This is to certify that the

thesis entitled

Pretesting Effects in the Evaluation of a Sexual Abuse Education Program for Preschool Children

presented by

Grace Christine Gibson

has been accepted towards fulfillment
of the requirements for

M.A. degree in Psychology

Major professor

Date 10/22/91

PRETESTING EFFECTS IN THE EVALUATION OF A SEXUAL ABUSE EDUCATION PROGRAM FOR PRESCHOOL CHILDREN

By

Grace Christine Gibson

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Psychology

1991

ABSTRACT

PRETESTING EFFECTS IN THE EVALUATION OF A PRESCHOOL CURRICULUM DESIGNED TO PREVENT THE SEXUAL ABUSE OF CHILDREN

By

Grace Christine Gibson

The sexual abuse of children is a growing problem. One method of combating this problem is to teach children skills to protect themselves and prevent the problem from occurring. Many prevention curricula have been implemented, but few have been adequately evaluated. This study used a Solomon four-group design to assess the effects of pretesting on an evaluation of a prevention curriculum.

Subjects were 121 preschoolers, randomly assigned to one of four conditions: control with pre/posttest, control with posttest only, experimental with pre/posttest and experimental with posttest only. Participants were assessed using two measures: (1) the Personal Safety Questionnaire, a true/false, paper and pencil knowledge test of sexual abuse prevention concepts, and (2) the 'What If' Situation Test, a measure which uses short vignettes with accompanying pictures to assess children's recognition of appropriate and inappropriate touch and the ability to say no to a perpetrator, to leave a potentially abusive situation, and to disclose the abuse to an adult.

Analyses of eight component variables showed mixed results for pretest sensitization. When pretested, preschoolers have difficulty learning the difference between appropriate and inappropriate touch. Analysis of individual knowledge components allowed the subtle pretesting effects to be uncovered and better understood.

To my parents.

ACKNOWLEDGEMENTS

Special thanks to the members of my committee, Anne Bogat, Marianne McGrath and Ray Frankmann, for their support and guidance in the completion of this project. Thanks to the SAG research group (Jackie, Belle, Karen and Tim), to our undergraduate research assistants (especially Dawn Keish) and to the children, teachers and preschool directors who participated in this study. Finally, thanks to my 'buddy' Paul for being willing to take many emergency coffee breaks on very short notice.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

The sexual abuse of children has substantially and significantly increased in the United States since 1980 (Sedlak, 1989). The Study of National Incidence and Prevalence of Child Abuse and Neglect:1988 (Study Findings:NIS) cited child sexual abuse as the least common type of child abuse, (physical and emotional abuse were more common); nevertheless, 24% of all child abuse is sexual abuse. Annually, 155,900 children are sexually abused. This figure represents triple that of the first study conducted by NIS in 1980.

It is estimated that as many as 1 of every 4 women (Russell, 1984) and 1 of every 6 men (Finkelhor, Hotaling, Lewis & Smith, 1990) will experience some form of sexual abuse during their childhood, and an estimated one third of these children are 6 years old or younger (Finkelhor & Hotaling, 1984). Overall, more girls are sexually abused than boys but 32% of sexually abused boys are under the age of six, only 18% of abused girls are that young (Green, 1988).

These figures, alarming as they are, may underestimate the true incidence (the number of new cases within a specified time period) of child sexual abuse. There are many reasons why these statistics may be inaccurate: unknown numbers of children do not report these events (Wyatt & Powell, 1988), some of the children who do disclose are met with skepticism and the abuse is not reported (Wyatt & Powell, 1988), or

the abuse may be reported but not to the appropriate agency (Zigler & Hall, 1989). Abuse may also not be reported because of the belief that parents have the right to treat their children as they see fit (Zigler & Hall, 1989). Further, there may be an age bias in reporting. Older children may have higher rates of child sexual abuse because most studies record the age of the child at the time of the reporting, which may actually be many years after the onset of the abuse (Finkelhor & Baron, 1986). Older children are more likely to disclose abuse than younger children (Finkelhor & Baron, 1986), and this could also increase older childrens' incidence rates.

Reported prevalence rates of the number of children who are abused in childhood may also be higher than studies indicate, for a variety of reasons. Adults may not remember being abused (Peters, Wyatt, & Finkelhor, 1986). Partially forgotten experiences may not be retrieved due to inadequate questioning or questions that define abuse differently from the memories of the abuse (Peters et al., 1986). Adults who were abused as children often feel shame or embarrassment about the event(s) (Jacobson & Herald, 1990), so they consciously withhold disclosing the abuse (Peters et al., 1986).

Whether sexual abuse is disclosed or not, it has serious consequences. Initially a child may experience school problems, excessive fears, and severe depression (Saslawsky & Wurtele, 1986). Browne and Finkelhor (1986) cite reactions of anger, hostility and anxiety, as well as inappropriate sexual behavior. Immediately after the abuse, one-fifth to two-fifths of children manifest clinically pathological disturbances (Browne & Finkelhor, 1986). Adults who were

abused as children report marital, familial, and interpersonal relationship problems (Saslawsky & Wurtele, 1986). They also have difficulties parenting their own children (Cole & Woolger, 1989). Browne and Finkelhor (1986) also include depression, self-destructive behavior, anxiety, feelings of isolation and stigma, poor self-esteem, a tendency toward revictimization, and substance abuse as other possible long-term effects. When compared to their nonvictimized counterparts, less than one-fifth of adult survivors manifest clinically pathological disturbances. So, extreme long-term effects are not inevitable, but the potential for initial and/or permanent mental health problems for the victims of childhood sexual abuse is very real and "should be taken very seriously" (Browne & Finkelhor, 1986, p. 72).

In response to the increasing incidence and serious aftereffects of child sexual abuse, many school-based prevention programs have been implemented. Haugaard and Reppucci (1988) note that "prevention programs are clearly among the fastest growing components of the movement to cope with child sexual abuse" (p. 313). Based on adult victims accounts of childhood abuse, Finkelhor (1984) states that "children properly educated about the problem of sexual abuse might be substantially less vulnerable to victimization" (p. 135). Finkelhor (1984) notes that enough children are at risk "that we need to put more effort into prevention to forestall abuse before it occurs" (p. 234). It seems reasonable to teach children prevention skills because perpetrators are not easily detected (Barnard, Fuller, Robbins, & Shaw, 1989; Bierker, 1989; Kobinsky & Behana, 1984) and once identified, treating perpetrators and preventing them from reabusing children has

not proven successful (Barnard et al., 1989; Becker & Kaplan, 1988; Crawford, 1981; Finkelhor, 1986; Salter, 1988). Furthermore, primary prevention programs direct resources to potential victims, not abusers. The programs are a cost efficient method for reaching large numbers of children and teaching them prevention skills (Haugaard & Reppucci, 1988). Yet, many school boards and parents are still reluctant to allow the implementation of prevention programs in their schools (Anderson-Varney, 1988; Wurtele & Miller-Perrin, 1987), especially when these programs are directed toward preschoolers.

There are many reasons why adults are reluctant to implement such programs for preschoolers. Parents and educators often mistakenly believe that preschool children are too young to be at risk for abuse. Parents often fear that sexual abuse prevention programs are actually sex education programs, and they do not want their preschoolers learning about sex (Kobinsky & Behana, 1984). They worry that the information taught in the programs will frighten the children (Garbarino, 1987; Plummer, 1984; Wurtele & Miller-Perrin, 1987) or make them needlessly wary of affection from all adults (Conte, 1986; Finkelhor, 1984; Gilbert, Berrick, LeProhn & Nyman, 1989; Kobinsky & Behana, 1984; Reppucci & Haugaard, 1989; Stone, 1986). Finally, by putting the responsibility to prevent sexual abuse onto children, some persons are concerned that adults will become less vigilant and feel secure because their children are protected (e.g. Reppucci & Haugaard, 1989).

Preschoolers and older children are taught personal safety skills through a variety of methods (e.g. movies, plays, comic books, and lectures). Often programs begin with a definition or labeling of

genitals. Some programs use the anatomically correct terms (breasts, penis, and vagina), but most programs use euphemisms such as "private parts, the parts of your body covered by your bathing suit or underwear" (Gilbert et al., 1989; Wurtele, Saslawsky, Miller, Marrs, & Britcher, 1986). Most programs teach children the touch continuum: the difference between good, bad, and confusing touch (Conte, Rosen, & Saperstein, 1986; Conte, Rosen, Saperstein, & Shermack, 1985; Gilbert et al., 1989; Nelson & Clark, 1986). Good touch is touching that is nurturing and makes a child feel good. Bad touch is touching that is disturbing and makes a child feel bad. All programs teach that the inappropriate touching of a child's "private parts" is bad touch (Gilbert et al., 1989). Confusing touch may have started out feeling good to a child, or the child may have liked some parts of the touch or the attention from it, but then something changes (the touch or the experience of the touch) and the child begins to feel mixed-up and confused about the touch (Gilbert et al., 1989). Confusing touch can be a transition between good and bad touch (Nelson & Clark, 1986). The programs teach children to refuse bad and confusing touch (Conte et al., 1988) and to get away from people who make such overtures (Finkelhor & Strapko, in press). The programs also teach children to tell their parents or other trusted adults when such touching or attempted touching occurs and not to keep it a secret (Conte et al., 1986; Finkelhor & Strapko, in press; Gilbert et al., 1989).

Although researchers have been able to measure change in a child's understanding of various sex abuse prevention concepts, there are problems and limitations with the current instruments. First, most

evaluations use a composite or mean score to demonstrate that children have learned the prevention concepts discussed above (Anderson-Varney, 1988; Binder & McNiel, 1987; Blumberg, Chadwick, Fogarty, Speth, & Chadwick, 1991; Borkin & Frank, 1986, Conte et al., 1985; Downer, 1984; Garbarino, 1987; Gilbert et al., 1989; Harvey, Forehand, Brown, & Holmes, 1988; Kenning, Gallmeier, Jackson, & Plemons, 1987; Kolko, Moser, Litz, & Hughes, 1987; Kraizer, Fryer, & Miller, 1988; Sigurdson, Strang, & Doig, 1987; Wall, 1983; Wolfe, MacPherson, Blount, & Wolfe, 1986; Wurtele et al., 1988; Wurtele, Marrs & Miller-Perrin, 1987; Wurtele & Miller-Perrin, 1987). Sometimes participants' responses to a specific question are analyzed and reported as an example of a programs' effectiveness in teaching this particular skill or concept (Hill & Jason, 1987; Nelson, 1981/85; Plummer, 1984; Ratto, 1988; Ray & Dietzel, 1984; Saslawsky & Wurtele, 1986; Swan, Press, & Briggs, 1985). Both approaches to data analysis are problematic. The use of composite scores obscures which specific concepts and skills are or are not being mastered. Using one question dependent measures is not a sufficient or reliable indication of a child's mastery. Only recently have evaluations begun to use subscales of particular skills to evaluate children's knowledge gain (i.e. Liang & McGrath, 1991; Wurtele, 1990b; Wurtele et al., 1991).

