the pretest might increase children's performance on the posttest by sensitizing students to the issues presented in the play, and thereby, having a treatment-like effect itself.

Condition 3: Control group with pre/post testing. These children did not initially see the play. They were tested once during the same time period as the children in the two experiemtal groups, and again 1 month later. Since they did not see the play, it would be expected that either their pretest versus posttest scores would not increase, or that, if there was in increase, this would not be of the same magnitude as the increase in the children who participated in the prevention program. Immediately before the final posttest testing at 5 months, the Condition 3 children saw the play, in the interest of gathering further information about the effects of the play on the knowledge of prevention principles. Thus the 5-month posttest scores in this group reflect responses to the prevention program.

Condition 4: Control post only. These children did not see the play until after the research was over, constituting a waiting list control group. The children were pretested in the same time frame as the other groups, and again 5 months afterward. The inclusion of this group allowed

Table 1. A Schematic Overview of the Design of the Study

Conditions	Sequence of Testing				
Pretest/Post	Pretest	Play	2-wk posttest		5-mo follow-up
Posttest Only		Play	2-wk posttest		5-mo follow-up
Control Pre/Post	Pretest		Posttest	Play	5-mo follow-up
Control Post Only			Posttest		5-mo follow-up

for control of history and maturation. Since these children did not receive the treatment, their scores would not be expected to increase over time. Changes might occur, however, if maturation influenced responses to the measures or if a common historical event affected all the participants in the research study.

An overview of manner in which all four conditions were tested is presented in Table 1, which also demonstrates the time frame adhered to in the testing of the participants.

Participants. The population in the study consisted of children from three different school boards in the Hamilton-Wentworth school district. A total of eight schools were sampled for participants, two schools for each of the treatment and the control group conditions.

A description of the research project and a permission form were sent to parents of children in the appropriate grades. Children were then selected from those who returned permission slips, until a group of students slightly larger than necessary for each particular condition was obtained to control for loss of sample in follow-up.

Three different grade levels were tested in each of the four research conditions: Grades 1, 3, and 6. A group of kindergarten children were also included in each condition, but given the small number of kindergarten participants, results pertaining to this group must be regarded as exploratory. Because age was considered a key variable in the study, and because it was expected that children of different ages would respond differentially to the Children's Knowledge of Abuse Questionnaire, it was deemed necessary to have equal numbers of children from the four separate grades in each condition for the data analysis. To retain the largest possible number of children from each grade, 12 kindergarten (48 in total), 29 Grade 1 (116 in total), 30 Grade 3 (120 in total) and 29 Grade 6 participants (116 in total) were included in each condition for the overall statistical analysis. The final data set contained full information from 400 children (see Table 2).

Demographic information collected from parents in the four conditions identified a significant difference in ethnicity factors between the families in Condition Four (Control Post Only) and the other three conditions. Children in this group had significantly fewer fathers or mothers who were born in another country ($\chi^2 = 10.58$, $df = 3$, $p = .014$; $\chi^2 = 12.65$, $df = 3$, $p = .005$) and fewer families spoke another language in the home ($\chi^2 = 13.48$, $df = 3$, $p = .004$). These differences will be considered in the discussion of the results.

Table 2. Assignment of Participants to Conditions ($N = 400$)

	Kindergarten	Grade 1	Grade 3	Grade 6
Pretest/Post	$N = 12$	$N = 29$	$N = 30$	$N = 29$
Posttest Only	$N = 12$	$N = 29$	$N = 30$	$N = 29$
Control Pre/Post	$N = 12$	$N = 29$	$N = 30$	$N = 29$
Control Post Only	$N = 12$	$N = 29$	$N = 30$	$N = 29$

Instrumentation. Relevant information was gathered from the children using the C.K.A.Q., while their parents answered a short survey regarding demographic characteristics and whether they had previously provided other prevention materials to their child.

The Child Knowledge of Abuse Questionnaire (C.K.A.Q.)

This new measure was constructed by the author to assess how well children aged 5 to 12 learn sexual abuse prevention concepts. An extensive review of child abuse prevention programs and research provided information for the construction of items. The C.K.A.Q. was designed so that children with no previous exposure to prevention materials could understand the questions. The instructions provide a description of good, bad, and confusing touches, since, without this information, the questions could not have been understood by children with no previous exposure to prevention concepts. It must be noted, however, that the information contained in the instructions constitutes a mini-lecture on prevention and might have influenced the children's scores on subsequent usage of the measure. The importance of utilizing the present research design in which the effects of a pretest can be estimated is, therefore, underscored.

