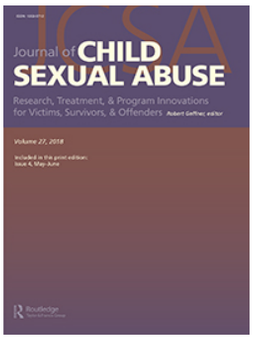

Journal of Child Sexual Abuse

ISSN: 1053-8712 (Print) 1547-0679 (Online) Journal homepage: www.tandfonline.com/journals/wcsa20

Preventing Child Sexual Abuse: Body Safety Training for Young Children in Turkey

Gulseren Citak Tunc, Gulay Gorak, Nurcan Ozyazicioglu, Bedriye Ak, Ozlem Isil & Pinar Vural

To cite this article: Gulseren Citak Tunc, Gulay Gorak, Nurcan Ozyazicioglu, Bedriye Ak, Ozlem Isil & Pinar Vural (2018) Preventing Child Sexual Abuse: Body Safety Training for Young Children in Turkey, Journal of Child Sexual Abuse, 27:4, 347-364, DOI: 10.1080/10538712.2018.1477001

To link to this article: https://doi.org/10.1080/10538712.2018.1477001

Published online: 01 Jun 2018.

JOURNAL OF CHILD SEXUAL ABUSE
2018, VOL. 27, NO. 4, 347–364
https://doi.org/10.1080/10538712.2018.1477001

Routledge
Taylor & Francis Group

Preventing Child Sexual Abuse: Body Safety Training for Young Children in Turkey

Gulseren Citak Tunc[a], Gulay Gorak[b], Nurcan Ozyazicioglu[c], Bedriye Ak[d], Ozlem Isil[e], and Pinar Vural[f]

[a]Department of Psychiatric Nursing, Faculty of Health Sciences, Uludağ University, Bursa, Turkey; [b]Department of Pediatric Nursing, Istanbul Bilim University, Florence Nightingale Health School, Istanbul, Turkey; [c]Department of Pediatric Nursing, Faculty of Health Sciences, Uludağ University, Bursa, Turkey; [d]Department of Pediatric Nursing, Abant Izzet Baysal Univetsity Bolu Health School, Bolu, Turkey; [e]Department of Nursing, Bezmialem Vakif University, Health Science Faculty, Istanbul, Turkey; [f]Department of Child and Adolescent Psychiatry, Uludag University Faculty of Medicine, Bursa, Turkey

ABSTRACT

The "Body Safety Training Program" is an education program aimed at ensuring children are informed about their body and acquire self-protection skills. In this study, a total of 83 preschoolers were divided into experimental and control groups; based on a power analysis, 40 children comprised the experimental group, while 43 children comprised the control group. The "Body Safety Training Programme" was translated into Turkish and content validity was determined regarding the language and cultural appropriateness. The "What If Situations Test" (WIST) was administered to both groups before and after the training. Mann–Whitney U Test, Kruskal–Wallis Variance Analysis, and the Wilcoxon Signed Ranks Test were used to compare between the groups and the Spearman correlation analysis was used to determine the strength of the relationship between the dependent and independent variable. The differences between the pretest and posttest scores for the subscales (appropriate recognition, inappropriate recognition, say, do, tell, and reporting skills), and the personal safety questionnaire (PSQ) score means for the children in the experimental group were found to be statistically significant ($p < .001$). The posttest–pretest difference score means of the experimental group children for WIST saying, doing, telling and reporting, total skills, and PSQ were found to be statistically significant as compared to that of the control group ($p < .05$). The "Body Safety Training programme" is effective in increasing the child sexual abuse prevention and self-protection skills in Turkish young children.

ARTICLE HISTORY
Received 10 October 2017
Revised 2 April 2018
Accepted 2 April 2018

KEYWORDS
Child sexual abuse; prevention; body safety training; child protection; Turkey

Introduction

Child sexual abuse (CSA) is a prevalent public health problem that can seriously affect a child's physical and psychosocial development. This problem affects both boys and girls, regardless of their socioeconomic class,

CONTACT Gulseren Citak Tunc gctunc@uludag.edu.tr Faculty of Health Sciences, Department of Psychiatric Nursing, Uludag University, Gorukle Campus, Bursa, Turkey.

Color versions of one or more of the figures in the article can be found online at www.tandfonline.com/wcsa.

ethnic background, or geographical location (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002; Martyniuk & Dworkin, 2011; Pereda, Guilera, Forns, & Gómez-Benito, 2009). Many physical and mental disorders occur in the short and long term in children who have been subject to sexual abuse (Caldwell, 2012; Harder, 2005; Kaplan, 2002). Costs of CSA are also high, including cost of victims' medical and mental health treatment, offenders' prosecution and incarceration, along with effects on victims' families, organizations, and entire communities (Fang, Brown, Florence, & Mercy, 2012). These far-reaching physical, psychological, and economic costs call for primary prevention efforts aimed at preventing CSA from ever occurring.

Sexual abuse of children is a significant problem for Turkish society. In 2006, there were 3,778 decisions for cases taken to court regarding sexual abuse against children, while this figure was 21,189 in 2016 (Turkish Ministry of Justice, General Directorate of Judicial Records and Statistics, 2016). According to the records of the Turkish Statistical Institution regarding "children arriving or brought to security forces," the percentage of children who were subject to sexual crimes in 2016 was 10.4%, while this figure increased to 12.1% in 2017 (Turkish Statistical Institute, 2017). These statistics show that there is a need for prevention strategies to manage CSA in Turkey.

