

THE DEVELOPMENT OF AN APPROPRIATE AND  
EFFECTIVE METHOD FOR TESTING THE  
RELIABILITY AND VALIDITY OF  
THE WHO PROGRAM

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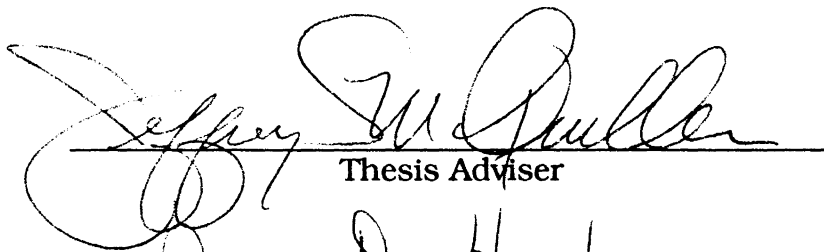
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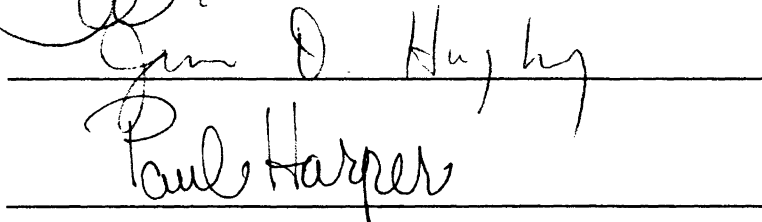
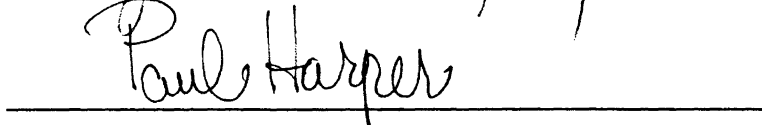
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## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION .....	1
Theory of Social Learning .....	4
Participative Learning .....	4
Compliance-Resistance .....	4
Communication Competence .....	6
II. REVIEW OF LITERATURE AND RATIONALE .....	9
Prevention Programs .....	9
WHO Program .....	10
WHO Program Instructional Objectives .....	10
Four Levels of the WHO Program .....	10
Piaget's Cognitive Development Theory .....	11
Child Assault Prevention Project .....	14
Children's Awareness Training .....	15
Talking About Touching .....	16
Proposal .....	17
III. METHODS .....	21
Subjects .....	21
Variables .....	22
Instrumentation Development .....	23
Procedures .....	25
Coding .....	26
Data Analysis .....	27
IV. RESULTS AND ANALYSIS .....	29
Independent t-Tests .....	31
Analysis of Differences between Groups on Composite Test Scores .....	31
Analysis of Differences between Groups by WHO Sections .....	31
Analysis of Differences between Groups on Comprehension Items .....	33

Chapter	Page
Comprehension Items Related to the Five Areas of the WHO Program . . . . .	33
Analysis of Differences between Groups on Application Items . . . . .	34
Analysis of Differences between Groups on Application Items Related to the Five Areas of the WHO Program . . . . .	35
Paired t-Tests . . . . .	36
Trained Subjects . . . . .	36
Analysis of Trained Subjects' Scores on Comprehension Items . . . . .	37
Analysis of Trained Subjects' Scores on Application Items . . . . .	37
Analysis of Untrained Subjects . . . . .	38
Analysis of Untrained Subjects' Scores on Comprehension Items . . . . .	39
Analysis of Untrained Subjects' Scores on Applications Items . . . . .	39
V. DISCUSSION . . . . .	40
Limitations . . . . .	46
REFERENCES . . . . .	49
APPENDIXES . . . . .	53
Appendix A - WHO Application Questionnaire . . . . .	54
Appendix B - Permission Letter . . . . .	57
Appendix C - List of Tables . . . . .	60

LIST OF TABLES

	Page
I. Analysis of Differences Between Groups on Overall Test Scores . . . . .	63
II. Analysis of Differences Between Groups on Comprehension Items . . . . .	64
III. Analysis of Differences Between Groups on Applications Items . . . . .	65
IV. Analysis of Trained Subjects on Comprehension Items . . . .	66
V. Analysis of Trained Subjects on Application Items . . . . .	67
VI. Analysis of Untrained Subjects on Comprehension Items. . .	68
VII. Analysis of Untrained Subjects on Application Items . . . . .	69

## **CHAPTER I**

### **INTRODUCTION**

"Just say no," the slogan former First Lady Nancy Reagan used in the media to promote her anti-drug campaign, typifies the perspective adapted by many campaigns and programs designed to encourage children to resist use of drugs and other dangerous situations. While the intention of the slogan is commendable, it is also incomplete because it oversimplifies the process of resistance by providing only one very general verbal strategy and giving little or no instruction or advice on how to modify that strategy to meet the demands of specific contexts. To build adequate resistance in high-risk situations, reference to when and how to say no must also be included in any campaign or program. The basis of resistance-based programs are to instruct potential victims how to recognize high-risk situations and how to successfully avoid compliance in these situations.

The present research explores the impact of compliance-resistance based prevention programs on children's ability to cope with victimizing situations. Resistance based prevention programs are educational programs targeted toward individuals confronted with situations in which they must recognize and resist potentially harmful behaviors. The study focuses on examining children's ability to



effectively apply information learned in prevention programs, as opposed to their rote memorization of the program's content. Specifically, the purpose of the investigation is to test children's ability to apply compliance-resistance skills learned in a specific prevention program.

The ability to apply information as opposed to one's comprehension of information is a crucial aspect of this research. It is not enough for one to learn information. One must also become competent in applying that information in appropriate situations. Circumstances targeted in the resistance-based programs are high-risk situations. High-risk is defined as any threatening or victimizing situation in which the victim has little control. While it is impossible to address all the elements that can be present in high-risk situations, prevention programs provide guidelines that can be applied across a broad range of threatening situations. According to Kenning (1985), "Experience of clinicians working with child victims suggests that many children could have been spared substantial suffering if they had processed simple pieces of information about their right to refuse sexual advances, whom to appeal to when problems arise, or the inappropriateness of some adult behavior" (p. 18).

Research on sexual abuse supports bolstering resistance of the victim as an effective method for decreasing abuse (Kenning 1985). It has been argued that children receive inadequate information on child sexual abuse, or may receive adequate information too late to be utilized effectively (Finkelhor, 1984). Intervention efforts in child sexual abuse cases indicate that children might have been able to protect themselves from victimization if they had possessed information about resistance

strategies (Finkelhor & Araji, 1983). Finkelhor (1984) further argues that in order for abuse to occur four conditions must be met: 1) the potential offender must have some motivation to abuse, 2) the potential offender must have overcome internal inhibition, 3) the potential offender must behave contrary to societal impediments, and 4) the potential offender must subdue the victim's resistance. In fact, all of these conditions are necessary criteria for abuse to occur. The elimination of any one should hinder the possibility of abuse. Prevention programs target the fourth condition by strengthening the victim's resistance. These programs strive to make it more difficult for the offender to overcome the victim's resistance, thereby impeding successful victimization.

There are three components that are necessary to the effective implementation of prevention programs: 1) the method of instruction that stresses participative learning, 2) instruction of compliance-resistance skills, and 3) competency in effectively applying compliance-resistance skills.

The methods in which prevention programs are presented have an impact on the effectiveness of the program. Education has traditionally emphasized the teacher-sender/student-receiver style of instruction. In this type of instruction, the student then is required to reproduce this information upon request. This type of learning process is effective when the desired outcome is the acquisition of cognitive objectives; however, it may not be the most effective method for enhancing a student's ability to apply information appropriately to specific situational demands. Participative learning and simulation facilitate the instructional objectives of the program, which are based on

the principle of educating potential victims about resistance skills and providing information to competently apply those skills in high-risk situations. According to Bandura's (1977) theory of social learning, there is no real learning unless acquisition is realized in performance. Learning is not effective if the learner is not motivated to apply the information after it is acquired. Thus, learning effectiveness is improved when the student is actively involved in the learning process. If an operational setting is implemented and the student is motivated to participate in the process, then the acquisition of knowledge will advance more quickly and an increase in retention will result.

