Abstract

The current study aimed to implement and evaluate the effectiveness of a sexual abuse prevention training program to increase personal body safety skills in children having intellectual, hearing, visual or physical disability. A quasi-experimental design with Within-subject was used in which participants were compared on pre-test and post-test. A sample of 40 participants (n=20 boys, n=20 girls), age range 06-19, attended 8-week training were taken purposively. Personal Body Safety Training Program was used as school-based program which delivered the child sexual abuse prevention knowledge and self-protection school-based What If? Situations Test used as pre and post result measure. The ‘What If’ Situations Test (WIST-III-R) contains six scales designed to assess children’s abilities to recognize, resist, and report inappropriate touching. Paired sample t test, independent t test and ANOVA were used for statistical analysis. The Results showed that by attending such programs, children with disabilities could increase their knowledge of personal safety skills and apply this knowledge in their day-to-day lives. Results showed significant differences between pre and post scores of participants after undergoing the Personal Body Safety Training Program. Moreover, a significant difference was found between participants disability wise in pretest and posttest scores but there was no significant difference observed between boys and girls. The study inculcated that the training contributed positively to the children’s sense of personal space and reporting skills.

Keywords: Personal Body Safety, Sexual Abuse, Awareness Training Program, Special Education, Students with Special Needs

1. Introduction

Child sexual violence is a term that encompasses child sexual abuse, child sexual assault and child rape. These terms are often used interchangeably. Child sexual abuse is when a perpetrator involves a child in a non-direct or direct sexual activity for sexual gratification. This can include rape, penetration by force, flashing body parts, viewing sexual content or having a child act in a sexual way (Runyam et al., 2002). While research reveals that child sexual abuse is a serious problem, it also shows that prevention is necessary with evidence of effective prevention strategies. Raising awareness about child sexual abuse among those with the most responsibility for children that is, schools, medical persons, social workers, policy makers, communities and families can help and protect children. Importance of Child Sexual Abuse Prevention in Schools developing awareness among children, parents and schools on sexual abuse and it can be an important step to promote prevention and reduce risk (Pennsylvania Coalition Against Rape, 2015). One level of these prevention strategy ecology includes schools. Basically school-based prevention programs were created to assist children avoid sexual victimization and widely distributed in both the United States and Canada starting in the early 1980s (Miller-Perrin, & Wurtele, 2017). In the US, Canada, UK, Ireland and Australia, many empirical studies have been conducted on school-based child sexual abuse prevention programs. such programs have also been recently evaluated in South Korea (Kim & Kang, 2017) Taiwan (Chen et al., 2012) and China (Zhang et al., 2014). Brassard and Fiorvanti (2015) mentioned the need to teach children skills and strategies to develop their own sense of self-protection. They recommended that children must develop a support network of trusted adults, ask trusted adults to be part of their support network, build rapport within their networks, develop a healthy self-concept, understand safe body rules and build confidence to stop and report unsafe behavior/inappropriate touch. They must learn ways to reject inappropriate/unwanted touching, know what to do if they experience abuse, build appreciation of individuality and differences and respect of self and others. They also suggested that children learn how to use their support networks so that they can practice appropriate self-disclosure; and increase their awareness that the abuse and neglect are not acceptable and internalize the notion that it is not their fault.

In India, a neighboring country with similar socio-cultural background Seth and Srivastava (2013) reported that two thirds’ children are beaten at home or school every year and 52% admitted some form of sexual abuse. In New Delhi, rate of child abuse is over 83%. About 89% of the sexual abuse was commenced by family members. According to UNICEF (2013), Sri Lanka at one time had more than 40,000 children as prostitutes. Most children were abused by western pedophile sex tourists. In 2006, 549,000 foreign tourists visited Sri Lanka. The projected figures for the year of 2010 were more than one million. The NATION (2019) reported that in Pakistan, children...
are taught to be submissive and expected to tolerate violence. The relationship between children and adults is not based on mutual trust and affection but suppressive and forceful obedience. Violence against children is often considered normal and acceptable within the family, institutes, schools and different social spheres in Pakistan. Sahil is an NGO working in Pakistan. It compiled a report titled Cruel Numbers 2019. As per report of 2019, the reporting of child abuse cases has decreased by 26% as compared to the year 2018. Reported cases in 2019 showed that in Pakistan, 8 children are abused per day. Information was taken madrassas, and it shows that children are most vulnerable to abuse in the age group 6-15 years. More boys were reported as victims than girls. The research reflected that young children as 0-5 years are also sexually abused. Different major crime categories of the reported cases are 778 abductions, 405 missing children, 348 sodomy cases, 279 cases of rape, 210 attempted rape cases, 205 gang sodomy, 115 gang rape cases. A total number of 3722 abusers were identified and 2222 were the acquaintances of the victims. Sahil has separately monitored data of juveniles who were involved in child sexual abuse from July to December 2019 as the reporting of juvenile abusers had increased. Out of 2846 cases more than half, 53% cases reported from province Punjab, 30% cases from province Sindh, 7% cases from Islamabad, 6% cases from province Khyber Pakhtunkhwa, 2% cases from province Balochistan and less from Azad Jammu and Kashmir & Gilgit Baltistan. Out of 2846 cases, 64% (1816) were reported from rural areas and 36% (1030) cases were reported from urban areas. There were 35 incest cases reported out of which 30 were girls and 5 boys.

