

July 2015

## Play it safe!®: a school-based childhood physical and sexual abuse prevention program

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### Recommended Citation

Blakey, Joan M. and Thigpen, Jeffry W. (2015) "Play it safe!®: a school-based childhood physical and sexual abuse prevention program," *Journal of Adolescent and Family Health*: Vol. 7 : Iss. 1 , Article 5.

Available at: <https://scholar.utc.edu/jafh/vol7/iss1/5>

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## **Cover Page Footnote**

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## Introduction

Childhood physical and sexual abuse continues to be prevalent in our society (Geeraert, Van den Noortgate, Grietens, and Onghena, 2004; Klevens & Whitaker, 2007). The United States Department of Health and Human Services' (USDHHS) Child Maltreatment report (2013) indicated that 18.3% of children were physically abused and 9.3% of children were sexually abused in 2011. Another study reported that one in four children (28.4%) had been physically abused and one in 25 children (4.5%) had been sexually abused by the time they started sixth grade (Hussey, Change, & Kotch, 2006). A retrospective study indicated that 22.2% of men and 19.5% of women reported experiencing physical abuse and 14.2% of men and 32.3% of women reported being sexually abused as children. Additionally, 21% of individuals reported being both physically and sexually abused (Briere & Elliot, 2003). Childhood physical and sexual abuse is a major public health problem that can have devastating, long-term effects on children, if not addressed.

School-based prevention programs provide a viable solution to address child abuse, as they are intended to prevent the abuse from occurring, provide knowledge and skills that decrease children's risk for abuse, as well as encourage those who have been abused to report the abuse (Baker, Gleason, Naai, Mitchell, & Trecker, 2013; Finkelhor, 2007). Moreover, they provide the opportunity to reach more children than any other type of child abuse prevention program (Geeraert et al., 2004; Putnam, 2003; Topping & Barron, 2009). Despite criticism about whether school-based prevention programs can effectively teach children (particularly preschool and elementary school levels) child abuse prevention concepts and skills and whether this knowledge will avert future abuse (Finkelhor, 2007), studies have found that children have learned and made significant improvements in abuse-related knowledge and skills as a result of participating in child abuse prevention programming (Baker et al., 2013; Binder & McNiel, 1987; Davis & Gidycz, 2000; Finkelhor, 2007, 2009; Finkelhor & Dzuiba-Leatherman, 1995; Geeraert et al., 2004; Kolko, Moser, & Hughes, 1989; Rispens, Aleman, & Goudena, 1997; Wurtele & Miller-Perrin, 1992). The majority of research, however, has focused on sexual abuse prevention programs. Very few child abuse prevention programs include other types of child maltreatment such as physical abuse. The purpose of this pilot study was to evaluate the Play it Safe!® program, a school-based childhood physical and sexual abuse prevention program which teaches children to recognize abusive situations, how to respond to potentially abusive situations, and report the abuse to someone who can help stop the abuse.

## **Literature Review**

Different types of child abuse prevention programs exist (Chaffin & Friedrich, 2004; Davis & Gidycz, 2000). Many of these programs target the parents of potential victims. Home-visiting and parent education programs, for example, provide education, knowledge about child development, child rearing skills, and support to parents to reduce the risk factors associated with child maltreatment (Geeraert et al., 2004; Howard & Brooks-Gunn, 2009; Lundahl, Nimer, & Parsons, 2006; Putnam, 2003). While study results are mixed in terms of effectiveness of these programs (Chaffin & Friedrich, 2004), there is increasing evidence that these programs positively impact parents child rearing practices, parents experience meaningful changes in emotional well-being often linked to abuse, as well as increase their understanding of child development (Howard & Brooks-Gunn, 2009; Lundahl et al., 2006).

Other programs deal directly with perpetrators or potential perpetrators. These programs provide therapy and education to men and women who have a propensity toward violence against children (Chaffin & Friedrich, 2004; Finkelhor, 2007). Again, these studies have a mixed record of success with some studies being moderately beneficial (Hanson et al., 2002) while other studies report no reduction in recidivism between those who participated in offender related programs and those who did not participate (Hanson, Bloom, & Stephenson, 2004).

School-based programs are the most popular type of child abuse prevention program (Davis & Gidycz, 2000; Putnam, 2003). These programs provide information and education to children about appropriate versus inappropriate touch, the importance of disclosing the abuse if it occurs, how to recognize and avoid potentially abusive situations, as well as teach children protective strategies (e.g. assertiveness skills, avoiding strangers) intended to reduce their overall level of risk (Chaffin & Friedrich, 2004; Finkelhor, 2007; Ko & Cosden, 2001; Putnam, 2003).