This complex public health problem calls for prevention strategies to be implemented across multiple levels of the ecology (Kenny & Wurtele, 2012). One level of the ecology includes schools. School-based programs were created to help children avoid sexual victimization and widely distributed in both the United States and Canada starting in the early 1980s (Wurtele & Miller-Perrin, 2017). Schools evolved as an obvious choice for teaching children about person safety, since the primary purpose of school is to educate, and also because of their ability to reach large numbers of children in a cost-efficient fashion. Aims of school-based CSA prevention programs often include the 5 R's: (a) helping children recognize potentially abusive situations or potential abusers, (b) encouraging children to refuse sexual requests by saying "No", (c) teaching children to resist by trying to get away from the perpetrator, (d) encouraging children to report previous or ongoing abuse, and (e) explaining that secret or inappropriate touching is never the child's responsibility (Wurtele, 2008).

A sizeable number of empirical studies of school-based CSA prevention programs have been conducted, mostly in the US, Canada, UK, Ireland, and Australia. Recently, school-based programs have also been evaluated in South Korea (Kim & Kang, 2017), Taiwan (Chen, Fortson, & Tseng, 2012), and China (Zhang et al., 2014). Although approximately one-third (23.6%) of the total population of Turkey is comprised of children under the age of 14 (Turkish Statistical Institute, 2018), there are no school-based programs aimed at preventing sexual abuse, despite calls for the provision of training

for preschool-aged children on this issue. The purpose of the current study was to evaluate the efficacy of a skills-based CSA prevention program for Turkish preschool-aged children. In Turkey, preschool institutions (private crèches and day care centers) for children of the 0–6 age group are under the supervision of the Ministry of Family and Social Policies, while 3–6 age group are under the supervision of the Ministry of National Education.

Method

Participants

The research study was conducted in five private crèches and day care centers in a metropolis in the western region of Turkey, selected out of a total of 38 private crèches and day care centers, of which are under the supervision of the Turkish Ministry of Family and Social Policies. The five preschools were selected with simple random sampling. Three preschools comprised the control group and two preschools comprised the experimental group. The sample size was identified with a power analysis. The result references of Tunc et al. (2018) were taken for the power analysis; 60 children were determined as the sample size, with a power of 0.95 and 0.01 Type I Error (Tunc et al., 2018). However, the sample size was increased upon the assumption that there may be cases of drop out of participants from the sample. The research was conducted with 83 Turkish children (63.85% boys) ranging in the age between 36 months and 72 months ($M = 58.72$; SD = 9.45). Overall, 40 out of these 83 children were in the experimental group, while the remaining 43 were in the control group (see Figure 1).

The mean age (month) for children in the experimental group was $M = 57$; SD = 9.07, and $M = 59$; SD = 9.73 for control group. The mean ages were explicitly close to each other and the children were approximately five years of age. In regard to birth order, 77.50% of the control group and 59.09% of the experimental group were firstborns. Mostly the mothers in their thirties allowed their children to participate in the research study (experimental group $n = 31$, and control group $n = 38$). Mean age of parents giving permission for their children to participate in the research was 32.92 for the experimental group ($M = 32.92$; SD = 4.34) and 34.06 for the control group ($M = 34.06$; SD = 4.89), showing that parents were in their mid-thirties for both groups. In general, parents involved in the research studies were married, while there were minor numbers of single parents (control group $n = 1$; experimental group $n = 2$). Education level for mothers in the experimental group was observed to be high school and higher education (82.5%) graduates, while this rate was 62.8% for control group. Similar to mothers, the education level also for fathers was recorded as high school and higher education, being 87.5% for the experimental group and 72.09% for the control group. Income level of parents was examined and the revenue–

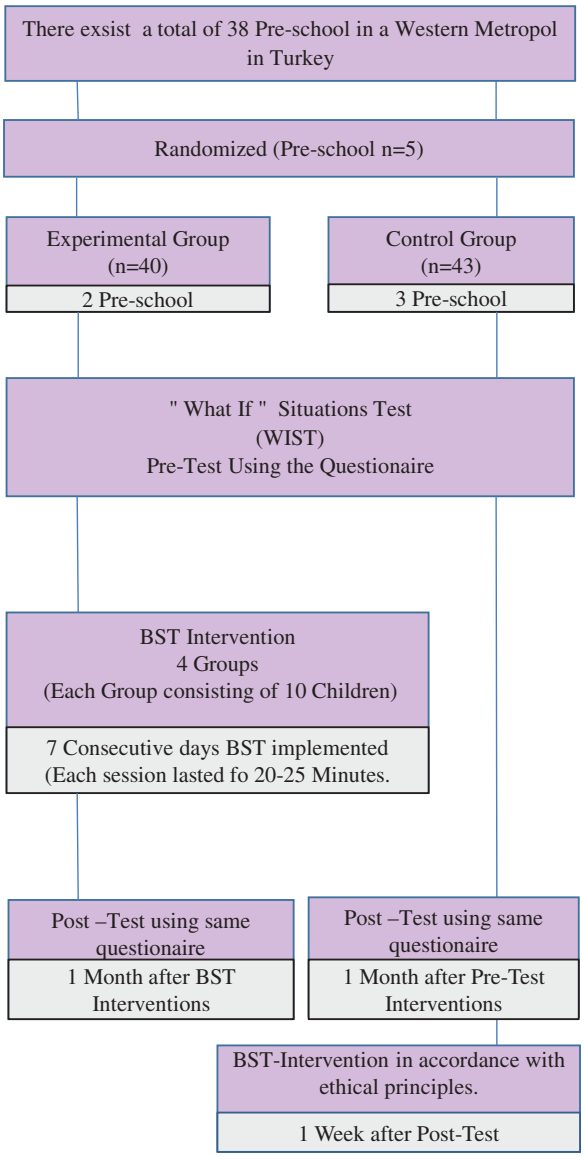

Figure 1. Design of the present study.

expense balance for three quarters of parents was concluded to be equivalent for both the experimental group (77.5%) and the control group (76.7%) (see Table 1).

