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Effectiveness of structured teaching program on parents' knowledge about child physical abuse

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Abstract:

BACKGROUND: The issue of child physical abuse (CPA) is complex and challenging to study. According to World Health Organization fact sheets for 2020, about 3 in 4 children between 2 and 4 years of age regularly face physical maltreatment by parents or caregivers. It may cause a lifelong impact on physical and mental health.

OBJECTIVE: To assess the parents' knowledge and to evaluate the effectiveness of the structured teaching program (STP) regarding child physical abuse (CPA) among parents.

METHODS AND MATERIALS: The pre-experimental, "One-group Pre-test Post-test design" was adopted for this study. Parents of children who were admitted for treatment in the child psychiatry centre (CPC) of a tertiary care referral center between January 2019 and January 2020 were recruited for this study. Thirty parents were recruited with a convenience sampling technique. The study was conducted through an online platform (Zoom). Pre-test and post-tests were conducted through Google survey form. Data were collected with a self-developed knowledge questionnaire on CAP. An online structured teaching program (STP) was administered for three alternative days after the pre-test assessment. The post-test assessment was conducted at a two-point time, that is immediately after the STP and after the one-week gap. Descriptive and inferential statistics were used to analyze the data.

RESULTS: The pre-test knowledge assessment means score regarding child physical abuse was found to be 12, with a standard deviation of 1.73. In the post-test one, 17.30 ± 1.39 and in the post-test two, 16 ± 1.55 with $P < 0.001$. Analysis revealed statistically significant improvement was found in the post-test knowledge regarding child physical abuse among the parents. There was no significant ($p < 0.05$) relationship found between the socio-demographic variables of the participants and their pre-intervention knowledge scores on child physical abuse.

CONCLUSIONS: The study findings reveal that parents have a fair knowledge of CPA and the STP was effective and feasible to administer in improving the subjects' knowledge regarding child physical abuse.

Keywords:

Child abuse, parental knowledge, physical abuse

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Introduction

Children are a mirror of a country's future. The initial years of life are precious as well as unsafe so, the rights of a child should be respected, and their safety should be considered as the topmost priority.[1] Child physical abuse (CPA) is a vast public health issue due to its increasing prevalence and its relation to hostile health effects.[2] This may be in the form of hitting, punching, shaking, kicking, biting, suffocating, or poisoning. Children are subject to physical abuse mostly in the form of punishment in the home.[3] According to WHO (2020) globally, it is estimated that one out of two children aged 2–17 years

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experiences some form of violence each year[4] and according to World Bank national income levels, the rates of physical child abuse were 54% among low-income nations, 9% in middle-income countries, and 15% in high-income countries.[5] A study on child abuse in India, conducted by the Ministry of Women and Child Development, (Government of India, 2007) reported that around 68.99% of child respondents reported physical abuse, out of which most of the respondents (54.68%) were boys. State-wise physical abuse was alarmingly high, above 80% in the following mentioned states, i.e., Assam (84.65%), Mizoram (84.64%), Delhi (83.12%), and Uttar Pradesh (82.77%).[6] One of the south Indian studies, conducted in Kerala revealed that the lifetime prevalence of physical abuse reported in their study was 73.9%,[7] while comparing the neighboring country that is China, where in 19.6% of children have suffered from physical abuse and CPA causes 12.2% of disability-adjusted life-years.[8] According to World Health Organization fact sheets 2020, about 3 in 4 children between 2 and 4 years of age regularly face physical maltreatment either by parents or by caregivers.[9] Further, in the US, The Department of Health and Human Services Children's Bureau (2020) report on child maltreatment found that 101,961 children were physically abused.[10] Global estimates of the cost of this type of abuse, in particular, are not yet available, but a recent economic evaluation of the damage* of violence% against children (combining physical, psychological, and sexual abuse only) has set the figure at $7 trillion, or up to 8% of global GDP.[11] It is well explained that the children who have experienced CPA are at higher risk of getting mental health issues like depression, anxiety, alcohol abuse, poor physical health status, as well as suicide attempts.[12,13] Depression may also occur due to serious impacts of physical health issues caused by CPA.[14] Some of the retrospective studies revealed that CPA is highly prevalent among injecting drug users (IDUs), with half* or more reporting such abuse.[15,16] Some of the other consequences of CPA are aggressive and violent behavior, self-harming behavior, emotional problems, interpersonal problems, and academic and vocational difficulties.[17] It is also known that violence breeds more violence, even across generations and children who have experienced abuse are susceptible to abusing others as adults.[18]