To date, only a few empirical studies have focused on physical abuse or included it as part of the prevention program. Dhooper and Schneider (1995) found that 413 children in grades 3 – 5 who received the school based child abuse prevention program compared to 383 children who did not participate in the program showed a significant increase in their ability to discriminate between normal discipline and physical abuse. Overall, they concluded that children who participated in the prevention program were more knowledgeable about child abuse concepts than children who had not participated. Ko and Cosden (2001) confirmed Dhooper and Schneider (1995) results. They found that while all children had a base level of

knowledge regarding physical and sexual abuse that children who participated in prevention programs had a better understanding of key components espoused by prevention programs such as attribution of blame for the abuse, perpetrators of abuse can be strangers as well as people close to them and the need to report the abuse.

Additionally, a large scale study conducted by Finkelhor, Asdigian & Dzuiba-Leatherman (1995) sought to determine whether children who participated in child abuse prevention programs were able to avoid subsequent physical or sexual abuse. While this study's findings confirmed that children who participated in the prevention program were more knowledgeable about abuse prevention concepts, increased knowledge was not associated with a reduction in future victimization nor did it reduce the seriousness of the assault. However, they did find that children who had participated in prevention programs had increased confidence that their actions resulting from the knowledge they gained protected them from more serious kinds of abuse as well as made them more likely to disclose the abuse.

Many school-based child abuse prevention programs have focused exclusively on sexual abuse, despite the fact that physical abuse and neglect are more prevalent than sexual abuse (USDHHS, 2013). The overemphasis on sexual abuse may be in part because of the alarming nature of sexual abuse and a societal commitment to protect the sexual innocence of children (Thigpen, 2006). The emphasis on sexual abuse over other types of abuse and neglect also may represent an attempt to steer clear of controversial issues, as it often is difficult to differentiate between discipline and physical abuse (Lansford & Dodge, 2008) and even more ambiguous when it comes to neglect (Jones, Finkelhor & Halter, 2006). Finally, some children may not recognize physical abuse believing it was punishment for their behavior and therefore is not believed to be abuse (Dhooper & Schneider, 1995). For that reason, some programs choose to address physical abuse once children reach middle school and high school believing that older children are better able to discern the differences between discipline and abuse (Dhooper & Schneider, 1995). Consequently, the review of the literature that follows focuses primarily on studies of school-based child sexual abuse prevention programs.

### **Effectiveness of the Programs**

Most evaluations of school-based sexual abuse prevention programs are concerned with their effectiveness. Geeraert et al. (2004) reviewed 40 early prevention evaluation studies and found that these studies produced highly significant overall positive results. Several meta-analyses and reviews of studies reported that school-based sexual abuse prevention programs are effective in

teaching children knowledge and skills intended to prevent sexual abuse (Davis & Gidycz, 2000; Finkelhor, 2009; Finkelhor & Dzuiba-Leatherman, 1995; Kenny, Capri, Reena, Thakkar-Kolar, Ryan, & Runyon, 2008; Topping & Barron, 2009; Tutty, 1995; Wurtele & Miller-Perrin, 1992). Gibson and Leitenberg (2000) found that respondents who had participated in a school-based sexual abuse prevention program were significantly less likely to have been sexually abused compared to those who had not participated in such a program. Moreover, Topping and Barron (2009) found that in more than 33% of the studies reviewed, the children had a greater sense of self efficacy, increased self-confidence, and less anxiety and self-blame than the children who had not participated in school-based prevention programs.

**Use the knowledge and skills.** Beyond an increase in knowledge and skills, program effectiveness is measured in terms of the extent to which children use the knowledge and skills to reduce the likelihood that future abuse will occur. The results of studies investigating children's use of the knowledge and skills they gained through sexual abuse prevention programs are mixed. One study found that 25% of children used the knowledge and skills they learned to help a friend and 5% were able to say no to an adult, and in another of their studies, some children used what they had learned to avoid suspicious strangers (Finkelhor & Dzuiba-Leatherman, 1995). Further, Kraizer, Fryer, and Miller (1987) and Zwi (2007) reported that children used the knowledge and skills as instructed in simulated situations. Finkelhor et al. (1995), however, found no evidence of decreased victimizations, meaning that once children were threatened or confronted with abuse, they were just as likely to be victimized regardless of whether or not they participated in a school-based sexual abuse prevention programs.

**Disclosure.** Children's disclosure of abuse is another measure of a program's effectiveness. Disclosure is a potentially positive outcome that can stop ongoing abuse and increase the chances of children accessing supportive services sooner (Baker et al., 2013). Studies have shown that children who participated in school-based programs were more likely to report the abuse, compared to children who did not participate in a prevention program (Binder & McNeil, 1987; Currier & Wurtele, 1996; Finkelhor et al., 1995; Kolko et al., 1989; Oldfield, Hays, & Megel, 1996).

Finkelhor and Dzuiba-Leatherman (1995) found that 14% of children who participated in a school-based sexual abuse prevention program told an adult about the abuse. Although some studies did not find an association between participation in a prevention program and disclosure, they did find a trend toward

disclosing the abuse sooner by children who participated in a school-based sexual abuse prevention program than those in the no-prevention group (Gibson & Leitenberg, 2000).