Materials

The "Demographic Data Collection Form," "What If Situations Test (WIST)," and the "Body Safety Training Program (BST)" were used to collect data in the research study.

Table 1. Comparison of children's demographic characteristics related data.

Characteristic	Experimental (n = 40)	Control (n = 43)	Test	p
Sex of child				
Girl	17	13	χ^2: .872*	.350
Boy	23	30		
Mean age of child (in months)	57 ± 9.07	59 ± 9.73	Z: −1.415**	.157
Birth order				
First	31	26	χ^2: 3.561*	.156
Second	6	14		
Third	3	3		
Mean age of parents	32.92 ± 4.34	34.06 ± 4.89	Z: −1.173**	.241
Education level of mother				
Primary school graduate	6	8		
Middle school graduate	1	8	χ^2: 7.215*	.119
High school graduate	14	13		
University graduate	17	11		
Postgraduate education	2	3		
Education level of father				
Primary school graduate	2	5		
Middle school graduate	1	5	χ^2: 5.031*	.280
High school graduate	18	12		
University graduate	17	19		
Postgraduate education	2	2		
Income level of family				
Income more than expenses	7	8		
Income equal to expenses	31	33	χ^2: .178*	1.00
Income less than expenses	2	2		

*Fisher–Freeman–Halton Test; **Mann–Whitney U Test.

Demographics

The demographic data collection form contained questions regarding the child's sex, age, birth order, and parent information (age, education level, income level).

The 'What if' Situations test

The original WIST was designed to assess preschoolers' self-protection skills. The WIST was revised in 2008 as the WIST-III (Wurtele, Hughes, & Owens, 1998) and includes four "appropriate touching" vignettes, four "inappropriate touching" vignettes, and two short stories regarding attitudes toward sexuality. The two vignettes about touching in the beginning are practice vignettes and are not included in the scoring. The WIST comprises of a total of seven subdimensions including two about recognition, four about skills, and one about attitude. These subdimensions are evaluated in three separate sections.

The "appropriate recognition" and "inappropriate recognition" situations in the first section assess differentiation skills. Three of the six vignettes describe appropriate touching (parent, doctor, nurse) and a score between 0 and 3 can be obtained. The other three vignettes describe inappropriate touching (entitled neighbour, babysitter, and man in park) and a score between 0 and 3 can be obtained. Each "inappropriate touching" vignette is

followed by questions assessing four skills: say, do, tell, and report. Each skill is scored between 0 and 6, with total skill scores ranging from 0 to 24.

The third section assesses the child's attitude toward sexual abuse and their own sexuality. Two additional short stories were added to the scale and included four items comprising the personal safety questionnaire (PSQ) subdimension. A score of 0–4 can be obtained for the PSQ in this scope (Wurtele et al., 1998).

The reliability and validity study of the Turkish version of the scale was conducted by Tunc et al. (2018). Cronbach alpha coefficients of the scale found by Wurtele et al. (1998) were between 0.75 and 0.90. Cronbach alpha coefficients for the Turkish version scale were between 0.68 and 0.90. The test–retest reliability of the Turkish adaptation of the WIST scale was between 0.48 and 0.92 (Tunc et al., 2018).

Body Safety Training Program

The body safety training (BST) program was developed in 1986 and revised in 2007 (Wurtele, 2007). There are two versions of the BST workbook; one designed for parents and one for educators/trainers. The version for educators/trainers was used in this research study. The BST program was designed for children between 3 and 7 years of age and pictures that support the narrative are included in the program. The program comprises of 10 sessions which aim to teach preschoolers about body safety by adopting a behavioral approach. The first five sessions cover "general safety" topics and the remaining five sessions focus on "body safety." Each session lasts between 20 and 25 min and is implemented in small groups (6–10 children) (Wurtele, 2007).

Content validity of the body safety training program. Language and content validity of the program was tested in terms of Turkish language and its context. The trainers/educators program was translated from English to Turkish by a translator fluent in both languages. To follow, the topic headings of each of the sessions were determined for the Turkish language training program. The opinions of seven experts were sought for the identified topic headings. The topic headings for the general safety topics were not included in the training program in the light of the opinions of the experts. The final version of the BST program, comprising of seven sessions, was prepared in accordance with the guidance of the experts.

The training book titled "Body Safety Training Program (BST) for Preschoolers" was prepared according to the visual education method used in the education of preschool children. The 72 pictures included in the book were designed with the Illustrator software appropriately to accommodate Turkish culture (see Figure 2).

Procedure

Stages of data collection

At first stage, permission was obtained from the author of the BST program to use the training program and evaluation scales used to measure the effectiveness of the program. The second stage was to obtain the necessary permissions from the institutions, participants of the sample, and the ethical board. In third stage, information meetings were held with the management and parents of the institutions where the research study was to take place. Written consent was obtained from the parents of those children who fulfilled the criteria to voluntarily take part in the study (aged between 36 and 72 months, toilet trained, and normal development). The pretest WIST was administered to children in the control and experimental groups after obtaining verbal assent of the children and a small gift was given to the children in both groups. For the experimental group, four groups of 10 children each were established and the WIST was administered as the pretest. The BST program of seven sessions was taught to

Figure 2. Body safey training program.

the children in the experimental group as one session per day for seven consecutive days. Each session lasted 20–25 min. The WIST posttest was administered to both the experimental and control group one month after the training sessions. After administering the posttest, the control group was also given the BST program in accordance with the ethical principles.