Second, very few evaluations use dependent measures that have been used before (some exceptions are Anderson-Varney, 1988; Garbarino, 1987; Ratto & Bogat, 1990; Wurtele et al., 1987; Wurtele et al., 1986); this prevents researchers from comparing results across studies. Most of the dependent measures that are used have inadequate or undocumented

psychometric properties (Garbarino, 1987; Hill & Jason, 1987; Swan, Press & Briggs, 1985; Wurtele & Miller-Perrin, 1987). Third, the questionnaires may be highly reactive.

By definition, when subjects know their behavior is being assessed, the dependent measure is reactive (Kazdin, 1980). "Whenever the measurement process is not a part of the normal environment it is probably reactive" (Campbell, 1957, p.299). The very act of measurement may change subjects' behavior; they are cognizant of being observed and may modify their responses because of this (Campbell, 1957). Some measurement techniques are more reactive than others (Kazdin, 1980). For example, administering the same instrument for pre and posttest purposes (a common procedure in child sex abuse prevention evaluations) is a problem (Campbell & Stanley, 1963). Because subjects have already been exposed to the dependent measure at pretest, they might decide to alter their responses at posttest, because they know what information they are being "tested" on (cf. Kazdin, 1980). Some instruments are more reactive than others (Kazdin, 1980). Instruments that measure learning and memory change are highly reactive (Campbell, 1957). Campbell & Stanley (1963) note that the more novel and motivating the measure, the more reactive one can expect it to be.

Both forced-choice and open-ended questionnaires are used to evaluate childrens' knowledge of sexual abuse prevention concepts. The forced-choice questionnaires are usually very short (7 to 24 questions) and are administered in a group format, although with younger children the directions and questions are often read aloud or the questionnaires are administered individually (e.g. Anderson-Varney, 1988; Binder &

McNiel, 1987; Conte et al., 1985; Hill & Jason, 1987; Ratto & Bogat, 1990). The Personal Safety Questionnaire (Saslawsky & Wurtele, 1986) is one example of a forced choice questionnaire. Some of its questions include: "Do you have to let grown-ups touch you on your private parts?," "If someone touched a kid's private parts and promised never to do it again, should the kid tell someone?," and "Is it right for grown-ups to make you touch or look at their private parts?"

Unlike the forced-choice questionnaires, the more open-ended measures use role plays, puppets, videos or vignettes (imaginary situations) to assess what children have learned as a result of participation (e.g. Anderson-Varney, 1988; Borkin & Frank, 1986; Gilbert et al., 1989; Hill & Jason, 1987; Ratto, 1988; Saslawsky & Wurtele, 1986; Swan et al., 1985; Wurtele et al., 1987; Wurtele & Miller-Perrin, 1987; Wurtele et al., 1986). These measures are also short, usually 4 or 5 vignettes, but they are always administered individually. Open-ended questions supply a frame of reference for the participants' answers but, unlike the fixed-alternative questions, they put a minimum of restraint on the type and expression of answers. For example, a vignette from the "What-If" Situation Test (Wurtele, Kast, & Kondrick, 1988) asks children how they would respond if they were playing outside and a man that they know offered to buy them an ice cream cone if they let him touch their private parts. Following the reading of this vignette, five open-ended questions are asked to determine if the child thought the request was appropriate, what the child would say and do in the situation, if the child would tell anyone,

who the child would tell, and what the child would say to that person(s).

The open-ended questionnaires used in child sex abuse program evaluations are both novel and potentially motivating. The use of puppets, videos, etc. may alter childrens' responses; children may be responding to the unusual testing experience in a way that is very different from their responses on common paper and pencil tests or real life situations. For preschoolers, any type of testing may be reactive because it is not a normal part of their daily experience. For older children who are more familiar with testing, the manner in which the dependent measure is administered (group or individual) could also contribute to the novelty of the situation and make the measure more reactive. Because all of the open-ended (reactive) measures are individually administered, this unusual testing situation may also serve to change the way children respond to these dependent measures.

In addition to the measurement issues just discussed, sexual abuse prevention program evaluations are fraught with methodological problems. In a review of 31 evaluation studies (see Table 1), 18 did not randomly assign the participants, 16 did not use a control group, 6 had no pretest, and only 4 attempted to control for pretest sensitization effects. Different experimental designs have been used in these evaluations. The most common design is the pretest/posttest design. Twenty-five of the 31 studies reviewed used a variant of this design, but 13 of the 25 did not use a control group. Of the 12 studies that did use a control group, only six of these randomly assigned children to experimental or control conditions. The remaining six of the 28 studies

Table 1
Selected Information About Sexual Abuse Prevention Program Evaluations

Study	N	Age/ Grade	Random Assignment into Groups	Control Group	Design
Anderson-Varney, 1988	25	4 yrs	by center	yes	pre-post
Binder & McNiel, 1987	83	5-12 yrs	no	no	pre-post
Blumberg et al., 1991	264	K-3 gr.	by room	yes	pre-post
Borkin & Frank, 1986	83	3-5 yrs	no	no	post
Christian et al., 1988	131	preschool	no	no	pre-post
Conte et al., 1985	40	4-10 yrs	by child	yes	pre-post
Downer, 1984	85	9-10 yrs.	no	yes	pre-post
Garbarino, 1987	73	2,4,6 gr.	no	no	post
Gilbert et al., 1989	118	3-5 yrs	?	no	Grp 1=pre-post Grp 2=post only
Harvey et al., 1988	71	K	by child	yes	pre-post
Hill & Jason, 1987	43	3-5 yrs	by child	no	pre-post

Table 1 (cont'd)

Study	N	Age/ Grade	Random Assignment into Groups	Control Group	Design
Kenning et al., 1987 (study 1)	72	1 & 2 gr.	no	no	pre-post
(study 2)	44	1 & 2 gr.	no	no	pre-post
Kolko et al., 1987	333	3 & 4 gr.	by school	yes	pre-post
Kraizer et al., 1988	44	K-2 gr.	by child	yes	pre-post
Liang & McGrath, 1991	117	3-6 yrs	by child	yes	pre-post
Miltenberger & Thiesse-Duffy, 1988	24	4-7 yrs	by child	no	pre-post
Nelson, 1981/85	931	5 & 6 gr.	by school	yes	post
Plummer, 1984	69	5 gr.	no	no	Grp 1=pre-post Grp 2=post only
Ratto, 1988	39	3-5 yrs	by child	yes	pre-post
Ray & Dietzel, 1984	139	3 gr.	by room	no	Grp 1=pre, follow-up 1, follow-up 2 Grp 2=post, follow-up 1, follow-up 2

Table 1 (cont'd)

Study	N	Age/ Grade	Random Assignment into Groups	Control Group	Design
Saslawsky & Wurtele, 1986	67	K,1,5,6	by child*	yes	modified Solomon 4
Sigurdson et al., 1987	137	4-6 gr.	no	no	pre-post
Swan et al., 1985	63	8-11 yrs	by child	no	Grp 1-pre-post Grp 2-post only
Wall, 1983	97	4 & 5 gr.	no	no	post
Wolfe et al., 1986	290	4 & 5 gr.	by room	yes	post
Wurtele, 1990	24	4 yrs	by child	yes	pre-post
Wurtele et al., 1986	71	K,1,5,6	by child	yes	post
Wurtele et al., 1987	26	K	by child	no	pre-post
Wurtele et al., 1991	52	3-5 yrs	by child	yes	pre-post
Wurtele & Miller-Perrin, 1987	26	K	no	no	pre-post

* Randomized by school, then by child.

employed a posttest only design. Three of these six studies used a control group, but only one of these three randomly assigned children to the experimental or control condition.

In addition to the problems mentioned above (non-random assignment, no control group, and no pretest) another methodological problem that has been virtually ignored by researchers in this field is the effect of the pretest on the child's experience of the program and/or on the child's posttest scores. Without any knowledge of the effects of a pretest it is impossible to generalize the findings of evaluation studies to populations who will receive the intervention but will not receive a pretest. This is important because at some point prevention programs will have to be implemented without an evaluation and researchers need to know if they will get the same results (i.e. learning) when children receive a program without first having had a pretest.

The only way to assess the effects of pretest sensitization is to use a Solomon four-group design (Solomon, 1949). The Solomon four-group design consists of four separate steps: (1) subjects are randomly assigned to one of four groups, (2) two of the groups receive a pretest, (3) the treatment is administered to two of the groups, only one of which is given a pretest, and (4) all four groups receive a posttest (Huck & Sandler, 1973). See Figure 1 for the diagrammed design.

In their meta-analysis of 32 studies of pretest sensitization effects, Willson and Putnam (1982) found an average effect size elevation of +.22 for groups that had received a pretest. Effect sizes larger than +.22 were found when the duration between pretest and

Group 1	R	O	X	O
Group 2	R	O		O
Group 3	R		X	O
Group 4	R			O

R = random assignment; O = pre or posttest; X = treatment

Figure 1.

The Solomon Four-Group Design (Campbell & Stanley, 1963)

posttest was from several days (.44) to two weeks (.81). Smaller effect sizes were found when the duration between pretest and posttest was less than one day or greater than one month. Willson and Putnam also found that studies using a pretest that measured cognitive changes had an effect size of almost one-half of a standard deviation above the non-pretested groups' means. Almost all of the sexual abuse prevention program evaluation studies use dependent measures that assess cognitive changes in childrens' understanding of what sexual abuse is and how they would behave in a potentially abusive situation. Child abuse prevention program evaluation studies could be very susceptible to the pretest sensitization effects that have been noted due to the time interval between pre and posttests (greater than a day, less than a month) and the type of dependent measures used (cognitive change measures).

Four child sexual abuse prevention program evaluation studies have examined the effects of pretest sensitization, but none used a true Solomon four-group design (Gilbert et al., 1989; Plummer, 1984;

Saslawsky & Wurtele, 1986; Swan, Press & Briggs, 1985). One study that assessed preschoolers with reactive measures found evidence of a pretest sensitization effect (Gilbert et al., 1989). The other two studies, using older children and less reactive measures, did not find a pretest sensitization effect (Saslawsky & Wurtele, 1986; Swan et al., 1985). Because the fourth study (Plummer, 1984) made no distinction in the data analysis and reporting of the results between the posttest scores of the pretested and unpretested groups, it is impossible to ascertain the effect of the pretest, if any, on the posttest scores.

Gilbert et al. (1989) used a pretest/posttest condition and a posttest only condition to evaluate the effectiveness of 7 different prevention programs taught at 7 different preschools. They did not state whether children were randomly assigned to the two groups. Ninety-three children completed both the pretest and the posttest; 25 children completed only the posttest.

Gilbert et al. (1989) used measures that are very unusual for this type of research. On their anxiety scale, children demonstrated how scared a bunny might feel in a variety of nonabusive situations by moving the arms of a cardboard bunny into different positions. The "Bunny Book" is an instrument designed to assess a child's understanding of four concepts central to most prevention programs: the touch continuum, secrets, support systems, and self-assertion. The Bunny Book uses colorful pictures and velcro bunny faces that the child attaches to the figures to demonstrate what the bunnies might be feeling in the different situations. In the final measure, a set of wooden rabbits is used to act out a "Stranger Story." This instrument measures childrens'

understanding of stranger danger and their ability to be self-assertive.