While student participation facilitates the instructional process of prevention programs, compliance-resistance and communication competence provide the foundation for the content of the programs. The victim's ability to resist is a primary factor in the prevention of abuse. A substantial body of research has been conducted on compliance-resistance (Flay, 1985; Thompson, 1978; Tobler, 1987; Rorbach, 1987; McQuillen & Higgenbotham, 1984; Gilchrest & Schnike, 1984) which focuses on the action and resources available to the receiver in a persuasive situation. The findings of this research indicate that resistance is not a self-initiated process, but rather a process that results from the incongruous relationship between the intent of the agent of the message and the compliance of the receiver (McQuillen & Higgenbotham, 1984). The emphasis in compliance resistance is on the person being persuaded and his/her ability to resist the persuasive message. It can therefore be viewed as "reflexive persuasion" (McQuillen et. al., 1984).

Compliance-resistance researchers have studied intervention programs which focus on early-stage adolescents and the social pressure to smoke cigarettes. According to Flay (1985), Thompson (1978), and Tobler (1987) these intervention programs reduced the onset of smoking in early stage adolescents by an average of 50 percent. This study tested two groups of students' ability to resist peer pressure to smoke. The first group of students received only information that smoking was a health risk. These results suggest that simply telling students that smoking or any other high-risk situation is dangerous or harmful is insufficient; students also need to be taught skills that can help them resist compliance in those situations.

A study conducted by Gilchrest and Schinke (1984) found that students who had received refusal skills training performed better on a composite index of resistance behavioral ratings, than did students who did not receive training or received only information without skills training. Rorbach (1987) found that training in resistance skills increased teenagers' ability to resist pressures to smoke. These studies indicate that telling students smoking or any other high-risk situation is dangerous is not sufficient. Students need to be taught skills that can help them resist peer pressure situations.

The successful application of knowledge about compliance-resistance strategies to specific contexts marks the ultimate step in resistance-based prevention programs. According to Spitzberg and Cupach (1984) communicative competence entails both knowledge, or knowing what to say or do in a specific situation; and skill, or the actual performance of what one has learned. Situational characteristics provide important information that can assist the student in making an

appropriate message choice. In fact, the appropriate application of knowledge about a specific context when formulating a compliance-resistance message can determine how effective that message is. Since these characteristics vary across contexts, behavioral flexibility (Wiemann, 1977; and Kelly, 1974) and communicative adaptability (Duran, 1983) play a vital role in the students' communicative competence in compliance-resistance situations. According to Higgenbotham (1984), "Flexibility seems to be a key element in acquiring communicative competence. Life more or less continuously places us in new situations and casts us in new roles. The measure of our communicative competence lies in our ability to recognize and adapt to the communication demands of each situation" (p. 5).

Prevention is an issue relevant to many modern instructional settings. As society becomes more complex and threatening, the need to teach people to protect themselves effectively increases. In the case of prevention programs the acquisition of knowledge is not enough, but rather the appropriate and effective implementation of that knowledge is required.

A great amount of effort and planning has gone into the development of prevention programs in general; however, most programs do target specific areas of victimization. There are programs that focus primarily on family violence, while others deal with sexual assault. Brassard, Tyler, and Kehle (1984) make the point that today's prevention programs are in "marked contrast to the education programs of the past in which children were warned about dangerous strangers" (p. 20). It is the intention of current programs to make children aware that potential offenders include those people whom they may know well

and like. These programs have attempted to give children alternatives for action in any victimizing situation. However, there is a need not addressed in the planning of these programs; the need to test the programs to ensure that they are in fact accomplishing their objectives. The lack of empirical research evaluating the effectiveness of resistance-based programs is acknowledged by professionals in the field (Wurtele, 1987; Conte, 1985; Peraino, 1985; Garbarino, 1986; Fryer et. al., 1987).

The rationale for resistance-based programs is that children who are provided with resistance training are better able to protect themselves in victimizing situations than children who have not been exposed to such training. However, little research is available that adequately justifies that assumption. The majority of the research examines subjects' recognition/retention of the program's content. While recognition or retention of information is necessary to the instructional process, it is a necessary but not sufficient condition for effective resistance. To effectively resist victimization, children must be able to apply information. Therefore, testing the retention of information does not address the critical issue of prevention programs. The issue which must be addressed is the ability of children to apply knowledge to real life threatening situations.

In an attempt to address this issue, the present study examines the effectiveness of a resistance-based program by testing the differences in subjects that have received resistance training ability to apply resistance skills, as compared to subjects who have not been exposed to resistance skills training. The resistance-based training program that is addressed in this study is the WHO (We Help Ourselves) program. The WHO Program is an anti-victimization program for

children of pre-school to high school ages. The program concentrates on physical, emotional, and sexual abuse. It is the purpose of this study to test the ability of students who have seen the WHO program to effectively apply compliance-resistance strategies in appropriate situations.

## **CHAPTER II**

### **REVIEW OF LITERATURE AND RATIONALE**

Crimes against children are pervasive in today's society, and children are vulnerable to victimization at all ages (Kenning, 1985). The hope for children and their safety lies in bringing victimization "out of the closet" and providing resources to help them (Kemp and Kemp, 1984). This serious social problem has warranted research attention from psychologists and educators, thereby opening new avenues of research concerning the understanding and development of information necessary to reduce the incidence of abuse and neglect of children. This research has resulted in the development of prevention programs which target children as their clientele. This new "open door" policy makes it possible to apply research and theory to ecologically valid "real life" situations.

There are two types of prevention programs necessary to address the problem of victimization of children. The first type of program emphasizes primary prevention. These programs are designed to target the general population. Primary prevention programs stress the goal of preventing abuse before it occurs by educating or identifying the potential abuser. Although it is critical to provide counseling to potential abusers, there is another population that must not be ignored--the potential victim. Secondary prevention focuses on the potential



victims of abuse, children. Secondary prevention programs are school-based; implemented in the schools by trained personnel or trained staff from outside resources such as the Department of Human Services, Youth and Family Services, and County Health Centers.

An example of a secondary prevention program is the WHO (We Help Ourselves) program. In theory, the WHO program is a training program that makes children aware of abusive signals and suggests appropriate words to use and people to contact for help. By preparing children in advance, the program hopes to avoid or at least reduce the seriousness of the consequences of harmful, or abusive situations. Specifically, the WHO program attempts to bolster children's resistance as a method of defending themselves from abuse. Accordingly, resistance is viewed as the primary method of intervention (Ingmundson, 1988).

There are four levels of the WHO program which are segmented by age and cognitive development. The first level is developed for kindergarten through third grade, and the second level is developed for fourth through sixth grade. Both levels deal with similar subject matter; however, the content is adapted to the cognitive development of the target audience. The third and fourth levels of the program are targeted toward junior high and high school students, respectively. The content of these presentations contain more sophisticated predicaments and incorporate more discussion of video-taped scenarios. Issues more salient to the junior high and high school programs include peer pressure, running away, dating abuse, and suicide.

The WHO program constructs each level of the program in accordance with the cognitive levels suggested by Piaget's Cognitive

Development Theory. The major emphasis of Piaget's Taxonomy is the child's developing knowledge of the physical world. Piaget (1954) proposed four developmental stages of learning. The sensorimotor stage stresses the shift of reflexive behaviors into goal-oriented, trial and error exploration; while the pre-operational stage involves learning that is unidimensional and controlled by immediate perceptions rather than reason. In the concrete-operational stage, learning is restricted to reasoning about the "real" world and does not entail abstract or hypothetical analysis. Finally, in the formal-operational stage, learning is characterized by logical thinking about abstract ideas (Cowan, 1978).

The levels of the WHO program coincide with the concrete-operational and formal-operational developmental stages of Piaget's Taxonomy. A distinguishing factor between concrete-operational and the preceding stages is the child's ability to adapt communication behavior to the listener's perspective. This ability to take into account the perspective of another person develops as the child interacts over time with a variety of people in different situations. The progressive complexity of perspective-taking or role-taking is a critical element in the learning of resistance-strategies. Role-taking is necessary to implement effective resistance strategies because children must be able to take into consideration the thoughts, intentions, and actions of another individual. Therefore, the cognitive ability to interpret social contexts from various perspectives is a necessary precursor to the construction of adaptive communication strategies.

To instruct students adequately in resistance skills training the prevention program presents information adapted to the students' cognitive level. In the WHO program, information contains situational

elements which can be understood from the experimental base of a particular age group of children. Wordings of resistance strategies are also unambiguous and constructed from that vocabulary appropriate to the child's ability. To further facilitate understanding of the program, each presentation relies on a videotaped scenario and student interaction with a trained presenter. This type of instructional process requires the child to react to elements that exist in actual high-risk situations. The scenarios are designed to require the child to rationalize the best course of action based on their repertoire of resistance-strategies.