The C.K.A.Q. originally consisted of 35 true/false items, however another five more "complex" items were added for children in Grades 3 and 6, to avert concerns about a possible ceiling effect. Although the C.K.A.Q. tests a wide range of ages, there is a precedent for using the same measure for children in both Grade 1 and Grade 6 (Saslawsky & Wurtele, 1985). Also, since the children participate in the same prevention program, it is of interest to identify if the younger children learn the same concepts as the older students. In order to compensate for the younger children's lack of reading ability, the C.K.A.Q. was verbally administered to the Grade 1 and kindergarten children individually. To ensure comparable results, the test was also verbally administered to children in the higher grades, allowing for across-age comparisons on the research questions of interest.

The C.K.A.Q. begins with general items about assertiveness with peers, nonsexual touch and attitudes regarding strangers. These areas are relatively familiar to children and were intended to establish a comfortable response to the questionnaire. Items related to sexual abuse and to the possibility that familiar people may touch children in confusing or uncomfortable ways were situated toward the end of the measure. A final aspect of the C.K.A.Q. is the inclusion of items about positive touch. A major concern expressed by teachers and parents about child abuse prevention materials is that children may become self-conscious about touching and being touched. In recompense, some adults have stopped giving positive touches in case these might be misinterpreted as sexual advances. This is an unfortunate, unintended side-effect of many programs (Anderson, 1986). *Touching* explicitly encourages the giving and receiving of appropriate positive touches.

The psychometric properties of the C.K.A.Q. were investigated utilizing scores collected from children ($N = 300$) before they had seen the prevention program. The test-retest reliability of the C.K.A.Q. was evaluated using scores from the control group ($N = 110$) which was tested twice, a month apart. The 1-month test-retest reliability of the C.K.A.Q. is $r = .76$. Seibel (1968) states "it is generally accepted that . . . reliabilities in the 70s or low 80s are adequate for most purposes that involve using summaries of test scores as information about groups" (pp. 271–272). The internal consistency of the C.K.A.Q. is $r = .90$ using the Kuder-Richardson formula (KR-20), the special form of coefficient alpha for tests with dichotomous responses (Nunnally, 1978). The coefficient was calculated from pretest C.K.A.Q. scores from the Grades 1, 3, and 6 students ($N = 332$).

In addition to completing the C.K.A.Q., a sample of children ($N = 113$) were given the

Personal Safety Questionnaire (Saslawsky & Wurtele, 1985), a measure with tested, but rather low reliability (1-week test-retest $r = .64$; internal consistency KR-20 $r = .78$). This instrument was constructed for kindergarten-aged children, and was, therefore, considered too simple and short for use in the present study. The correlation between the Personal Safety Questionnaire and the C.K.A.Q. was $r = .92$, suggesting a strong relationship between the two measures, which provides evidence of the concurrent validity of the C.K.A.Q.. In summary, the psychometric investigation of the C.K.A.Q. suggests that it is a highly reliable instrument with good validity.

Limitations of the Research

The current research is quasi-experimental with no random assignment of children to conditions. This means that one cannot clearly "make a causal connection between the participation in the program and improvement in scores" (Posavac & Carey, 1980, p. 231) and the possibility exists that an influence other than the program may have led to any observed increase in scores. Consequently, one cannot generalize the research results to the total population of Hamilton-Wentworth students.

A possible bias is inherent in the sampling procedures. Although the entire population of students in each school was included in the prevention program, participation in the research was through self-selection on the basis of parental consent. Thus, the characteristics of parents who allowed their children to participate in the research may have been different from the characteristics of those parents who did not. It was not possible to estimate the effects of such bias in the research, although one can speculate that parents who are comfortable with the idea of their child participating in a prevention program may have been more willing to allow their child to participate in the research.

RESULTS

The first step in assessing the impact of the *Touching* program was to establish the level of knowledge of prevention concepts of the children prior to their participation in the prevention program. This was appraised in two ways: (a) finding out if children had access to similar prevention materials, and (b) pretesting a number of children using the C.K.A.Q. Given the recent proliferation of materials designed to teach children about sexual abuse, the author asked participants in the study whether they "had seen any show, on television or video, or read any books which tried to teach children about different kinds of touching?" Only those who could name a specific program, or identifying character or theme of a program were considered to have seen an alternate program.

Of the children in kindergarten, across the conditions which received a pretest ($N = 60$), 55% had no previous information about abuse. In Grade 1, 72% of the children ($N = 132$) had no previous information. In Grade 3, 41% of 151 children had no previous information. Finally, in Grade 6, only 27% of the students ($N = 158$) responded that they had no previous information about child abuse. Clearly, the older children were much more likely to have had access to other sources of information regarding child abuse prevention principles. While five children each in kindergarten and from Grade 1 reported that they had seen specific materials about child abuse prevention, three times that many children from Grades 3 and 6 reported such access.