The previous study suggested a lack of knowledge among parents regarding child abuse, including sexual violence, physical violence, negligence, and mental abuse.[19] Similarly, one more previously conducted study in Karnataka revealed that most of the parents believe sexual abuse only as child abuse, not physical, and emotional abuse. Further, their study recommended educating the parents is essential to overcome and prevent child abuse.[20] The review of the literature revealed that studies conducted only on physical abuse are not enough to state the evidence. Hence, the present study aimed to make an effort to identify the parents' existing knowledge of CPA and tried to find the effectiveness of the STP for the same. Since most of the physical maltreatment is carried out by the parents,[9] it can be prevented by empowering parents through creating awareness of CAP and its' consequences in children.

Methods and Materials

Study design and setting

The pre-experimental, one-group pre-test-post-test design was used for this study. Wherein, baseline assessment, structured teaching program (STP) and two-point post-test assessments were conducted through online. This study was conducted in the well-renowned child psychiatric center (CPC) of the tertiary care mental health institute in south Bengaluru, Karnataka.

Study participants and sampling

The target population for this study includes parents of children. For the present study, researchers selected the parents of the children who were admitted to CPC from January 2019 to January 2020 for seeking treatment for their various mental disorders were selected as study participants for this study. Parents who have smartphones, e-mail facilities and are willing to participate in the study were included in this study. Also, the parents of children admitted to CPC during the data collection period, who were fluent in Hindi or English, either mother or father were included in the study. Parents who don't have smartphones, e-mail facilities and who don't know to read and write English, Hindi and parents who are exposed to similar type of teaching program were excluded from the study. The sample size for the present study was (N = 30) determined based on the pilot study.

Data collection tool and technique

The socio-demographic data sheet was used to collect the information on parents' age, gender, religion, education, family type, place of residence, occupation, number of children, current marital status, and source of abuse-related information. The self-structured questionnaire on knowledge about CPA was prepared by the researchers, a total of 20 items questionnaire, which has multiple choice options with four alternatives for two questions and 2 alternatives for the rest of the eighteen questions. Items of the questionnaire were prepared to know the knowledge and awareness of the parents about Child Physical Abuse, its' definition, causes, risk factors, prevention, complications, management, and responsibilities of the parents. The total score ranges between 0 and 20, and each correct answer carries one mark. A higher score indicated higher knowledge. The

tool was validated by 5 experts in the field of nursing (02), child and adolescent psychiatry (01), psychiatric social work (01), and clinical psychology (01). The test re-test, Pearson's correlation coefficient (re-value) was: 0.936.

To develop STP, a thorough and extensive search of various literature and patients' educative materials was carried out by the researchers. Online gathering of information from various websites and search strategy on child physical abuse, various types of abuse, consequences of child physical abuse, and prevention of child physical abuse strategy was carried out. Discussion from various experts in the field of nursing, child and adolescent psychiatry, psychiatric social work, and clinical psychology helped in identifying important aspects that should be covered in 3 sessions. To ensure the content validity of the structured teaching program, it was submitted to the above-mentioned experts along with the questionnaires. The experts were requested to give their valuable opinion regarding the content's relevancy, appropriateness, and adequacy. The experts' corrections and suggestions were incorporated into the tool and STP module.