### **Gaps in the Literature**

There is a need for more research on school based child abuse prevention programs that includes both physical and sexual abuse (Davis & Gidycz, 2000). Finkelhor and Jones (2006) suggested that school-based sexual abuse prevention programs may account for sexual abuse rates falling faster than physical abuse rates. The decline of empirical research in this area indicates a need to continue to investigate and identify the most promising interventions, particularly given the importance of their mission and intended goal (Finkelhor & Jones, 2006). The current pilot study seeks to fill this gap by increasing our knowledge of the efficacy of a combined school-based physical and sexual abuse prevention program.

### **Play it Safe!® Program Description**

Play it Safe!® is a school-based physical and sexual abuse prevention program created in 1983. The Play it Safe!® program serves 60,000 to 102,000 children annually. In 2012, 146 public and private schools participated in the program, which included 23 school districts throughout the Dallas/Fort Worth metroplex. The program served 82,296 children (60,468 were elementary school age; 13, 806 were in middle/junior high school; and 8,022 were in high school).

The Play it Safe!® curricula were created by the staff of the Women’s Center of Tarrant County, social workers, psychologists, and child development specialists. The curriculum continues to be updated as new information regarding physical and sexual abuse becomes available. For example, the newest version of the program addresses the fact that abuse is more likely to happen by family members and people children know rather than strangers as previously believed. The curricula include age-appropriate, grade specific (kindergarten through 12th grade) presentations, which include a trainer script, Joe and Suzy dolls (kindergarten through 2nd grade), and DVD. The training can be delivered in Spanish; however, the videos, pre-tests and post-tests are in English. All Play it Safe!® curricula teach children and youth to : (1) *recognize* an abusive situation, (2) how to *respond to* potentially abusive situations, and (3) *report* the incident to someone they trust, emphasizing that abuse is *never* their fault. Although the Play it Safe!® program targets K–12th grade children, only the K–5th grade curriculum is presented and discussed here.

Trainers were hired by the Women's Center. Upon hire, the trainers completed 30 hours of training, which entailed learning about physical and sexual abuse, learning the scripts, and practicing effective ways to deliver the trainings to children. In addition, they receive 8 to 10 hours of training each month about various physical and sexual abuse related topics.

In this study, the Women's Center hired 15 trainers to deliver the Play it Safe!® training. They had been employed at the agency from 2 months to 23 years (average 2.92 years). Eight of the trainers were students working on: Associate's degree (1), Bachelor's degree (2), Master of Social Work degree (3), and Doctoral degree (2). Prior to their being hired by the Women's Center, four of the trainers were stay-at-home moms. Three were retired social workers who worked in health care and child welfare settings prior to their employment with the Play it Safe!® program. The trainers ranged in age from 21 to 65 years old (average 40 years). Eleven of the trainers were Caucasian, two were Hispanics, one was biracial (Caucasian/Hispanic), and one was multiracial (Black, Hispanic, and Indian). Three of the trainers spoke fluent Spanish and were bilingual trainers for the program.

Children who received the Play it Safe!® training primarily attended public schools throughout the Dallas Fort-Worth metroplex. They ranged in age from 5 – 18 years old. Fifty-seven percent of the children were Hispanic, 32.2% African American and 9.7% were others (i.e. Caucasian, Native American and Asian American).

### **Procedure**

Once the Play it Safe!® presentation was scheduled, a notice was sent home to parents, informing them of the dates the presentation would be delivered at the school. This information included dates parents could preview the presentation, as well as opt-out forms allowing parents to notify program or school personnel of their preferences not to include their child(ren). During the preview sessions, parents received a broad overview of the Play it Safe!® program and were invited to ask questions of the trainers, program staff, and school administration. Next, parents attended a session that corresponded to their child's grade, in which they received the same physical and sexual abuse prevention presentation that their child(ren) would receive. If parents still did not want their children to participate in the program, they received another opportunity to sign the opt-out form or let an administrator at the school know. Children for whom an opt-out form was received were pulled out of the classroom prior to the Play it Safe!® presentation.



Each grade level was given different pre and post-test questions because the curriculum is designed to be age and developmentally appropriate and therefore differs by grade. All of the pre- and post-test questions were created based on language that is consistent with the curriculum by grade. The lead author and a doctoral-level research assistant watched each presentation and read over the curriculum. Then we reviewed the pre- and post-tests questions to assess the extent to which the questions reflected the curriculum. The pre-test and post-test questions were piloted from January 2011 through June 2011 prior to the start of this study. The results were reviewed collaboratively with the Play it Safe!® staff. Questions that had a high percentage of “I don’t know” or “no answer” were changed. There were a couple of instances when the staff did not want to change the language of a question because it was central to the curriculum (i.e. being assertive means standing up for yourself). In those cases, it was decided that the trainers would do a better job explaining those concepts (e.g. assertive) to students.