A χ^2 analysis was performed to identify whether children in the four conditions were similar in the extent to which they had prior access to other prevention materials (Table 3). A significant difference was found ($\chi^2 = 7.6$, $df = 3$, $p < .05$) between the two experimental

Table 3. Prior Experience of Participants (Reported by Child)

	Not Asked	Nothing	Program
Condition 1: Experimental Pre/Post	7	76 (81.7%)	17 (18.2%)
Condition 2: Experimental Post	10	78 (86.7%)	12 (13.3%)
Condition 3: Control Pre/Post	10	64 (71%)	26 (28.9%)
Condition 4: Control Post Only	3	73 (75.3%)	24 (24.7%)
Total	30	291 (78%)	79 (22%)

conditions and the two control conditions, with the control groups having higher amounts of prior exposure to prevention materials. Much of this difference is attributable to higher levels of knowledge among Grade 6 students ($\chi^2 = 13.85$, $df = 3$, $p < .003$) with 58% and 44% of Grade 6 students in Conditions 3 and 4 having previous exposure, as compared to the two experimental conditions where 27% and 14% of the Grade 6 students had previous experience. This suggests that children in the control conditions may have had greater knowledge of prevention concepts before the research began. To determine the extent to which prior exposure to prevention materials influenced the scores on the pretest, a multiple regression analysis was performed on the C.K.A.Q. pretest scores with prior exposure as a predictor, controlling for the effects of age, $F(1, 159) = 1.068$, $p < .30$. The results indicated that those children who reported previous experience with other prevention materials did not perform significantly better on the Child's Knowledge of Abuse Questionnaire than children who reported no prior exposure, suggesting that prior information did not unduly influence the pretest scores. This raises questions about the efficacy of these primarily informal programs such as episodes of television series.

Previous Knowledge of Prevention Concepts

The scores of the entire group of children who were pretested with the C.K.A.Q. were combined, in order to look at the average knowledge base of the children in the study before they participated in the prevention program (see Table 4). Since kindergarten and Grade 1 children answered only 35 questions on the C.K.A.Q., while Grade 3 and 6 students responded to all 40 items, the C.K.A.Q. scores are presented as percentages so that the grade levels could be easily compared.

An analysis of variance investigated whether the differences between each grade on the pretest of the C.K.A.Q. were significant. As can be seen in Table 5, a significant overall F-test was found for grade level. Subsequently, a Bonferroni procedure (Wilkinson, 1987) was utilized to identify which grades were significantly different from each other. The Bonferroni procedure is a multiple comparison method in which one predetermines the overall protection level for the number of comparisons to ensure that the Type 1 error level is not exceeded. The multiple comparisons showed significant differences between all grades, with grade level

Table 4. Proportion of Correct Answers on Pretest Scores for Combined Conditions

		C.K.A.Q. Percent	
	N	Mean %	*SD*
Kindergarten	47	55.5	11.31
Grade 1	99	60.98	13.28
Grade 3	113	76.35	13.84
Grade 6	120	87.33	11.72

Table 5. C.K.A.Q. Differences Between Grade Levels at Pretest

Source	*df*	Mean Square	*F*-Ratio	Probability
Grade	3	8839.4	55.27	.000*
Error	196	159.9		

* Statistically significant.

accounting for over 45% of the total variance of the C.K.A.Q. scores (Squared Multiple $R = .46$) at pretest. Age must, therefore, be considered a critical variable in knowledge of child abuse prevention concepts, even before children have participated in a child sexual abuse prevention program.

Analysis of Children's Knowledge Gain After Seeing Touching

The average C.K.A.Q. scores of children in the four research conditions are reported in Table 6. If participation in *Touching* successfully teaches children the abuse prevention concepts, the C.K.A.Q. posttest scores should improve significantly more than the scores of those children who had not seen the play. The procedures used for analyzing the total C.K.A.Q. scores are somewhat complex. The core of this analysis is the comparison of various conditions before seeing the play, as compared to after seeing the play. This analysis (Kerlinger, 1986; Spector, 1981) first compares the average pretest scores in the two conditions which received pretesting (Condition 1 and 3) to ensure that there were no significant differences between these two groups before the introduction of the prevention program. This procedure is to establish that the groups are from the same population. The obtained *t*-test was not statistically significant ($t = 1.802$, $df = 198$, $p < .073$), although this score approaches the .05 level used is in the research as the critical statistical level. Some authors suggest continuing with such an analysis and noting trends, even when statistically significant differences are found (Fitz-Gibbon & Morris, 1987). The importance of utilizing a pretest at this stage in our knowledge of how children learn prevention concepts is underscored, especially given the wide use of quasi-experimental research.