Due to the number and variety of programs which reach thousands of children each year, research is essential. Evaluative research must be conducted to ascertain the effects of these programs in altering behavior in high-risk situations. WHO program developers recognize the lack of empirical support for the program. However, insufficient research is not a problem restricted to only the WHO program but to prevention programs in general (Ingmundson, 1988). Highlighting this deficiency, Wurtele (1987) commented that there is a "dearth of controlled efforts at evaluating the effectiveness of such resistance programs, relative to the panoply of teaching materials available." This point is echoed by other investigators in the field (Conte et. al., 1985; Peraino, 1985; Garbarino, 1986; Fryer et. al., 1987).

The lack of empirical research testing on the changes in behavior as a result of information presented in prevention programs is directly related to the WHO program. Previous research testing the effectiveness of the WHO program indicated comprehension of the program's objectives but did not address the applications of those objectives.

Studies conducted by Peraino (1985) and Ingmundson (1986) indicated that students recall information from the program, but provided no evidence of transference of information into effective resistance behaviors. This lack of evidence is in part a function of the methodology used in both studies. The measuring instrument maximized rather than minimized "rote" memorization. Items were worded exactly as presented in the instructional program and references to characters in the instructional video were included in the items. Due to the similarity between the techniques used to train the children and the formatting of the questions used to test the children, the studies appear to have tested comprehension and memory of subjects but did not require that subjects' ability to apply information from the program.

The ideal situation for testing the ability of students to apply the principles of prevention programs is in the real world. By testing children under conditions similar to those in actual abusive encounters, claims could be drawn concerning the relation between instruction and behavioral change. Poche, Brower, and Swearigne (1981) conducted a study approximating "real world" circumstances. In this study, confederate adults approached three preschool children who had been taught self-protection skills. All three children responded appropriately to verbal victimization attempts. However, in a follow-up study, only one of the children demonstrated retention of appropriate self-protection skills.

The Poche et. al. (1981) study was criticized on ethical concerns for putting children in actual threatening situations. However ideal it may be to test in the real world, the first concern must be the welfare of

the children. Therefore, the logical alternative to real world exposure is to develop tests and testing procedures that maximize the possibility of getting valid responses, but also minimize the threat to the subjects.

Less controversial methodology has been employed to test the results of prevention programs. However, these studies indicate a tendency to focus on information retention rather than the demonstration of resistance skills. Conte, Rosen, Saperstein, and Shermack (1938) evaluated a sexual abuse prevention program using a 17-item questionnaire to test students' knowledge of prevention concepts. The 40 children, ranging in ages from 4 to 10, who participated in the classes were found to possess significantly more knowledge about sexual victimization prevention than those who did not participate in the classes. No evaluation of the children's abilities to apply these skills was conducted.

In another study, Wall (1983) surveyed 107 fourth and fifth graders in a California school district following a Child Assault Prevention project. A paper-and-pencil forced-choice format was utilized. Testing conducted two to four weeks after the presentation of the program indicated that only 10% of those sampled remembered specific personal safety information presented in the program. This indicates not only a lack of retention of information by the students, but also an inability to apply these personal safety rules in appropriate situations. According to Bloom (1956) comprehension of information must take place before a student can apply it to a new situation. Accordingly, if students were unable to recall safety information, it is unlikely this program provided students with viable resistance strategies.

In addition, Overvold (1984) and Lutter (1985) conducted studies evaluating the Children's Awareness Training program which is designed to increase children's knowledge of good and bad touch, to increase appropriate assertive behaviors in victimizing situations, and to increase children's reporting of sexual abuse. This program follows a four-hour curriculum presented by adult leaders to 6 to 17-year-old youth organization members. For evaluative purposes, children were divided into three groups: 6-8 years old, 9-12 years old, and 13-17 years old. Testing involved pre and post testing which implemented a questionnaire and a structured interview. Results indicated that children retain information on touching and resources for help, but it was not clear if children became more assertive as a result of the program. The program seemed less helpful in developing assertive behaviors in the more mature children, but more effective with young children.

The studies reviewed provide information concerning students' abilities to retain and comprehend information; however, they do not provide any evidence that the programs provide a change in behavior. The weakness in these studies is that the instruments used to measure students' abilities were not designed to test application. Rather, the instruments employed in the studies were designed to test recognition and comprehension of information presented in the context of resistance-based programs. The results of these investigations are consistent with Ingmundson (1988), Conte et. al., (1985), and Peraino (1985) who cite research that has been conducted on existing prevention programs. According to the research reviewed by these scholars, subjects of prevention programs tend to retain information

presented in the programs, but there is no evidence to support any significant correlation to changes in behavior. These authors also argue a need to develop testing procedures strong enough to identify the relationship between programs' content and results in behavioral change. In an attempt to address this limitation of previous prevention programs' research, Dower (1984) conducted a study on the Talking About Touching (TAT) program.

TAT is a prevention program designed to increase elementary school children's knowledge of personal safety and their ability to solve problems in situations concerning their personal safety. The program also seeks to increase assertiveness skills (Downer, 1984).

Research conducted by Downer (1984) on the TAT program indicated a significant relationship between general knowledge of personal safety and appropriately applied behaviors. The study utilized pre and post interviews with 13 control and 14 experimental subjects. In the interview, Downer utilized puppets and story cards about children in potentially victimizing situations which required the subject to participate in a role-play situation. The implementation of personal safety behaviors in the role-play situation validated subjects' ability to apply learned information about personal safety into appropriate behavior. Bandura (1969) and Corsini and Cordone (1966) support the parallel between role-play *and* behavioral change. In fact, these researchers define role-play as representative of knowledge translated into behavioral skills and generalized to imaginary scenes.

## RESEARCH PROPOSAL

Given the available empirical data on child prevention programs, two general conclusions may be drawn. First, the testing of prevention programs must be conducted giving special attention to the ethical and practical concerns of the subjects. Since the subjects are children, primary concern is given to the protection of their mental health and physical safety. Therefore, less obtrusive measures must be employed. Second, merely testing recognition or requiring students to know information is insufficient for evaluation of the effectiveness of resistance-based programs. Measurement techniques must be realistic enough to include instruments that provide a means of detecting the transferability of information into behavioral change or implementation.

The ability to transfer information presented in prevention programs to novel or "real life" situations is the key to prevention. The rationale of the WHO program states that its goal is to "train the groups at risk by providing proper strategies that may assist children in the development and expansion of the responsibility for their own safety and health" (Peraino, 1985). According to this objective, a child who learns concepts and generalizations is equipped to transfer training to problem situations. The key to transference of training resides in the child's ability to apply acquired resistance information to "new" situations. Therefore, the effectiveness of a prevention program is dependent on the student's ability to transfer strategic resistance skills to situations not presented in the learning process.

The present investigation will address only the K-3rd portion of the WHO program. First, by addressing the most primary level of the



program, testing will provide basic understanding of the program's effectiveness that can be vital to the testing of other levels of the program. Furthermore, children in kindergarten through third grade are less likely to have come into contact with extraneous sources of information concerning resistance and victimization; this lack of contamination attempts to ensure a more direct link between the content of the WHO program and effective application. By targeting and testing the WHO program, this study seeks not only to examine the effectiveness of students receiving resistance training, but also to increase awareness that this type of programmatic training is imperative.

The purpose of this study is to provide empirical evidence of the effectiveness of the WHO program. Specifically, the resistance of students who have received the WHO program will be compared to the resistance skills of students who have not received the program. For this purpose, the WHO Application Questionnaire was developed to measure the effectiveness of students' resistance skills.

In attempting to determine the effectiveness of prevention programs to train children in resistance behaviors, the current study poses the following hypothesis:

- H1. A. Subjects who received WHO program training will demonstrate more effective resistance skills on composite items than subjects who have not received the program.
- H1. B. Subjects who have received WHO program training will demonstrate more effective resistance skills on test items related to strangers, hurts, secrets, touch, and emotional abuse than subjects who have not received program training.

- H2. A. Subjects who have received WHO program training will demonstrate more effective resistance skills on comprehension items than subjects who have not received the program.
- H2. B. Subjects who have received WHO program training will demonstrate more effective resistance skills on comprehension test items on strangers, hurts, secrets, touch, and emotional abuse than subjects who have not received the program.
- H3. A. Subjects who have received WHO program training will demonstrate more effective resistance skills on application items than subjects who have not received the program.
- H3. B. Subjects who have received WHO program training will demonstrate more effective resistance skills on application test items on strangers, hurts, secrets, touch, and emotional abuse than subjects who have not received the program.
- H4. A. Subjects who have received WHO program training will demonstrate a significant difference between resistance skills on comprehension and application items.
- H4. B. Subjects who have received WHO program training will demonstrate effective resistance skills on all comprehension test items related to the areas of strangers, hurts, secrets, touch, and emotional abuse.
- H4. C. Subjects who have received WHO program training will demonstrate effective resistance skills on all application test items related to the areas of strangers, hurts, secrets, touch, and emotional abuse.