Data analysis

Data analysis was carried out with the statistics software SPSS 22.0 for Windows. The Fisher–Freeman–Halton Test was used to evaluate the homogeneity of the control and experimental groups for categorical data and the Mann–Whitney U Test for continuous data. The Shapiro–Wilk Test was used to determine whether the data were normally distributed. As the data did not show a normal distribution ($p < 0.05$), nonparametric tests were used in the analyses. The Mann–Whitney U Test, Kruskal–Wallis Variance Analysis, and the Wilcoxon Signed Ranks test were used to make comparisons between the groups. The Spearman's rho correlation analysis was used to analyze the relationship between the variables and to determine the direction of the relationship. The significance level was set to $p < .05$.

Ethical aspect of the study

This research study was conducted in accordance with the principles of the Helsinki Declaration. Written permission was obtained from the developer of the BST program, S. K. Wurtele. Ethical permission for the research study was granted by the Uludağ University Clinical Research Ethical Committee Decision No. 2014-11/2. Permission was obtained by the institutions from which the study sample was identified. A signed informed consent form was obtained from the volunteer parents of children included in the study and verbal assent was obtained from the children. Following the administration of the BST to the experimental group, the same training was provided to the children in the control group to ensure the principle of equality.

Results

Demographic characteristics

Demographic characteristics of the children (sex, age in months, birth order) and their parents' demographic characteristics (age, education level, income level) were compared between the two groups (see Table 1). No statistically significant differences between the two groups were found ($p > .05$). Thus, the experimental group and control group were homogeneous in terms of demographic characteristics.

Comparison of pretest and posttest results

The comparison for mean scores for the pre and posttest WIST and subdimensions for the children in the experimental and control group are given in Table 2. The posttest WIST and subdimensions average scores for the experimental group were found to be high. The mean pretest score for appropriate touching recognition for children in the control group was 2.75 ± 1.01, while the posttest score mean was 3.00 ± 0.0. The mean pretest score for inappropriate touching recognition was 2.20 ± 1.15, while the posttest score mean was 2.90 ± 0.30. The statistical difference between the pre and posttest score means for the two subdimensions were found to be statistically significant ($p < .05$). While there was a statistically significant difference ($p < .05$) between the experimental group children pre and posttest mean scores for WIST say, do, tell, and report skills, the control group was not found significant ($p > .05$). The WIST total skill posttest means for the experimental group increased considerably (20.20 ± 4.69), and this increase was found to be significant ($p < .05$). However, no change was seen in the WIST total skill mean score for the control group. A significant difference was found between the

Table 2. Comparison of WIST and subscale pretest and posttest score means for experimental and control groups children.

Test group	Pretest $\bar{X}$±SD	Posttest $\bar{X}$±SD	Z*	p
Appropriate recognition				
Experimental	2.75 ± 1.01	3.00 ± 0.0	−3.695	$p < .001$
Control	2.37 ± 0.90	2.69 ± .70	−2.952	$p = .003$
Inappropriate recognition				
Experimental	2.20 ± 1.15	2.90 ± .30	−3.338	$p = .001$
Control	2.02 ± 1.18	2.27 ± 1.00	−1.852	$p = .064$
Say skill				
Experimental	2.55 ± 2.07	5.37 ± 1.16	−4.709	$p < .001$
Control	2.25 ± 2.17	2.60 ± 2.33	−1.516	$p = .129$
Do skill				
Experimental	.97 ± 1.32	5.07 ± 1.32	−5.508	$p < .001$
Control	.67 ± 1.45	.67 ± 1.28	−.356	$p = .722$
Tell skill				
Experimental	1.32 ± 2.14	4.97 ± 1.68	−5.081	$p < .001$
Control	.62 ± 1.29	.79 ± 1.35	−1.144	$p = .253$
Report skill				
Experimental	1.05 ± 2.02	4.77 ± 1.77	−5.145	$p < .001$
Control	.27 ± 0.70	.25 ± .78	−.276	$p = .783$
Total WIST skill				
Experimental	5.90 ± 6.14	20.20 ± 4.69	−5.459	$p < .001$
Control	3.83 ± 3.51	4.32 ± 3.23	−1.852	$p = .072$
PSQ				
Experimental	2.27 ± 1.01	3.05 ± .95	−3.710	$p < .001$
Control	1.81 ± 1.05	2.18 ± 1.18	−2.826	$p < .05$

*Wilcoxon signed ranks test.

Table 3. Comparison of WIST and subscale posttest–pretest difference score means for experimental and control groups children.

Group WIST	Experimental (*n*: 40) $\bar{X}$±SD	Control (*n*: 43) $\bar{X}$ ±SD	*Z*	*p*
Appropriate recognition	.72 ± 1.01	.32 ± .64	−1.767	$p = .077$
Inappropriate recognition	.70 ± 1.13	.25 ± 0.87	−1.858	$p = .063$
Say skill	2.82 ± 2.28	.34 ± 1.39	−4.999	$p < .001$**
Do skill	4.10 ± 1.86	.00 ± 1.02	−7.591	$p < .001$**
Tell skill	3.65 ± 2.35	.16 ± 0.87	−6.376	$p < .001$**
Report skill	3.72 ± 2.23	−.02 ± 0.51	−7.230	$p < .001$**
Total WIST skill	14.30 ± 6.80	.48 ± 1.79	−7.050	$p < .001$**
PSQ	.77 ± 1.07	.37 ± 0.78	−2.268	$p < .05$*

Mann–Whitney U Test: *$p < .05$, ** $p < .001$.

experimental and control groups' pre and posttest mean scores for the PSQ subdimension.