Next, a 2×2 factorial analysis of variance (experimental versus control: Pretest or no pretest) on the posttest C.K.A.Q. scores (see Table 7) was conducted to identify: Do the participants in the experimental groups score significantly better than participants in the control group after having seen the play; does answering the pretest sensitize participants so that they scored better on the posttest than those who did not receive the pretest; and was there an interaction between the condition and answering the pretest.

As can be seen from Table 8, there was a significant main effect for condition (experiment versus control) but no significant effect for pretesting. This demonstrates that those students who participated in the prevention program scored significantly higher on the posttest than

Table 6. Total C.K.A.Q. Mean Percentage Scores All Conditions

	Time 1: C.K.A.Q. % Mean (*SD*)		Time 2: C.K.A.Q. % Mean (*SD*)		Time 3: C.K.A.Q. % Mean (*SD*)
Condition 1: Exp. Pre/Post	74.0 (15.6)	Play	78.2 (16.8)		79.2 (16.9) $N = 98$
Condition 2: Exp. Post Only	—	Play	75.7 (16.2)		77.6 (17.5)
Condition 3: Con. Pre/Post	69.7 (18.2)		72.1 (18.7)	Play	79.8 (15.9) $N = 97$
Condition 4: Con. Post	—		73.3 (17.2)		79.5 (16.9) $N = 99$

Table 7. 2 × 2 Table of Posttest C.K.A.Q. Mean Scores

	Pretest	No Pretest
Experimental	78.2	75.7
Control	72.1	73.3

those students who did not receive the prevention program, regardless of whether students were in conditions which had answered the pretest or not. The differences between the average scores in the experimental as compared to the control conditions do not appear large. The size of the increase obtained reflects a gain of one or two points on the 40-point scale; however, this is consistent with other well-designed research on child sexual abuse prevention programs (Saslawsky & Wurtele, 1986; Wolfe et al., 1986).

There was no interaction between pretesting and the experimental condition which indicates that the pretest did not sensitize participants so that they scored better on the posttest, a desirable finding which allows for further comparison of the four conditions, since those that were pretested did not have an unfair advantage.

The Effect of Grade on C.K.A.Q. Scores

The average C.K.A.Q. scores for students in each grade are listed in Table 9. The possibility of differences among these age groups on the C.K.A.Q. scores was examined in a 2 × 2 × 4 factorial analysis of variance (experimental versus control, pretest or not, grade level) on the posttest C.K.A.Q. scores.

The results (Table 10) show a significant effect for grade level, in addition to the previously established significant effect for participation in the experimental program. There were no interactions between any variables, showing that the grade and experimental effects did not depend on whether participants had answered the pretest or not, and that the grade differences were consistent across conditions.

The Analysis of the Follow-up Scores

The long-term 5-month follow-up analysis is of less importance in attributing changes to the treatment than the initial pre-post analysis because there is an increased potential for the occurrence of extraneous events which might affect the posttest scores. It was expected that the students' scores would remain essentially the same after 5 months had passed. The follow-up component was added to investigate whether children maintained or forgot prevention concepts over time. An inspection of the average scores for each condition at posttest (Table 6) reflects the fact that the scores remained constant for Condition 1 and 2, both of which had seen the play 5 months previously. Students in Condition 3 saw *Touching* immediately before the follow-up testing, and their average scores improved accordingly and significantly.

Table 8. 2 × 2 Factorial Analysis of Posttest C.K.A.Q. Scores (N = 398)

Source	*df*	Mean Square	*F*-Ratio	Probability
Experiment	1	1771.1	6.23	0.013*
Pretest	1	1.29	0.005	0.94
Exp × Pretest	1	363.8	1.275	0.26
Error	394	284.5		

* Statistically significant.

