**Effectiveness of health education on awareness of child sex abuse among school children**

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**Abstract**

**Introduction:** Child sexual abuse (CSA) is a serious and hidden problem in India. Despite being such a huge problem a culture of silence surrounds the subject of CSA. Empowering children to protect themselves and disclose the abuse is the only way to overcome the hidden problem of CSA. Hence the present study was designed to evaluate the effectiveness of health education.

**Methodology:** Health education through interactive power point discussion and video was imparted to 200 girls of class 6th to 12th in Government higher secondary school, Coimbatore. Baseline data was collected using self-administered questionnaire. A week after the base line assessment, health education was delivered in five sessions with forty students per session. Interactive session lasting for 60 minutes using power point and videos were used to educate children. Follow-up data was collected after two months using the same questionnaire.

**Results:** Initially only 23% of girls were aware about child sex abuse, and then, after intervention witnessed significant improvement to 71.5%. Similarly only 19% of girls were aware of various types of child sex abuse prior to intervention, however significant number of girls became aware post intervention. There was significant improvement in proportion of children (94.5%) who agreed that they will report bad touch to someone they trust until that person believes them. Pre-intervention only 31% of children knew as to what to do if sexually abused, this percentage rose significantly after the intervention. There was a significant improvement in knowledge from 49% to 78% post intervention regarding laws to protect children from sexual offences. Almost 90% of children reported that they knew about the child help line number.

**Conclusion:** In this study has proven that health education imparted to girls has improved their knowledge and empowered them to report the events and protect themselves from such incidents.

**Keywords:** Awareness, child sex abuse, health education, school children

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**Introduction**

Child sexual abuse (CSA) is a serious and hidden problem in India. The World Health Organization defines CSA as the involvment of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared and cannot give consent, or that violates the laws or social taboos of society.[1] CSA includes an array of sexual activities like fondling, inviting a child to touch or be touched sexually, intercourse, exhibitionism, and forcing a child to watch pornography.[2]

A Survey Conducted in 2007 by the Ministry of Women and Child Development revealed 53% of boys and 47% of girls had experienced some form of sexual abuse.[3] Another study conducted in 2005 by an Indian NGO among school-going children in Chennai showed 48% of boys and 39% of girls were sexually abused.[4] A study reports children are sexually abused by people known to them, such as relatives, neighbors, friends, and staff at school.[5] Majority of children do not report such incidents to anyone.

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to seek help.\cite{7,8} The victims of CSA were also found to have increased risks for depression, low self-esteem, eating disorders, substance abuse, insurance and lack of trust in relationships.\cite{9,10,11}

Despite being such a huge problem, a culture of silence surrounds the subject of CSA hence it is rarely discussed at home as well as at schools. Empowering children to protect themselves and disclose the abuse is the only way to overcome the hidden problem of CSA. Educating students about body safety rules, good touch, bad touch, and reporting the event to adults would be effective preventive measure to protect themselves from such incidents. In addition to educating children, it is also important to train the primary care physicians to identify the problem of abuse in a child and to offer the child counseling and support. Primary care physicians also have the responsibility to report the case to authorities to prevent further abuse and refer the child to a specialist team for further management. With this background, the present study was designed to evaluate the effectiveness of health education.

**Aims and Objectives**

To evaluate the effect of health education on child sex abuse awareness among 6th to 10th Standard Students in Urban Coimbatore, in terms of:

- Change in knowledge regarding types of child sex abuse, safe and unsafe touching
- Ability to recognize and run away from abusive situations
- Perception of seeking help and support

**Materials and Methods**

**Study Design**
Before and after interventional design without control.

**Study setting**
Government School in Service area of Urban Health Training Centre attached to Government Medical College and ESI Hospital, Coimbatore.

**Study Participants**
All girl children in class 6th to 12th who gave consent to participate.

**Study Period**
June to September 2019.

**Sample Size**
Calculated to be 200, using the software Open Epi 3.0, assuming a minimum improvement in awareness on child sexual abuse as 20% from a baseline of 10% with 80% power, 95% confidence interval, and 20% non-response rate.