2. Literature Review
Children who have a physical, sensory, intellectual or psychological disability are the foremost stigmatized and marginalized of world’s children. While all children are in danger of being sexual violence victim, children with disabilities are at significantly increased risk due to stigma, negative beliefs and ignorance. Lack of social support, limited educational opportunities, employment or participation within the community further isolates them and their families, resulting in increased levels of stress and hardship. Children with disabilities also are considered as easy victims (Groce, 2005). Stoltenborgh et al., (2011) did another meta-analysis including data from 331 studies representing nearly 10 million individuals. Report analysis showed the entire combined prevalence was 11.8 percent, with 7.6 percent of males and 18 percent of females reporting experiences of childhood sexual abuse. A meta-analysis by Jones et al., (2012) suggested that 13.7 percent of kids with physical disabilities had experienced childhood sexual assault and therefore the odds ratio for pooled risk estimate was 2.88 as compared with non-disabled children. In the US, Pérez-Fuentes and his colleagues (2013) took a population-based sample, of face-to-face interviews with more than 34,000 adults and found that 10 percent of respondents reported experiencing contact childhood sexual assault before age 18 years, 25 percent of whom were men.

Childhood sexual abuse often occurs with other forms of abuse or neglect, and in the families with minimal or low family support and high stress such as high poverty, low level or no parental education, absence or single parenting, substance abuse of parents, domestic violence or low caregiver warmth (Pereda et al., 2009). Children who are impulsive, emotionally needy and who have learning or physical disabilities, mental health problems or substance use may be at higher risk (Butler, 2013; Davies & Jones, 2013). There is no doubt that child sexual abuse is directly associated with the risk of negative psycho-social and health outcomes, but processes of resilience have also identified several protective factors e.g., family support, parent-child relationships, social support that could be strengthened through prevention and early intervention efforts (Murray et al., 2014). Also experienced feelings of guilt and shame, such as perceptions of responsibility for the abuse, lack of honor and loss of self-worth (Schönbucher & et al., 2012; Goodman-Brown et al., 2003; Fontes, 2007).

Guo and companions (2019) claimed that children are vital for the development of the world so that violence against children including sexual abuse which can result in many negative or even severe outcomes is intolerable. More attention should be given to children with disabilities as they are more at risk to the violence but there are few child sexual abuse prevention studies focusing on those people. For instance, Finkelhor et al. (2009) found promising results in their evaluation research of school-based programs, indicating increased knowledge about appropriate and inappropriate situations among participants. Moreover, Wurtele (2019) argues that such programs can effectively reduce sexual abuse by equipping children with personal safety skills, such as recognizing appropriate touching. Furthermore, Kenny (2010) demonstrated that participation in a 16-hour training program led to increased recognition of appropriate touching among children.

Similarly, Baker et al. (2012) observed a significant increase in students’ knowledge about appropriate and inappropriate touching after implementing the “My Body, My Boundaries” syllabus in schools. These findings align with the positive effects of child sexual abuse prevention training programs reported by Kim and Kang (2017), who found improvements in self-protective behaviors among elementary school children in South Korea. Lee and Tang (1998) also observed increased knowledge of sexual abuse and self-protection among participants in their study, with sustained effects observed even two months after the intervention. Moreover, research by
Finkelhor et al. (1995) found that individuals exposed to elaborative prevention education were more knowledgeable about sexual abuse and more likely to report using self-protection strategies. Studies conducted by Blumberg et al. (1991), Baker et al. (2012), Taty (1997), and Kenny (2010) similarly found that participation in prevention programs increased children's knowledge of appropriate touching. These findings collectively provide evidence for the effectiveness of school-based child sexual abuse prevention training programs.