Comparison of posttest–pretest difference score means experimental and control groups

The posttest–pretest difference score means of the experimental group children for WIST saying, doing, telling, and reporting, total skills, and PSQ were found to be statistically significant as compared to that of the control group. There was no significant difference found ($p > .05$) in terms of difference score means for appropriate recognition and inappropriate recognition (Table 3).

The difference score means did not change for the WIST and subdimensions according to the sociodemographic and parent characteristics of the children.

Discussion

The discussion is undertaken according to the subheadings of recognition (appropriate touching and inappropriate touching), skill (say, do, tell, report), and attitude (PSQ).

Recognition (appropriate touching and inappropriate touching)

CSA prevention programs should include content which aims for children to acquire recognition skills to differentiate between appropriate and inappropriate touching. It is important to note that a large majority of CSA cases are perpetrated by persons who the child knows and this brings the difficulty of recognizing abuse situations by children (Topping & Barron, 2009). Kenny (2009) argues that there is a need for preschoolers to acquire

basic knowledge about their bodies and their private parts and also skills on how to protect their bodies against sexual abuse. Starting the training at preschool level is considered of importance by researchers. According to Kenny (2009), there is a need for preschoolers to acquire basic knowledge about their bodies and their private parts and also skills on how to protect their bodies against sexual abuse. In this light, the importance of implementing training programs to acquire these skills during preschool years is emphasized (Vogeltanz et al., 1999; Wyatt, Loeb, Solis, Carmona, & Romero, 1999).

Training programs for the prevention of CSA arm children with personal safety skills by increasing knowledge about the difference between appropriate and inappropriate situations. Another positive outcome of CSA prevention programs is the issue of legal responsibility for compulsory reporting of previous or new cases of inappropriate touching of children. Wurtele (2009) argues that children participating in training programs apply this knowledge to their daily lives and that the programs help to reduce sexual abuse of children.

All children in the BST program experimental group were able to correctly recognize appropriate touching, while only some of the children in the control group could recognize appropriate touching. Similar results were obtained by Wurtele and Owens (1997) in the United States and Zhang et al. (2014) in China when testing the BST program with the WIST measurement. In studies conducted by Blumberg, Chadwick, Fogarty, Speth, and Chadwick (1991), Baker, Gleason, Naai, Mitchell, and Trecker (2012), Tutty (1997), and Kenny (2010), it was found that children's appropriate touching recognition knowledge increased after they had participated in the prevention programs. Therefore, all the research findings provide the evidence for the effectiveness of the programs in preventing sexual abuse. However, there was no significant difference between the pre and posttest WIST appropriate touching recognition scores in another study that administered the "Kids Learning About Safety" (KLAS) training program (Kenny, Wurtele, & Alonso, 2012). BST teaches what appropriate touching is and by whom it can be done. A study by Kenny (2010) showed that a 16-h KLAS training program with 99 children increased the WIST appropriate touching recognition (Kenny, 2010). In another study, where the "My Body, My Boundaries" syllabus was taught in three schools for third grade students, it was found that there was a significant increase in students' knowledge about appropriate and inappropriate touching (Baker et al., 2012).

Research shows that the perpetrators of sexual abuse against children are most often someone that they know (Ogunfowokan & Fajemilehin, 2012; Pisi, 2013; Topping & Barron, 2009; Tutty, 1997). Children are not able to understand that people they know and trust may behave in ways that may harm them. Topping and Barron (2009) state that children may have

difficulties recognizing abuse situations when it is perpetrated by people that they know. A review of studies on the impact of BST shows that there is an increase in the posttest scores regarding inappropriate recognition (Kenny et al., 2012; Wurtele et al., 1998; Wurtele & Owens, 1997; Zhang et al., 2014). The findings of this study are in support of other research findings: the increased posttest scores means for inappropriate touching are statistically significant and there is no significant difference found in the control group (Baker et al., 2012; Kenny, 2010; Kenny et al., 2012; Tutty, 1997; Wurtele & Owens, 1997; Zhang et al., 2014).

There are a variety of CSA prevention programs aimed at developing knowledge and skills for different age groups in the United States and other western countries. The programs make use of such as tools as films, lecturing, and puppetry. The recently implemented programs focus on skill attainment (Martyniuk & Dworkin, 2011). The total WIST skills score which can be obtained by children is between 0 and 24. A comparison of the pretest and posttest scores for WIST total skill scores of the experimental group in this study showed an increase of fourfold. The comparison between groups also supports this finding. These results show that the BST programs are significantly effective in the attainment of say, do, tell, and report skills in children. Similar to these findings, the study by Kim and Kang (2017) revealed that the "Child Sexual Abuse Prevention" training program conducted in South Korea to elementary school children had positive effect on the competence in self-protective behaviors (Kim & Kang, 2017).

Say skill: Saying "no" if they are faced with a potential sexual abuse situation is ranked first among the skills to be taught to the child for protection from sexual abuse (Mc Grath & Bogat, 1995). In a study conducted in Malaysia, children were asked to react in a case where a stranger approached them and said "Your mother told me to take you home." The percentage of the children who said "no" to the stranger was low (38.4%) (Weatherley et al., 2012). It is highly important to teach children protection skills to prevent situations such as these. Children should acquire these skills through education. Research emphasizing that children under the age of 5½ are more likely to benefit more from the program support this finding (Rispens, Aleman, & Goudena, 1997; Wyatt et al., 1999). Studies found that "saying no" skills increased in children who had participated in the training program for preschoolers (Kenny, 2010; Kenny et al., 2012; Wurtele et al., 1998; Zhang et al., 2014).

This study found a statistically significant difference between the pretest (2.55 ± 2.07) and posttest (5.37 ± 1.16) for the experimental group. The results of this study support findings of other studies that BST programs contribute to the increase of the "say" skill. A negative relationship was found between the age of the child and the "saying" skill. This finding shows that

the training program is more effective in instilling the "saying no" skill as the age of the child is younger.