Pre-and post-test questions administered to students were identical. Immediately before delivering the Play it Safe!® presentation, the trainer read the pre-test questions aloud to the students. The trainer read-through each question and wrote down students’ corresponding answers (“yes,” “no,” “I don’t know,” or “no answer”). The pre-test was administered in this way primarily because trainers had a lot of material to cover in a limited amount of time before moving on to the next classroom. Moreover, many schools were reluctant to agree to pre-testing students if it meant more work for their teachers. School administrators and Play it Safe!® staff agreed to this compromise. At the end of the week, the trainers sent the results from each classroom to the researcher and Play it Safe!® staff.

Two weeks after the presentation, schools received the post-tests, along with a self-addressed, postage-paid envelope to return the post-test to the Women’s Center. The classroom teacher administered the post-tests. The questions were read out loud and the students marked their answer on the post-test. The post-tests were already being administered in this way. The program did not have the capability to send trainers back to the school to administer the post-tests. Having teachers administer the post-test was the next best option. If schools took longer than a month to return the post-tests, the Play it Safe!® coordinator followed up with the school counselors, reminding them to complete and return the post-tests.

The study protocols were approved by the lead author’s university institutional review board that oversees research with human subjects. These protocols included approval of the pilot study, pre-test and post-tests surveys, study procedures, consent forms, recruitment materials, and interview guides for the

qualitative component. Pre-test and post-test data were analyzed using version 22 of the Statistical Package for the Social Sciences (SPSS). More specifically, the overall proportion of children who responded correctly to each question at the pre- and post-tests was assessed for each of the six grade levels (i.e., kindergarten through 5th grade). Subsequently, overall mean pre- and post-test scores for each grade level were calculated. Two-tailed dependent samples t-Tests then were conducted to test hypotheses that mean pre- and post-test scores were equal.

### Findings

Table 1 presents the distribution of children who participated in the Play it Safe!® program by grade-level.

**Table 1: Distribution of Children in Sample by Grade Level**

<i>Grade Level</i>	<i>Number of Classrooms</i>	<i>Number of Students</i>	<i>Percentage of Students</i>
Kindergarten	7	114	13%
First Grade	13	231	25%
Second Grade	5	91	10%
Third Grade	11	202	22%
Fourth Grade	9	172	19%
Fifth Grade	5	103	11%
<b><i>Totals</i></b>	50	913	

The percentages of kindergarteners who responded correctly to the five-item survey at pre- and post-test are presented in Table 2. Higher percentages of children answered correctly at post-test for all items. Mean pre- and post-test scores were computed (see Table 8), revealing a higher post-test score for kindergarteners across the seven classrooms. Mean pre- and post-test scores were not statistically significant, however ( $t = -1.66$ ).

**Table 2: Pre-Test and Post-Test Responses, Kindergarten ( $n = 114$ )**

<i>Play it Safe!® Survey Items</i>	<i>Number/Percentage of children who responded correctly at Pre-test</i>	<i>Number/Percentage of children who responded correctly at Post-test</i>
1. Is your arm a private part of your body?	54 (47%)	78 (68%)
2. If someone touches you in an unsafe or confusing way, should you tell a trusted adult?	78 (68%)	80 (70%)
3. Is it your fault if someone touches your private parts in an unsafe or confusing way?	56 (49%)	99 (87%)
4. Is a spanking okay when it leaves a bruise and the hurt doesn't go away quickly?	55 (48%)	96 (84%)
5. The three parts of the safety rule are: say no, get away, and tell a trusted adult?	84 (74%)	88 (77%)

Table 3 lists the five-item survey administered to children in the first grade and the proportion of children who responded correctly to each of the five items at pre- and post-test. As shown, the percentage of children who answered accurately increased at post-test for four of the five items. For item 3 — *If someone touches your private parts for no reason, you can say no, get away, and tell a trusted adult?* — fewer children answered correctly at post-test than at pre-test. Mean pre-test and post-test scores calculated for all children at this grade level indicate a statistically significant higher score at post-test ( $t = -2.87, p < .01$ ) — see Table 8.

**Table 3: Pre-Test and Post-Test Responses, First Grade ( $n = 231$ )**

<i>Play it Safe!® Survey Items</i>	<i>Number/Percentage of children who responded correctly at Pre-test</i>	<i>Number/Percentage of children who responded correctly at Post-test</i>
1. Private parts are the parts of the body that you cover with a bathing suit?	180 (78%)	196 (85%)
2. If someone touches your private parts for no reason, you can say no, get away, and tell a trusted adult?	208 (90%)	187 (81%)
3. Is it your fault if someone touches your private parts?	134 (58%)	205(90%)
4. If someone touches you in an unsafe or confusing way, you should keep telling until someone believes you?	166 (72%)	195 (84%)
5. Is spanking okay when it leaves a bruise and the hurt doesn't go away quickly?	114 (49%)	197 (85%)

Pre-test and post- abuse prevention program responses to the five questions comprising the Play it Safe!® survey for children in the second grade are detailed in Table 4. A higher proportion of children responded correctly at post-test for each item. In addition, statistically significant differences were found between mean pre- and post-test scores for second-grade children overall ( $t = -2.76$ ,  $p < .05$ ), with higher a higher mean score observed at post-test — see Table 8.