- H5. A. Subjects who have not received WHO program training will not demonstrate a significant difference between resistance skills on comprehension and application items.
- H5 B. Subjects who have not received WHO program training will not demonstrate effective resistance skills on all comprehension test items related to the areas of strangers, hurts, secrets, touch, and emotional abuse.
- H5 C. Subjects who have not received WHO program training will not demonstrate effective resistance skills on all application test items related to the areas of strangers, hurts, secrets, touch, and emotional abuse.

## **CHAPTER III**

### **METHODS**

This investigation involved participants in the kindergarten through third grade level of the WHO program. By addressing the most primary level of the program, testing provided a basic understanding of the program's effectiveness that can be vital to testing higher levels of the program. Furthermore, children in these grades are less likely to have come into contact with extraneous sources of information concerning resistance and victimization. This lack of contamination may permit a more direct conclusion about the link between the content of the WHO program and its effective application.

### **SUBJECTS**

The subjects for this study were 30 children from the south-central area of Oklahoma. A convenience sample was used based on children's exposure or non-exposure to the WHO program and parental permission. The sample was limited to children ranging in age from 5 to 9 years old. Fifteen children had been exposed to the program, 15 had not. Eighteen were males and 12 were females. The mean age for the sample was 7.3.

## VARIABLES

For this study one independent variable, resistance training was employed. This variable consisted of two levels: 1) subjects exposed to the WHO program, and 2) subjects not exposed to the WHO program. The dependent variable for this study was the effectiveness of the WHO program, which was operationalized as the scores on the WHO Application Questionnaire, a test developed by the author to measure both the comprehension of resistance strategies and subjects' ability to apply those strategies.

### INDEPENDENT VARIABLE

Resistance training was operationalized as exposure to the WHO program. Subjects were assigned to the experimental and control group based on previous exposure to the WHO program. Both the experimental and control group contained 15 subjects. The experimental group consisted of 8 males and 7 female subjects. In the control group 10 subjects were male and 5 subjects were female. The mean age for both groups was 7.3

### DEPENDENT VARIABLE

The effectiveness of the WHO ((We Help Ourselves) prevention program was operationalized as scores on a 46-item test. The test used in this study was the WHO Application Questionnaire. This test was

developed to measure both comprehension resistance strategies and the ability to apply the strategies. Low scores indicate effectiveness and high scores indicate ineffectiveness.

## INSTRUMENTATION DEVELOPMENT

### "WHO Application Questionnaire"

The WHO Application Questionnaire (WAQ) was developed to test the effectiveness of students in applying resistance skills presented in the WHO program. The WHO Application Questionnaire addressed the three WHO objectives of verbal resistance, action, and report. The items referenced new situations or elements other than those contained in the WHO presentations; thereby emphasizing Bloom's criteria for application. The wording of items was consistent with the cognitive developmental stages suggested by Piaget.

Specifically, the questionnaire consisted of 46 items based on the five topics presented in the WHO program: Strangers, Physical Hurts, Emotional Hurts, Secrets, and Touches. A series of items were developed for each of the topics. The initial question for each section asked for a definition or a term. Subsequent questions were application in nature. The application items required the subject to apply the WHO program's instructional objectives to situations similar in concept to those situations presented in the program, but different in their supporting details. This four-item pattern of questions was repeated with a slight variance in content for each same topic area, resulting in eight questions per topic (i.e., Strangers, Physical Hurts, Emotional

Hurts, Secrets, Touches). The second set of questions was employed to provide a method for checking the reliability of subjects' responses.

The conceptual distinction between comprehension and application was used as a basis for the development of two different types of questions. "A problem in the comprehension category requires the student to know an abstraction well enough that he/she could correctly demonstrate its use when specifically asked to do so." (Bloom, 1956, p.20) In addition, application questions require a student to show that he/she can use the abstraction correctly in a novel situation. Comprehension demonstrates that the student can use the abstraction when its use is specified.

Bloom (1956) describes the application category in terms of the objectives of the testing situation. To construct questions of application, situations must either be new to the student or contain new elements which differ from the situation in which the abstraction was learned. "If the situation presented the student to test 'application' are old ones in which he/she originally learned the meaning of the abstraction, the student does not have to 'apply' the abstraction. Rather, he/she needs merely to recall the original situation in which he/she learned the abstraction, a behavior *herein* classified as knowledge or a level of comprehension. This is likely to mean that the problem must either a) be posed in a situation that is fictional, b) be one which is drawn from material with which the student is not likely to have yet had contact, or c) be on a problem known to the student but with a new slant that he/she is unlikely to have thought of previously. Ideally, we are seeking a problem which will test the extent to which the

individual has learned to apply the abstraction in a practical way" (Bloom, 1956, p. 26).

Validity of the instrument was established by employing expert raters to evaluate items. Expert raters coded items as either comprehension or application in nature. Results of this analysis indicated 85% agreement on comprehension items and 90% agreement on application items.

A Cronbach's Alpha procedure was performed to test the internal consistency among the 46 items. This procedure provides a reliable index correlating two characteristics. First each item is positively correlated with the overall score. Second all possible split half index scores of these items are correlated on the scale of each item if that item was deleted. On the basis of output the questionnaire demonstrates an acceptable overall split half correlation ( $\alpha = .8621$ ). Item 28 is the only item that if deleted would improve the internal consistency any significant amount. This item's alpha level indicated the responses were not consistent. The item's objective was to have the subject respond that they would tell someone even if they were unsure if the situation was abusive or not abusive.

## PROCEDURES

All children were brought individually to a small private room and interviewed by a single interviewer. The interviewer introduced herself and explained that the study was related to the information he/she received from the WHO program, or in the case of the control group, about avoiding harmful situations.



The subject was seated at a small table and informed that the session would be tape-recorded. To put the subject at ease with the tape-recorder, each was asked to say or sing the alphabet. After the subject completed this task, the interviewer played the tape back for them to hear. When the subjects were observed to be comfortable, each was asked a number of demographic questions. The WHO Application Questionnaire was then presented orally by the interviewer. Oral testing was used in order that when necessary, some items could be elaborated on or rephrased to facilitate the students' understanding of the test items.

Upon completion of the session, debriefing or correction of misinformation was provided by the researcher. Inaccurate responses such as "it is wrong to resist an adult who is abusing you," were corrected by the interviewer after the completion of the questionnaire. Debriefing consisted of reviewing the instructional objectives of the WHO program; say no, get away, and tell someone.

These procedures were repeated for each subject. Items in the WHO Application Questionnaire were also presented in a constant pattern. A minimal amount of deviation was allowed to clarify test items and subjects' responses.

## CODING

The responses of each subject were transcribed into manuscript form and coded by three of eight expert raters, who were asked to rate each subject's response on a scale of 1 (most accurate) to 5 (least accurate). These three judgments were averaged, and the mean rating

was used as the subjects scores for each item. Thus, a subject's score could range from 37 to 185. The reliability of the raters' judgments was checked by comparing the ratings of the three experts who judged any particular response from any particular subject. All of the eight expert raters were trained WHO program presenters, who were selected on the basis of their extensive experience as a presenter/trainer of the program, and an educational background in either education or counseling. Each response was judged on the basis of the WHO program's instructional objectives; accurate definition of the term, verbal resistance, action, and reporting.

Reliability was checked by comparing the scoring of the researcher with two additional coders. These three ratings were averaged and the mean was used as the score for each item.

## DATA ANALYSIS

To test the possible effects that the WHO Program had on subjects, scores on the WAQ, a series of independent t-test were employed. The results of these tests were used to examine the effectiveness of the WHO program.

The first set of t-tests analyzed the differences between the WHO trained group and the untrained group on the test composite score and for the composite scores for comprehension and application. The second set of t-tests analyzed between group differences on the five sections of the WAQ: strangers, hurts, secrets, touches, and emotional abuse. A third set of t-test analyzed differences between trained and

untrained subjects on the comprehension and application items for each of the five sections of the WAQ.