Do skill: Getting away (i.e., distancing one's self) from the person/identity or environment with a potential for sexual abuse is ranked second among the skills to be acquired by children for self-protection (Mc Grath & Bogat, 1995). An assessment of the WIST "do" skill subdimension by Martyniuk and Dworkin (2011) showed that it is not solely sufficient for the child to say "no" to a demand of inappropriate touching. This study found that the "do" skill scores increased in children of the experimental group, leading to the finding of a highly significant difference. This result for the "do" skill is similar to that of other studies, such as the study with Latino children by Kenny et al. (2012) and a study conducted in China (Zhang et al., 2014). In addition, a reaction of screaming by the child can lead to aggressive behavior by the abuser, which may result in physical harm or even the death of the child, if the abuser attempts to stop the child from screaming. Screaming is scored as "zero" in the WIST "do" skill scale (Wurtele et al., 1998). It should be stated that in Turkey, the screaming behavior, which is thought to pose a threat to the perpetrator, is supported by authorities.

Tell skill: Research shows that CSA is not a one-time occurrence in many cases and can be repeated and can even continue for months. Research by Uzun (2013) shows that this situation has the risk of becoming a psychopathology. Programs developed for the prevention of CSA include definitions of adults who can be trusted. The BST program should promote the attainment of the "tell" skill in children, encouraging children to tell at least two trusted adults in the case of a potential abuse situation. The posttest mean scores of the experimental group in this study was almost full scoring for the "tell" skill. This study has found that the score means of the "telling" skill subdimension of the WIST significantly increased after the training. Other studies also show that the scores for "telling" skills increased for children after BST (Kenny et al., 2012; Wurtele et al., 1998; Zhang et al., 2014). In a study by Tutty (1997), the "Who can I tell?" program was implemented and a similar result was found: there was a difference in the "telling" skill between the experimental group and the control group.

Report skill: The first priority of a prevention program is to prevent abuse and ensure that the skill of reporting inappropriate situations to an adult is acquired (Finkelhor, 2007). In the scope of the report skill, it is assessed whether the child can describe the person/identity making a demand on the child for inappropriate touching and report the incident to a trusted adult. Further, in order for a child to be able to gain the reporting skill for inappropriate touching, they must have a concept of "private parts." The BST program includes a definition of trusted adult and encourages reporting to at least two adults. The program includes the definition of private parts (breasts, vagina, bottom, penis, testes) alongside the definition of all body

parts. As terminology and use of the terms for private parts is different in each culture, it creates difficulty in understanding the reporting skill. In this study, the reporting mean scores of the experimental group increased. Similar to other studies, this study also showed that the report skill scores increases as a result of the training (Kenny et al., 2012; Wurtele et al., 1998; Zhang et al., 2014).

Attitude (PSQ)

It is important for a child to acquire the positive attitude toward personal safety in regard to sexual abuse. Further, the CSA prevention program should include information about healthy sexual development. The BST program includes information about personal safety regarding the protection from sexual abuse (keeping secrets and feelings of guilt) and also sexual development (touching one's own genitals and taking pleasure in touching one's own genitals). This study found that the WIST PSQ scores increased and this increase was statistically significant.

Feelings of guilt or thoughts that it was their own fault in a case of sexual abuse have an impact on whether the child reports the abuse or not. Information must be given in BST that children themselves are not responsible for the situation being experienced. Research on prevention programs show that there was reduced feelings of guilt of the child after abuse and an increase in "telling" and reporting (Baker et al., 2012; Finkelhor, 2007). Compulsory reporting of child abuse in Turkey is planned to identify, protect, and to treat child victims. Compulsory reporting is also a means to bring punishment to the perpetrator.

Preschoolers' tendency to look at or touch their own private parts is a characteristic of children for this developmental period; showing their own genitalia or to look at others genitalia is a common and normal behavior for this age group (Friedrich, Fisher, Broughton, Houston, & Shafron, 1998). It is known that Turkish parents or families of traditional structure are more inclined to display a prohibitive attitude toward children touching their own genitalia. Yet, to teach children of this age group (whose sexual identities develop in this period), the names of their body parts would be effective in helping them to recognize their own bodies and to develop body protection skills. It was found that, after the training program, the children's thoughts, feelings, and behaviors toward touching their own private parts changed in a positive way. This finding is in parallel with the research of Wurtele and Owens (1997). Research shows that parents do not discuss sexual abuse with their children and they have no access to information about abuse (Kenny et al., 2008). In light of all such findings, it is deemed necessary to include parents in the activities, in addition to ensuring school-based training programs for CSA become more widespread.

Conclusions

All children must be protected against sexual abuse (United Nations, 1989). There is an urgent need for prevention programs to protect children against sexual abuse. The target group of CSA prevention programs are children having a potential of being subject to abuse. School-based programs are to be preferred due to ease of evaluating the children and presenting or applying the program (Rispens et al., 1997). The results of the findings of this research study showed that the program is effective in raising personal knowledge about protection against CSA in young Turkish children and in developing a positive attitude toward discussing sexuality. In addition, the use of the assessment scale (WIST) to assess the impact of acquisition of knowledge, skills, and attitudes toward the prevention of CSA within the BST program for young children was a strength of this study.

Limitations

This study found that there was an increase in the knowledge, skill, and attitude toward personal safety in the children. However, as the children were not observed longitudinally, it cannot be undisputedly stated that the BST program prevents CSA. Wurtele (2009) states that children practiced the skills they gained from the training program in their daily life; something which is hoped for the children participating in this study. The study was carried out with the participation of children of volunteering parents. A limitation of the study is that past history regarding CSA of parents and children were not ascertained.