**Brief Procedure**

- Obtained Permission from School Principal
- Pre-test assessment using a self-administered questionnaire (Tamil)
- Health Education for the duration of 60 minute
- Post-test at end of 2 months

The study was conducted after obtaining clearance from Institutional Human Ethics Committee, permission from school authorities, consent from parents, and assent from the students. The purpose of the study and the nature of information which has to be furnished from the students was explained to them. Willingness to participate in the study was obtained from the participants by a written consent form. Baseline knowledge was assessed using a pretested structured self-administered questionnaire. The principal investigator read the questions aloud and facilitated participants to respond. The questionnaire included socio-demographic details, education and Occupation of parents. Questions pertaining to knowledge regarding good touch, bad touch, personal safety rule, safe body rule, and preventive measures were asked. The questionnaire also evaluated children’s perception of risk and their ability to respond when involved in at-risk situations. A week after baseline assessment Health education was delivered to girls by a co-investigator. Health education was given in 5 sessions, 40 students were included per session. Each session lasted for 60 minutes. After two months of health education, knowledge was assessed using the same questionnaire as at the baseline.

**Intervention**

Health education material was prepared and validated by subject experts. Contents were delivered using a combination of teaching strategies like PPT (interactive session) followed by 10-minute video followed by discussion. Students were educated about the following:

- Definition child sex abuse
- Types of CSA
- Safe and unsafe touching
- Good and bad secret
- Persons who could abuse them
- Grooming tactics used by perpetrators
- Learn to say NO and escape the situation,
- Seeking help and Support.

**Statistical analysis**

Data were entered in Excel and analyzed using SPSS software Version 24.0. Categorical variables were described in frequency and percentage. Pre and post-intervention data were compared using the paired Chi-square test for proportions. The level of significance was considered a \( P \) value < 0.05.
Observation and Results

This study was carried out in a government higher secondary school in the service area of the urban health training center attached to GMC and ESI Coimbatore. 200 girls from standard 6 to 12 were included in the study. Demography as depicted in Table 1, almost half (47.5%) of the girls were in the age group of 13-15 years. The percentages of mothers and fathers who have completed high school and above are 42.5% and 45.5% respectively. Around 13% of mothers were homemakers and almost half of them (48.5%) were doing some semiskilled work. All the fathers were employed and around 46.5% were involved in skilled work. After analyzing pre and post-assessment responses, proportions and P values for significance were calculated and tabulated as follows.

When asked about child sex abuse only 23% of children were aware initially and this rose to 71.5% after the intervention. This is considered as a significant increase in the response from baseline as the P value is < 0.001. In this study, P value < 0.05 is considered significant. Only 19% of children were aware of the various ways in which children are abused, however, after the intervention, 63% of them were aware of the same and that was a significant improvement. The majority (81.5%) of children did not know that they can be abused by older children. Around 80.5% of children were not aware of male children being sexually abused; this percentage was significantly reduced to 14% after the intervention [Table 2].

The majority (77%) of children knew how to differentiate between good and bad touch before the intervention and post-intervention it was 93% with a significant P value (<0.01). 87% of children were aware that no one can touch them in a way that makes them feel uncomfortable. Also, 93% of children felt it's ok to say NO and move away when someone touches them in a way they are not comfortable with. As the majority of children knew pre-intervention that it's ok to say NO and move away and no one has the right to touch them in the way they don't like, there is no significant change in knowledge post-intervention. Most (94%) of children reported they will not allow the grown-ups touch if they don't like it [Table 3].

About 88% of children agreed that they will report bad touches to someone they trust until that person believes them, there was a significant improvement to 94.5% after the intervention. The majority (87.5%) of girls were aware it’s not necessary to keep secrets always. The children rightly knew that person who offers them gifts and chocolates may not be always good. Pre-intervention only 31% of children knew as to what to do if sexually abused, this percentage rose significantly after the intervention. There was a significant improvement in knowledge from 49% to 78% post-intervention regarding laws to protect children from sexual offenses. Almost 90% of children reported that they knew about the child helpline number and most of them rightly mentioned the number [Table 4].

Discussion

In the current study conducted among 200 girls of class 6th to 12th in a government higher secondary school, almost half of the students were in the age group of 13-15 years. To get a perspective on the effectiveness of the intervention, in the present study, the data with significant improvement as compared with respect to similar studies.