Finally, a series of paired t-tests analyzed the differences within each group on the five separate topics of the test. Differences on comprehension and application items were also addressed for each group separately. Comprehension items were first compared between the five areas for each group, application items were also similarly compared.

## **CHAPTER IV**

### **RESULTS AND ANALYSIS**

Five major hypotheses each with a sub-hypothesis(es) were posed as the basis of this study. The first hypothesis of the study proposed subjects who received WHO program training would demonstrate more effective resistance skills on composite items than subjects who had not received the program. The sub-hypothesis addressed the comparison of composite scores on the five areas of the programs between students who had resistance-training and students with no resistance training. The two remaining hypotheses and sub-hypotheses addressed scores of students on comprehension and application items respectively. Effective resistance skills were compared on comprehension items between trained and untrained groups. The sub-hypothesis addressed differences between groups on comprehension scores according to the five areas of the program. The third hypothesis addressed trained subjects' effective resistance skills on application items as compared to students not exposed to the program. The sub-hypothesis addressed trained students' ability to apply the WHO program's objectives as compared to untrained students' skills on the five sections of the WHO program.

The fourth and fifth hypotheses addressed differences within each group on comprehension and application items. Differences within the

trained and untrained groups were first analyzed between comprehension and application items. Differences within the groups were also analyzed on comprehension items for each area of the program. The same analysis was also conducted within each group on application items and the five areas of the program.

The results of the data analysis are presented as follows: (1a) independent t-test differences on overall test scores between groups of trained and untrained children, b) independent t-test of differences between groups' scores on the five separate sections; (strangers, hurts, secrets, touches, and emotional abuse); and (2a) independent t-test of differences between groups on overall scores on comprehension items, and b) independent t-test of differences between groups on comprehension items within the five sections of the WHO program and (3a) independent t-test of between groups on overall scores on application items, b) independent t-test of differences between groups on application items within the five sections of the WHO program.

In addition, paired t-tests were employed to analyze differences within each individual group (trained and untrained) on: (1) overall effectiveness of responses on comprehension items as compared to application items, (2) a series of paired comparisons of comprehension responses on each section as compared to every other section, and (3) a series of paired comparisons of application items on each section of the WHO program.

## DESCRIPTION OF RESPONSES

### ANALYSIS OF DIFFERENCES BETWEEN GROUPS ON COMPOSITE TEST SCORES (H1.A)

Resistance skills were defined as the mean score of each group's responses to the WHO Application Questionnaire (WAQ). Lower scores on the WAQ indicate more effective resistance skills. **1 highest - 5 lowest.** A statistically significant difference in overall resistance skills was found between the trained and untrained groups. An independent t-test revealed subjects with resistance training produced significantly higher resistance skill ratings than subjects with no training ( $t(28) = 5.56, p < .05$ ). The trained group recorded a mean score of 65.67 as compared to a mean score of 92.60 recorded by the control group. This analysis supports the notion that subjects with resistance training display more sophisticated and effective resistance skills than subjects that have not received resistance training.

### ANALYSIS OF DIFFERENCES BETWEEN GROUPS BY WHO SECTIONS (H1.B)

The remaining hypothesis analyzed the five different concept areas that serve as the foundation for the WHO program. These five sections address the issues of strangers, physical abuse, secrets, sexual abuse, and emotional abuse. All sections except for secrets revealed statistically significant differences between groups. For a summary of the individual t-tests see Table I.

In the first section, Strangers, a statistically significant difference was found between the two groups ( $t(28) = 3.30, p < .05$ .) The trained group reported a mean score of 11.90 as compared to a mean score of 92.60 reported by the control group. This indicates trained subjects demonstrated more effective resistance skills toward strangers than untrained students.

In the section of Hurts, trained subjects' responses exhibited significantly higher effective scores than untrained subjects ( $t(28) = 4.43, p < .05$ ). Trained subjects' mean scores on Hurts was 12.72, while untrained subjects recorded a mean of 20.68. These findings illustrate trained subjects' superior abilities to implement resistance strategies when confronted with physical abuse.

A statistically significant difference was also found between trained and untrained subjects in the section of Touch ( $t(28) = 7.51, p < .05$ ). The mean score for subjects exposed to the WHO program was 11.12, and the mean score for the control was 19.90. According to these results, trained students were significantly better at resisting sexual abuse than untrained students.

Emotional abuse was the final section to show a significant difference between groups ( $t(28) = 3.43, p < .05$ ). WHO trained students exhibited a mean score of 17.44, as compared to a mean score of 22.54 for the control group. This analysis supports the assumption that trained students will exhibit more effective resistance skills when confronted with emotional abuse than untrained subjects.

Secrets was the only section which did not achieve a significant difference between groups. Mean scores for the trained and untrained groups differed only by a single point. Trained students reported a

mean score of 12.40 as compared to a mean score of 13.4 for untrained students.

#### ANALYSIS OF DIFFERENCES BETWEEN GROUPS ON COMPREHENSION ITEMS (H2.A)

To test the differences between trained and untrained subjects' ratings of comprehension, a composite score consisting of all ratings for comprehension questions was computed. Groups' means were used to compare composite comprehension effectiveness. Generally, trained subjects had more effective scores on comprehension items than untrained subjects. The mean score for trained students was 16.02 as compared to a mean score of 21.09 for the control group ( $t(28) = 5.90, p < .05$ ). TABLE II

#### ANALYSIS OF DIFFERENCES BETWEEN GROUPS ON COMPREHENSION ITEMS RELATED TO THE FIVE AREAS OF THE WHO PROGRAM (H2. B)

To examine differences in comprehension effectiveness in the five major areas of the WHO program, comprehension items were separated and totaled. Means for each area were compared between the trained and untrained groups. Section by section analysis of comprehension items showed statistically significant differences existed between trained and untrained groups in the sections of Strangers ( $t(28) = 2.28, p < .05$ ), Hurts ( $t(28) = 2.71, p < .05$ ), and Touch ( $t(28) = 2.42, p < .05$ ). These results support the notion that trained subjects perform better than



untrained subjects when confronted with high risk involving strangers, physical abuse, or sexual abuse.

Although significant differences were not demonstrated in the areas of Secrets and Emotional Abuse, a number of interesting tendencies were discovered. In the section addressing Secrets, trained subjects gave slightly more effective responses on comprehension items than untrained subjects. However, these differences did not achieve statistical confirmation. Cell means for comprehension items were 2.26 for trained subjects and 3.26 for untrained subjects ( $t(28) = 1.95, p < .05$ ). The area of Emotional Abuse also did not achieve statistical confirmation. Mean scores for trained and untrained subjects were 4.40 and 4.30 respectively ( $t(38) = 0.32, p < .05$ ). Little difference was found between groups on the ability to comprehend resistance skills information for this particular area.

#### ANALYSIS OF DIFFERENCES BETWEEN GROUPS ON APPLICATION ITEMS (H3. A)

To test the effectiveness between trained and untrained subjects' rating of application skills, a composite score consisting of all ratings for application items was computed. This analysis found statistically significant differences between trained and untrained subjects in their ability to respond effectively to questions requiring them to apply resistance skills information. Trained subjects demonstrated more effective resistance skills on overall application items than untrained subjects ( $t(28) = 5.90, p < .05$ ).

### ANALYSIS OF DIFFERENCES BETWEEN GROUPS ON APPLICATION ITEMS RELATED TO THE FIVE AREAS OF THE WHO PROGRAM (H3.B)

To examine between groups on application effectiveness in the five major areas of the WHO program, application items related to each area were separated and analyzed. Trained subjects demonstrated more effective application of resistance skills in the areas of Hurts ( $t(28) = 4.36, p < .05$ ), Touch ( $t(28) = 6.84, p < .05$ ), and Emotional Abuse ( $t(28) = 3.43, p < .05$ ). These results maintain the assumption that trained subjects respond more effectively to questions requiring them to apply resistance skills information associated with physical, sexual, or emotional abuse. Statistical confirmation was not found in the areas of Strangers and Secrets. (See TABLE III)

In the section of Strangers, a significant difference was not found between groups in their ability to effectively apply resistance skills ( $t = 1.88$  df 28  $p > .05$ ). However, trained subjects tended to report more effective responses than untrained subjects. Trained subjects reported a mean score of 8 as compared to a mean score of 10 reported by untrained subjects.

A statistical difference was not found for application items in the section of Secrets; however, a surprising tendency was revealed. On application items in this section, untrained subjects achieved higher effective ratings than trained subjects ( $t = 1.38$  df 28  $p > .05$ ). Trained subjects recorded a mean of 11.20 and untrained subjects reported a mean of 9.20. These results suggest that untrained subjects are more able to effectively apply resistance skills in response to the area of Secrets than trained subjects.