Regarding disability-wise differences, Timms and Gorenczny (2002) highlighted the increased risk of sexual victimization among people with intellectual disabilities due to insufficient sexual knowledge and an inability to discriminate between appropriate and inappropriate advances. According to Liu and Yuan (2017), as a result to the increasing awareness of the magnitude and consequence of childhood sexual abuse in China, the government developed policies about its prevention. Research of Yu and others (2017) among Chinese children with hearing loss showed that they had poor knowledge and skills about child sexual abuse prevention. Sperry and Widom, (2013) pointed out that children with hearing loss needed some prevention education. To prevent childhood sexual abuse, it really matters how people around an abused child respond to such case. Social support to victimized child has been recognized as a buffer against the negative consequences of childhood sexual abuse.

This study aimed to examine the effectiveness of Body Safety Training Program to give insight about appropriate touch vs inappropriate touch in children with disabilities. School based sexual education programs have become a successful way to develop and raise awareness about good touch, bad touch through a variety of programs and means such as books, use of audio & video aids, use of multimedia and information technology. Such programs have been successfully used in developed countries to enhance the child’s practical reactions to inappropriate or unsafe touching and avoid related emotional traumas. In Pakistan there is no evidence available for using school based programs or trainings for children with disabilities. There is also dire need of adjustments and more work on the available literature to make it more age-appropriate as well as culturally acceptable in the non-western cultures. Implementation of such awareness programs is need of the hour so we as a nation, can avoid childhood sexual exploitation and abuse.

### 2.1. Objectives
1. To assess the effectiveness of school based personal body safety program on students.
2. To improve the insight about personal body among students.
3. To compare the demographic differences (disability, gender) of participants.

### 2.2. Hypotheses:
1. There is likely to be significant effect of school based child sexual abuse prevention training program in children with disabilities.
2. There is likely to be significant disability wise differences on the effectiveness of school based child sexual abuse prevention training program in children with disabilities.
3. There is likely to be significant gender differences on the effectiveness of school based child sexual abuse prevention training program in children with disabilities.

### 2.3. Theoretical Framework
The theoretical framework for examination of the impact of the Body Safety Training Program was based on the empowerment theory (Hawks, 1992; Rodwell, 1996). Empowerment is a process of enabling people to choose to take control over and make decisions about their lives (Morton & Montgomery, 2013). Empowerment engages young people in decision-making processes as a strategy for increasing a wide range of potentially malleable protective factors among children and adolescents, to help them attain greater well-being (Ramya & Kira, 2014).

### 3. Method
#### 3.1. Sample
40 students (boys= 20, girls= 20) having four types of disability (hearing impairment, visual impairment, mentally challenged and physically handicapped) with 06-19 years age range were selected through purposive sampling. A priori power analysis calculated using G*Power 3.1.9. for ANOVA to ensure that the study sufficiently powered for analysis or sufficient sample size. The total required sample size was determined 32 for 4 groups (08 for each group) with effect size 0.29 (medium for ANOVA), power 0.92, and alpha (0.05). The current study recruited 32 participants (08 for each group), while 02 participants were recruited additionally for each group to overcome biasness and attrition rate with effect size 0.27, power 0.957 (good power) and alpha (0.05).

#### 3.2. Research Design
A quasi-experimental research design with Within-Subject design was used.

#### 3.2.1. Inclusion/Exclusion Criteria
The students were enrolled in Special Education Centers, Punjab. While participants were excluded if they were unable to attend the group sessions regularly or their disability creates hurdles to carry out the activities of sessions or were not able to respond to questionnaires or other measuring tools due to their disability.
3.2.2. Research Instruments
The Demographic Sheet, ‘What If’ Situations Test (WIST-III-R) and Body Safety Training Program (BST) were used to collect data in the study. The Body Safety Training (BST) Program was created by Dr. Wurtele in 1986 and got revised in 2007. The effectiveness of the BST in teaching children body-safety rules and skills has been demonstrated in numerous studies. The ‘What if’ Situation Test: The ‘What If’ Situations Test was designed to assess preschooler’s personal self-protection skills. It was revised in 2008 as the WIST-III (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. (2018) 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 (Citak Tunc et al., 2018).

3.2.3. Procedure
Participant’s prior knowledge and self-protection skill was assessed by WIST-III-R as pre-test. There was a total of 40 students having 4 types of disability: 10= HIC, 10=VIC, 10=MC, 10=PH. Both genders were included equally. Their parents/guardians were requested to sign consent form. Each experimental group received BST, one video session and pictorial presentation of CSA prevention instructions as panaflexes. It was an 8-week training in which researcher and team taught 7 lessons of BST numbering 1, 5, 6, 7, 8, 9 & 10 and skipped lesson number 2, 3 and 4 as they were about general safety such as car, gun, road safety, so that children would not feel over flooded with information. When the training sessions ended, post testing had done their results are compared to find out differences.