There was a significant difference between the two groups' posttest scores on various sections of the Bunny Book. Gilbert et al. (1989) postulate that "the experimental group experienced a learning effect from the pretest, thus enabling them to achieve higher scores ... the second time they were tested" (p. 50) compared to the posttest only group. They explain all of the differences between the two groups as a learning effect from having taken the pretest because both of the groups received the intervention.

Because these measures are more novel and motivating than the typical paper and pencil measures administered by researchers conducting these evaluations, they may also be more reactive and subject to greater pretest sensitization. This may explain why Gilbert et al. (1989) found evidence for pretest sensitization and the other two studies did not.

Saslawsky and Wurtele (1986) used a modified Solomon four-group design to evaluate a commercially produced film that teaches children personal safety skills. They randomly assigned 67 children, balanced for gender and grade, from two public schools, to either the film or the control condition. Twenty-six of the children were from K and 1st grade and 41 were from 5th and 6th grade. Children at school A received a pretest. When the posttest means from school A were compared to the posttest means from school B no significant differences were found, so the results were combined.

The evaluation consisted of two paper and pencil measures: the Personal Safety Questionnaire (PSQ) and the 'What If' Situation Test (WIST). As the reader may recall from an earlier section of this paper,

the PSQ consists of 13 closed-ended questions (possible responses are yes, no, I don't know) about sexual abuse. It is administered in a group format to older children. The WIST is administered individually. Children are read 6 vignettes (2 that are benign and 4 that are potentially abusive) and then asked what they might do if they were in such a situation. Saslawsky and Wurtele found no support for a pretest sensitization effect.

Swan et al. (1985) found no evidence for pretest sensitization in an evaluation of the play "Bubbylonian Encounters" with a group of 63 second through fifth graders attending an urban Catholic school. They randomly assigned children to one of two experimental conditions: a pretest-posttest group and a posttest only group. For the pretest and posttest assessment, children watched 5 videotaped vignettes and were asked to circle which response best described the type of touch depicted in the vignette. Then in a paper and pencil measure they were asked about familial abuse, self-protective behaviors, and their overall response to the play.

The available research on pretest sensitization in the field of child sexual abuse prevention is very inconclusive. The Gilbert study supports the notion of a pretest sensitization effect; however, there are so many methodological flaws with this study that it is difficult to generalize their findings. There is no mention of the method used to place the children into the two conditions (pretest/posttest and posttest only). There is no nontreatment control group to demonstrate the internal validity of this research. Although the centers were equally represented in the pretest/posttest condition, they were not

equally represented in the posttest only condition. This might mean that the two groups being compared at posttest are not equivalent.

Saslawsky and Wurtele (1986) only pretested children from school A, so, in effect, this was not a true Solomon four-group design. They may have been comparing two very different groups of children. They acknowledge that further research is needed to corroborate their pretest sensitization results (Saslawsky & Wurtele, 1986). Their measures (the PSQ and the WIST) are not as reactive as the series of instruments used in the Gilbert et al. (1989) research. Their results may not be applicable to preschoolers, because their population was older; older children are familiar with testing, preschoolers are not. Also, because their intervention was very short, their results may not generalize to programs with longer interventions.

There are also many flaws with the Swan et al. (1985) study. In addition to the problems of a small, heterogeneous sample, and lack of a control group, at least one dependent measure appeared to suffer from a ceiling effect: "...posttests of both groups showed virtually the same percentage of correct responses as were found in the pretest. There is thus no evidence that learning occurred after seeing the play" (p. 401).

In conclusion, Saslawsky and Wurtele (1986) and Swan et al. (1985) may not have found a pretest sensitization effect because they evaluated a short prevention program, studied older children who were more familiar with testing, and employed less reactive measures. Gilbert et al. (1989) may have found a pretest effect not only because of the unique type of measures employed but also because of the age of the subjects and the length of their program.

Rationale

Primary prevention programs are one of the most popular methods used to combat the sexual abuse of children. Unfortunately, programs have been implemented without evaluations or they have been evaluated with no regard for the effects of the pretest on the evaluation. Just as a program without an evaluation is limited because the true effectiveness of the program is not known, so too is an evaluation of limited value if the effects of administering a pretest are not understood. Not only is it necessary to evaluate child sexual abuse prevention programs; the effects of the evaluation itself must also be examined. A Solomon four-group design is necessary in order to assess the effects of pretest sensitization.

To date, no researchers have used a true Solomon four-group design when evaluating child sexual abuse prevention programs. This is problematic because data from other research areas has indicated a positive effect size for groups that have received a pretest. This effect size is even larger when the duration between pre and posttests is greater than a few days.

The present investigation employed a Solomon four-group design to examine the effects of pretest sensitization on two types of dependent measures that have been used in other evaluation research and discussed previously (The Personal Safety Questionnaire (PSQ) and The 'What-If' Situation Test (WIST)). These measures were administered individually to preschoolers over a period of two days. The posttest was conducted three to four weeks after the pretest. The two dependent measures were assessed for possible pretest sensitization effects; the more reactive

measure, the WIST, was expected to produce a greater pretest sensitization effect than the less reactive measure, the PSQ. Further, component analysis of the WIST (rather than simply a composite score) allowed for the possibility of discovering differential pretest effects for particular self-protective skills.

It is important to acknowledge the difficulty researchers have when undertaking primary prevention community based research. Fortunately, not every study needs to be designed as a Solomon four, but the literature should contain more examples of this type of design to ensure that there are no pretest sensitization effects. This project was designed to help fill this void and to ensure that when programs are implemented, the same results will be found even when a pretest is not administered.

Hypotheses

I. Children in the experimental group will have higher posttest scores on both the PSQ and WIST than will children in the control group.

II. Children who received a pretest with the WIST and the PSQ will have significantly higher posttest scores on these measures than will children who did not receive a pretest.

III. Children in the experimental group who were pretested with the PSQ and WIST will have significantly higher posttest scores than will children in the experimental group who did not receive the pretest.

IV. The pretest effect will be significantly higher on the more reactive dependent measure, the WIST, as compared to the less reactive measure, the PSQ.

METHOD

Subjects

The participants were 121 preschoolers, aged 37 to 80 months (M = 51.8 months). There were 63 (52%) boys and 58 (48%) girls. Ninety-nine (82%) of the children were white, 16 (13%) were African-American, 5 (4%) were Asian, and 1 (1%) was Hispanic.

The children were from six preschool centers. Center 1 was an inner city daycare center and comprised 12% of the sample. Center 2 consisted primarily of children whose parents attended or taught at a major mid-western university. This center included many international students' children. Twenty-one percent of the children came from this daycare center. Children from Center 3 attended a church affiliated nursery school and comprised 15% of the sample. Centers 4 and 5 were suburban daycare centers; 21.5% of the population came from each of these centers. Center 6 was a rural preschool, and 9% of the children came from this center.

Materials

The Personal Safety Questionnaire (PSQ) is a 13 item questionnaire developed by Saslawsky and Wurtele (1986), designed to assess a child's knowledge of sexual abuse. Children answer either Yes, No, or I'm Not Sure to the 13 questions. The measure has been modified for use in this project. Only seven of the original questions were kept and the wording was modified slightly to make it easier for preschoolers to understand.

Two questions were added about who the boss of a child's body is. Four questions were added asking about appropriate touch situations (i.e., cleaning a child's body). Four additional questions were added concerning touching an adult's genitals or being touched by an adult on the child's genitals.

The PSQ is administered individually to each child and takes approximately 10 minutes to administer. The new version of the PSQ begins by asking the child to identify the "private parts" on a drawing of two children, a boy and a girl. The child is then asked to explain what the phrase "private parts" means. If the child is unable to do either of the tasks, the interviewer shows the child where the "private parts" are on the drawing and explains what the phrase means. Only after the child has demonstrated that he or she understands the concept of "private parts" does the interview continue.

This measure was divided into two components for analysis in this project. The two questions asking children to identify private parts were analyzed together to form the variable "PSQ Identification." Children receive one point for each correct answer. Scores range from 0 to 2 on this variable. An internal consistency reliability (Cronbach's Alpha) of .87 was determined based on the pretest scores of 62 children. The second PSQ variable "Information" was constructed from 6 of the 17 questions. Children receive one point for each correct answer and no points for incorrect or 'I'm Not Sure' responses. Scores range from 0 to 6 on this variable. A Cronbach's Alpha of .79 was found for these six questions based on the same 62 children. See Appendix A for a copy

of the measure and Appendix B for the six questions used in PSQ Information variable.

The "What If" Situation Test (WIST) was also designed by Saslawsky and Wurtele (1986). It has been changed for use in this study. The WIST originally consisted of six vignettes, two benign and four inappropriate situations but was shortened to 4 stories. Three are situations that might lead to sexual abuse; a child is asked to expose him/herself, a child is offered a bribe to inappropriately touch an adult, and an adult offers a bribe to touch a child. The fourth story is an appropriate touch or benign situation.

The WIST is also an individually administered measure. The interviewer reads each story while the child looks at a colorful picture that depicts the story. After each vignette is read, the child is asked a standard list of open-ended questions to determine: 1) whether the child knows if the situation is inappropriate, 2) what the child would say or do in the situation, 3) if the child would tell someone about the incident and, if the child would tell, 4) who would he/she tell and, 5) what he/she would say. On the revised WIST, children are also asked to generate as many different things that they would say or do in an abusive situation. The WIST takes approximately 15 minutes to administer.

The revised WIST has been separated into six conceptual variables to assess the above concepts, individually, rather than with one global score. These variables are based on a recently conducted confirmatory factor analysis of a revised version of the WIST, similar to the one used in this project (Liang & McGrath, 1991).

The first variable, Benign, assessed a child's ability to recognize benign or appropriate touch. This score was based on one vignette and ranged from 0 to 1. The second component, Recognition, measured a child's ability to recognize inappropriate touch. This variable is based on three vignettes and scores range from 0 to 3. The Say No variable assessed a participant's ability to reject verbally a perpetrator. This variable is a mean score of all responses that a child would say to a perpetrator. A child received no points for all compliant answers, 1 point for trying to change the situation indirectly (i.e. threats or excuses), and 2 points for verbalizing that the child wants the behavior to stop. Scores on this variable range from 0 to 2. The Go variable measured whether a child would leave the situation. A participant received no points for all responses in which the child would remain in the situation, 1 point for delayed escape or help seeking responses, and 2 points for leaving the scene. This variable ranged from 0 to 2 and was a mean score of all a child's responses. Tell Who is the number of people to whom the child would disclose the potential abuse. Children could give up to 5 responses for each of the three vignettes. This variable is the sum of all responses that a child gave and ranges from 0 (if a child would not tell anyone) to 15. Tell What assessed how specific a child would be when disclosing the potential abuse. No points were given to children who would not disclose abuse. Children were given 1 point for an uninformative disclosure, not identifying the abuser or the situation. They were given 2 points for being able to identify correctly the perpetrator or give accurate information about the situation or if a vague description

of both is given. Children receive 3 points for being able to correctly identify the abuser and what occurred. This score is summed across all three abusive stories and ranges from 0 to 6. An interrater reliability of .89 was obtained for the scoring of this measure. See Appendix C for a copy of the measure.