## SUMMARY OF INDEPENDENT T-TESTS

Overall, hypotheses projecting higher performance by trained subjects on the entire test and on individual sections of the test were confirmed except for the section on Secrets and Emotional Abuse. Hypotheses suggesting higher performance by trained subjects on comprehension and higher performance in application were also confirmed. Trained and untrained subjects demonstrated equal comprehension of Emotional Abuse, while in the category of Secrets untrained subjects demonstrated higher scores on applications items addressing resistance skills than trained subjects.

## PAIRED T-TESTS

### ANALYSIS OF TRAINED SUBJECTS (H5.A)

To test the differences within trained and untrained groups, paired tests were employed to examine each treatment group separately. The first analysis addressed trained subjects' responses on comprehension items as compared to application items. The second analysis compared scores on comprehension items between sections of the WHO program. The same comparison of sections was also performed for application items.

The subjects exposed to the WHO program demonstrated a significant difference between scores on comprehension items and scores on application items. The mean score for comprehension was

1.77 as compared to 2.31 on application items. This indicates trained subjects achieved more effective scores on comprehension items than on application items.

#### ANALYSIS OF TRAINED SUBJECTS ON COMPREHENSION ITEMS (H5.B)

A comparison of trained subjects' scores on comprehension items was also employed. These results indicate that trained students reported the most effective comprehension scores in the category of Touch. The least effective comprehension scores were reported in the area of Emotional Abuse. Statistically significant differences were reported between Emotional Abuse and the other four sections of the WHO program, with scores on Emotional Abuse items being less effective. (See TABLE IV)

#### ANALYSIS OF TRAINED SUBJECTS' SCORES TO APPLICATION ITEMS (H5.C)

A section by section analysis was also conducted on trained subjects' scores on application items. Trained subjects demonstrated the most effective application of resistance skills in the category of Strangers. However, scores on Strangers only achieved statistical confirmation in comparison to Hurts and Emotional Abuse. The least effectively applied resistance skills were found in the area of Emotional Abuse. (See TABLE V)

The analysis of trained subjects by sections on comprehension and application items reveal that trained subjects demonstrate the most effective comprehension of Touch, and are best able to effectively apply resistance skills in situations concerning Strangers. The area of Emotional Abuse reports the lowest level of comprehension by trained subjects and the least ability of these subjects to effectively apply resistance skills.

#### ANALYSIS OF UNTRAINED SUBJECTS' RESPONSES (H6.A)

Paired t-tests were also performed to analyze differences within the group not exposed to the WHO program. Analysis addressed differences between overall scores on comprehension and application items. Differences between sections on comprehension scores will be addressed separately than differences between sections on application scores.

The first analysis compared untrained subjects' responses on comprehension items to responses on application items. The subjects who had not been exposed to the WHO program did not demonstrate significant differences between scores on comprehension and application items( $t = 2.29$   $df 13$   $p < .05$ ).

#### ANALYSIS OF UNTRAINED SUBJECTS' SCORES ON COMPREHENSION ITEMS(H6.B)

Analysis also addressed differences within the untrained group on comprehension items related to the five areas of the WHO program.

Untrained subjects obtained the most effective comprehension scores on the section of Secrets. All comparisons between Secrets and the other four areas of the WHO program revealed statistically significant differences.

Subjects demonstrated the least effective comprehension score on the section of Emotional Abuse. Significant differences were indicated between this section and the sections of Secrets and Touch. (See TABLE VI)

#### ANALYSIS OF UNTRAINED SUBJECTS' SCORES ON APPLICATION ITEMS (H6.C)

Untrained subjects exhibited the most effective application of resistance strategies on the section of Strangers. Statistically significant differences were indicated between Strangers and the other four areas of the test. Physical Abuse was the section in which untrained subjects demonstrated the least effective application of resistance skills. (See TABLE VII)

The analysis of untrained subjects by sections on comprehension and application items revealed that untrained subjects reported the highest level of comprehension in the area of Secrets and the lowest level in the area of Emotional Abuse. Untrained students most effectively applied resistance strategies in the category of Strangers and least effectively in the category of Hurts.

## **CHAPTER V**

### **DISCUSSION**

This study was the initial step in determining the effectiveness of the WHO program in increasing students' ability to comprehend and apply resistance skills. The findings of the study suggest that in general students exposed to the WHO program do, in fact, possess more sophisticated resistance skills than children not exposed to the WHO program. To more specifically analyze students' abilities to resist potentially abusive situations, each student's resistance abilities was analyzed according to the five areas of the WHO program. This analysis provided insight into the effectiveness of the five areas of the program. The five conceptual areas deal with Strangers, Physical Abuse, Secrets, Sexual Abuse, and Emotional Abuse.

Hypotheses addressing better comprehension of resistance skills by trained students as compared to the control group were confirmed for the areas of Strangers, Hurts, and Touch. This confirms that the WHO program does effectively provide students with knowledge regarding appropriate resistance skills. Trained students' responses indicated an understanding of compliance-resistance strategies and how to apply these skills to appropriate situations. While both trained and untrained students acknowledged they would not get into a car with a stranger, the trained students were able to provide a definition of

a stranger, while the untrained students provided stereotypical definitions of a stranger as someone in dark clothing or a dark colored hat. WHO trained students were also able to go beyond comprehension of what a stranger is by applying resistance strategies of "say no," "getting away," and "telling someone."

The other hypotheses which were confirmed addressed Physical and Sexual Abuse. Trained children were again able to provide more accurate definitions and resistance skills. Inaccurate responses given by untrained subjects in these areas support the need to address the issue of victimization and prevention training. Items asking untrained subjects if it is okay to resist an adult who was hurting them were often answered with a negative response. Children might refuse to resist an adult abusing them due to fears of punishment or parental anger (Kenning, 1985). This refusal to resist adult behavior is one of the major obstacles a resistance program must address. The WHO program stresses that some adult behavior is inappropriate and it is okay for a child to resist in those situations if they are not sure the behavior is appropriate.

Hypotheses projecting better performance by trained students in the areas of Secrets and Emotional Abuse were not confirmed. Both of these areas are more conceptually abstract than the three previously discussed areas. Poor performance can be related to the abstract nature of the topics. These topics may be incongruent with the cognitive development of the child. Children at the ages tested were better able to understand the topics relating to concrete information such as individuals (strangers, teachers, etc.) or themselves (as in identifying the private parts of their body). Subjects were less able to



understand topics involving abstract information such as secrets (threats, surprises) or emotional abuse (personal attacks). These areas are more abstract in that the child could not draw a mental picture of what these terms referred to as well as they could with the other areas.

Secrets is addressed in the program in reference to physical and sexual abuse. The topic of Secrets is presented in this way because bribes or threats often accompany abuse as a way to keep a child from seeking help. Results of the study surprisingly show that untrained students are better able to apply resistance skills than trained students in the area of Secrets. However, these results are misleading because of the nature of the test item. The item from the WAQ was designed to address the topic of Secrets in the same manner as it is addressed in the program. The program distinguishes the differences between secrets and surprises. Items on the instrument asked subjects to provide an example of a secret and an example of a surprise. Subjects were not asked to apply the information to abusive situations, merely provide a definition distinguishing the difference between a secret and a surprise. All examples provided by students were positive. In reference to surprises children gave examples referring to Christmas presents, a new puppy, and surprise birthday parties. Secrets encouraged responses referring presents for family members and to games with playmates. Asking the subject to provide these examples did not reveal any knowledge based on information gained in the WHO program. These personal experiences were inherent regardless of exposure to the WHO program.

Emotional Abuse was the second topic area in which subjects had difficulty applying resistance skills. This difficulty can be attributed to

a lack of understanding of the material or the abstract nature of the topic. The collected data demonstrated that trained students achieved a higher level of application skills than untrained subjects, although both groups demonstrated low levels of comprehension of the subject. Typically, comprehension precedes application; however, one of the principles of the WHO program provides an explanation. The WHO program attempts to go beyond what has been traditionally taught in the home and in the schools by providing guidelines to identify high-risk situations. The program takes prevention a step further by providing phrases and actions for the child to use in these threatening situations. Thus, even though the data does not confirm the hypothesis, support for the WHO program can be established. The WHO trained students applied appropriate resistance strategies although they were unsure or did not understand the circumstances. This "false-positive" provides support that the program helps to prepare children to adapt resistance strategies to situations in which they are unsure or feel threatened.