Table 9. C.K.A.Q. Mean Scores by Grade Level

	Time 1: C.K.A.Q. % Mean (*SD*)		Time 2: C.K.A.Q. % Mean (*SD*)		Time 3: C.K.A.Q. % Mean (*SD*)
Condition 1: Exp. Pre/Post					
Kindergarten (N = 12)	54.0 (8.4)		56.7 (9.2)		57.9 (18.2) N = 11
Grade 1 (N = 29)	63.7 (11.3)		66.7 (12.7)		69.9 (11.9)
Grade 3 (N = 30)	77.3 (11.3)	Play	82.9 (11.4)		83.6 (12.3) N = 29
Grade 6 (N = 29)	89.1 (6.9)		93.7 (7.5)		92.2 (9.2)
Condition 2: Exp. Post Only					
Kindergarten (N = 12)	—		56.4 (16.1)		55.5 (15.1)
Grade 1 (N = 29)	—		67.3 (12.4)		70.3 (15.7)
Grade 3 (N = 30)	—	Play	78.3 (12.9)		82.7 (13.2)
Grade 6 (N = 29)	—		89.3 (8.5)		89.0 (11.6)
Condition 3: Control Pre/Post					
Kindergarten (N = 12)	54.8 (11.9)		54.8 (10.4)		60.3 (13.4) N = 11
Grade 1 (N = 29)	56.7 (12.8)		59.8 (14.1)		68.8 (13.7)
Grade 3 (N = 30)	78.6 (15.7)		78.1 (15.1)	Play	87.1 (10.2)
Grade 6 (N = 29)	79.7 (15.4)		85.4 (15.9)		91.4 (7.1) N = 27
Condition 4: Control Post Only					
Kindergarten (N = 12)	—		52.9 (11.5)		57.4 (7.6)
Grade 1 (N = 29)	—		64.9 (12.7)		72.4 (15.6)
Grade 3 (N = 30)	—		75.6 (14.3)		81.6 (15.1)
Grade 6 (N = 29)	—		87.9 (11.9)		94.2 (4.9) N = 28

In statistically analyzing the amount of children's knowledge after 5 months had passed it was possible to compare all four conditions by computing an analysis of covariance on the two conditions which received a pretest, and using the posttest means as adjusted by the pretest scores in a repeated analysis of post and follow-up scores (Spector, 1981). The repeated measures analysis of the follow-up C.K.A.Q. scores, utilizing the adjusted C.K.A.Q. scores at posttest (see Table 11) was not significant, $F(1, 391) = 0.638$, $p < .59$) indicating no substantial differences between the four conditions at follow-up testing after 5 months had passed. If anything, participants generally scored slightly better at the follow-up testing, thus refuting the suspicion that children forget information over time. The significant interaction between trial and condition simply reflects the fact that Condition 3 improved after having participated in *Touching*. In addition, Condition 4 made substantial changes unexpectedly, despite having had no exposure to the program. One possible explanation for this is that, although the pretest did not significantly affect the posttest scores after only 1 month, there may have been a greater impact over the longer 5-month term. Another explanation is that the pretest may, in effect, have stimulated some children to search for correct answers to those questions they

Table 10. Condition × Pretest × Grade Level for C.K.A.Q. Scores at Posttest

Source	*df*	Mean Square	*F*-Ratio	Probability
Grade	3	18652.75	116.93	0.000*
Condition	1	1391.89	8.73	0.003*
Pretest	1	41.95	0.263	0.608
Grade × Condition	3	15.13	0.095	0.963
Grade × Pretest	3	208.98	1.3	0.27
Condition × Pretest	1	194.1	1.22	0.271
Grade × Condition × Pretest	3	60.42	0.38	0.77
Error	384	159.52		

* Statistically significant.

Table 11. Repeated Measures Analysis of Follow-Up C.K.A.Q. Scores

Source	*df*	Mean Square	*F*-Ratio	Probability
Between Subjects				
Condition	3	298.88	0.64	0.59
Subjects w. Groups	391	468.52		
Within Subjects				
Trial	1	3177.3	55.45	0.000*
Condition × Trial	3	438.88	7.66	0.000*
Trial × Subjects w. Groups	391	57.3		

* Statistically significant.

may have answered incorrectly, by asking others, or by paying special attention should they come across such information. Thirdly, the parents of the children in Condition 4 were significantly more likely to have been born in Canada and less likely to speak another language at home. This difference in ethnic background may have effected the responses of children in this condition. Finally, the knowledge that their child was in a study related to sexual abuse but was not provided the prevention program may have led parents to make special efforts to prepare their children more fully for participation in the research by talking to them about prevention concepts.

DISCUSSION AND CONCLUSIONS

The analyses of the C.K.A.Q. scores demonstrate that children who participated in the Hamilton/Wentworth Community Child Abuse Prevention Program learned the prevention concepts taught to a significantly greater extent than those children of similar ages who did not view the play. When examining the average improvement between the pre- and posttest for those in the experimental conditions, one might wonder why these differences, while statistically significant, were relatively small. The finding of small, but statistically significant improvements after a prevention program is consistent with the well-designed research projects that were previously reviewed (Saslawsky & Wurtele, 1986; Wolfe et al., 1986). The fact that the effect is small is compatible with the idea that prevention programs are not simply conveying information (in which case one might expect to see a much greater increase), but are teaching new attitudes about how to respond to other people; for example, whether it is appropriate to be assertive with peers and adults. Attitudes represent long-held patterns of beliefs (Kahle, 1984) which have been reinforced numerous times by the family and culture and, thus, are more difficult to change than knowledge or information. Additionally, it is reasonable to expect a modest amount of learning from a one-time presentation of a 45-minute play.