Design and Procedure

Parents at the six preschools were contacted through a letter inviting them to allow their child to participate in the evaluation. Parental consent was obtained before any child participated in this study. Upon return of the consent forms, children were placed in one of four conditions. See Appendix D for a copy of the invitation and consent forms.

Children within each classroom were matched for gender and then randomly assigned to one of four experimental conditions: (1) Control Pre/Post, children who did not receive the curriculum but were both pretested and posttested (n=29) (2) Control Post Only, children who did not receive the curriculum and were only posttested (n=36) (3) Experimental Pre/Post, children who received the curriculum and were both pretested and posttested (n=33) and (4) Experimental Post Only, children who received the curriculum and were only posttested (n=29). Complete data was obtained for 121 children. This resulted in the following cell sizes for each experimental condition: Control Pre/Post (n=27), Control Post Only (n=35), Experimental Pre/Post (n=30) and Experimental Post Only (n=29).

Following the pretest, the two treatment conditions received the Grossmont College Child Sexual Abuse Prevention Program, a five-day

curriculum that uses a book, a puppet show, role playing, and discussion to teach children personal safety skills designed to prevent sexual abuse. This program also includes a teacher training component and an educational meeting for parents prior to implementation of the childrens' program. Children in the two pretest conditions were administered the PSQ and WIST prior to the intervention. Then, the children in the experimental groups received instruction in an area of the school where the control groups could not hear what was being taught. Following the program, all the children were given a posttest. After the administration of a two month follow-up (a component of the overall research project not relevant to the present research study), the delayed treatment control groups received the program.

All children were individually interviewed by trained graduate or undergraduate research assistants, blind to the childrens' condition. Interviews lasted from 20 to 25 minutes at each testing period for two days because of the time it took to administer two other measures in addition to the PSQ and WIST. These two measures are part of the larger research project but will not be discussed here. Children were interviewed in a quiet area within the preschool. Verbal consent was obtained from each child prior to starting the interview.

All interviewers had received training in both general interviewing techniques and specific techniques in how to administer the measures used in this research project. The interviewers had played with the children to establish rapport a week prior to the beginning of the interviewing process.

RESULTS

There were four experimental conditions in this study: (1) Control Pre/Post, children who did not receive the curriculum but were both pretested and posttested (n=27) (2) Control Post Only, children who did not receive the curriculum and were only posttested (n=35) (3) Experimental Pre/Post, children who received the curriculum and were both pretested and posttested (n=30) and (4) Experimental Post Only, children who received the curriculum and were only posttested (n=29).

Pretest Comparisons

The two dependent measures, the Personal Safety Questionnaire (PSQ) and the 'What If' Situation Test (WIST) were separated into conceptual components and each of these variables was analyzed separately. The PSQ variables were Identification and Information. The WIST was divided into six variables: Benign, Recognition, Say No, Go, Tell Who, and Tell What. This created a total of eight variables to be analyzed. Pretest t-test analyses between experimental and control groups on these eight variables indicated successful randomization for all but one variable. On PSQ Information, the experimental group's mean was significantly lower than the control group's mean (M = 3.73 and M = 4.66, t = 1.95, $p<.05$; respectively).

Analyses were conducted to determine if gender, age (a median split was used), or testing center significantly affected any of the

Table 2
Multivariate Analyses of Variance for Gender on the PSQ (n = 62) and WIST (n = 61)

Source	F	p
PSQ (df = 2, 59)	.10	.903
WIST (df = 6, 54)	1.07	.391

eight variables at pretest. Three Multivariate Analyses of Variance (MANOVAs) were used to analyze the two PSQ variables and three MANOVAs were used to analyze the six WIST components. There were no pretest gender differences for any of these variables; PSQ=[$F(1, 59) = .10$] and WIST=[$F(1, 54) = 1.07$] (See Table 2).

There were multivariate age effects on the PSQ [$F(1, 57) = 4.22$, $p<.02$] but not on the WIST [$F(1, 52 = 1.21$]. Univariate F-tests revealed a significant effect for the variable Identification [$F(1, 58)= 7.87$, $p<.01$]. Older children were significantly better able to identify private parts at pretest than were younger children ($M = 1.52$, $M = .89$; respectively) (See Table 3).

On the PSQ, there was no multivariate analysis of variance effect for testing center [$F(10, 110) = 1.28$] but there was on the WIST [$F(30, 202) = 1.53$, $p<.05$]. Univariate F-tests revealed a significant difference between testing centers on three WIST variables; Say No [$F(5, 55) = 2.54$, $p<.04$], Tell Who [$F(5, 55) = 3.90$, $p<.01$] and Tell What [$F(5, 55) = 4.38$, $p<.01$] (see Table 4). Examination of the means did

any consistent patterns. See Table 5 for WIST testing center pretest means.

Solomon Four Group Analyses

Because the children were successfully randomized on all but one variable and were similar at pretest on most demographic variables, the analyses to test the proposed hypotheses were undertaken. The four Hypotheses were analyzed using eight 2 X 2 (treatment X testing) analyses of variance (ANOVAs). The results of each dependent measure will be presented separately.

PSQ Analyses. A significant main effect for treatment was found on both of the PSQ variables: PSQ Identification [$F(1, 118) = 13.83$, $p<.001$], and PSQ Information [$F(1, 118) = 7.42$, $p<.01$]. The children in the two treatment groups ($M = 1.92$ and 5.04; respectively) scored higher on these two variables than did children in the control groups ($M = 1.50$ and 4.31; respectively). A significant main effect for testing, in the predicted direction, was found only for PSQ Identification [$F(1, 118) = 7.42$, $p<.01$]. Children who received the pretest ($M = 1.86$) had higher posttest scores than the children who did not receive a pretest ($M = 1.55$). A significant interaction between treatment and testing was also observed only for this variable [$F(1, 118) = 5.51$, $p<.02$]. A Scheffé test [$F(3, 118) = 9.39$, $p<.001$] demonstrated that the Control Post Only group's mean ($M = 1.20$) was significantly lower than the Control Pre/Post group's mean ($M = 1.79$) and it was lower than the experimental groups' means (Pre/Post $M = 1.93$, Post Only $M = 1.90$). See Tables 6 and 7.

Table 3
Multivariate Analyses of Variance for Age on the PSQ (n = 60) and WIST (n = 59)

Source			F	p
PSQ (df = 2, 57)			4.22	.020
PSQ Univariate F-tests: (df = 1, 58)	MS	Error MS		
Identification	5.82	.74	7.87	.007
Information	11.30	3.55	3.18	.080
WIST (df = 6, 52)			1.21	.315

Table 4
Multivariate Analyses of Variance for Center on the PSQ (n = 62) and WIST (n = 61)

Source			F	p
PSQ (df = 10, 110)				
			1.28	.250
WIST (df = 30, 202)				
			1.53	.046
WIST Univariate F-tests: (df = 5, 55)	MS	Error MS		
Benign	.15	.13	1.17	.334
Recognition	1.68	1.10	1.53	.196
Say No	1.03	.41	2.54	.039
Go	.61	.30	2.00	.093
Tell Who	41.78	10.71	3.90	.004
Tell What	24.51	5.60	4.38	.002

Table 5
WIST Pretest Center Means

Variable	Center	n	Mean
Say No	1	7	.84
	2	13	1.36
	3	9	1.20
	4	14	1.64
	5	13	0.88
	6	5	1.19
Tell Who	1	7	1.14
	2	13	2.00
	3	9	3.00
	4	14	5.93
	5	13	2.23
	6	5	6.20
Tell What	1	7	0.29
	2	13	0.92
	3	9	0.56
	4	14	3.43
	5	13	1.08
	6	5	4.60

WIST Analyses. A significant main effect for treatment at posttesting was found on five of the WIST variables: Recognition [$F(1, 117) = 10.17$, $p<.01$], Say No [$F(1, 117) = 11.91$, $p<.001$], Go [$F(1, 117) = 11.31$, $p<.001$], Tell Who [$F(1, 117) = 13.13$, $p<.001$], and Tell What [$F(1, 117) = 19.56$, $p<.001$]. On these five variables, the children in the treatment groups scored significantly higher than the children in the control groups. A significant main effect for testing was found on two of the WIST variables: Benign [$F(1, 117) = 4.13$, $p<.04$] and Recognition [$F(1, 117) = 3.78$, $p<.05$]. Both of these main effects were in the opposite direction from that which had been predicted. Groups receiving the pretest had lower posttest scores (Benign $M = .75$; Recognition $M = 2.34$) than the groups that had not received the pretest (Benign $M = .90$;Recognition $M = 2.65$). No significant interactions were observed. See Tables 8 and 9.

Group X Time Repeated Measures Analyses

Although not hypothesized, a post hoc analysis was undertaken to determine if there was a significant change from pretest to posttest for the experimental group compared to the control group on the dependent variables. Eight repeated measures ANOVAs were performed on the two groups who were both pre- and posttested (see Table 10 for pretest and posttest means).

PSQ Identification did not reveal a significant group by time interaction [$F(1, 56) = 2.09$]. Both the control and the experimental groups were significantly better able to identify 'private parts' at posttest. For PSQ Information, a significant group by time interaction

Table 6
Analysis of Variance of PSQ Variables for Posttest Scores
(n = 122)

PSQ Variables	SS	DF	MS	F	p
IDENTIFICATION:					
Treatment	5.73	1	5.73	13.83	.001
Test	3.08	1	3.08	7.42	.007
Treatment X Test	2.28	1	2.28	5.50	.021
Residual	48.87	118	.41		
INFORMATION:					
Treatment	16.99	1	16.99	7.42	.007
Test	.00	1	.00	.00	.998
Treatment X Test	4.77	1	4.77	2.08	.151
Residual	270.02	118	2.29		

Table 7
Means for the Posttest Scores on Each of the PSQ Variables (n = 122)

Variable	Group	Posttest Mean
Identification		
	1=control/prepost	1.79
	2=control/post only	1.20
	3=experimental/prepost	1.93
	4=experimental/post only	1.90
Information		
	1=control/prepost	4.50
	2=control/post only	4.11
	3=experimental/prepost	4.83
	4=experimental/post only	5.24

Table 8
Analysis of Variance of WIST Variables for Posttest Scores
(n = 121)

Variables	SS	DF	MS	F	p
BENIGN:					
Treatment	.08	1	.08	.55	.458
Test	.59	1	.59	4.13	.044
Treatment X Test	.06	1	.06	.38	.536
Residual	16.66	117	.14		
RECOGNITION:					
Treatment	7.83	1	7.83	10.17	.002
Test	2.91	1	2.91	3.78	.054
Treatment X Test	.01	1	.01	.01	.927
Residual	90.14	117	.77		
SAY NO:					
Treatment	3.59	1	3.59	11.91	.001
Test	.14	1	.14	.48	.491
Treatment X Test	.41	1	.41	1.35	.248
Residual	35.30	117	.30		
GO:					
Treatment	3.03	1	3.03	11.32	.001
Test	.08	1	.08	.32	.576
Treatment X Test	.87	1	.87	3.26	.074
Residual	31.29	117	.27		
TELL WHO:					
Treatment	237.70	1	237.70	13.13	.001
Test	9.13	1	9.13	.50	.479
Treatment X Test	3.71	1	3.71	.21	.652
Residual	2117.93	117	18.10		
TELL WHAT:					
Treatment	144.10	1	144.10	19.57	.001
Test	.80	1	.80	.11	.742
Treatment X Test	.33	1	.33	.05	.832
Residual	861.57	117	7.36		

Table 9
Means for the Posttest Scores on Each of the WIST Variables (n = 121)

Variable	Group	Posttest Mean
Benign		
	1=control/prepost	0.70
	2=control/post only	0.89
	3=experimental/prepost	0.80
	4=experimental/post only	0.90
Recognition		
	1=control/prepost	2.07
	2=control/post only	2.40
	3=experimental/prepost	2.60
	4=experimental/post only	2.90
Say No		
	1=control/prepost	1.32
	2=control/post only	1.27
	3=experimental/prepost	1.54
	4=experimental/post only	1.73
Go		
	1=control/prepost	0.84
	2=control/post only	0.73
	3=experimental/prepost	0.98
	4=experimental/post only	1.20
Tell Who		
	1=control/prepost	4.93
	2=control/post only	4.03
	3=experimental/prepost	7.37
	4=experimental/post only	7.17
Tell What		
	1=control/prepost	1.33
	2=control/post only	1.60
	3=experimental/prepost	3.63
	4=experimental/post only	3.69

was observed [$F(1, 56) = 7.28$, $p<.01$]. The control group's mean decreased from pretest to posttest (4.60, 4.50; respectively) while the experimental group's mean increased (3.67, 4.83; respectively). See Table 11.