Additional analysis was conducted on each group separately. The intention of this analysis was to determine strengths and weaknesses of each group within the five conceptual areas.

Trained subjects indicated few significant differences overall when addressing comprehension items. The most effective scores were found on Touch. This can be interpreted that the program provides clear conceptual understanding of sexual body parts and inappropriateness of some behavior involving the sexual parts of the body. Ineffective comprehension scores indicate trained students do not understand information concerning Emotional Abuse presented in the program.

Interpretation of these results indicates that current presentation of Emotional Abuse is confusing to students' level of cognitive development.

Untrained subjects exhibited high levels of comprehension in the section addressing Secrets. However, as stated earlier, results in this section do not represent a knowledge of resistance information but rather a reflection of the child's experience. The results are reflective of the material in the program. The instructional objective for Secrets requires the student to make a distinction between secrets and surprise. Items addressing Secrets on the WAQ were reflective of the program's instructional objectives. Test items must match instructional objectives if they are to measure achievement of those objectives (Mager, 1984). These results suggest a review of the instructional objective regarding the topic of Secrets would be appropriate.

Untrained students also demonstrated high application scores in the area of Strangers. High scores by untrained subjects can be attributed to the commonality of stranger information. Stranger safety is the most common of the five areas addressed in the program. It is a topic which has long been addressed in schools, churches, and at home (Brassard, Tyler, and Kehle, 1984). Most children know to verbally resist strangers, but often become confused when asked to identify strangers. This is the strength of prevention programs; they provide complete information about strangers so children know when to say "no."

In view of the current research, some tentative conclusions may be drawn. The most important of these is that prevention programs aid children in developing a repertoire of resistance strategies and a set of

guidelines to help recognize when to implement these strategies. Not only did children exposed to the WHO program exhibit a more specific knowledge of terms and definitions, but also an ability to take appropriate resistance actions as well.

Second, it can be concluded from this study that subjects exposed to the WHO program not only comprehended resistance information, but also demonstrated the abilities to apply this information in the form of resistance skills. These results are an encouraging factor to the development and evaluation of prevention programs. Results of this study also reinforce that application of information is the key to helping children learn to protect themselves. Responses of untrained students in the category of Strangers shows the necessity to concentrate on application. Untrained students possessed an understanding they should not to get into a car with a stranger; however, these untrained subjects did not possess verbal and nonverbal resistance strategies necessary to effective resistance when confronted with the situation. They also lacked an accurate definition of who a stranger could be, other than the stereotypical man wearing a "black hat".

Finally, effectiveness of prevention programs is not just a scholarly endeavor, it *can also be a matter of life or death*. As Finkelhor (1984) hypothesized, the perpetrator must be motivated to sexually abuse, overcome internal and external inhibition to his actions, and then overcome resistance by the child. The latter may be the least difficult of all preconditions for the perpetrator to surmount; however, it is difficult to predict how often children are not victimized because he or she possessed resistance skills.

Prevention programs provide a realistic and effective way to educate children about victimization and the resources available to protect themselves. Resistance is the primary tool which when utilized can help children to protect themselves against the persuasive attempts of the perpetrator and therefore resist victimization.

## LIMITATIONS

Although the majority of the findings of this study were consistent with the proposed rationale, interpretation of the findings must be considered in association with the limitations of the study.

First, the validity and reliability of the instrument must be substantiated. The instrument utilized in this study was developed due to the lack of an existing instrument. Although validity of the instrument for this study was established by employing expert raters to evaluate items more precise validation of the instrument is advisable before further implementation. Further tests utilizing this instrument are also recommended to establish reliability. Repeated tests were not possible due to the limited availability of subjects and the constraints of the public school system.

A second methodological concern is the artificial nature of the experimental condition. The fact that hypothetical situations were used in the evaluation of effective application of resistance skills may have affected the final results. True application would test the actual behavior of the child in a victimizing situation. Subjects confronted with actual threatening situations may react differently than the results indicated by this study.

A third limitation to the study is the lack of randomization in the sample population. All members were selected based on parental permission and availability to the researcher. While the experimental and control groups were drawn from two comparable cities, randomization was not possible within each of the groups. Generalizability is limited to only the populations of the school from which the two samples were drawn.

One final consideration is the sample size itself. The number of subjects involved were limited to the school's restrictions and the time element involved in administering the questionnaire. Due to the subject matter involved in the content of the questionnaire some parents were not willing to give permission for students' participation, especially for the control group. Recent exposure to the program also limited the number of students who were eligible for the experimental group. Since the program relies on volunteer presenters it is not presented to every grade level every year. The limited number of trained presenters also limited the sample size. Availability of trained presenters had allowed for the program to be presented to only two classes at the kindergarten through third grade level at the school where the sample was drawn.

#### IMPLICATIONS FOR FUTURE RESEARCH

Keeping in mind the limitations outlined above, several suggestions for research addressing the effectiveness of prevention programs are offered. First, greater emphasis should be given to establishing the validity and reliability of the WAQ. Second, the study should be replicated with an increased and more representative sample.

A broader sample of students from a larger population may provide different results regarding the effectiveness of the WHO program

Third, the testing should conform to the instrument in a structured interview format so as to permit clearer evaluation of the student's ability to apply information from the program. Role-play situations involving pictures, puppets, or video tapes would strengthen the conceptual link between hypothetical and real-life situations.

Fourth, research needs to be conducted on ways to improve the presentation of material which consistently receives ineffective test scores such as the areas of Secrets and Emotional Abuse. Knowing that children receiving the program have overall better resistance skills than untrained children is not enough. More in-depth analysis within group differences should be considered addressing the clarity and effectiveness of issues presented.

Finally, further research on the evaluation of prevention programming, with concentration on application of information, is crucial to devising effective programs which will prepare children to help and protect themselves from abusive and victimizing situations.

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## APPENDIXES

APPENDIX A  
WHO APPLICATION QUESTIONNAIRE

## WHO APPLICATION QUESTIONNAIRE

STRANGERS

- C1. Tell me what a stranger looks like.
- A2. What would you say if a stranger offered you a ride?
- A3. What would you do if a stranger wanted you to get into their car?
- A4. If a stranger offered you a ride, would you tell anyone?
- A5. Who would you tell?
- C6. Can you tell if someone is a stranger by the way they look?
- A7. Would you get into a car with a someone you don't know?
- A8. *(If answer "no")* What would you do, if anything?  
*(If answer "yes")* Why would you get into the car?
- A9. If a stranger said not to tell anyone they offered you a ride, would you tell anyone?

HURTS

- C10. Do you know what it is called when an adult hits a child, hurting them?
- A11. Can you say something to make someone stop hurting you?
- A12. What would you say?
- A13. If that person doesn't stop, what would you do?
- A14. What would you do to get help?
- C15. What is child abuse?
- A16. What could a child say, if anything, to an adult abusing them?
- A17. Is there anything else a child could do to keep from being abused?
- A18. What could they do?
- C19. Who could a child talk to if they were being abused?

SECRETS

- C20. Tell me the difference between a secret and a surprise.
- A21. If someone were hurting you and asked you to keep it a secret, would you?
- A22. Why or why not?
- A23. If a child was being hurt, why would they keep it a secret?
- A24. Would you tell anyone if you weren't sure if it was a secret or a surprise?
- A25. If someone hurt you then said they would buy you a toy if you didn't tell, would you tell?
- A26. Why would that person buy you a toy for not telling?
- A27. What if someone does something to you that you don't like, then makes you promise not to tell. Is it okay to tell?

- A28. What should you do if you're not sure if you should tell that someone has been hurting you?

### TOUCHES

- C29. What is the word for abuse that involves the private parts of the body?
- A30. What would you say to someone who tried to touch you in the private parts of your body?
- A31. What if you told this person "no," and they didn't stop. What would you do?
- A32. If someone tried to touch you in the private parts of your body, what should you do?
- C33. Do you know what a touching problem is?
- A34. Is it okay to say something to someone who is touching you in the private parts of your body?
- A35. What would you say?
- A36. Besides telling a person to stop, what else could you do if there is a touching problem?
- A37. Would it be hard to tell about a touching problem?

### EMOTIONAL ABUSE

- C38. What is it called when someone calls you names and hurts your feelings?
- A39. What could you say, if anything, to a person who was hurting your feelings?
- A40. Would you want to stay with or away from the person saying mean things to you?
- A41. Is it important to tell if someone is saying mean things, but not hurting you?
- C42. What is emotional abuse?
- A43. Could you say anything to a person who said things that made you sad?
- A44. What would you say?
- A45. If you told someone who was hurting your feelings to stop and they didn't, what would you do?
- A46. Who could you tell if someone was saying things to you that made you feel bad?