**Table 4: Pre-Test and Post-Test Responses, Second Grade ( $n = 91$ )**

<i>Play it Safe!® Survey Items</i>	<i>Number/Percentage of children who responded correctly at Pre-test</i>	<i>Number/Percentage of children who responded correctly at Post-test</i>
1. Spankings that leave bruises are safe touches?	67 (74%)	82 (90%)
2. Private parts are parts of the body covered by a bathing suit?	70 (77%)	77 (85%)
3. If someone touches you in a way that is unsafe or confusing you should keep it a secret?	55 (60%)	81 (89%)
4. The 3 parts of the safety rule are: say no, get away, and tell a trusted adult?	80 (88%)	84 (92%)
5. Parents, teachers, neighbors, or a nurse are examples of trusted adults?	82 (90%)	85 (93%)

Table 5 lists the results of the 10-item survey administered at pre- and post-test to third grade children. Increases in the percentage of children who answered the items correctly following the intervention were noted for all 10 items. Mean pre- and post-test scores were calculated across the 11 third-grade classrooms (Table 8), showing a statistically significant score at post-test ( $t = -3.37, p < .01$ ).

**Table 5: Pre-Test and Post-Test Responses, Third Grade (n = 202)**

<i>Play it Safe!® Survey Items</i>	<i>Number/Percentage of children who responded correctly at Pre-test</i>	<i>Number/Percentage of children who responded correctly at Post-test</i>
1. Spankings that leave bruises are safe touches?	145 (72%)	194(96%)
2. Is it your fault if someone touches you on your private parts for no reason?	143 (71%)	173(86%)
3. If you have been touched in an unsafe or confusing way, you should keep it a secret?	154 (76%)	193 (95%)
4. The 3 parts of the safety rule are: say no, get away, and tell a trusted adult?	186 (92%)	197 (97%)
5. Taking advantage of someone is when one person tries to trick or force another person into doing something they know is not right or safe?	95 (47%)	150 (74%)
6. A bully is someone who tries to take advantage of others?	148 (73%)	185 (91%)
7. If someone gives you \$20 to do something you know is wrong,	153 (76%)	167 (83%)

they are trying to bribe you?		
8. If you are online and someone asks you for your personal information, you should tell them?	153 (76%)	193 (95%)
9. People can pretend to be anyone they want to be online, and may try to trick or fool you?	163 (81%)	185 (91%)
10. The safety rule can be used with anyone, including people you know and love?	149 (74%)	182 (90%)

Increases in the proportion of children who correctly answered the 10-item Play it Safe!® survey at pre-test and post-test also were noted among fourth graders — see Table 6. Overall mean pre-test and post-test scores calculated for all fourth-grade children indicate a statistically significant higher mean score at post-test ( $t=-3.91, p<.01$ ) — see Table 8.

**Table 6: Pre-Test and Post-Test Responses, Fourth Grade ( $n = 172$ )**

<i>Play it Safe!® Survey Items</i>	<i>Number/Percentage of children who responded correctly at Pre-test</i>	<i>Number/Percentage of children who responded correctly at Post-test</i>
1. You can use the safety rule with anyone who touches you in a way you don't like?	133 (77%)	160 (93%)
2. If a child is touched in an unsafe or confusing way, it is the child's fault?	74 (43%)	167(97%)

3. You should keep telling a trusted adult about an unsafe or confusing touch until someone believes, or helps you?	103 (60%)	148(86%)
4. If you are online and someone is pretending to be someone they aren't, they are trying to take advantage of you?	120 (70%)	152 (88%)
5. The 3 parts of the safety rule for dealing with strangers are: keep quiet, hope they go away, and close your eyes?	101 (59%)	152 (88%)
6. Your name, age, and address are examples of personal information?	145 (84%)	164 (95%)
7. Sometimes, even friends can be bullies who try to take advantage of you?	139 (81%)	1475%)
8. If someone gives you money to keep unsafe or confusing touch a secret, you should still tell a trusted adult?	157 (91%)	1635%)
9. A spanking that leaves bruises, welts, cuts or even broken bones is a safe spanking?	76 (44%)	1688%)
10. If someone tells you that a confusing touch is a game, then that's a game you should play?	109 (63%)	167 (97%)



Table 7 lists the 10-item survey administered to children in the fifth grade and documents the number of children who responded accurately to each item at pre-test and post-test. As shown in the table, higher percentages of children who answered correctly at post-test were observed for the majority of items. For items 3 and 9 (“Confusing touches, called sexual abuse, happens when someone touches or looks at a child’s private parts for no reason?” and “Taking advantage of someone is when you force them to do something they don’t feel is right or safe?”), however, the proportion of children who responded correctly at post-test was lower than at pre-test. A comparison of mean pre-test and post-test scores for all fifth-grade children showed a statistically significant higher mean post-test score ( $t = -2.06, p < .05$ ) — see Table 8.