Recommendations

One way in which to ensure children are protected against CSA is for BST programs to be included in the preschool curriculum. It is recommended that the information and the training about the program is provided to all professionals working with children, parents, the public, and related public institutions.

Acknowledgments

The authors wish to thank Prof. Sandy K. Wurtele for her contributions and permission to use theBST program. Authors extend their special thanks to the children and their parents who participated in the study, ensuring the collection of the necessary research data. The interview protocol is available upon request. This research was presented orally at the "EUCCAN European Conference on Child Abuse and Neglect," 25–27 May 2016 in Amsterdam, the Netherlands.

Declaration of interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

This study was supported by the Uludag University Scientific Research Projects (BAP) Management Unit [(KUAP SYO 2014/60), IRB00004769].

References

Baker, C. K., Gleason, K., Naai, R., Mitchell, J., & Trecker, C. (2012). Increasing knowledge of sexual abuse: A study with elementary school children in Hawai'i. *Research on Social Work Practice*, *23*, 167–178. doi:10.1177/1049731512468796

Blumberg, E., Chadwick, M., Fogarty, L., Speth, T., & Chadwick, D. (1991). The touch discrimination component of sexual abuse prevention training: Unanticipated positive consequences. *Journal of Interpersonal Violence*, *6*, 12–28.

Caldwell, B. A. (2012). Child abuse and neglect. In N. L. Potts & B. L. Mandelco (Ed.), *Pediatric nursing: Caring for children and their families* (3th ed., pp. 1379–1412). New York: Delmar, Cengage Learning.

Chen, Y. C., Fortson, B. L., & Tseng, K. W. (2012). Pilot evaluation of a sexual abuse prevention program for Taiwanese children. *Journal of Child Sexual Abuse*, *21*, 621–645. doi:10.1080/10538712.2012.726699

Fang, X., Brown, D. S., Florence, C. S., & Mercy, J. A. (2012). The economic burden of child maltreatment in the United States and implications for prevention. *Child Abuse & Neglect*, *36*(2), 156–165. doi:10.1016/j.chiabu.2011.10.006

Finkelhor, D. (2007). Prevention of sexual abuse through educational programs directed toward children. *Pediatrics*, *1*(3), 640–645. doi:10.1542/peds.2007-0754

Friedrich, W. N., Fisher, J., Broughton, D., Houston, M., & Shafron, C. (1998). Normative sexual behavior in children: A contemporary sample. *Paediatrics*, *101*(4), 1–8.

Harder, J. (2005). Research implications for the prevention of child abuse and neglect. *Families in Society: the Journal of Contemporary Social Services*, *86*(4), 491–501. doi:10.1606/1044-3894.3454

Kaplan, S. J. (2002). Child and adolescent sexual abuse. In M. Lewis (Eds.), *Child and adolescent psychiatry. A comprehensive textbook* (pp. 1217–1222). Philadelphia, NY: Lippincot Williams & Wilkins.

Kenny, M. C. (2009). Child sexual abuse prevention: Psycho educational groups for preschoolers and their parents. *The Journal for Specialists in Group Work*, *34*(1), 24–42. doi:10.1080/01933920802600824

Kenny, M. C. (2010). Child sexual abuse education with ethnically diverse families: A preliminary analysis. *Child and Youth Services Review*, *32*(7), 981–989. doi:10.1016/j.childyouth.2010.03.025

Kenny, M. C., Capri, V., Reena, R., Thakkar, K., Ryan, E. E., & Runyon, M. K. (2008). Child sexual abuse: From prevention to self-protection. *Child Abuse Review*, *17*, 36–54. doi:10.1002/car.1012

Kenny, M. C., & Wurtele, S. K. (2012). Preventing childhood sexual abuse: An ecological approach. *Journal of Child Sexual Abuse*, *21*, 361–367. doi:10.1080/10538712.2012.675567

Kenny, M. C., Wurtele, S. K., & Alonso, L. (2012). Evaluation of a personal safety program with Latino preschoolers. *Journal of Child Sexual Abuse*, *21*, 368–385. doi:10.1080/10538712.2012.675426

Kim, S. J., & Kang, K. A. (2017). Effects of the child sexual abuse prevention education (C-SAPE) program on South Korean fifth-grade students' competence in terms of knowledge and self-protective behaviors. *The Journal of School Nursing*, *33*(2), 123–132. doi:10.1177/1059840516664182 Epub. 20 Sept. 2016.

Krug, E. G., Dahlberg, L. L., Mercy, J. A., Zwi, A. B., & Lozano, R. (Eds.). (2002). World Report on Violence and Health. Geneva, World Health Organization. Geneva, Switzerland. http://whqlibdoc.who.int/hq/2002/9241545615.pdf.

Martyniuk, H., & Dworkin, E. (2011). *Child sexual abuse prevention: Programs for children*. Enola, PA: National Sexual Violence Resource Center. Retrieved from http://www.nsvrcorg/sites/default/files/Publications_NSVRC_Guide_Child-Sexual-Abuse-Prevention-programs-for-children.pdf

Master Thesis. http://www.cocukgozlemevi.org/wp-content/uploads/Uzun_2013_Cinselistismar-ma%C4%9Fduru-ergenlerin-repertuar-grid-tekni%C4%9Fi-ilede%C4%9Ferlendirilmesi-TR.pdf

Mc Grath, M. P., & Bogat, G. A. (1995). Motive intention and authority: Relating developmental research to sexual abuse education for preschoolers. *Journal of Applied Developmental Psychology*, *16*, 171–191.