Two of the WIST variables showed significant group by time interactions. For Tell Who [$F(1, 54) = 4.26$, $p<.04$], the experimental group showed a significantly greater increase from pretest to posttest when compared to the control group (3.20 to 7.37 vs. 3.39 to 4.85; respectively). For Tell What there was also a significant group by time interaction [$F(1, 54) = 11.55$, $p<.001$]. The control group's pretest mean was 1.73, it decreased at posttest to 1.23. The experimental group's mean at pretest was 1.80, at posttest it increased to 3.63. See Tables 10 and 12.

Table 10
Means and Standard Deviations for the Pre and Posttested Groups on the PSQ (n = 58) and WIST (n = 57)

		Pretest	Posttest
PSQ	Group	Mean (SD)	Mean (SD)
IDENTIFICATION:			
	Control	1.36	1.79
		(.91)	(.57)
	Experimental	1.13	1.93
		(.90)	(.37)
INFORMATION:			
	Control	4.61	4.50
		(1.66)	(1.77)
	Experimental	3.67	4.83
		(2.09)	(1.29)
WIST	Group	Mean (SD)	Mean (SD)
BENIGN:			
	Control	.85	.70
		(.36)	(.47)
	Experimental	.83	.80
		(.38)	(.41)
RECOGNITION:			
	Control	2.00	2.07
		(1.07)	(1.17)
	Experimental	1.97	2.60
		(1.16)	(.77)
SAY NO:			
	Control	1.25	1.32
		(.61)	(.52)
	Experimental	1.14	1.54
		(.73)	(.49)
GO:			
	Control	.84	.84
		(.53)	(.58)
	Experimental	.71	.98
		(.64)	(.47)
TELL WHO:			
	Control	3.39	4.85
		(3.89)	(4.82)
	Experimental	3.20	7.37
		(3.23)	(4.12)
TELL WHAT:			
	Control	1.73	1.23
		(2.92)	(2.16)
	Experimental	1.80	3.63
		(2.59)	(2.47)

Table 11
Repeated Measures Analysis of Variance for PSQ Variables
(n = 58)

Source of Variation	SS	DF	MS	F	p
IDENTIFICATION:					
Group	.04	1	.04	.07	.786
Time	10.93	1	10.93	22.81	.000
Group X Time	1.00	1	1.00	2.09	.154
Within Subjects Error	26.83	56	.48		
Between Subjects Error	31.65	56	.57		
INFORMATION:					
Group	2.67	1	2.67	.61	.437
Time	8.13	1	8.13	5.03	.029
Group X Time	11.75	1	11.75	7.28	.009
Within Subjects Error	90.42	56	1.61		
Between Subjects Error	244.09	56	4.36		

Table 12
Repeated Measures Analysis of Variance for WIST Variables
(n = 57; for Tell Who & Tell What n = 56)

Source of Variation	SS	DF	MS	F	p
BENIGN:					
Group	.04	1	.04	.22	.642
Time	.23	1	.23	1.79	.186
Group X Time	.09	1	.09	.72	.401
Within Subjects Error	7.19	55	.13		
Between Subjects Error	10.82	55	.20		
RECOGNITION:					
Group	1.72	1	1.72	1.31	.258
Time	3.56	1	3.56	3.96	.052
Group X Time	2.22	1	2.22	2.47	.121
Within Subjects Error	49.41	55	.90		
Between Subjects Error	72.61	55	1.32		
SAY NO:					
Group	.10	1	.10	.21	.646
Time	1.56	1	1.56	6.40	.014
Group X Time	.76	1	.76	3.12	.083
Within Subjects Error	13.37	55	.24		
Between Subjects Error	25.77	55	.47		

Table 12 (cont'd)

Source of Variation	SS	DF	MS	F	p
GO:					
Group	.00	1	.00	.00	.985
Time	.50	1	.50	2.01	.162
Group X Time	.52	1	.52	2.08	.155
Within Subjects Error	13.72	55	.25		
Between Subjects Error	20.81	55	.38		
TELL WHO:					
Group	38.00	1	38.00	1.85	.179
Time	220.61	1	220.61	18.46	.000
Group X Time	50.96	1	50.96	4.26	.044
Within Subjects Error	645.31	54	11.95		
Between Subjects Error	1107.99	54	20.52		
TELL WHAT:					
Group	42.55	1	42.55	4.38	.041
Time	12.38	1	12.38	3.77	.057
Group X Time	37.92	1	37.92	11.55	.001
Within Subjects Error	177.33	54	3.28		
Between Subjects Error	524.16	54	9.71		

DISCUSSION

This study is the first attempt to evaluate the effects of pretesting on a sexual abuse prevention curriculum using the correct methodological design, the Solomon four-group design. The three studies discussed earlier (Gilbert et al., 1989; Saslawsky & Wurtele, 1986; and Swan et al., 1985), only used variants of this design. The use of component scores as knowledge measures and the reactivity of the two dependent measures will be discussed in light of the pretest sensitization results.

A Solomon four-group design allows the researcher to assess the effect(s) of a pretest on the posttest scores. Composite scores are generally used to analyze childrens' level of knowledge in sexual abuse prevention programs (e.g. Ratto & Bogat, 1990; Saslawsky & Wurtele, 1986). This method of analysis does not accurately elucidate what skills children have learned as a result of participation in a program and what skills they have not yet learned. If composite scores are used one also risks obscuring any subtle pretesting effect(s). A composite score might allow one to determine whether pretesting effects exist or not, but it would be impossible to ascertain what aspects of knowledge the pretest was specifically effecting. Component scores allow one to more fully understand the subtle effects of pretesting. In this study, the pretested groups' scores at posttest were significantly different

from the non-pretested groups' scores on three of the eight variables: PSQ Identification, WIST Benign, and WIST Recognition.

At posttest, the pretested children were better able to identify 'private parts' on PSQ Identification than the non-pretested children. Recall that during administration of the PSQ, children who were unable to identify 'private parts' were taught by the interviewer what the term meant and where 'private parts' were. Thus, children had to demonstrate that they understood private parts before the interviewer would continue. The pretested children had had this experience; thus, their proficiency at posttesting is probably the result of learning this task the first time and retaining the knowledge for the posttest. Gilbert et al. (1989) also explain the difference at posttest between their two groups as a learning effect from the pretest.

There was also a treatment by testing interaction on this variable; the experimental groups both did well (see Table 7) whether they received a pretest or not, whereas the control group did significantly better if they had a pretest. This finding does not seem to be the result of an interaction between the pretest and the program. In other words, the pretest probably did not sensitize the children so that they experienced the curriculum differently from the non-pretested children. If this had been so, one would expect the Pre/Post Experimental group's score to be significantly higher than the Posttest Only Experimental group's score, and it is not.

The other two variables, Benign and Recognition, for which pretest sensitization effects were found, are from the WIST. For both of these variables, children who received a pretest performed less well

than did children who only received a posttest (see Table 9). This finding is opposite from that which was predicted. It was hypothesized that children who had received a pretest would do better, possibly because this was a more reactive measure and also because the children had been alerted to the questions and might pay closer attention to the curriculum. Participation in the program had no effect on childrens' ability to recognize benign touch, but after the program the experimental children could more accurately recognize inappropriate touch than could the control children. However, the pretested children were less able to accurately identify either of these situations. The pretest may have inhibited children learning this particular prevention concept but not the other four WIST concepts. That is, the pretest did not affect a child's ability to learn the no, go, tell message (Say No, Go, Tell Who and Tell What variables).

A review of the curriculum shows that the no, go, and tell components are repeated throughout and the children are encouraged to role play or generate verbal responses for these components. Although, the concepts of good and bad touch are emphasized, children get no chance to practice these concepts.

Reppucci and Haugaard (1989) discuss the difficulty that adults have in defining situations as sexually abusive. Some acts are clearly abusive but many others require subtle judgement calls. They question whether it is possible for preschool-aged children to make such subtle distinctions, given that adults, with their far superior cognitive abilities, have difficulty with such decisions. Realizing that a behavior is sexually abusive might be the first skill that is necessary

for a prevention program to work (Reppucci & Haugaard, 1989; Wurtele, 1990), because the other skills will not be implemented until a situation necessitates protection.

Clearly, recognizing that a situation is or will become dangerous, is a difficult and complex process, and one that the curriculum used in this study may not have adequately taught to the children who were pretested before they received the program. The children may also have been confused by the questions asked on the pretest. In all likelihood, the items in the pretest were questions the children had never heard or thought about before. The curriculum may not have sufficiently explained the difference between good and bad touch for these children, and, as noted above, the curriculum offers no opportunity for children to practice these recognition skills. Some of these children, including the control children, remained confused at posttest. Although significantly greater than the control groups' means, the Pre/Post Experimental childrens' means were still lower than the Posttest Only Experimental childrens' means. Perhaps the pretested children paid closer attention to the curriculum, waiting for this complex and confusing concept to be clearly explained to them, but it was not. The Pre/Post Control children would have had time to think about good and bad touch, but with no additional clarifying information, these children may have been even more confused at posttest when they were asked the exact same questions. They may have thought their answers were wrong at pretest and therefore they were being asked the questions again. This might explain why their posttest means were also lower than those of the Control Post Only children.