**Table 7: Pre-Test and Post-Test Responses, Fifth Grade ( $n = 103$ )**

<i>Play it Safe!® Survey Items</i>	<i>Number/Percentage of children who responded correctly at Pre-test</i>	<i>Number/Percentage of children who responded correctly at Post-test</i>
1. A safety rule to use when you are touched in an unsafe or confusing way is say no, get away, and tell a trusted adult?	97 (94%)	103(100%)
2. Confusing and unsafe touches are touches that only come from strangers?	55 (53%)	94 (91%)
3. Physical abuse is unsafe touch that leaves bruises, cuts, or broken bones, and the hurt doesn’t go away very quickly?	81 (79%)	99 (96%)
4. Confusing touches, called sexual abuse, happen when		

someone touches or looks at a child's private parts for no reason?	100 (97%)	91 (88%)
5. Being assertive means standing up for yourself?	23 (22%)	62 (60%)
6. You should give out personal information online to anyone who asks you for it?	84 (81%)	98 (95%)
7. If a child has been abused, it is the child's fault?	78 (76%)	101 (98%)
8. If the first person you tell doesn't believe you, you should just forget that it happened?	81 (79%)	101 (98%)
9. Taking advantage of someone is when you force them to do something they don't feel is right or safe?	89 (86%)	79 (77%)
10. If you are being abused, it is never too late to tell a trusted adult?	99 (96%)	100 (97%)

**Table 8: Mean Pre- and Post-Test Scores by Grade Level**

<i>Grade Level</i>	<i>Mean Pre-Test Score (Standard Deviation)</i>	<i>Mean Post-Test Score (Standard Deviation)</i>	<i>t-statistic</i>
Kindergarten	.5936 (0.2661)	.7849 (0.1462)	-1.6667

First Grade	.6904 (0.1745)	.8508 (0.0999)	-2.8772**
Second Grade	.7776 (0.065)	.8916 (0.0651)	-2.7696*
Third Grade	.7365 (0.1574)	.9006 (0.0344)	-3.3786**
Fourth Grade	.6581 (0.1993)	.9226 (0.0358)	-3.9187**
Fifth Grade	.7582 (0.1484)	.9000 (0.0393)	-2.0652*

\* $p < .05$ ; \*\* $p < .01$

## Discussion

Analyses of the pilot data suggest that the Play it Safe!® program increases elementary age children's understanding of physical and sexual abuse. Analyses of mean pre-test and post-test scores revealed overall gains in children's understanding of physical and sexual abuse prevention across most grade levels. Differences in mean pre-test and post-test scores were statistically significant at all grade levels except kindergarten. With respect to individual items, higher percentages of children within each grade level responded accurately following participation in the Play it Safe!® program. Despite the overall gains for most students, gains at post-test were not observed in three instances. Among first graders, fewer children responded correctly at post-test to (If someone touches your private parts for no reason, you can say no, get away, and tell a trusted adult?) an item that reflected their understanding of what to do when their private parts were touched by someone for no reason. For fifth graders, fewer children responded correctly at post-test on two items ("Confusing touches, called sexual abuse, happens when someone touches or looks at a child's private parts for no reason?" and "Taking advantage of someone is when you force them to do something they don't feel is right or safe?"), which reflected their ability to define sexual abuse and exploitation (i.e., being taken advantage of).

When questions were examined by type of abuse, students had more trouble with questions related to sexual abuse. Of the three questions that students had lower scores on post-test than pre-test, two of them were related to sexual abuse (e.g. (1) If someone touches your private parts for no reason, you can say no, get away, and tell a trusted adult? (2) Confusing touches, called sexual abuse, happens when someone touches or looks at a child's private parts for no reason). One reason children struggled with this question is the subject matter. Both of these questions

are heavily discussed in the curriculum. It is possible that students had difficulty with understanding concepts like “for no reason.” Perhaps stating for no “good” reason would have been clearer. The wording of the question (e.g. taking advantage of someone) was an issue for one of the missed questions noted above. As previously stated, the pre-test and post-test questions were piloted prior to the start of this study (January 2011 through June 2011). Analysis of the pilot data revealed that students had difficulty with one of these questions (Taking advantage of someone is when you force them to do something they don’t feel is right or safe?”). Because it was taken directly from the curriculum, the Play it Safe!® staff did not want to change the language of pre and post-test. Instead, it was decided that the problem would be addressed by ensuring that the trainers spent more time on these concepts (e.g. what it means to be taken advantage of) during the Play it Safe!® presentations. This issue was presented at a monthly training session where different scenarios regarding how to better address this issue were discussed. Based on the post-test results, attempts to further explain these concepts during the training did not correct the situation in this instance. Moving forward, this issue will have to be resolved.