3.2.4. Treatment Team
The current study completed sessions with the help of a supporting team that consisted of nine members. Four team members were professional experts in sign language who effectively communicated with the participants having hearing impairment. Four professional members were included in the treatment team, expert at handling mentally challenged. The ninth member was the researcher himself. 

- **Week-1 Session**: Pre-test was administered group by group. Groups were generated disability wise. Each group consisted of 10 students; 5 boys and 5 girls. Expected time for sessions was 45 minutes. Sessions were conducted with the help of concerning Special Education Teachers and Experts.
- **Week-2 Session**: One Urdu language video clip was viewed by students about the appropriate and in-appropriate touch which delivered the concept of private body parts too, along with the lesson number 1 from BST Booklet; Boss of Body, Body Information & Body Safety
- **Week-3 Session**: Lesson number 5 was taught which was about; Stranger Safety, Accepting (Gifts, Rides, Help), Safe/Unsafe Places, overview.
- **Week-4 Session**: Lesson number 6 was taught which covered; Review Boss of Body, Introduce Private Body Parts Concept (pictures of cartoons wearing swim suits & panaflex story), When it is OK for others to touch or look at your private parts. At the end of session, overview of last lessons.
- **Week-5 Session**: Lesson number 7 discussed following: Review (Boss of Body concept, Private Parts and Appropriate Situations), Introduce Body Safety Rule, Introduce Inappropriate Situations, Touching Somebody Else’s Private Parts is Not OK. At the end of session, overview of last lessons.
- **Week-6 Session**: Lesson number 8 started with the review. Topics were: Introduce Self-Protection Skills, Say “NO!” , Try to Get Away, Tell Someone; No, Go, Tell!!; Who to Tell, overview of Body Safety Skills
- **Week-7 Session**: Lesson number 9 taught following: Review of last lessons, Keep Telling, How to Report, Practice Reporting, Never a Child’s Fault, overview of today’s lesson
- **Week-8 Session**: Lesson number 10 covered: Review, Practice Body Safety Skills (Picture Stories of doctor, Mom, Baby-Sitter from BST Booklet), Question-Answer Session (9 Questions predefined in BST Booklet), Administration of WIST-III-R as post-Test.

4. Results

<table>
<thead>
<tr>
<th>Scale</th>
<th>No of Items</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘What If’ Situations Test (WIST-III-R)</td>
<td>30</td>
<td>.836</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Cronbach’s Alpha of Scale

<table>
<thead>
<tr>
<th>Scale</th>
<th>No of Items</th>
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<td>‘What If’ Situations Test (WIST-III-R)</td>
<td>30</td>
<td>.836</td>
</tr>
</tbody>
</table>

Table 2: Paired Samples t-test Results of Pre & Post score

<table>
<thead>
<tr>
<th></th>
<th>M(SD)</th>
<th>Df</th>
<th>T</th>
<th>P</th>
<th>LL</th>
<th>UL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Score</td>
<td>0.58(0.16)</td>
<td>39</td>
<td>-41.06</td>
<td>.000</td>
<td>-1.21</td>
<td>-1.0996</td>
</tr>
<tr>
<td>Post-Score</td>
<td>1.74(0.10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n=40, M= mean, SD= standard deviation, df= degree of freedom, LL= lower limit, UL= upper limit
The table 2 Paired samples t-test was conducted to evaluate the effect of the Body Safety Training Program on the Awareness Level of the children with special needs. The results indicated there is a significant increase in posttest scores ($M=1.74, SD=0.10$) after the Body Safety Training Program than pretest ($M=0.50, SD=0.16$) with statistical significance values of $t(39) =4.06, p=0.018<0.05$.

Table 3: One Way Analysis of Variance for measuring disability wise effectiveness of school-based child sexual abuse prevention training program

<table>
<thead>
<tr>
<th>Sources of Variance</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.169</td>
<td>3</td>
<td>.056</td>
<td>8.53</td>
<td>.000</td>
</tr>
<tr>
<td>Post-Scores</td>
<td>.237</td>
<td>36</td>
<td>.007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within Groups</td>
<td>.406</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$SS=sum\ of\ squares,\ MS=\ mean\ of\ squares,\ df=\ degree\ of\ freedom$

Table 3 showed that there was significant difference among participants on the basis of disability type after taking school-based child sexual abuse prevention training as $F (3, 36) =8.53, p= .000<0.05$.

