

Original Article

Maltreatment of Adolescent: An Online Survey to Assess Epidemiology and Awareness of Rural Higher Secondary School Children at Kanpur Rural Region, Uttar Pradesh

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INTRODUCTION

The exploitation of adolescent is not a recent phenomenon. Adolescent maltreatment is one of the most miserable and growing social issues today, because, in one way or another, all adolescent rely on adults.^[1] According to the Child Maltreatment Surveillance Center of Disease Control, child maltreatment is defined as “any act or series of acts of commission or omission by a parent or other caregivers that results in harm, potential for harm, or threat of harm to a child.^[2,3] Physical, psychological, and sexual abuses involve the acts of commission, whereas neglect involves the act of omission, and it is defined as failure by a caregiver to meet a child’s basic physical, emotional, medical/dental, or educational needs.^[4,5]

The number of adolescent needing treatment and protection in India is enormous and growing. Uncontrolled households, extreme poverty, and illiteracy all lead to the adolescent obtaining relatively little attention during his or her formative years. Even

publicly accessible services are poorly used.^[6] As per Government of India (2007) survey, the prevalence of all forms of adolescent maltreatment is extremely high, physical abuse (66%), sexual abuse (50%), and emotional abuse (50%).^[7,8]

There are several implications and consequences of adolescent abuse and neglect including physical, psychological, and educational challenges. Examples of the impact of adolescent maltreatment in young generation are physical inability, impaired growth, depression, personality disorders, attention deficiency, and low self-esteem.^[9,10] Medical and dental professionals are in a unique position for the diagnosis of physical adolescent maltreatment as half of the injuries occur in head-and-neck region and easily assessed.^[11] However,

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ABSTRACT

Context: Adolescent maltreatment is a state of mental, physical, economic, and sexual abuse experienced by a person under the age of 18 and is a crime that prevails globally.

Aims: The aim of this online study was to evaluate the level of awareness and epidemiology of young generation of rural region toward adolescent maltreatment at Kanpur rural region, which can be used as a guideline for planning future interventions.

Settings and Design: The study was a descriptive cross-sectional online study.

Subjects and Methods: The study was done on 545 rural secondary school adolescent in 1 month period, using a standardized self-administered questionnaire.

Statistical Analysis Used: The collected data were analyzed using SPSS version 21 software and appropriate statistical tests and logistic regression analysis. Chi-square was applied, and $P < 0.05$ was considered statistically significant.

Results: Among 545 adolescent (60%) were boys. The most common domains of adolescent maltreatment among female adolescent were neglect (29.5%), psychological (39%), physical (17.9%), and sexual (16.1%), and among male adolescent, these were neglect (36.8%), psychological (26.9%), physical (24.2%), and sexual (6.2%). Demographic variables included substance abuse of parents, father’s education, parents living status, and having other jobs, which were significantly related variables to adolescent maltreatment and neglect ($P < 0.05$).

Conclusions: Adolescent maltreatment and neglect challenges in India need to be considered carefully and widely, particularly among the underprivileged, disadvantaged, and socioeconomically backward populations of rural communities where adolescent protection systems are not fully established.

KEY WORDS: Adolescent maltreatment, awareness, rural, school adolescent, social malady

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research analysis from different parts of the world have indicated that health-care providers fail to report suspected cases of abuse, mainly due to a lack of knowledge.^[12,13] Regarding the high prevalence of adolescent maltreatment and neglect according to statistics, this study was designed and conducted online to describe the epidemiology and awareness of adolescent maltreatment in the rural secondary school children at Kanpur rural region, Uttar Pradesh.

SUBJECTS AND METHODS

An online cross-sectional survey was performed in February to March 2021, at four levels of secondary schools (6th to 9th level) on the rural secondary school adolescent in Kanpur rural region, Uttar Pradesh, India. The school adolescents were selected randomly from multiple cluster classes. The study protocol was approved by the Institutional Ethical Committee, and also consent was taken from the Principals of the rural secondary schools.

The inclusion criteria consisted of all the school adolescent willing to participate in the research and answered all the questions of the questionnaire. The exclusion criteria consisted of all that school adolescent not present on the predecided days of the research and the school adolescent who did not give consent to participate in the study. Considering the importance of the issue and the necessity of school adolescent satisfaction and trust to cooperate honestly in responding to the questions, first of all, the nature and purpose of the questionnaire were clarified for the school adolescent, and anonymity was also emphasized.