The fact that mean and post-test scores were not statistically significant for kindergarteners is consistent with other studies, which found that younger children have more difficulty learning concepts and skills related to child sexual abuse prevention programs (Blumberg, Chadwick, Fogarty, Speth, & Chadwick, 1991; Tutty, 1995, 1997, 2000). While kindergarteners in this study struggled with physical and sexual abuse concepts, first- through fifth-graders had overall gains in understanding between pre-test and post-test. Significantly, this suggests that elementary-school children can learn physical and sexual abuse prevention concepts and skills (Davis & Gidycz, 2000; Dhooper & Schneider, 1995).

Though gains in children’s understanding of physical and sexual abuse were noted across most grade levels, it is uncertain whether increased understanding will diminish the occurrence of physical and sexual abuse among children. Finkelhor et al. (1995) and Finkelhor (2007) raise this critical issue, in that they reported that participation in a school-based sexual abuse prevention program did not thwart attempted or actual victimizations. Nevertheless, school-based physical and sexual prevention programs such as Play it Safe!® have been shown to have other important outcomes (Baker et al., 2013; Finkelhor, 2007). Play it Safe!® increases children and adults’ understanding of abuse, as well as their ability to identify potentially abusive situations. The Play it Safe!® program also increases children’s willingness and ability to disclose abuse by reminding them of the importance of telling someone until the abuse stops. Finally, Play it Safe!® helps to reduce self-blame and internalization of negative thoughts/feelings pertaining

to the abuse by reiterating that it is not the child's fault. According to Finkelhor (2007), "these programs could be justified solely on the basis of these goals even if actual prevention was relatively uncommon" (p. 642). Moreover, Finkelhor (2009) reported that youth who had participated in child abuse prevention programs were more likely to believe that they were better able to protect themselves, often kept the situation from escalating or worsening, and kept themselves from being injured.

The Play it Safe!® program increases children's understanding of sexual and physical abuse prevention for 1<sup>st</sup> through 5<sup>th</sup> graders. Despite the positive results, these findings should be interpreted cautiously in light of the limitations of the study's design. The use of a control group/delayed control group design would have added rigor and helped control for threats of internal validity. We believed that this information was vital for every child to receive and therefore did not want any children to be left out. Individual child level tests that were matched to examine pre-post changes also would have strengthened the results. Schools were only willing to participate if children's individual answers could remain anonymous, which is why we collected data by classroom. Another limitation is that each grade has a different test. While all the Play it Safe!® curricula emphasize the same thing, they address the topic in an age and developmentally appropriate way. The pre-test and post-test questions are different because the language and topics are discussed differently by grade. In addition to the different pre-tests and post-tests by grade, Kindergarten, 1<sup>st</sup> and 2<sup>nd</sup> pre-test and post-tests only have five items while tests for third through fifth grades have 10 items. There is concern about whether five items can adequately measure children's understanding of physical and sexual abuse. While this is a valid concern, the researchers opted for a 5-item questionnaire so as to avoid overburdening younger (5 to 7 years old) students. Additionally, the different ways the pre and post-tests were administered is another limitation. Due to time and school district constraints, having the trainers read the pre-test aloud and record answers and teachers administering the post-tests was the only way many of the school districts would agree to adding the pre-test component.

Another limitation was in terms of surveying children under seven years of age. This is challenging at best and unreliable at worst. While we recognize this as a limitation, attempting to prevent physical and sexual abuse is too important of a topic to leave to chance. Moreover, another limitation is that possible recall bias (e.g. students remembered the questions from the pre-test) was introduced for students who took the post-test such that their gains were due to remembering the question rather than lessons learned in the program. While this is possible, the right answers to the questions were never revealed to the students so while they may

have remembered the question, they did not know whether their initial answer was correct or incorrect.

Finally, another limitation is that some children took the post-test two weeks after the presentation while others took it a month after the presentation. This can be interpreted one of two ways. One way is that the presentation was powerful enough for children to still remember major concepts after a longer period of time. Another possible interpretation is that children were exposed to other information about child physical and sexual abuse concepts and that the gains are in fact due to other factors. Certainly this is possible even at the two week mark. However, the fact that overall children did better on post-tests than pre-tests would suggest that there was some benefit to participation in the Play it Safe!® program.

There is a need for more empirical research of school-based prevention programs that combine both physical and sexual abuse. These studies must identify whether children do equally well in terms of understanding physical and sexual abuse concepts or whether there is a difference between these two types of abuse. Physical abuse and neglect are much more prevalent in our society (USDHHS, 2013). Consequently, school-based abuse prevention programs should reflect and address national trends demonstrating greater prevalence of physical abuse and neglect over sexual abuse.