Liang and McGrath (1991) propose an alternative explanation for their, somewhat similar, results. They pre- and posttested 117 children with the WIST and found no significant condition by time interactions for the WIST variables Recognition and Benign. On the WIST, thirty-two percent of their pretested children were able to say no and leave a potentially abusive situation without being able to correctly identify a situation as abusive, 83% of these children were from their two younger age groups. Liang and McGrath propose that younger childrens' responses may be more affectively based and less cognitively based in sexually abusive situations. These children may be responding to "instinctive emotional cues" that allow them to reject a perpetrator and leave a situation without a cognitive understanding that the situation is inappropriate.

It is important to realize that had these results been analyzed with composite scores, the effect of having a pretest on learning the recognition components would not have been evident. One should also remember that, to date, this is the only Solomon four-group study in the literature. Future evaluations of sexual abuse prevention programs, using component analyses and a Solomon four-group design, are needed to replicate these findings. We need to understand whether the increased difficulty pretested children have learning to recognize good and bad touch is a true problem in this research area, or if it is a problem unique to the curriculum used in this project.

It was hypothesized that the pretest effect would be significantly greater on the more reactive dependent measure, the WIST. Reactivity, as previously discussed, is the effect that the measuring instrument or

the measuring process has on the participant's response(s). By virtue of its colored pictures, open-ended questions, and vignettes, the WIST was expected to be more novel and motivating, and therefore more reactive, than the PSQ, which asks questions requiring only yes or no answers. This hypothesis was not supported. Not only were the two WIST components with significant pretesting effects in the direction opposite from that which had been predicted, but the pretest effect on PSQ Identification was much more significant than that observed for the WIST variables.

The reactivity hypothesis was based, in part, on the Gilbert et al. (1989) findings. The Gilbert project (1989), which found significant pretest sensitization effects with preschoolers, used unusual and probably very reactive measures: a moveable bunny to measure anxiety, a book with velcro bunny faces to measure feelings, and small wooden rabbits to act out a stranger story. It may be that the WIST is not reactive enough to affect the childrens' responses to the same extent as the Gilbert measures.

Future research should continue to look at the reactivity of dependent measure(s). Research that uses such measures should be sensitive to the effect that the measuring instruments have because ultimately such instruments will not be used in the presentation of a prevention program. If the experience of the pretest has significantly affected the experience of the program, researchers will never be able to ensure that they will get the same results when programs are implemented with no pretest.

There were significant posttest main effects for treatment on

seven of the eight variables; only the recognition of benign touch was not significant. Post hoc analyses were undertaken on the children who were assessed in both pre and posttest conditions to corroborate the Solomon four-group results. The results from the post hoc analyses revealed significant group by time interactions for three of the eight variables: PSQ Information, WIST Tell Who, and Tell What. Four of the remaining five variables showed trends toward significance (see Tables 11 and 12). It is likely that the decrease in power due to the reduced sample size prevented these four variables from obtaining significance, because, as stated above, posttest analyses indicated significant treatment effects for these four variables.

In conclusion, these results demonstrate the importance of analyzing specific skills in the evaluation of pretesting effects in sexual abuse prevention programs and point to the necessity of using large sample sizes. The current study suggests that pretesting can interfere with learning the difference between benign and abusive touch. If pretesting affects a childs' ability to learn this concept, our evaluations of prevention programs may be flawed. Children may learn this concept better when not pretested. It is hoped that both creators of prevention programs and evaluators of these programs will take this information into consideration when designing curricula and when evaluating programs.

APPENDIX A

Personal Safety Questionnaire

Code No. _____

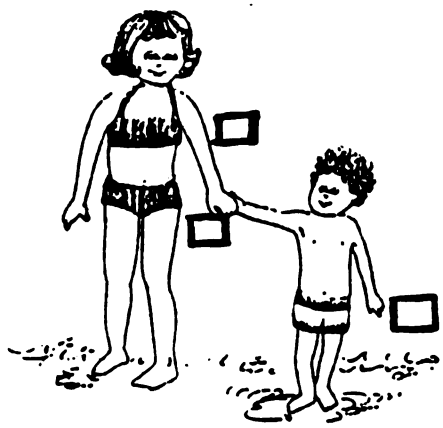
Interviewer _____

PSQ
Evaluation of a Personal Safety Curriculum

Directions to the Interviewer: This interview is being conducted to determine the amount of knowledge the child has at this time. The only instance where the interview should be used to instruct the child is the explanation of private parts. For all other questions read them as written. Probe by repeating questions as written.

Introduction: (to child) Hi, my name is _____. What is your name? I'm going to be asking you some questions and writing down what you tell me. This isn't a test at all. You can say whatever you want to.

A. Here is a picture. Can you point to the girl's private parts? Can you point to the boy's private parts?



B. Can you tell me what "private parts" means?

_____

_____

NOTE: (If the child cannot verbalize a definition, tell him/her that private parts are those parts of the body covered by a bathing suit and then point to picture to show where private parts are located. If the child wasn't able to point to private parts correctly, ask the child to show you, on the picture, where the private parts are.)

Do you know what the word "boss" means? A boss is someone who says what to do.

1. Are you the boss of your body?	Yes	No	I'm Not Sure
2. If a big person touches a kid's private parts, has the kid done something wrong?	Yes	No	I'm Not Sure
3. Do kids have to let ALL big people touch their private parts?	Yes	No	I'm Not Sure
4. If a big person touches a kid's private parts and tells the kid to keep it a secret, should the kid tell someone about it?	Yes	No	I'm Not Sure
5. If the kid tells somebody but that person doesn't believe 'em, should the kid forget about it?	Yes	No	I'm Not Sure
6. Are strangers the ONLY people who try to touch kids' private parts?	Yes	No	I'm Not Sure
7. If a stranger wants to look at a kid's private parts, should the kid try to get away?	Yes	No	I'm Not Sure
8. Is it OK for doctors to look at kids' private parts if they're hurt there?	Yes	No	I'm Not Sure
9. Is it OK for kids to touch a bigger person's private parts?	Yes	No	I'm Not Sure
10. If kids need help cleaning their bodies, is it OK for Mom or Dad to touch their private parts?	Yes	No	I'm Not Sure
11. If a babysitter wants to touch a kid's private parts, what should the kid say?	Yes	No	I'm Not Sure
12. Is it OK for kids to touch their own private parts?	Yes	No	I'm Not Sure
13. If a big person touches a kid's private parts and promised never to do it again, should the kid still tell someone about it?	Yes	No	I'm Not Sure
14. Is it OK for a big person to touch your private parts if it feels good?	Yes	No	I'm Not Sure
15. Is it OK for your Mom or Dad to give you a hug if you want one?	Yes	No	I'm Not Sure
16. Is it OK for grownups to make kids touch or look at <u>their</u> private parts?	Yes	No	I'm Not Sure
17. Is your teacher the boss of your private parts?	Yes	No	I'm Not Sure

APPENDIX B

PSQ Subscale

APPENDIX B

PSQ Subscale

1. Do kids have to let ALL big people touch their private parts?

2. Is it OK for kids to touch a bigger person's private parts?

3. If a babysitter wants to touch a kid's private parts, what should the kid say?

4. Is it OK for a big person to touch your private parts if it feels good?

5. Is it OK for grownups to make kids touch or look at <u>their</u> private parts?

6. Is your teacher the boss of your private parts?

APPENDIX C

"What If" Situation Test

Code#_____
Interviewer Initials_____

What If Situation Test (WIST)
M.S.U. Version

Interviewer:

O.K. (child's name), I am going to show you some pictures and read you some stories about the people in the pictures.

STORY ONE

Let's pretend you were riding your bike and you fell off and hurt your private parts. When you went home, you told your parents what happened and they wanted to look at your private parts.

1. Would it be O.K. for your parents to look at your private parts?

(Please CIRCLE one response)

YES...go to question 2a.

NO....go to question 2b.

DK....go to next vignette.

2a. Why would that be O.K.?

2b. Why wouldn't that be O.K.?

PRAISE CHILD FOR HIS/HER EFFORT AND/OR COOPERATION, NOT FOR HIS/HER RESPONSES. For example, "You're thinking so hard, (child's name); that's great!" Or "It's really great the way you're listening so carefully to my questions, (child's name)!"

STORY TWO

Let's pretend a neighbor who is a big person, said to you, "Hey (child's name), let's play a real fun game! You take off all your clothes and I'll take pictures of your private parts with my camera!"

1. Would it be O.K. for your neighbor to take pictures of your private parts?

(Please CIRCLE one response)

YES...go to question 2a.

NO....go to question 2b.

DK....go to question 3.

2a. Why would that be O.K.?

2b. Why wouldn't that be O.K.?

3. If your neighbor asked you to do that, what would you say to them or what would you do?

[NOTE #1: After every solution encourage the child to generate more solutions by saying, **"O.K. That's something you could try. Anything else?"** NOTE BENE: Take care to respond with the same enthusiasm and the same words to every solution the child offers.]

[NOTE #2: If a child begins to perseverate, after three enumerations, stop child and say, **"O.K. (name of child), that's kind of like what you thought of doing before. (Explain how three previous responses are alike). The idea here is to think of all the different things you could say or do. What's something different you would say or do?]**

[NOTE #3: If a child says "IDK," prompt by asking, **"How would you talk to your neighbor, or how would you act if they wanted to take pictures of your private parts?"]**

[NOTE #4: **Number every response.**]

SAY Responses DO Responses

_____

_____

_____

_____

_____

4a. If child has ANY SAY RESPONSES:

"So far you said that you would say to your neighbor (repeat all SAY responses). What else would you tell your neighbor?" OR "How would you talk to your neighbor?"

If child has NO SAY RESPONSES:

"Try to think really hard now. What would you say to your neighbor?" OR "What would you tell your neighbor?" OR "How would you talk to your neighbor?"

Prompted SAY Responses

1._____

2._____

3._____

4._____

4b. If child has ANY DO RESPONSES:

"Now before you told me that if your neighbor tried to take pictures of your private parts, you would (repeat all DO responses). What else would you do?" OR "You know, how would you act if your neighbor asked to take pictures of your private parts?"

If child has NO DO RESPONSES:

"Try to think really hard. What would you do if your neighbor tried to take pictures of your private parts?" OR "You know, how would you act if your neighbor asked to take pictures of your private parts?"

Prompted DO Responses

1._____

2._____

3._____

4._____

5a. Now I'm going to ask you a different kind of question. Let's pretend your neighbor wanted to take pictures of your private parts, AND THEY ASKED YOU TO KEEP IT A SECRET. Some kids would keep that a secret, but other kids would tell somebody. Which kid is more like you?

(Please CIRCLE one response)

TELL SOMEBODY.....go to question 5b, then to question 6.

KEEP IT A SECRET.....go to question 5c, then to next story.

DK.....go to next story.

5b. Why would you tell somebody?

5c. Why would you keep it a secret?

IF CHILD WOULD TELL SOMEBODY, ASK QUESTIONS 6 AND 7.

6. Who would you tell?

[NOTE #1: Prompt each time child stops answering by asking **"Anybody else?"**]

[NOTE #2: Number responses.]

7. What would you say to (name of first person listed above)?

[NOTE: If child does not respond, rephrase the question by asking, **"How would you let (persons(s) named above) know what happened to you?"** If child still does not respond, and/or seems uncomfortable, offer to let child whisper what he/she would say in your ear.]