Design effect of 1.6 was considered to calculate the sample size.^[14] Finally, of the 610 students selected from ten different rural secondary schools and 25 different classes who were provided with the online consent form, only 545 completed the questionnaire completely and formed the sample size for the present study with a response rate of 89%. The school adolescent had to complete the online digital pretested, self-reported, close-ended questionnaire which consisted of two part questions in Hindi and English language. The first part of the questionnaire included twenty demographic questions. In the second part, a standard self-reported valid and reliable (minimum internal consistency for sexual domain α : 0.86) questionnaire was used for recording adolescent abuse information, considering neglect and psychological, physical, and sexual domains.^[15]

All questions could be answered by a four-level scale (never, sometimes, often, and almost always). To score the questionnaire, adolescents with positive answers to at least one question in each domain of emotional, physical, and neglect were considered victims of that domain and were included in the total number of adolescent maltreatment victims of all domains. All rural areas were classified into three economic classes from Class 1 to Class 3. Class 1 included individuals of high economic status, 2 with middle, and 3 with individuals of low economic status.^[16]

This present research consisted of a half an hour duration questionnaire which was performed through video conferencing on Whatsapp (WhatsApp Version 2.20.61

WhatsApp. Inc., from Facebook) for each adolescent on the predecided date and time by a single investigator, and all the school adolescents were assured about the confidentiality of their responses. The video conferencing procedure was performed under the supervision of school principle along with the comfort of every adolescent was taken care of. The language of the questionnaire was in Hindi as requested by the adolescents. After completing the questions in every domain, another question was asked regarding the person who had done the abuse or neglect (parents or relatives, friends or classmates, school teachers and coaches, strangers, and more than one group). In order to identify predicting factors for adolescent maltreatment in students, logistic regression analysis was used in each domain; demographic variables, which had a meaningful relationship with that domain of abuse, were entered in the model and predicting factors were determined. Model 1, 2, and 3 were developed for sexual, physical, and psychological domains, respectively.

STATISTICAL ANALYSIS

Data were analyzed using IBM Statistical Package for the Social Sciences (SPSS) version 21 (IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY, USA: IBM Corp.). Descriptive statistics calculation presented in percentages and frequency. Categorical data were compared using the Chi-square test. All values were considered statistically significant for a value of $P \leq 0.05$.

RESULTS

Of the 545 adolescent aged 12–18 years (mean: 14.9 years; standard deviation: 2.6), 60% were boys [Table 1]. The prevalence of adolescent maltreatment and neglect in all domains of neglect, psychological, physical, and sexual among adolescent are shown in Table 2. Nearly 44.2% of students gave negative response in physical domain, while 71.7% gave negative response in neglect domain.

In the current study, Table 3 reveals adolescent maltreatment awareness levels among the participants. Out of 545 rural school adolescents, only 23.4% of participants have high adolescent maltreatment awareness, followed by 46.4% of participants having average and finally 29.9% of participants having low percentage level of awareness. The frequency of physical abuse in boys was significantly more than girls ($P = 0.12$); yet, a larger number of girls were victims of psychological abuse ($P < 0.0001$). The comparison of adolescent maltreatment and neglect prevalence regarding gender is described in the Table 4.

Among demographic variables that were analyzed, drug abuse by parents had a significant relationship with all domains of adolescent maltreatment and neglect. Students having some job and drug abuse by adolescent were significantly associated with the sexual domain. The frequencies of physical and psychological maltreatment were less in adolescent with academically educated parents. Finally, living with parents had an important role in sexual and physical abuse (in all mentioned relationships; $P < 0.05$) [Tables 5 and 6].