Table 4: Gender wise comparison on the effectiveness of school-based child sexual abuse prevention program

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>M(SD)</th>
<th>T</th>
<th>P</th>
<th>LL</th>
<th>UL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttest-Scores</td>
<td>M</td>
<td>20</td>
<td>1.74(.09)</td>
<td>.20</td>
<td>.839</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>20</td>
<td>1.74(.12)</td>
<td>.20</td>
<td>.839</td>
<td>.06</td>
</tr>
</tbody>
</table>

$M=\ arithmetic\ mean,\ SD=\ standard\ deviation,\ LL=\ lower\ limit,\ UL= upper\ limit$

The table 4 showed that there were no significant gender differences in posttest scores on the effectiveness of school-based child sexual abuse prevention training program. The scores of males were ($n=20$ male, $M=1.74, SD=0.09$) and female were ($n=20, M= 1.74, SD=0.12$), $t (40) =.20, p = 0.839>0.05$ were not significant. The hypothesis was not supported by the findings.

5. Discussion

The intention of the study was to develop a sense of awareness regarding appropriate and inappropriate touch among children with four types of disability, with the help of a school-based children sexual abuse prevention training program. By attending the training, children with disabilities appear more capable of increasing their knowledge and practice of personal safety skills.

The hypothesis 1 states that there is likely to be significant effect of school-based child sexual abuse prevention training program in children with disabilities. Paired samples t-test was conducted to evaluate the effect of the Body Safety Training Program on the Awareness Level of the children with special needs children with special needs. This finding supported previous research of Finkelhor and team (2009) that evaluation research about school-based programs in general has yielded promising results. The 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 program is the issue of legal responsibility for compulsory reporting of previous or new cases of inappropriate touching of children. Wurtele (2019) 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. 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). Another study, where “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). In accordance with 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.

Lee and Tang (1998) found increased knowledge of sexual abuse and self-protection in treatment group participants and they also maintained what they have learned for two months following the intervention. The participants of both groups showed less fear after two months training. There are evidences that that participation in school-based child sexual abuse prevention programs may decrease the incidents of child sexual abuse.

As Finkelhor and team (1995) studied 2000 participants, aged from 10 to 16 years, found that those exposed to more elaborative, detailed prevention education were more knowledgeable about sexual abuse, and as a result, more likely to report using self-protection strategies, more likely to report protective efficacy, more likely to...
disclosure, and less self-blaming was seen. In the follow-up study, the same individuals were more likely to use the protective strategies they had been taught when confronted with threats and assaults.

Research studies conducted by Blumberg and team (1991), Baker and others (2012), Tutty (1997), and Kenny (2010), found that children's appropriate touching recognition knowledge increased after the participation in the prevention programs. Therefore, all the research findings provide the evidence for the effectiveness of the programs in preventing sexual abuse.

The hypothesis 2 states that there is likely to be significant disability wise differences on the effectiveness of school-based child sexual abuse prevention training program in children with disabilities and the analysis of variance showed that the effect of training on the four categories of disability was statistically significant as p<.005. Timms and Gorenczny (2002) revealed that due to insufficient sexual knowledge and inability to discriminate between appropriate and inappropriate sexual advances, people with intellectual disabilities have a higher risk of sexual offending as well as the higher risk of sexual victimization.

The hypothesis 3 stated that there is likely to be significant gender differences on the effectiveness of school-based child sexual abuse prevention training program in children with disabilities but there was no significant gender wise effect on the knowledge and self-protection skill.

6. Conclusion
The findings from this study highlight the importance for parents, educators and society to own the responsibility of delivering body safety education to children with disabilities. Furthermore, current research revealed effectiveness of Body Safety Training Program in raising personal knowledge about protection against CSA in children.

6.1. Suggestions
1. The sample should be taken from different cities of Pakistan.
2. More demographic variables can be added in further research.
3. Try different intervention methods to raise awareness about the child sexual abuse prevention knowledge and self-protection skill among individuals.

6.2. Implications
1. National policy makers can include findings and results of current research to spread awareness in society about CSA and can take appropriate prevention measures to overcome it.
2. Children will be able to recognize CSA and will practice their self-protection skill learnt through Body Safety Training Program if they ever experience it.
3. Children, parents as well as society will be able to understand the seriousness of Child Sexual Abuse issue.
4. This study can lead further research on school-based prevention programs for children having disabilities as well as for non-disabled children.
5. National curriculum developers should make Body Safety Training Programs a part of syllabus at junior level as well as non-credit course at college/university level.

References