The content of the structured teaching program was the introduction of child abuse, a discussion on various forms of child abuse and a detailed discussion on CPA, the role of parents in identifying CPA and education regarding its consequences and the role of parents in prevention and management of CPA.

As part of the data collection process, researchers collected the phone numbers of the eligible parents as per the inclusion criteria from the CPC (Child Psychiatric Center), then the purpose and nature of the study were explained to the participants over the call and oral informed consent from subjects was taken. After obtaining informed consent, Socio-demographic tool and pre-test assessment of knowledge on Child Physical Abuse were administered to the subjects through the google form. Self-administration of the tool was allowed. But it was ensured that subjects can contact the researcher, for clarification of any doubts that arose during self-administration.

The participants were made to gather in groups through ZOOM. Prior to each session participants were instructed through WhatsApp and mail. Three online sessions were conducted, each session lasted for 30 minutes and was conducted on three alternative days. The sessions were administered to the study group participants using ppt, interactive discussion, and brainstorming with the help of audio-visual aid. The first post-test assessment was conducted a day after the last session and the second post-test assessment was conducted 07 days after the first post-test. The data were analyzed using SPSS 22 package under the guidance of a statistician. Descriptive statistics such as frequency and percentage were used to analyze the demographic profile of the study subjects. The pre-test and post-test knowledge were analyzed to test the significance difference by RM-ANOVA. The association of the socio-demographic variables with the pre-test knowledge level on child physical abuse was done using ANOVA, t test, and Pearson correlation test.

Ethical considerations

Ethical clearance was obtained from the institute ethics committee (Ref-No.NIMH/DO/IEC (BEH. Sc. DIV)/2019 Dated 4th March 2020), and informed consent was taken from the parents to participate in the study.

Results

The study results were reported under the different categories of the headings.

The personal details of the participants

The data represented in Table 1 describes the socio-demographic characteristics of the study subjects. It reveals forty-three per cent of study subjects were between 31 and 40 years of age (n = 13, 43%). The majority were male (n = 16, 53%), 50% of the parents were educated up to graduation (n = 15), majority of them belongs to the nuclear family (24, 80%). More than 50% of them were from urban areas (n = 17, 57%) and were

Table 1: Baseline profile of the study Participants (*n*=30)

Variables	Category	Frequency (Percentage)
Age	20-30	8 (26.70)
	31-40	13 (43.30)
	41-50	9 (30.00)
	>50	0
Gender	Male	16 (53.30)
	Female	14 (47.70)
Education	Professional	6 (20.00)
	Graduate	15 (50.00)
	Diploma/High school	9 (30.00)
Type of family	Nuclear	24 (80.00)
	Joint	6 (20.00)
Place of residence	Urban	17 (56.70)
	Rural	13 (43.30)
Occupation	Employed	17 (56.70)
	Self-employed	9 (30.00)
	Unemployed	4 (13.30)
Number of children	One	13 (43.00)
	Two	15 (50.00)
	Three	2 (07.00)
Current marital status	Married	30 (100)
Source of abuse related information	Health personnel	5 (17.00)
	Mass media	6 (20.00)
	Relatives	9 (30.00)
	Community	10 (33.00)

employed (17, 57%). All of them were married and half of them had two children (15, 50%), and all the parents received some information about "Child Abuse" out of that majority 33% acquired abuse-related information from the community.

Knowledge of parents regarding child physical abuse

The pre-intervention mean knowledge score of the parents regarding child physical abuse was 12, with a standard deviation (SD) of 1.72 [Table 2].