The age (grade) of the child made a significant difference in the number of prevention concepts learned, with older children having a stronger base of knowledge of prevention concepts both before and after seeing the play. Younger children have considerably more difficulty in extracting and understanding some of the main prevention messages conveyed through the play. One potential way to address this finding, which is consistent with past research on other programs, is to ensure that children in the younger grades receive supplementary materials and that these materials are consistent with their developmental level. Repetition is essential in the learning process. These results may imply, alternatively, that young children will not learn attitudes which conflict with their developmental level until they mature. More research into the nature of prevention concepts and how young children

integrate concepts which are exceptions to the beliefs that they hold about the world is clearly indicated. The results of Kraiser et al.'s research (1989) on skill training suggested that the preschool and kindergarten children learned general assertiveness skills better than children in the older grades, without needing explicit information on sexuality or sexual abuse. A combination of approaches may, therefore, constitute the best approach, with an emphasis on skill-training for younger children while older elementary school children receive both information and skill training.

In looking at the other end of the age-spectrum included in the study, one might question whether, since the Grade 6 students already know so many of the prevention concepts, it is necessary to provide them with a prevention program at all? Notably, however, more than one-quarter of the Grade 6 students (27%) had no previous exposure to formal or informal prevention materials before they viewed the play *Touching*. It must also be remembered that the C.K.A.Q. is a quantitative measure. Despite the fact that Grade 6 students may have provided the correct answers to questions before seeing the play, the quality of their understanding of the concepts may have improved in a manner not investigated by the current study. This is especially likely since many other easily available sources of prevention information focus on strangers, rather than familiar adults, as the major source of concern for children.

The follow-up component of the research was included primarily to ensure that children did not substantially forget prevention concepts with the passing of time. It was not expected that scores would improve, except in the Condition 3 group which saw the play immediately before the final testing, and subsequently significantly improved their follow-up scores. In the other two experimental conditions, children of all ages retained their learning of the prevention concepts over the 5-month period. This is an important finding. Few studies have measured long-term effects over more than 2 months. For the younger children in particular, 5 months is a long time, and forgetting some of the concepts would not have been surprising. Instead, scores increased slightly in most cases, suggesting a solid integration of their learning.

The pretest information was extremely useful in assessing the extent to which children might have known the prevention concepts before participating in the prevention program and in analyzing how their knowledge levels changed. Since children have variable access to informal as well as formal prevention programs, pretesting remains an advisable procedure in continued research in the area. Knowing that the pretest did not sensitize children to the prevention concepts in this research adds further weight to this suggestion.

Despite the seemingly wide array of materials available to prevent child sexual abuse, few of the children in the youngest grades had previous exposure to prevention concepts. Children who had seen the primarily informal shows on child sexual abuse scored no better at pretest than children who had no prior information. The need for formal sexual abuse programs which present prevention concepts in a concrete manner with sufficient repetition therefore remains evident.

Recently, critics of child sexual abuse prevention programs have been quick to point out the small, significant changes as evidence that the programs are not working (Reppucci & Haugaard, 1989). Rather than abandoning child-directed sexual abuse prevention programs, the current research suggests that the programs are working, and supports the contention that children require repeated exposure to the concepts.

REFERENCES

Anderson, C. (1986). A history of the Touch Continuum: An interview with Cordelia Anderson. In M. Nelson and K. Clark (Eds.), *The educator's guide to preventing child sexual abuse* (pp. 15–25). Santa Cruz, CA: Network Publications.