\*C = Cognitive

\*A = Application

**APPENDIX B**  
**PERMISSION LETTER**



May 1, 1989

Dear Parent(s),

This letter is in regard to an interview session testing the effectiveness of the WHO program. Your child saw this program last week at school. The program is an anti-victimization program helping your child learn what to do in potentially dangerous situations.

I am a graduate student at Oklahoma State University, and as part of my thesis project I am testing the effectiveness of the WHO program. I am currently working on developing a questionnaire to use in this test. It is my hope that this questionnaire will prove to be a reliable test of effectiveness and can be used, not only in my thesis, but as part of the WHO program.

I am asking that you will allow me to administer the questionnaire to your child. This session will be done during school hours and will take 10 to 15 minutes. I will be asking the questions orally to maximize understanding. Your child's identity will be kept confidential. The purpose of this questionnaire is not to report individual results, but to make sure that the questions are valid and accurate.

I appreciate your cooperation. If you have any questions regarding this letter or the questionnaire to be used, please feel free to call me. My home phone number is 242-8995.

Sincerely,

Tricia O'Brien

I give permission for \_\_\_\_\_ to participate in an interview testing the reliability of the WHO questionnaire. I understand that my child's identity will be kept confidential and that the results of this interview will be used only to analyze the questionnaire.

\_\_\_\_\_  
Parent(s) signature

**APPENDIX C**

**TABLES**

**TABLE I**  
**ANALYSIS OF DIFFERENCES BETWEEN GROUPS**  
**ON OVERALL TEST SCORES**

Variable	Number of Cases	Mean	t Value	Degrees of Freedom	2-Tail Probability
STRANGERS			-3.30	28	0.003*
group 1	15	11.9067			
group 2	15	16.0067			
HURTS			-4.43	38	0.000*
group 1	15	12.7267			
group 2	15	20.6800			
SECRETS			-0.55	28	0.584
group 1	15	12.4733			
group 2	15	13.4667			
TOUCH			-7.51	28	0.000*
group 1	15	11.1200			
group 2	15	19.9000			
EMOTIONAL ABUSE			-3.43	28	0.002*
group 1	15	17.4467			
group 2	15	22.5467			

\*Significant at 0.05 level.

**TABLE II**  
**ANALYSIS OF DIFFERENCES BETWEEN GROUPS**  
**ON COMPREHENSION ITEMS**

Variable	Number of Cases	Mean	t Value	Degrees of Freedom	2-Tail Probability
STRANGERS			-2.28	28	0.032*
group 1	15	3.73			
group 2	15	5.82			
HURTS			-2.71	28	0.012*
group 1	15	2.67			
group 2	15	4.28			
SECRETS			-1.95	28	0.063
group 1	15	2.26			
group 2	15	3.26			
TOUCH			-2.42	28	0.023*
group 1	15	4.25			
group 2	15	2.03			
EMOTIONAL ABUSE			0.32	28	0.754
group 1	15	4.46			
group 2	15	4.32			

\*Significant at 0.05 level.

**TABLE III**  
**ANALYSIS OF DIFFERENCES BETWEEN GROUPS**  
**ON APPLICATION ITEMS**

Variable	Number of Cases	Mean	t Value	Degrees of Freedom	2-Tail Probability
STRANGERS			-1.88	28	0.073
group 1	15	8.17			
group 2	15	10.18			
HURTS			-4.36	28	0.000*
group 1	15	10.05			
group 2	15	16.39			
SECRETS			1.38	28	0.178
group 1	15	11.20			
group 2	15	9.20			
TOUCH			6.84	28	0.000*
group 1	15	15.64			
group 2	15	9.08			
EMOTIONAL ABUSE			3.48	28	0.002*
group 1	15	18.08			
group 2	15	13.12			

\*Significant at 0.05 level.

**TABLE IV**  
**ANALYSIS OF TRAINED SUBJECTS**  
**ON COMPREHENSION ITEMS**

Variable	Mean	t Value	Degrees of Freedom	2-Tail Probability
STRANGERS HURTS	2.4867 2.6733	-0.34	14	0.736
STRANGERS SECRETS	2.4867 1.6300	2.21	14	0.044
STRANGERS TOUCH	2.4867 1.3600	2.13	14	0.052
STRANGERS EMOTIONAL ABUSE	2.4867 4.3200	-4.16	14	0.001*
HURTS SECRETS	2.6733 1.6300	2.84	14	0.013
HURTS TOUCH	2.6733 1.3600	2.29	14	0.038
HURTS EMOTIONAL ABUSE	2.6733 4.3200	-3.02	14	0.009*
SECRETS TOUCH	1.6300 1.3600	0.77	14	0.455
SECRETS EMOTIONAL ABUSE	1.6300 4.3200	-6.46	14	0.000*
TOUCH EMOTIONAL ABUSE	1.3600 4.3200	-7.47	14	0.000*

\*Significant at 0.05 level.

**TABLE V**  
**ANALYSIS OF TRAINED SUBJECTS**  
**ON APPLICATION ITEMS**

Variable	Mean	t Value	Degrees of Freedom	2-Tail Probability
STRANGERS HURTS	1.2845 2.0757	-3.35	14	0.005*
STRANGERS SECRETS	1.2845 1.8427	-2.37	14	0.032
STRANGERS TOUCH	1.2845 1.7232	-2.59	14	0.021
STRANGERS EMOTIONAL ABUSE	1.2845 2.2387	-4.34	14	0.001*
HURTS SECRETS	2.0757 1.8427	1.32	14	0.208
HURTS TOUCH	2.0757 1.7232	1.99	14	0.066
HURTS EMOTIONAL ABUSE	2.0757 2.2387	-0.84	14	0.416
SECRETS TOUCH	1.8427 1.7232	0.65	14	0.524
SECRETS EMOTIONAL ABUSE	1.8427 2.2387	-1.75	14	0.102
TOUCH EMOTIONAL ABUSE	1.7232 2.2387	-2.64	14	0.019

\*Significant at 0.05 level.



**TABLE VI**  
**ANALYSIS OF UNTRAINED SUBJECTS**  
**ON COMPREHENSION ITEMS**

Variable	Mean	t Value	Degrees of Freedom	2-Tail Probability
STRANGERS HURTS	3.6333 4.2867	-1.2	14	0.250
STRANGERS SECRETS	3.6333 1.1333	5.77	14	0.000*
STRANGERS TOUCH	3.6333 2.2600	-2.52	14	0.024
STRANGERS EMOTIONAL ABUSE	3.6333 4.4600	-1.97	14	0.069
HURTS SECRETS	4.2867 1.1333	8.01	14	0.000*
HURTS TOUCH	4.2867 2.2600	3.92	14	0.002*
HURTS EMOTIONAL ABUSE	4.2867 4.4600	-0.40	14	0.692
SECRETS TOUCH	1.1333 2.2600	-3.62	14	0.003*
SECRETS EMOTIONAL ABUSE	1.1333 4.4600	-10.36	14	0.000*
TOUCH EMOTIONAL ABUSE	2.2600 4.4600	-4.00	14	0.001*

\*Significant at 0.05 level.

**TABLE VII**  
**ANALYSIS OF UNTRAINED SUBJECTS**  
**ON APPLICATION ITEMS**

Variable	Mean	t Value	Degrees of Freedom	2-Tail Probability
STRANGERS HURTS	1.5243 3.2787	-6.84	14	0.000*
STRANGERS SECRETS	1.5243 2.2400	-3.28	14	0.005*
STRANGERS TOUCH	1.5243 3.1116	-7.37	14	0.000*
STRANGERS EMOTIONAL ABUSE	1.5243 3.0144	-7.44	14	0.000*
HURTS SECRETS	3.2787 2.2400	4.86	14	0.000*
HURTS TOUCH	3.2787 3.1116	0.75	14	0.464
HURTS EMOTIONAL ABUSE	3.2787 3.0144	1.11	14	0.286
SECRETS TOUCH	2.2400 3.1116	-4.01	14	0.001*
SECRETS EMOTIONAL ABUSE	2.2400 3.0144	-3.40	14	0.004*
TOUCH EMOTIONAL ABUSE	3.1116 3.0144	0.47	14	0.646

\*Significant at 0.05 level.

**VITA**

2

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