Although a great deal of research has been conducted on child abuse prevention programs; given the importance of their charge, there is a need to move beyond existing research to include research on upper elementary, middle, and high school programs. The Play it Safe!® program provides programming to children in 6th through 12th grades. While the study here involved only elementary school children, there is a need for more research on older children. Further, it is essential to understand the cumulative impact of repeated exposure over time (Topping & Barron, 2009). Studies have found that programs tend to be more effective when children are exposed repeatedly, when they have opportunities to practice the skills they have learned, and when programs involve parents, who can reinforce the knowledge and skills at home (Finkelhor & Dzuiba-Leatherman, 1995). Child abuse has far reaching consequences that can affect children's immediate and long-term wellbeing (Lundahl et al., 2006). Continuing to find effective ways to prevent child abuse is paramount and will have clear and tangible benefits to individuals as well society.

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**APPENDIX: PRE-TEST AND POST-TEST QUESTIONS – CORRECT ANSWER  
KINDERGARTEN**

QUESTION	ANSWER
1. Is your arm a private part of your body?	No
2. The three parts of the safety rule are: say no, get away, and tell a trusted adult?	Yes
3. If someone touches you in an unsafe or confusing way, should you tell a trusted adult?	Yes
4. Is a spanking okay when it leaves a bruise and the hurt doesn't go away quickly?	No
5. Is it your fault if someone touches your private parts in an unsafe or confusing way?	No

**FIRST GRADE**

QUESTION	ANSWER
1. Private parts are the parts of the body that you cover with a bathing suit?	Yes
2. Is spanking okay when it leaves a bruise and the hurt doesn't go away quickly?	No
3. If someone touches your private parts for no reason, you can say no, get away, and tell a trusted adult?	Yes
4. If someone touches you in an unsafe or confusing way, you should keep telling until someone believes you?	Yes
5. Is it your fault if someone touches your private parts?	No

**SECOND GRADE**

QUESTION	ANSWER
1. Spankings that leave bruises are safe touches?	No
2. The 3 parts of the safety rule are: say no, get away, and tell a trusted adult?	Yes
3. Private parts are parts of the body covered by a bathing suit?	Yes

4. Parents, teachers, neighbors, or a nurse are examples of trusted adults?	Yes
5. If someone touches you in a way that is unsafe or confusing you should keep it a secret?	No

**THIRD GRADE**

QUESTION	ANSWER
1. Spankings that leave bruises are safe touches?	False
2. The 3 parts of the safety rule are: say no, get away, and tell a trusted adult?	True
3. It is your fault if someone touches you on your private parts for no reason?	False
4. Taking advantage of someone is when one person tries to trick or force another person into doing something they know is not right or safe?	True
5. If you have been touched in an unsafe or confusing way, you should keep it a secret?	False
6. A bully is someone who tries to take advantage of others?	True
7. If someone gives you \$20 to do something you know is wrong, they are trying to bribe you?	True
8. If you are online and someone asks you for your personal information, you should tell them?	False
9. People can pretend to be anyone they want to be online, and may try to trick or fool you?	True
10. The safety rule can be used with anyone, including people you know and love?	True

**FOURTH GRADE**

QUESTION	ANSWER
1. You can use the safety rule with anyone who touches you in a way you don't like?	True
2. If a child is touched in an unsafe or confusing way, it is the child's fault?	False
3. If you are online and someone is pretending to be someone they aren't, they are trying to take advantage of you?	True
4. You should keep telling a trusted adult about an unsafe or confusing touch until someone believes, or helps you?	True

5. The 3 parts of the safety rule for dealing with strangers are: keep quiet, hope they go away, and close your eyes?	False
6. Your name, age, and address are examples of personal information?	True
7. If someone tells you that a confusing touch is a game, then that's a game you should play?	False
8. Sometimes, even friends can be bullies who try to take advantage of you?	True
9. A spanking that leaves bruises, welts, cuts or even broken bones is a safe spanking?	False
10. If someone gives you money to keep unsafe or confusing touch a secret, you should still tell a trusted adult?	True

### FIFTH GRADE

QUESTION	ANSWER
1. A safety rule to use when you are touched in an unsafe or confusing way is say no, get away, and tell a trusted adult?	True
2. Physical abuse is unsafe touch that leaves bruises, cuts, or broken bones, and the hurt doesn't go away very quickly?	True
3. Confusing touches, called sexual abuse, happen when someone touches or looks at a child's private parts for no reason?	True
4. Confusing and unsafe touches are touches that only come from strangers?	False
5. Being assertive means standing up for yourself?	True
6. You should give out personal information online to anyone who asks you for it?	False
7. If a child has been abused, it is the child's fault?	False
8. If the first person you tell doesn't believe you, you should just forget that it happened?	False
9. Taking advantage of someone is when you force them to do something they don't feel is right or safe?	True
10. If you are being abused, it is never too late to tell a trusted adult?	True