PRAISE CHILD FOR HIS/HER EFFORT AND/OR COOPERATION, NOT FOR HIS/HER RESPONSES. For example, "You're thinking so hard, (child's name); that's great!" Or "It's really great the way you're listening so carefully to my questions, (child's name)!"

STORY THREE

Let's pretend you had a babysitter and they said to you, "(name of child), I'll let you stay up late to watch your favorite TV show if YOU touch MY private parts for a little while. It'll be fun!"

1. Would it be O.K. for your babysitter to ask you to touch her private parts?

(Please CIRCLE one response)

YES...go to question 2a.

NO....go to question 2b.

DK....go to question 3.

2a. Why would that be O.K.?

2b. Why wouldn't that be O.K.?

3. If your babysitter asked you to do that, what would you say to her or what would you do?

[NOTE #1: After every solution encourage the child to generate more solutions by saying, **"O.K. That's something you could try. Anything else?"** NOTE BENE: Take care to respond with the same enthusiasm and the same words to every solution the child offers.]

[NOTE #2: If a child begins to perseverate, after three enumerations, stop child and say, **"O.K. (name of child), that's kind of like what you thought of doing before. (Explain how three previous responses are alike). The idea here is to think of all the different things you could say or do. What's something different you would say or do?]**

[NOTE #3: If a child says "IDK," prompt by asking, **"How would you talk to your babysitter, or how would you act if she wanted you to touch her private parts?"]**

[NOTE #4: **Number every response.**]

SAY Responses	DO Responses

4a. If child has ANY SAY RESPONSES:

"So far you said that you would say to your baybsitter (repeat all SAY responses). What else would you tell your babysitter?" OR "How would you talk to your babysitter?"

If child has NO SAY RESPONSES:

"Try to think really hard now. What would you say to your babysitter?" OR "What would you tell your babysitter?" OR "How would you talk to your babysitter?"

Prompted SAY Responses

1. _____

2. _____

3. _____

4. _____

4b. If child has ANY DO RESPONSES:

"Now before you told me that if your babysitter asked you to touch her private parts, you would (repeat all DO responses). What else would you do?" OR "You know, how would you act if your babysitter wanted to touch private parts?"

If child has NO DO RESPONSES:

"Try to think really hard. What would you do if your babysitter asked you to touch her private parts?" OR "You know, how would you act if your babysitter asked to touch private parts?"

Prompted DO Responses

1._____

2._____

3._____

4._____

5a. Now I'm going to ask you a different kind of question. Let's pretend your babysiter asked you to touch her private parts, AND THEY ASKED YOU TO KEEP IT A SECRET. Some kids would keep that a secret, but other kids would tell somebody. Which kid is more like you?

(Please CIRCLE one response)

TELL SOMEBODY.....go to question 5b, then to question 6.

KEEP IT A SECRET.....go to question 5c, then to next story.

DK.....go to next story.

5b. Why would you tell somebody?

5c. Why would you keep it a secret?

IF CHILD WOULD TELL SOMEBODY, ASK QUESTIONS 6 AND 7.

IF CHILD WOULD TELL SOMEBODY, ASK QUESTIONS 6 AND 7.

6. Who would you tell?

[NOTE #1: Prompt each time child stops answering by asking "**Anybody else?**"]

[NOTE #2: Number responses.]

7. What would you say to (name of first person listed above)?

[NOTE: If child does not respond, rephrase the question by asking, "**How would you let (persons(s) named above) know what happened to you?**" If child still does not respond, and/or seems uncomfortable, offer to let child whisper what he/she would say in your ear.]

PRAISE CHILD FOR HIS/HER EFFORT AND/OR COOPERATION, NOT FOR HIS/HER RESPONSES. For example, "You're thinking so hard, (child's name); that's great!" Or "It's really great the way you're listening so carefully to my questions, (child's name)!"

STORY FOUR

Let's pretend you were playing at the park and a man you like said to you, "Hey, (name of child), I'll buy you an ice cream cone if you take off your pants and let me touch your private parts."

1. Would it be O.K. for that man to ask you to take off your pants so he could touch your private parts?

(Please CIRCLE one response)

YES...go to question 2a.

NO....go to question 2b.

DK....go to question 3.

2a. Why would that be O.K.?

2b. Why wouldn't that be O.K.?

3. If that man in the park asked you to do that, what would you <u>say</u> to him or what would you <u>do</u>?

[<u>NOTE #1:</u> <u>After every solution</u> encourage the child to generate more solutions by saying, **"O.K. That's something you could try. Anything else?"** NOTE BENE: Take care to respond with the same enthusiasm and the same words to <u>every</u> <u>solution</u> the child offers.]

[<u>NOTE #2:</u> If a child begins to perseverate, after three enumerations, stop child and say, **"O.K. (name of child), that's kind of like what you thought of doing before. (Explain how three previous responses are alike). The idea here is to think of all the <u>different</u> things you could say or do. What's something different you would say or do?]**

[<u>NOTE #3:</u> If a child says "IDK," prompt by asking, **"How would you talk to the man, or how would you act if he wanted to touch your private parts?"]**

[<u>NOTE #4:</u> **Number every response.**]

SAY Responses	DO Responses

4a. If child has <u>ANY</u> <u>SAY</u> <u>RESPONSES</u>:

"So far you said that you would say to the man in the park (repeat all SAY responses). What else would you tell him?" OR "How would you talk to the man in the park?"

If child has <u>NO</u> <u>SAY</u> <u>RESPONSES</u>:

"Try to think really hard now. What would you say to that man in the park?" OR "What would you tell him?" OR "How would you talk to the man in the park?"

Prompted SAY Responses

1. _____

2. _____

3. _____

4. _____

4b. If child has ANY DO RESPONSES:

"Now before you told me that if that man in the park asked to touch your private parts, you would (repeat all DO responses). What else would you do?" OR "You know, how would you act if that man in the park asked to touch your private parts?"

If child has NO DO RESPONSES:

"Try to think really hard. What would you do if that man in the park asked to touch your private parts?" OR "You know, how would you act if that man in the park asked to touch your private parts?"

Prompted DO Responses

1._____

2._____

3._____

4._____

5a. Now I'm going to ask you a different kind of question. Let's pretend the man in the park wanted to touch your private parts, AND THEY ASKED YOU TO KEEP IT A SECRET. Some kids would keep that a secret, but other kids would tell somebody. Which kid is more like you?

(Please CIRCLE one response)

TELL SOMEBODY.....go to question 5b, then to question 6.

KEEP IT A SECRET.....go to question 5c, then to next story.

DK.....end of measure.

5b. Why would you tell somebody?

5c. Why would you keep it a secret?

IF CHILD WOULD TELL SOMEBODY, ASK QUESTIONS 6 AND 7.

6. Who would you tell?

[NOTE #1: Prompt each time child stops answering by asking **"Anybody else?"**]

[NOTE #2: Number responses.]

7. What would you say to (name of first person listed above)?

[NOTE: If child does not respond, rephrase the question by asking, **"How would you let (persons(s) named above) know what happened to you?"** If child still does not respond, and/or seems uncomfortable, offer to let child whisper what he/she would say in your ear.]

PRAISE CHILD FOR HIS/HER EFFORT AND/OR COOPERATION, NOT FOR HIS/HER RESPONSES. For example, "You're thinking so hard, (child's name); that's great!" Or "It's really great the way you're listening so carefully to my questions, (child's name)!"

APPENDIX D

Consent Form

Dear Parents,

Our preschool is concerned about all types of personal safety that involve children. We routinely teach children safety rules about fire and crossing the street. This year we are pleased to offer a sexual abuse prevention program for children. We believe it is important to teach children to recognize threatening situations, should they arise, and to seek help. This is a personal safety program that teaches children a "No, Go, Tell" message; it is not a sex education program. It does not provide any explicit information about human sexuality.

The program starts with an optional parent meeting. Parents get to learn more about the problem of sexual abuse and how to talk about it with their children. There is also a parent-child workbook that can be used to reinforce the message of the program at home. The program for the children takes place in the classroom and involves five, 20 minutes presentations that include a puppet show, picture stories, and activities.

We are presenting this program in cooperation with Dr. Marianne McGrath and Dr. Anne Bogat from Michigan State University. During the last several years, they have offered the program to several preschools in this area. Parents and teachers were enthusiastic about the program and felt it provided a valuable experience for the children. Dr. McGrath and Dr. Bogat conduct an ongoing evaluation of the program in order to make continual improvements in it. This is done by interviewing children before the beginning of the program, shortly after the program is completed, and 2 months later. The interviewing will be conducted by Dr. McGrath, Dr. Bogat, or one of their trained assistants. Children will be asked if they want to answer some questions about personal safety. They'll be told that there are no right or wrong answers; we'd just like to know what they think. The questions ask children to identify appropriate and inappropriate touch and to state what they would say and do in various pretend situations. Half of the children who have permission to participate will receive the program first, the other half will receive it in 2 months. The procedure makes it possible to determine what children already know about the topic, how much of what they know is correct, and how much they learn from the program.

If you know right now that you want your child to participate, please complete the attached form and send it back to your child's teacher. If you have questions about the program, please feel free to discuss these with your child's teacher before completing the form, or leave a message for Dr. McGrath or Dr. Bogat at 353-8690 and they'll return your call and answer your questions.

Remember, your child cannot participate without your permission. And, if you decide to let your child participate, there will be a parent meeting before the sexual abuse prevention program begins.

Parent Permission Form
Sexual Abuse Prevention Program

1. I understand the evaluation process of the Grossmont College Child Sexual Abuse Prevention Program. I have read the description of the project and I understand what my child's participation will involve.

2. I understand my child's participation is optional and that my child must also give his/her verbal permission.

3. I understand that either myself or my child may discontinue my child's participation in the evaluation at any time without penalty and that my child will still have the opportunity to participate in the Grossmont Child Sexual Abuse Prevention Program.

4. I understand that all results of the study will be kept in strict confidence and all responses of my son or daughter will remain anonymous except if my child reports possible sexual abuse. If such a report occurs, Dr. McGrath or Dr. Bogat will notify both myself and the preschool teacher immediately. Within these restrictions, the results of the study will be made available to me at my request.

5. I understand that participation in the study does not guarantee additional benefits to my child or to me.

I hereby give my approval to allow my child to be interviewed about his/her knowledge of personal safety. I understand that this information will be used as part of a research project being conducted by Dr. Marianne McGrath and Dr. Anne Bogat at Michigan State University.

NAME OF CHILD_____

BIRTHDATE_____

SIGNATURE OF PARENT/GUARDIAN_____

DATE_____

---------> Please complete a separate form for each child in your family who you want to participate *****

---------> RETURN THIS FORM TO YOUR CHILD'S TEACHER AS SOON AS POSSIBLE. THANKS.

REFERENCES

REFERENCES

Anderson-Varney, T. J. (1988). The evaluation of a personal safety curriculum for preschoolers. Unpublished master's thesis, Michigan State University, East Lansing.

Barnard, G. W., Fuller, A. K., Robbins, L., & Shaw, T. (1989). The child molester: An integrated approach to evaluation and treatment. New York: Brunner/Mazel, Inc.