### Table 1: Demographic characteristics of study participants (n=200)

| Characteristic       | Options     | Number | Percentage |
|----------------------|-------------|--------|------------|
| Age in years         | 10-12       | 52     | 26         |
|                      | 13-15       | 95     | 47.5       |
|                      | ≥16         | 53     | 26.5       |
| Education of Mother  | Primary     | 64     | 32         |
|                      | Middle      | 51     | 25.5       |
|                      | High school and above | 85     | 42.5       |
| Occupation of Mother | Home maker  | 27     | 13.5       |
|                      | Unskilled   | 97     | 48.5       |
|                      | Semiskilled | 76     | 38         |
| Education of Father  | Primary     | 33     | 16.5       |
|                      | Middle      | 76     | 38         |
|                      | High school and above | 91     | 45.5       |
| Occupation of Father | Unskilled   | 58     | 29         |
|                      | Semiskilled | 49     | 24.5       |
|                      | Skilled     | 93     | 46.5       |

### Table 2: Impact of Health Education on knowledge regarding types of CSA (n=200)

| Variable                           | Options     | Pre-test (%) | Post-test (%) | P      |
|------------------------------------|-------------|--------------|---------------|--------|
| Aware of CSA                       | Know        | 46 (23)      | 143 (71.5)    | <0.001 |
|                                    | Don't Know  | 154 (77)     | 57 (28.5)     |        |
| Aware of modes of CSA              | Know        | 38 (19)      | 126 (63)      | <0.001 |
|                                    | Don't Know  | 162 (81)     | 74 (37)       |        |
| Elder children                     | Know        | 37 (18.5)    | 118 (59)      | <0.001 |
| abuse younger ones                 | Don't Know  | 163 (81.5)   | 82 (41)       |        |
| Most perpetrators are known to child | Know       | 22 (11)      | 137 (68.5)    | <0.001 |
| Reputable family not victim of CSA | Don't Know  | 178 (89)     | 63 (31.5)     | <0.001 |
| Male children are not sexually abused | Agree     | 161 (80.5)   | 28 (14)       | <0.001 |
|                                    | Disagree    | 39 (19.5)    | 172 (86)      |        |

### Table 3: Impact of Health Education regarding Good and Bad Touch (n=200)

| Variable                           | Options     | Pre-test (%) | Post-test (%) | P      |
|------------------------------------|-------------|--------------|---------------|--------|
| Differentiate good and bad touch   | Know        | 154 (77)     | 186 (93)      | <0.001 |
|                                    | Don't know  | 46 (23)      | 14 (7)        |        |
| Person you like can touch in a way you feel bad | Agree     | 26 (13)      | 16 (8)        | 0.10   |
|                                    | Disagree    | 174 (87)     | 184 (92)      |        |
| Its ok to say No when someone does bad touch | Agree     | 186 (93)     | 191 (95.5)    | 0.29   |
|                                    | Disagree    | 14 (7)       | 9 (4.5)       |        |
| Can grown-ups touch you, even if you don’t like | Agree     | 11 (5.5)     | 8 (4)         | 0.49   |
|                                    | Disagree    | 189 (94.5)   | 192 (96)      |        |

In the current study conducted among 200 girls of class 6th to 12th in a government higher secondary school, almost half of the students were in the age group of 13-15 years. To get a perspective on the effectiveness of the intervention, in the present study, the data with significant improvement as compared with respect to similar studies.
As a majority of children knew pre-intervention, 38 (19) knew bad touch until they believe you and 162 (81) agreed, while 156 (78) disagreed. The Chi-square test showed a significant difference (value < 0.001) in knowledge regarding child sex abuse after the intervention. Only 19% of children were aware of various ways of sex abuse prior to intervention and post-intervention significant proportion of children were aware. This suggests that health education was beneficial in this respect. Studies have shown that children are most likely to be abused by persons who are familiar to them; in this study, only 11% of the children were aware that perpetrators can be familiar with the child. This finding is similar to the study conducted in China which reported less than half the children knew that strangers were not the only perpetrators.12 In this study, only 20% of children knew boys could also be sexually abused. In contrast, 76% of children were aware in community-based schools in a study conducted in Nepal.13

In the current study, 77% of children were aware of good and bad touch. This improved to 93% post-intervention and the difference is significant with $P$ value < 0.001, similar to a study conducted in the US that reported significant improvement in children recognizing inappropriate touch and requests made by good people.14 As a majority of children knew pre-intervention that it is okay to say NO and move away and no one has the right to touch them in the way they don’t like, there is no significant change in knowledge post-intervention. In our study around 94% of children reported that they will not allow even the grown-ups to touch in a way they don’t like, this shows that children are empowered to say no even to elders. These findings are supported by a study conducted among parents in China which revealed 60% of parents have discussed with children that their private parts should not be touched by others.12 Another study conducted in the US to evaluate the personal safety program reported children demonstrated the ability to recognize the inappropriate touch and demonstrated general safety rules.13 Similarly, a study conducted in San Diego reported children in the intervention group were able to discriminate against inappropriate touch after the training.14