Binder, R., & McNeil, D. (1987). Evaluation of a school-based sexual abuse prevention program: Cognitive and emotional effects. *Child Abuse & Neglect*, **11**, 497–506.
Borkin, J., & Frank, L. (1986). Sexual abuse prevention for preschoolers: A pilot program. *Child Welfare*, **65**, 75–81.
Campbell, D., & Stanley, J. (1963). *Experimental and quasi-experimental designs for research*. Chicago, IL: Rand-McNally.
Christian, R., Dwyer, S., Schumm, W., & Coulson, L. (1988). Prevention of sexual abuse for preschoolers: Evaluation of a pilot program. *Psychological Reports*, **62**, 387–396.
Cohn, A. (1986). Preventing adults from becoming child molesters. *Child Abuse & Neglect*, **10**, 559–562.
Conte, J. (1987). Ethical issues in the evaluation of prevention programs. *Child Abuse & Neglect*, **11**, 171–172.
Conte, J., Rosen, C., Saperstein, L., & Shermack, R. (1985). An evaluation of a program to prevent the sexual victimization of young children. *Child Abuse & Neglect*, **9**, 319–328.
Daro, D. (1988). *Confronting child abuse*. New York: Free Press.
Dawson, R. (1986). *Program report of the Oxford County Sexual Abuse Prevention Program*. Woodstock, Ontario: Family and Children's Services of Oxford County.
Downer, A. (1984). *Evaluation of Talking About Touching: Summary report to the Committee for Children*. Seattle, WA: Institute for Child Advocacy.
Dube, R., Heger, B., Johnson, E., & Hebert, M. (1988). *Child sexual abuse prevention: A guide to prevention programs and resources*. Montreal, Canada: Hopital Sainte-Justine.
Finkelhor, D. (1986). Prevention: A review of programs and research. In D. Finkelhor (Ed.), *A sourcebook on child sexual abuse*. Beverly Hills, CA: Sage.
Finkelhor, D., & Araji, S. (1983). *The prevention of child sexual abuse: A review of current approaches*. Paper presented at the American Orthopsychiatric Society, Toronto, Canada.
Fitz-Gibbon, C., & Morris, L. (1987). *How to design a program evaluation*. Newbury Park, CA: Sage.
Fryer, G., Kraizer, S., & Miyoshi, T. (1987a). Measuring actual reduction of risk to child abuse: A new approach. *Child Abuse & Neglect*, **11**, 173–179.
Fryer, G., Kraiser, S., & Miyoshi, T. (1987b). Measuring children's retention of skills to resist stranger abduction: Use of the simulation technique. *Child Abuse & Neglect*, **11**, 181–185.
Garbarino, J. (1987). Children's response to a sexual abuse prevention program: A study of the *Spiderman* comic. *Child Abuse & Neglect*, **11**, 143–148.
Gilbert, N., Berrick, J., LeProhn, N., & Nyman, N. (1989). *Protecting young children from sexual abuse: Does preschool training work?* Lexington, MA: Lexington Books.
Herring, B. (1983). *Preventive education program: An evaluation*. A report to the Metropolitan Toronto Special Committee on Child Abuse. Toronto, Ontario.
Kahle, L. (1984). *Attitudes and social adaptation: A person-situation interaction approach*. Oxford: Pergamon Press.
Kerlinger, F. (1986). *Foundations of behavioral research* (3rd ed.). New York: Holt, Rinehart, Winston.
Kolko, D., Moser, J., Litz, J., & Hughes, J. (1987). Promoting awareness and prevention of child sexual victimization using the Red Flag/Green Flag Program: An evaluation with follow-up. *Journal of Family Violence*, **2**, 11–35.
Kraiser, S., Witte, S., & Fryer, G. (1989). Child sexual abuse prevention programs: What makes them effective in protecting children? *Children Today*, **18**, 23–27.
Miltenberger, R., & Thiesse-Duffy, E. (1988). Evaluation of home-based programs for teaching personal safety skills to children. *Journal of Applied Behaviour Analysis*, **21**, 81–87.
Nelson, D. (1981). *An evaluation of the student outcomes and instructional characteristics of the "You're in Charge" program*. Utah State Office of Education, Salt Lake City, UT. Unpublished manuscript.
Olson, M. (1985). A collaborative approach to the prevention of child sexual abuse. *Victimology: An International Journal*, **10**, 131–139.
Plummer, C. (1984, April). *Preventing sexual abuse: What in-school programs teach children*. Paper presented at the Second National Conference for Family Violence Researchers, Durham, NH.
Poche, C., Brouwer, R., & Swearingen, M. (1981). Teaching self-protection to young children. *Journal of Applied Behaviour Analysis*, **14**, 169–176.
Posavac, E., & Carey, R. (1980). *Program evaluation: Methods and case studies* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.
Ray, J., & Deitzel, M. (1985). Teaching child sexual abuse prevention. *School Social Work Journal*, **4**, 100–108.
Reppucci, N., & Haugaard, J. (1989). Prevention of child sexual abuse: Myth or reality. *American Psychologist*, **44**, 1266–1275.
Saslawsky, D., & Wurtele, S. (1986). Educating children about sexual abuse: Implications for paediatric intervention and possible prevention. *Journal of Paediatric Psychology*, **11**, 235–245.
Scott, J. (undated). *Bubbylonian encounter: A drama to prevent sexual abuse*. Topeka, KS: National Committee for the Prevention of Child Abuse, Kansas Chapter.
Sigurdson, E., Strang, M., & Doig, T. (1987). What do children know about preventing sexual assault? How can their awareness be increased? *Canadian Journal of Psychiatry*, **32**, 551–557.
Spector, P. (1981). *Research designs*. Beverly Hills, CA: Sage.
Swan, H., Press, A., & Briggs, S. (1985). Child sexual abuse prevention: Does it work? *Child Welfare*, **64**, 395–405.
Trudell, B., & Whatley, M. (1988). School sexual abuse prevention: Unintended consequences and dilemmas. *Child Abuse & Neglect*, **12**, 103–113.
Tutty, L. (1990). Preventing child sexual abuse: A review of current research and theory. In M. Rothery & G.