DISCUSSION

In our study, the prevalence of various forms of adolescent maltreatment and neglect was high. Furthermore, there was a significant difference in the prevalence of maltreatment between the two genders, regarding psychological and physical abuse. Results of the present study indicate that most (46.6%) of the higher secondary school adolescent in the district of Kanpur rural region are having an average level of adolescent maltreatment awareness. Nearly 23.4% of adolescents are having a higher level of adolescent maltreatment awareness and 29.9% of adolescents are having less awareness which was in accordance with the results of the study done by Jasmine K. P. in the year 2016 where 56% had an average level of adolescent maltreatment awareness.^[1]

Table 1: Demographic distribution of school adolescent (n=545)

Participants characteristic	Frequency, n (%)
Gender	
Boys	327 (60)
Girls	218 (40)
Age (years)	
12-14	177 (32.4)
14-16	201 (36.8)
16-18	167 (30.6)
Mean age	14.96±2.69

Age value represents mean±SD. SD: Standard deviation

Table 2: The prevalence of adolescent maltreatment and neglect in four domains of physical, sexual, psychological and neglect (n=545)

Domains of adolescent abuse and neglect	Positive, n (%)	Negative, n (%)	No response, n (%)
Neglect	137 (25.13)	391 (71.74)	17 (3.1)
Psychological	149 (27.33)	385 (70.64)	11 (2.01)
Physical	247 (45.32)	241 (44.22)	57 (10.45)
Sexual	255 (46.78)	275 (50.45)	15 (2.75)

Data represented as n (%)

Table 3: Data and results of percentage of adolescent in three levels of child maltreatment awareness

Variables	Level	Number of adolescent, n (%)
Adolescent maltreatment awareness	High	128 (23.48)
	Average	254 (46.60)
	Low	163 (29.90)

Table 4: The prevalence of adolescent maltreatment and neglect according to gender (n=545)

Domains of adolescent maltreatment and neglect	Boys (n=327), n (%)	Girls (n=218), n (%)	Mean, n (%)	P
Neglect	201 (36.88)	161 (29.54)	181 (33.21)	0.0186
Psychological	147 (26.97)	213 (39.08)	180 (33.02)	<0.00001
Physical	132 (24.22)	98 (17.98)	115 (21.1)	0.1258
Sexual	34 (6.23)	88 (16.14)	61 (11.18)	<0.00001

Data represented as n (%), Boys and girls number represented as n (%)

According to the present study, 21.1% of the secondary school adolescent, who participated in the study, had a history of physical maltreatment. In a study conducted in Egypt, 79.9% of school boys and 62% of school girls were found to be subjected to physical punishment.^[17] In another study from South Africa, Madu *et al.* reported that 27% of students had experienced mild physical abuse.^[18] In one of the former studies, conducted in Iran, 36.1% of the secondary school students had a history of physical maltreatment.^[19] In 2014, Eslami-Shahrbabaki *et al.*, in their study found that 35% of school boys and girls had been abused physically, which is consistent with the results of our study.^[20] Namdari *et al.* in a study in Khoram Abad found that 58.2% of secondary school boys and girls had been subjected to physical maltreatment.^[21] These differences can be attributed to the different methods and instruments of data collection, difference in the target population, and also to various cultures of countries and society definitions of maltreatment.

Regarding the psychological domain, this study estimated that 33% of adolescents of both genders had been maltreated. Whereas other studies indicated higher rates, which were consistent with a study conducted by Pirdehghan and in Tehran by Mohammad *et al.*, reporting psychological maltreatment rate of 83.85% and 83.1%, respectively.^[19,22]

Regarding the neglect domain, our prevalence rate of 33.2% was consistent with study done by Mahram *et al.* were he reported a prevalence of 32%.^[23] A study conducted by Eslami-Shahrbabaki *et al.* reported a rate of 24.59% and Khooshabi showed a prevalence rate of 38.3% and 20.5%, respectively.^[20,24] While Madu *et al.* in the study reported a high prevalence of 70.7% for the adolescents had been abused from South Africa.^[18] Different results in the neglect domain can also be because of the use of different methods, especially in terms of questionnaires and country cultures.

This study found that the sexual domain had a prevalence rate higher than that obtained from the study conducted by Mahram *et al.* in 1993, which was 4.7% of participants had suffered from sexual maltreatment.^[23] The sexual domain prevalence rate in the present study was much lower than that found in the studies conducted by Pirdehghan *et al.*, in 2015, who found that the sexual domain had a prevalence rate of 28.8% and in the study conducted by Namdari, in 2003, who reported that 32.5% of girls at the investigated secondary schools had been maltreated sexually.^[19,21] Rohde *et al.* in the year 2008 reported that 47% of males and 53% of females experienced maltreatment in their childhood.^[25]

Regarding the psychological domain of abuse, in the present study, girls were abused more than boys, whereas in context

Table 5: Relationship between neglect and psychological abuse, and demographic variables