The current study showed significant improvement in knowledge regarding the measures of seeking help and support in case of abuse. Almost 95% of children understood that they should report bad touches to someone whom they trust until that person believes them, similar to a study conducted in Canada that showed significant improvement in knowledge and attitude towards reporting the abuse.17 Whereas in a study conducted in China, only 16% thought they should report secret touching.12 Another study reported participants improved in their abilities to report secret touching after the intervention.14

In the present study, there was a significant improvement in knowledge post-intervention regarding how to respond in case of child sex abuse. Almost 63% of children knew that they should say No and move away from the abusive situation. In contrast, a descriptive study conducted in China reported only 20% of children were aware of removing themselves from abusive situations.12 With respect to laws, results showed significant improvement in knowledge from 49% pre-intervention to 78% post-intervention regarding laws that protect children from sexual offenses. Protection of children from sexual offenses act is a step in the right direction to deal with child sexual abuse. With effective implementation of an intervention, 90% of children reported that they knew about the child helpline number and most of them rightly mentioned the number. Similar findings were also reported in a study conducted to evaluate the effectiveness of school-based child abuse prevention program.14

### Conclusion

The present study has demonstrated that it is practically feasible to implement a health education program about child sex abuse in schools. Health education program with interactive discussion along with powerpoint presentation and video resulted in significant improvement in knowledge regarding child sex abuse among girl children. In our study, the majority of girls were not aware of child sex abuse, types of abuse, and what to do if sexually abused. Hence it is important to implement a structured education program to school children on child sex abuse to prevent the occurrence of child sex abuse in children. Information on types of child sex abuse and its prevention must be included in the curriculum which in turn will improve the discussion between students, parents and teachers and break this
culture of silence. Educating children about body safety rules and empowering them to report the events will protect them from such incidents.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

References
1. Murray LK, Nguyen A, Cohen JA. Child sexual abuse. Child Adolesc Psychiatr Clin N Am 2014;23:321‑37.
2. Putnam FW. Ten year research update review: Child sexual abuse. J Am Acad Child Adolesc Psychiatry 2003;42:269‑78.
3. Kacker L, Vardan S, Kumar P. Study on Child Abuse: India 2007 Ministry of Women and Child Development, Government of India, 2007;1-192.
4. Study on Child Abuse: India 2007. India, Ministry of Women and Child Development Government of India. 2007.
5. Iravani MR. Child abuse in India. Asian Soc Sci 2011;7:150-3.
6. Behere PB, Mulmule AN. Sexual abuse in eight year old girl: Where do we stand legally? Indian J Psychol Med 2013;35:203-8.
7. Carson DK, Foster JM, Tripathi N. Child sexual abuse in India: Current issues and research. Psychol Res 2013;58:318‑25.
8. Singh M, Parsekar S, Nair S. An epidemiological overview of child sexual abuse. J Family Med Prim Care 2014;3:430‑5.
9. Luo Y, Parish WL, Laumann EO. A population-based study of childhood sexual contact in China: Prevalence and long-term consequences. Child Abuse Negl 2008;32:721‑31.
10. Maniglio R. The impact of child sexual abuse on the course of bipolar disorder: Systematic review. Bipolar Disord 2013;15:341‑58.
11. Shrivastava AK, Karia SB, Sonavane SS, De Sousa AA. Child sexual abuse and the development of psychiatric disorders: A neurobiological trajectory of pathogenesis. Ind Psychiatry J 2017;26:4-12.
12. Chen JO, Chen DG. Awareness of child sexual abuse prevention education among parents of grade 3 elementary school pupils in Fuxin City, China. Health Educ Res 2005;20:540-7.
13. Basnet R, Gautam S, Maharjan S. Awareness of child sexual abuse among secondary school students in Kathmandu district. Soc Inq Int J Soc Sci Res 2020;2:104-27.
14. Kenny MC, Wurtele SK, Alonso L. Evaluation of a personal safety program with latino preschoolers. J Child Sex Abus 2012;21:368-85.
15. Kenny MC, Wurtele SK. Children's abilities to recognize a "good" person as apotential perpetrator of childhood sexual abuse. Child Abuse Negl 2010;34:490-5.
16. Blumberg EJ, Chadwick MW, Fogarty LA, Speth TW, Chadwick DL. The touch discrimination component of sexual abuse prevention training. J Interpers Violence 1991;6:12-28.
17. Tutty LM, Aubry D, Velasquez L. The “Who Do You Tell?” child sexual abuse education program: Eight years of monitoring. J Child Sex Abus 2020;29:2-21.
18. Dhooper SS, Schneider PL. Evaluation of a school-based child abuse prevention program. Res Soc Work Pract 1995;5:36-46.