Effectiveness of structured teaching program (STP-CPA)

The effectiveness of the structured teaching program on child physical abuse among parents was measured through the changes in the mean score of pre-tests, post-test 1, and post-test 2 [Table 3]. RM–ANOVA test was used to analyze the differences in the mean scores of the three assessments on parental knowledge regarding child physical abuse. Table 3 reveals that knowledge of the study subjects regarding child physical abuse has improved significantly over the three times of assessments. RM ANOVA test indicated that post-test knowledge scores (post-test 1, post-test 2,) were significantly higher than pre-test scores (p value <0.001)

Table 2: Pre-interventional knowledge score toward CAP among parents (*n*=30)

Variable	Mean (SD)
Pre-interventional knowledge score regarding child physical abuse	12 (1.72)

Association between pre-intervention knowledge regarding CPA among the parents and selected baseline variables

Table 4, illustrated the association between the sociodemographic variables with parents' knowledge score. Independent t test, ANOVA, and Pearson correlation test showed that there is no significant association found between the parents' knowledge regarding child physical abuse and their selected demographic variables at $P < 0.05$.

Discussion

As, the parents are the primary caregiver and primary defense for a child from being abused, if they are aware and knowledgeable regarding child physical abuse and its prevention, they can step forward for the prevention of child physical abuse that prevents many of the psychological issues in children. In this study, most of the parents who fall within the age group of 31-40 years were males and were graduates. Most of them belong to a nuclear family were from an urban area and were employed. All the parents received some information about "Child Abuse" from various resources. Out of that, the majority 33% acquired abuse-related information from the community. However, they did not consider physical abuse as child abuse.

Table 3: Comparison of total knowledge scores regarding child physical abuse across the assessments (*n*=30)

Variable	Pre-test	Post-test-I	Post-test-II	*F*	*P*	Multiple Comparison
		Mean (SD)				
Knowledge	12 (1.72)	17.30 (1.39)	16 (1.55)	264.46	<0.001	Pre-test – Post-test I (*P*<0.001)* Pre-test – Post-test II (*P*<0.001)* Post-test I – Post-test II (*P*<0.001)*

*Statistically significant at <0.05 Level

Table 4: Association between pre-intervention knowledge regarding child physical abuse among the parents and selected baseline variables (*n*=30)

Variables		Knowledge Mean (SD)	*t*/*F*	*P*
Age	20-30 (*n*=8)	11.25 (1.28)	2.25	0.135#
	31-40 (*n*=13)	12.77 (2.05)		
	41-50 (*n*=9)	11.56 (1.13)		
Gender	Male (*n*=16)	11.69 (1.62)	-1.065	0.296
	Female (*n*=14)	12.36 (1.82)		
Education	Professional (*n*=6)	11.83 (1.17)	0.37	0.964
	Graduate (*n*=15)	12.07 (1.75)		
	Diploma/High school (*n*=9)	12 (2.12)		
Type of family	Nuclear (*n*=24)	12 (1.89)	0.000	1.000
	Extended (*n*=6)	12 (0.89)		
Place of residence	Urban (*n*=17)	12.06 (1.78)	0.210	0.835
	Rural (*n*=13)	11.92 (1.70)		
No. of children	Median (Inter-Quartile Range)	2 (1,2)*	0.098##	0.608

#Welch test, ##Pearson correlation *Statistically significant at <0.05 Level

The pre-intervention knowledge of the study subjects on child physical abuse was assessed through knowledge assessment questionnaire. Pre-knowledge assessment mean score regarding child physical abuse was found to be average (mean score 12 with a standard deviation of 1.73) which coincides with the findings of previous studies.[19,20] Malla *et al*. (2018)[21] conducted a study on the effectiveness of video-assisted teaching programs on the prevention and management of child abuse among mothers of children in a selected rural area in Mangalore and also revealed similar results as like present study results.