Demographic related variables	Neglect			Psychological abuse		
	No, n (%)	Yes, n (%)	P	No, n (%)	Yes, n (%)	P
Parents drug abuse						
No	150 (27.522)	254 (46.60)	0.0001	83 (15.22)	363 (66.60)	<0.0001
Yes	7 (1.2)	134 (24.58)		22 (4.03)	77 (14.12)	
Father or mother education						
Academic	9 (1.65)	24 (4.40)	0.001	26 (4.77)	34 (6.23)	<0.0001
Non academic	128 (23.48)	384 (70.45)		167 (30.6)	318 (58.34)	
Economical status						
Low	31 (4.22)	36 (6.60)	0.0047	41 (7.52)	52 (9.54)	0.0498
Mid	188 (34.49)	235 (43.11)		118 (21.65)	245 (44.95)	
High	24 (4.40)	29 (5.32)		38 (6.97)	49 (8.99)	

Table 6: Relationship between adolescent maltreatment and demographic variables regarding physical and sexual domains

Demographic related variables	Physical			Sexual		
	No, n (%)	Yes, n (%)	P	No, n (%)	Yes, n (%)	P
Parents drug abuse						
No	348 (63.85)	95 (17.43)	0.00001	321 (58.59)	134 (24.58)	0.00001
Yes	55 (10.09)	47 (8.62)		67 (12.29)	23 (4.22)	
Father or mother education						
Academic	60 (11)	55 (10.09)	0.00001	56 (10.27)	24 (4.40)	0.00099
Non academic	316 (57.98)	112 (20.55)		309 (56.69)	156 (28.62)	
Living situation						
With parents	376 (68.99)	141 (25.8)	0.00001	336 (61.65)	128 (23.48)	0.00001
With others	9 (1.65)	19 (3.48)		22 (4.03)	18 (3.30)	
Student drug abuse						
No	319 (58.53)	191 (35.04)	0.00001	314 (57.61)	178 (32.66)	0.00001
Yes	21 (3.8)	14 (2.5)		27 (4.95)	26 (4.77)	
Student job						
No	302 (55.41)	174 (31.92)	0.00001	349 (64.03)	127 (23.30)	0.00001
Yes	43 (7.88)	26 (4.78)		38 (6.97)	30 (5.50)	
Economical status						
Low	64 (11.73)	52 (9.54)	0.00856	50 (9.17)	58 (10.64)	0.00001
Mid	186 (34.12)	144 (26.42)		254 (46.60)	93 (17.06)	
High	54 (9.90)	43 (7.88)		35 (6.4)	55 (10.09)	

to physical domain, there was a statically significant difference between girls and boys; physical harm was often toward boys similar to the study done by Pirdehghan *et al.* and Vizeh *et al.* found that gender had a significant relationship, concerning the incidence of maltreatment among high school students, yet based on their findings, this factor was only statistically significant only for the emotional domain and girls were more likely to be psychologically abused than boys.^[19,26]

In the current study, the relationship between parents education status and prevalence of psychological and physical maltreatment was significant which was found in consistent with study results of Pirdehghan *et al.*^[19] A study from Egypt concluded that poor education of fathers is one of the significant predictors of adolescent maltreatment.^[27] A study by Namdari indicated significant relationships between father’s education status and physical maltreatment.^[21] On the other hand, Kermanshahi *et al.* showed that mothers who are

less educated physically maltreated their children, more often than mothers who are highly educated.^[28]

LIMITATIONS

A limitation of this study could be that the adolescents who were not maltreated and those who were severely maltreated were separated, and for simplicity, the data were analyzed based on these categories. Moreover, a lack of adequate cooperation of some schools due to COVID-19 and online survey with limited internet technology access, especially in the governmental schools, was another limitation of our study.

CONCLUSIONS

The most important issue to be overcome is the mental and physical stress which the teenagers suffer from adolescent maltreatment. Every adolescent has the chance to flourish happy and comfortable. Protecting our adolescent from the dangers of society is our responsibility. In all respects,

children have to enjoy their life and to grow cognitively, emotionally, and socially. For all of these children, appropriate guidance and information about adolescent maltreatment and its risks must be given and steps must also be taken by the Government and community if they are maltreated.

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CONFLICTS OF INTEREST

There are no conflicts of interest.

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