Ogunfowokan, A. A., & Fajemilehin, R. B. (2012). Impact of a school-based sexual abuse prevention education program on the knowledge and attitude of high school girls. *The Journal of School Nursing*, *28*(6), 459–468. doi:10.1177/1059840512446949

Pereda, N., Guilera, G., Forns, M., & Gómez-Benito, J. (2009). The prevalence of child sexual abuse in community and student samples: A meta-analysis. *Clinical Psychology Review*, *29*, 328–338. doi:10.1016/j.cpr.2009.02.007

Pisi, D. (2013). Psycho-social characteristics of the abused and neglected children. Selçuk University, Health Sciences Institute, Konya, Turkey. Unpublished Graduate Thesis. http://acikerisim.selcuk.edu.tr:8080/xmlui/bitstream/handle/123456789/1059/329305.pdf?sequence=1

Rispens, J., Aleman, A., & Goudena, P. P. (1997). Prevention of child sexual abuse victimization: A meta-analysis of school programs. *Child Abuse & Neglect*, *21*(10), 975–987. doi:10.1016/S0145-2134(97)00058-6

Topping, K. J., & Barron, I. G. (2009). School-based child sexual abuse prevention programs: A review of effectiveness. *Review of Educational Research*, *79*, 431–463. doi:10.3102/0034654308325582

Tunc, G. T., Gorak, G., Ozyazicioglu, N., Ak, B., Isil, B., & Vural, P. (2018). Determining the appropriateness of the "what if" situations test (WIST) with Turkish pre-schoolers. *Journal of Child Sexual Abuse*. https://doi.org/10.1080/10538712.2018.1425947

Turkish Ministry of Justice, General Directorate of Judicial Records and Statistics. (2016). Judicial statistics for 2016. Retrieved from: http://www.adlisicil.adalet.gov.tr/AdliIstPdf/2016.pdf

Turkish Statistical Institute. (2017) Children arriving or brought to security forces. News Article, Issue: 24680, August, 2017. Retrieved from: www.tuik.gov.tr/PdfGetir.do?id=24680

Turkish Statistical Institute. (2018). Results of address based census. *News Article*, (27587), February 2018. Retrieved from: http://www.tuik.gov.tr/PdfGetir.do?id=27587

Tutty, L. (1997). Child sexual abuse prevention programs: Evaluating "who do you tell". *Child Abuse & Neglect*, *21*, 869–881. doi:10.1016/S0145-2134(97)00048-3

United Nations (1989). Convention on the rights of the child. Retrieved from http://www.ohchr.org/en/professionalinterest/pages/crc.aspx.

Uzun, A. (2013). *Adolescents victim of sexual abuse evaluation with repertory grid technique*. Akdeniz Unpublished University Faculty of Medicine, Deparment of Child-Adolescent Mental Health And Diseases, Master thesis. Antalya Turkey. https://updoc.site/download/cinsel-istismar-maduru-ergenlerin-repertuar-grid-teknii-ile_pdf

Vogeltanz, N. D., Wilsnack, S. C., Harris, T. R., Wilsnack, R. W., Wonderlich, S. A., & Kristjanson, A. F. (1999). Prevalence and risk factors for childhood sexual abuse in women: National survey findings. *Child Abuse & Neglect*, *23*, 579–592. doi:10.1016/S0145-2134(99)00026-5

Weatherley, R., Siti Hajar, A. B., Noralina, O., John, M., Preusser, N., & Yong, M. (2012). Evaluation of a school-based sexual abuse prevention curriculum in Malaysia. *Children and Youth Services Review*, *34*, 119–125. doi:10.1016/j.childyouth.2011.09.009

Wurtele, S. K. (2007). Teaching young children personal body safety: The body safety training workbook. University of Colorado at Colorado Springs. Department of Psychology. Retrieved from: http://www.cebc4cw.org/program/body-safety-training-workbook/detailed

Wurtele, S. K. (2008). Behavioral approaches to educating young children and their parents about child sexual abuse prevention. *The Journal of Behavior Analysis of Offender and Victim Treatment and Prevention*, *1*, 52–64. doi:10.1037/h0100434

Wurtele, S. K. (2009). Preventing sexual abuse of children in the twenty-first century: Preparing for challenges and opportunities. *Journal of Child Sexual Abuse*, *18*(1), 1–18. doi:10.1080/10538710802584650

Wurtele, S. K., Hughes, J., & Owens, J. (1998). An examination of the reliability of the "what if" situations test: A brief report. *Journal of Child Sexual Abuse*, *7*(1), 41–52. doi:10.1300/J070v07n01_03

Wurtele, S. K., & Miller-Perrin, C. (2017). What works to prevent the sexual exploitation of children and youth. In L. Dixon, D. F. Perkins, C. Hamilton-Giachritsis, & L. A. Craig (Eds.), *The Wiley handbook of what works in child protection: An evidenced-based approach to assessment and intervention in child protection* (pp. 176–197). Hoboken, NJ: John Wiley & Sons.

Wurtele, S. K., & Owens, S. J. (1997). Teaching personal safety to young children: An investigation of age and gender a cross five studies. *Child Abuse & Neglect*, *21*(8), 805–814.

Wyatt, G. E., Loeb, T. B., Solis, B., Carmona, J. V., & Romero, G. (1999). The prevalence and circumstances of child sexual abuse: Changes across a decade. *Child Abuse & Neglect*, *23* (1), 45–60. doi:10.1016/S0145-2134(98)00110-0

Zhang, W., Chen, J., Feng, Y., Li, J., Liu, C., & Zhao, X. (2014). Evaluation of a sexual abuse prevention education for Chinese preschoolers. *Research on Social Work Practice*, *24*, 428–436. doi:10.1177/1049731513510409