However, in the present study, more than 50% of the participants did not know that their personal history of childhood physical abuse can be a risk factor for child physical abuse. Similarly, parents didn't know that their low tolerance behavior can be a risk factor of child physical abuse. Further, many parents not known that physical punishment leads to mental health and behavioral issues in children. The comparison of the study subjects' pre-test and post-test knowledge scores on child physical abuse showed that the pre-test knowledge mean score was significantly lower than the post-test mean score. The RM ANOVA test revealed, significant changes in the knowledge score of the pre-test from the post-test ($p < 0.001$) following the interactive sessions. This indicates, the STP was effective in improving the parental knowledge of CPA. Similar findings were noted from a study conducted by Sanghpriya (2020)[22] to assess the effectiveness of structured teaching program regarding child abuse on knowledge among mothers of school-age children wherein, the researcher found that there was a significant difference in the mean knowledge score of parents before (10.42) and after (17.61) the administration of the module, which shows that educational module was effective to improve the Knowledge of mothers. In this study, there was no statistically significant association was found between the pre-intervention knowledge score and selected socio demographic variables of the parents. Another study conducted by the Helmy *et al*. (2017)[23] wherein mothers' knowledge about CPA was found to be average. The current study result and previous study results show that parents are aware of child abuse to some extent. However, in this present study many of the participants didn't know that physical punishment is child physical abuse. It is our duty to safeguard children from any kind of abuse. As healthcare professionals, it is their responsibility to educate the parents about child physical abuse or physical punishment and its mental and physical health-related consequences. Further early identification of child physical abuse is an important aspect of the healthcare delivery system. Hence, we can prevent most of the psychological issues in children and adolescents.[24] While most of the studies concentrated only on Child Abuse, our study specifically took initiation toward exploring Child Physical Abuse (CPA) and further assessed the knowledge of parents of children with mental health issues and educated them about CPA. This would have enhanced the parental understanding toward CPA is one of the causes and risk factors of childhood mental and behavioral issues. However, the qualitative nature of the study design might explore the multiple views on parental perspective in this arena.

Limitations of the study

As the study adopted a convenience sampling technique, the generalization of the finding was limited. Due to the COVID-19 restrictions, the study was conducted online. The participants might have shown subjectivity in answering the questions online.

Recommendation for future research

The study can be replicated with a larger sample size, randomization, and control group which will aid in generalizing the findings. Mixed method research can be adopted to yield quantitative as well as qualitative data that can yield voluminous information pertaining to child physical abuse among parents. Qualitative studies can be done to understand the subjective experience of children with physical abuse and explore different psychological issues related to physical abuse. A longitudinal study can be done to evaluate the effectiveness of nursing intervention by assessing changes in knowledge over time. Studies can be conducted involving children and teachers focusing on training them for physical abuse prevention.

Conclusion

The findings of this study revealed that parents have a fair knowledge of child physical abuse and that the structured teaching program on child physical abuse was effective in improving parental knowledge of the same. The study also highlighted that nurses can play a proactive role in educating parents. Periodic health education might refresh the knowledge of parents and the general public. Government can initiate a public awareness program regarding CPA and its legal concerns. Therefore, we can prevent many of childhood mental illnesses and behavioral issues.

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Ethical approval

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Conflicts of interest
There are no conflicts of interest.