Becker, J. V., & Kaplan, M. S. (1988). Assessment and treatment of the male sex offender. In D. H. Schetky & A. H. Green (Eds.), Child sexual abuse: A handbook for health care and legal professionals (pp.136-152). New York: Brunner/Mazel.

Bierker, S. B. (1989). About sexual abuse. Springfield, IL.:Charles C. Thomas.

Binder, R. L., & McNiel, D. E. (1987). Evaluation of a school based sexual abuse prevention program: Cognitive and emotional effects. Child Abuse and Neglect, 11, 497-506.

Blumberg, E. J., Chadwick, M. W., Fogarty, L. A., Speth, T. W., & Chadwick, D. L. (1991). The good touch/bad touch component of sexual abuse prevention training: Unanticipated positive consequences. Journal of Interpersonal Violence, 6(1), 12-28.

Borkin, J., & Frank, L. (1986). Sexual abuse prevention for preschoolers: A pilot program. Child Welfare, LXV, 75-82.

Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. Psychological Bulletin, 99, 66-77.

Campbell, D. (1957). Factors relevant to the validity of experiments in social settings. Psychological Bulletin, 54(4), 297-312.

Campbell, D. T., & Stanley, J. C. (1963). Experimental and quasi-experimental designs for research. Chicago: Rand McNally.

Christian, R., Dwyer, S., Schumm, W. R., & Coulson, L. A. (1988). Prevention of sexual abuse for preschoolers: Evaluation of a pilot program. Psychological Reports, 62, 387-396.

Cole P. M., & Woolger, C. (1989, April). The role of emotion in the parenting difficulties of incest victims. Symposia presented at the meeting of the Society for Research in Child Development, Kansas City, Missouri.

Conte, J. R. (1986). Evaluating prevention education programs. In M. Nelson & K. Clark (Eds.), The educator's guide to preventing child sexual abuse (pp. 126-129). Santa Cruz, CA: Network.

Conte, J. R., Rosen, C., & Saperstein, L. (1986). An analysis of programs to prevent the sexual victimization of children. Journal of Primary Prevention, 6, 141-155.

Conte, J. R., Rosen, C., Saperstein, L., & Shermack, R. (1985). An evaluation of a program to prevent the sexual victimization of young children. Child Abuse and Neglect, 9, 319-328.

Crawford, D. A. (1981). Treatment approaches with pedophiles. In M. Cook & K. Howells (Eds.), Adult sexual interest in children (pp. 181-217). New York: The Academic Press.

Downer, A. (1984). Evaluation of talking about touching. Unpublished manuscript.

Finkelhor, D. (1984). Child sexual abuse: New theory and research. New York: The Free Press.

Finkelhor, D. (1986). Abusers: Special topics. In D. Finkelhor (Ed.), A sourcebook on child sexual abuse (pp. 119-142). Beverly Hills, CA: Sage.

Finkelhor, D., & Baron, L. (1986). High-risk children. In D. Finkelhor (Ed.), A sourcebook on child sexual abuse (pp. 60-88). Beverly Hills, CA: Sage.

Finkelhor, D., & Hotaling, G. (1984). Sexual abuse in the National Incidence Study of Child Abuse and Neglect: An appraisal. Child Abuse and Neglect, 8, 23-33.

Finkelhor, D., Hotaling, G., Lewis, I. A., & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence, characteristics, and risk factors. Child Abuse and Neglect, 14, 19-28.

Finkelhor, D., & Strapko, N. (in press). Sexual abuse prevention education: A review of evaluation studies. In D. J. Willis, E. W. Holder, & M. Rosenberg (Eds.), Child abuse prevention. New York: Wiley.

Garbarino, J. (1987). Children's response to a sexual abuse prevention program: A study of the Spiderman comic. Child Abuse and Neglect, 11, 143-148.

Gilbert, N., Berrick, J. D., Le Prohn, N., & Nyman, N. (1989). Protecting young children from sexual abuse: Does preschool training work? Lexington, MA: Lexington Books.

Green, A. H. (1988). Overview of the literature on child sexual abuse. In D. H. Schetky & A. H. Green (Eds.), Child sexual abuse (pp.30-56). New York: Brunner/Mazel, Inc.

Harvey, P., Forehand, R., Brown, C., & Holmes, T. (1988). The prevention of sexual abuse: Examination of the effectiveness of a program with kindergarten-age children. Behavior Therapy, 19, 429-435.

Haugaard, J. J., & Reppucci, N. D. (1988). The sexual abuse of children: A comprehensive guide to current knowledge and intervention strategies. San Francisco: Jossey-Bass Pub.

Hill, J. L., & Jason, L. A. (1987). An evaluation of a school-based child sexual abuse primary prevention program. Psychotherapy Bulletin, 22, 36-38.

Huck, S. W., & Sandler, H. M. (1973). A note on the Solomon 4-group design: Appropriate statistical analyses. The Journal of Experimental Education, 42(2), 54-55.

Jacobson, A., & Herald, C. (1990). The relevance of childhood sexual abuse to adult psychiatric inpatient care. Hospital and Community Psychiatry, 41, 154-158.

Kazdin, A. E. (1980). Research Design in Clinical Psychology. New

Kenning, M., Gallmeier, T., Jackson, T. L., & Plemons, S. (1987, July). Evaluation of child sexual abuse prevention programs: A summary of two studies. Paper presented at the National Conference on Family Violence, Durham, NH.

Koblinsky, S., & Behana, N. (1984). Child sexual abuse: The educator's role in prevention, detection, and intervention. Young Children, 39(6), 3-15.

Kolko, D. J., Moser, J. T., 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(1), 11-35.

Kraizer, S. K., Fryer, G., & Miller, M. (1988). Programming for preventing sexual abuse and abduction: What does it mean when it works? Child Welfare, LXVII(1), 69-78.

Liang, B., & McGrath, M. (1991, August). How well do children learn sexual abuse prevention concepts? Paper presented in M. P. McGrath (Chair), New Perspectives on Sexual Abuse Education for Preschoolers. Symposium conducted at the 1991 annual convention of the American Psychological Association, San Francisco, CA.

Miltenberger, R. G., & Thiesse-Duffy, E. (1988). Evaluation of home-based programs for teaching personal safety skills to children. Journal of Applied Behavior Analysis, 21(1), 81-87.

Nelson, D. E. (1981/85). An evaluation of the student outcomes and instructional characteristics of the "You're in Charge" program. Unpublished manuscript.

Nelson, M. and Clark, K. (1986). Prevention programs at work. In M. Nelson & K. Clark (Eds.), The educator's guide to preventing child sexual abuse (pp. 149-176). Santa Cruz, CA: Network Publications.

Peters, S. D., Wyatt, G. E., & Finkelhor, D. (1986). Prevalence. In D. Finkelhor (Ed.), A sourcebook on child sexual abuse (pp. 15-59). Beverly Hills, CA: Sage.

Plummer, C. (1984). Preventing sexual abuse: What in-school programs teach children. Unpublished manuscript.

Ratto, R. (1988). An evaluation of a preschool curriculum to prevent the sexual abuse of children. Unpublished master's thesis, Michigan State University, East Lansing.

Ratto, R., & Bogat, G. A. (1990). An evaluation of a preschool curriculum to prevent the sexual abuse of children. Journal of Community Psychology, 18, 289-297.

Ray, J., & Dietzel, M. (1984). Teaching child sexual abuse prevention. Unpublished manuscript.

Reppucci, N. D., & Haugaard, J. J. (1989). Prevention of child sexual abuse: Myth or reality. American Psychologist, 44, 1266-1275.

Russell, D. E. (1984). Sexual exploitation. Beverly Hills: Sage.

Saslawsky, D. A., & Wurtele, S. K. (1986). Educating children about sexual abuse: Implications for pediatric intervention and possible prevention. Journal of Pediatric Psychology, 11, 235-245.

Salter, A. C. (1988). Treating child sex offenders and victims: A practical guide. Newbury Park: Sage.

Sedlak, A. J. (1989, April). National incidence of child abuse and neglect. Paper presented at the meeting of the Society for Research in Child Development, Kansas City, Missouri.

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.

Solomon, R. L. (1949). An extension of the control group design. Psychological Bulletin, 46, 137-150.

Stone, M. E. (1986). New myths about child sexual abuse. In M. Nelson & K. Clark (Eds.), The educator's guide to preventing child sexual abuse (pp. 130-132). Santa Cruz, CA: Network.

Study Findings: Study of the National Incidence and Prevalence of Child Abuse and Neglect: 1988. (1988). (DHHS Publication No. ADM 88-1257). Washington, DC: U.S. Government Printing Office.

Swan, H. L., Press, A. N., & Briggs, S. L. (1985). Child sexual abuse prevention: Does it work? Child Welfare, LXIV, 395-405.

Wall, H. R. (1983). Child assault/abuse prevention project: Pilot program evaluation. Unpublished manuscript.

Willson, V. L., & Putnam, R. R. (1982). A meta-analysis of pretest sensitization effects in experimental design. American Educational Research Journal, 19(2), 249-258.

Wolfe, D. A., MacPherson, T., Blount, R., & Wolfe, V. V. (1986). Evaluation of a brief intervention for educating school children in awareness of physical and sexual abuse. Child Abuse and Neglect, 10, 85-92.

Wurtele, S. K. (1990a, September). Evaluating programs designed to prevent child sexual abuse: Measuring the six R's. Paper presented at the 8th International Congress on Child Abuse and Neglect, Hamburg, Germany.

Wurtele, S. K. (1990b). Teaching personal safety skills to four-year-old children: A behavioral approach. Behavior Therapy, 21, 25-32.

Wurtele, S. K., Currier, L. L., Gillispie, E. I., & Franklin, C. F. (1991). The efficacy of a parent-implemented program for teaching preschoolers personal safety skills. Behavior Therapy, 22, 69-83.

Wurtele, S. K., Kast, L. C., & Kondrick, P. A. (1988, August). Development of an instrument to evaluate sexual abuse prevention programs. Paper presented at the American Psychological Association convention, Atlanta, GA.

Wurtele, S. K., Marrs, S. R., & Miller-Perrin, C. L. (1987). Practice makes perfect? The role of participant modeling in sexual abuse prevention programs. Journal of Consulting and Clinical Psychology, 55(4), 599-602.

Wurtele, S. K., & Miller-Perrin, C. L. (1987). An evaluation of side effects associated with participation in a child sexual abuse prevention program. Journal of School Health, 57, 228-231.

Wurtele, S. K., Saslawsky, D. A., Miller, C. L., Marrs, S. R., & Britcher, J. C. (1986). Teaching personal safety skills for potential prevention of sexual abuse: A comparison of treatments. Journal of Consulting and Clinical Psychology, 34, 688-692.

Wyatt, G. E., & Powell, G. J. (1988). Identifying the lasting effects of child sexual abuse: An overview. In G. E. Wyatt & G. J. Powell (Eds.), Lasting effects of child sexual abuse (pp. 11-18). Newbury Park, CA: Sage.

Zigler, E., & Hall, N. W. (1989). Physical child abuse in America: Past, present, and future. In D. Cicchetti & V. Carlson (Eds.), Child maltreatment (pp. 38-75). New York: Cambridge University Press.