Cameron (Eds.), *Child maltreatment: Expanding our concept of helping* (pp. 259–275). Hillsdale, NJ: Lawrence Erlbaum Associates.
Tutty, L. (1991). Child sexual abuse prevention programs: A range of options. *Journal of Child and Youth Care*, Fall, 23–41.
Volpe, R. (1984). A psychoeducational program dealing with child abuse for elementary school children. *Child Abuse & Neglect*, **8**, 511–517.
Wilkinson, L. (1987). *SYSTAT: The system for statistics*. Evanston, IL: SYSTAT, Inc.
Wolfe, D., MacPherson, T., Blount, R., & Wolfe, V. (1986). Evaluation of a brief intervention for educating school children in awareness of physical and sexual abuse. *Child Abuse & Neglect*, **10**, 85–92.
Wurtele, S. (1987). School-based sexual abuse prevention programs: A review. *Child Abuse & Neglect*, **11**, 483–495.
Wurtele, S., Marrs, S., & Miller-Perrin, C. (1987). Practice makes perfect? The role of participant modelling in sexual abuse prevention programs. *Journal of Consulting and Clinical Psychology*, **55**, 599–602.
Wurtele, S., Saslawsky, D., Miller, C., Marrs, S., & Britcher, J. (1986). Teaching personal safety skills for potential prevention of sexual abuse: A comparison of treatments. *Journal of Consulting and Clinical Psychology*, **54**, 688–692.

Résumé—Cette recherche s'est penchée sur un certain nombre de problèmes méthodologiques ayant trait à l'efficacité des programmes d'éducation au niveau primaire, lesquels ont pour but de prévenir les mauvais traitements des enfants. Un nouvel instrument a été conçu (le Children's Knowledge of Abuse Questionnaire) et ses mesures psychométriques ont été évaluées. On a administré le questionnaire à 400 enfants, divisés en quatre groupes. Deux grands groupes se composaient, d'une part, d'enfants qui avaient été exposés au programme de prévention nommé *Touching*; et d'autre part, d'enfants en attente qui servaient de groupe contrôle: La moitié des enfants dans chacun des grands groupes ont fait partie d'un prétest pour déterminer s'ils allaient être sensibilisés à l'instrument. Tous les enfants ont subi le test cinq mois plus tard pour mesurer leur capacité de retention à long terme des concepts de prévention. Les résultats démontrent que les enfants qui ont été exposés au programme ont eu un score beaucoup plus élevé que les enfants dans le groupe contrôle. L'âge de l'enfant y était pour beaucoup; comparant les enfants de la maternelle, des deux années qui suivent, puis de la sixième année, on remarque que la retention est meilleure selon l'âge avancé de l'enfant. Au bout de cinq mois, tous retenaient encore les concepts. L'article discute des conclusions pratiques qui découlent de cette recherche.

Resumen—Se diseñó esta investigación para estudiar varios de los problemas metodológicos dentro de los conocimientos actuales sobre la eficacia de los programas de prevención del abuso a los niños en escuelas elementales. Se desarrolló una nueva medida: el "Cuestionario del Conocimiento Infantil Sobre el Abuso" (CKAQ) y se evaluaron sus propiedades psicométricas. Se midieron un total de 400 niños divididos en 4 grupos. La mitad de los niños participaron en un programa preventivo de abuso a los niños que se llama "Touching"; la otra mitad sirvieron como control mientras esperaban en una lista. La mitad de cada grupo fue pre-examinado y la otra mitad no, para saber si el pre-examinar sensibilizaba a los estudiantes. Todos los niños fueron examinados otra vez pasados cinco meses para mdeir la retención a largo plazo de conceptos preventivos. Los resultados indican que los niños que participaban en el programa de prevención obtenían puntajes significativamente más altos en el CKAQ, que los niños en la condición de control. La edad fue un factor crítico, con mejorías significativas según aumentaba la edad entre estudiantes del Kindergarten, Grado 1, Grado 3 y Grado 6. Todos los participantes mantuvieron su nivel de conocimiento después de pasar los 5 meses. Se discuten la importancia y las implicaciones prácticas que se derivan de esta investigación.