References

1. Bhilwar M, Upadhyay RP, Rajavel S, Singh SK, Vasudevan K, Chinnakali P. Childhood experiences of physical, emotional and sexual abuse among college students in South India. J Trop Pediatr 2015;61:329-38.
2. Annerbäck EM, Svedin CG, Dahlström Ö. Child physical abuse: Factors influencing the associations between self-reported exposure and self-reported health problems: A cross-sectional study. Child Adolesc Psychiatry Ment Health 2018;12:1-3.
3. Norman RE, Byambaa M, De R, Butchart A, Scott J, Vos T. The long-term health consequences of child physical abuse, emotional abuse, and neglect: A systematic review and meta-analysis. PLoS Med 2012;9:e1001349.
4. World Health Organization. Global status report on preventing violence against children 2020.
5. Lee H, Kim E. Global prevalence of physical and psychological child abuse during COVID-19: A systematic review and meta-analysis. Child Abuse Negl 2022;135:105984.
6. Kacker L, Varadan S, Kumar P. Study on Child Abuse India 2007'. Ministry of Women and Child Development, Government of India. Available from: http://www.wcd.nic.in/childabuse.pdf. [Last accessed on 2019 Aug 25].
7. Kumar MT, Kar N, Kumar S. Prevalence of child abuse in Kerala, India: An ICAST-CH based survey. Child Abuse Negl 2019;89:87-98.
8. Fang X, Fry DA, Ji K, Finkelhor D, Chen J, Lannen P, Dunne MP. The burden of child maltreatment in China: A systematic review. Bull World Health Organ 2015;93:176-85C.
9. Child Maltreatment Report 2020. Available from: https://www.acf.hhs.gov/cb/data-research/child-maltreatment. [Last accessed on 2020 Dec 01].
10. National Child Abuse and Neglect Data System. Available from: https://www.childwelfare.gov/topics/systemwide/statistics/can. [Last accessed on 2020 Dec 01].
11. Pereznieto P, Montes A, Routier S, Langston L. The Costs and Economic Impact of Violence against Children. Richmond, VA: ChildFund; 2014.
12. Yen CF, Yang MS, Chen CC, Yang MJ, Su YC, Wang MH, *et al*. Effects of childhood physical abuse on depression, problem drinking and perceived poor health status in adolescents living in rural Taiwan. Psychiatry Clin Neurosci 2008;62:575-83.
13. Sugaya L, Hasin DS, Olfson M, Lin KH, Grant BF, Blanco C. Child physical abuse and adult mental health: A national study. J Trauma Stress 2012;25:384-92.
14. Keenan-Miller D, Hammen CL, Brennan PA. Health outcomes related to early adolescent depression. J Adolesc Health 2007;41:256-62.
15. Darke S, Torok M. Childhood physical abuse, non-suicidal self-harm and attempted suicide amongst regular injecting drug users. Drug Alcohol Depend 2013;133:420-6.
16. Havens JR, Sherman SG, Sapun M, Strathdee SA. Prevalence and correlates of suicidal ideation among young injection vs. non-injection drug users. Subst Use Misuse 2006;41:245-54.
17. Malinosky-Rummell R, Hansen DJ. Long-term consequences of childhood physical abuse. Psychol Bull 1993;114:68-79.
18. WHO Child Maltreatment 2020. Available from: https://www.who.int/news-room/fact-sheets/detail/child-maltreatment. [Last accessed on 2020 Dec 01].
19. Sharma Y, Mathur K. Assessment of knowledge and attitude about child abuse amongst parents visiting rural tertiary care hospital in central India. J Family Med Prim Care 2019;8:3525-30.
20. Shankar P, Agrawal A, Kumar M. Assessment of knowledge and attitude about child abuse amongst parents visiting a tertiary care hospital in Bengaluru, India. Int J Contemp Pediatr 2020;7:1105-9.
21. Malla C, Rai DK, Poudel P, Hodlur S. Effectiveness of video assisted teaching program (VATP) on prevention and management of child abuse among mothers of children in selected rural area, Mangalore. Med Phoenix 2018;3:66-70.
22. Sanghpriya. Effectiveness of structured teaching program regarding child abuse on knowledge among mothers of school-age children at selected rural areas. Int J Community Med Public Health 2020;8:262.
23. Helmy FF, Aljiuad RM, Alsufyani MH, Alsufyani SA, Alkhadi AS. Mother's awareness about different types of child abuse in Taif region (Western KSA). EC Paediatrics 2017;5:89-96.
24. Brown CL, Yilanli M, Rabbitt AL. Child Physical Abuse and Neglect. 2017. In: StatPearls. Treasure Island (FL): StatPearls Publishing; 2022. Available from: https://www.ncbi.nlm.nih.gov/books/NBK470337/. [Last accessed on 2022 Jun 14].