

# Child Abuse and Neglect Epidemiology in Secondary School Students of Yazd Province, Iran

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## Abstract

**Background:** Child abuse is an issue that has many physical and psychological consequences.

**Objectives:** This study was designed and conducted to investigate the current situation regarding child abuse, which can be used as a guideline for planning future interventions.

**Materials and Methods:** This was a descriptive, analytic cross-sectional study on 700 Yazd secondary school students in 2013, using a standardized self-administered questionnaire. The collected data was analyzed using the SPSS v.19 software and appropriate statistical tests and logistic regression analysis. P values of < 0.05 were considered statistically significant.

**Results:** Overall, 700 students (43%) were boys. Child abuse frequency was 93.5% (92.2% of boys and 94.4% of girls). The most common domains of child abuse among all students were neglect (83.8%), psychological (76.1%), physical (36.1%) and sexual (28.8%), respectively. The most common domains of child abuse among female students were neglect (84.9%), psychological (82.3%), physical (32.5%) and sexual (31.5%), and among male students, these were neglect (82.3%), psychological (67.9%), physical (41%) and sexual (25.3%). Demographic variables included substance abuse of parents, father's education, parents living status and having other jobs, which were significantly related variables to child abuse and neglect (P value < 0.05).

**Conclusions:** Our study is the first investigation performed on patients with LCH and its possible association with EBV in Iran. Considering the P=0.004, which is statistically significant, the findings do support the hypothesis of a possible role for EBV in the pathogenesis of LCH. These results are in accordance with several previous investigations, with positive findings.

**Keywords:** Adolescent, Child Abuse, Epidemiology

## 1. Background

Child abuse is not a new phenomenon. It is an issue concerning millions of children and families all over the world. 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 (1).

Physical, psychological and sexual abuses involve acts of commission whereas neglect involves 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 (2, 3).

Among children confirmed as victims by Child Protective Services (CPS) agencies in 2011, 681000 children were victims of abuse and neglect nationwide. Overall, 78.5% of victims had experienced neglect and, this was the most common form of child maltreatment and 9.1% of the victims had been sexually abused (3, 4).

According to studies conducted in Germany, UK and the Netherlands, the prevalence of child abuse was 15,

13.6 and 4.9 in one thousand individuals, respectively (4). Death rates were 0.1 per 100000 in Spain, and 2.4, 3.0 and 3.7 per 100000 in the USA, Mexico and Portugal, respectively. Higher prevalence could be expected in underdeveloped and developing countries (5).

This social problem has been studied by many researchers in different parts of Iran. In a study done in 1993, Nowrouzi reported that 32, 23, 4.7 and 46.2% of high school students in Tehran were victims in terms of neglect, physical, psychological and sexual abuse, respectively (6).

Based on a study in Kerman, 20.2% of high school students had been abused physically and 33.61% had been abused psychologically (7). In a study done in Khoramabad, the prevalence of physical and psychological abuses was 58.2% and 91.6%, respectively, and sexual abuse among girls was 32.5% (8). In a recent study in the Qazvin province, Mahram et al. reported that 66.05% of participants in this study had experienced at least one type of abuse. Physical, psychological and neglect prevalence was 5, 60.1 and 38.3%, respectively (9).

Child abuse and neglect has various effects and consequences including physical, psychological, and educational problems. Physical disabilities, impaired development, depression, personality problems, attention deficit and low self-esteem are examples of the consequences of child abuse in children (10).

## 2. Objectives

Regarding the high prevalence of child abuse and neglect according to statistics, and since no similar studies have been conducted in the Yazd province, this study was designed and conducted to describe the current situation of child abuse in this Province. Dispelling this gap in knowledge could be alarming for health professionals and decision makers and lead to prevention and intervention programs aimed at reducing child abuse in adolescents.

## 3. Materials and Methods

In 2013, we conducted a cross-sectional survey at two levels of secondary schools (6th and 7th level) in the Yazd province located in the central part of Iran. Students in consenting schools were randomly selected from multiple cluster classes. Design effect of 1.6 was considered to calculate the sample size, and finally of the 745 students from 25 classes eligible to participate, 700 completed the questionnaire, for a response rate of 94%.

We applied a self-reported questionnaire, which consisted of two parts. The first part of the questionnaire included 20 demographic questions. In the second part a standard self-reported valid and reliable (minimum internal consistency for sexual domain  $\alpha$ : 0.87) questionnaire was used for recording child abuse information, considering neglect and psychological, physical and sexual domains (11). All questions could be answered by a four-level scale (never, sometimes, often and almost always). To score the questionnaire, children with positive answers to at least one question in each domain of emotional, physical and neglect were considered victims of that domain; children with positive answers to at least one question in each domain of emotional, physical and neglect were included in the total number of child abuse victims of all domains.

All urban areas were classified into four economic classes from class 1 to class 4, according to addresses recorded in the questionnaires. Class 1 included individuals of

high economic status while 4 included individuals of low economic status. Classes 2 and 3 were in the middle.

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).

Percentages were used to describe the nominal data. The collected data was analyzed using the SPSS software.  $P$  values  $< 0.05$  were considered statistically significant.

In order to identify predicting factors for child abuse 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.

Considering the importance of the issue and the necessity of students' satisfaction and trust to cooperate honestly in responding to the questions, first of all, the nature and purpose of the questionnaire was clarified for the students and anonymity was also emphasized.

## 4. Results

Of the 700 respondents aged 12 to 18 years (mean: 13.3 years; Standard Deviation (SD): 0.9), 43% were boys. Among these cases, 48 (6.9%) had another job and 27 (3.8%) were smokers or alcohol or drug abusers.

The prevalence of child abuse and neglect in all domains among students are shown in Table 1.

The frequency of physical abuse in boys was significantly more than girls ( $P$  value = 0.02); yet a larger number of girls were victims of psychological abuse ( $P$  value  $< 0.001$ ). The comparison of child abuse and neglect prevalence regarding gender is shown in Table 2.

Among demographic variables that were analyzed, drug abuse by parents had a significant relationship with all domains of child abuse and neglect. Having another job and drug abuse by students was significantly associated with the sexual domain. The frequencies of physical and psychological abuse were less in students with academically educated parents. Finally, living with parents had an important role in sexual and physical abuse (in all mentioned relationships;  $P$  value  $< 0.05$ ) (Tables 3 and 4).

**Table 1.** The Prevalence of Child Abuse and Neglect in Four Domains of Physical, Sexual, Psychological and Neglect in Yazd Province During Year 2013 (N = 700)<sup>a</sup>

Domains of Child Abuse and Neglect	Positive	Negative	No Response
Neglect	111 (15.9)	575 (82.1)	14 (2)
Psychological	166 (23.7)	528 (75.4)	6 (0.9)
Physical	438 (62.6)	247 (35.3)	15 (2.1)
Sexual	488 (69.7)	197 (28.1)	15 (2.1)

<sup>a</sup>Data are presented as No.(%).

**Table 2.** The Prevalence of Child Abuse and Neglect According to Gender in Yazd Province During Year 2013 (N = 700)<sup>a</sup>

Domain of Child Abuse and Neglect	Female	Male	P Value
Psychological	326 (82.3)	201 (67.9)	< .001
Physical	126 (32.5)	121 (41)	.02
Sexual	122 (31.5)	75 (25.2)	.07
Neglect	331 (84.9)	242 (82.3)	.3

<sup>a</sup>Data are presented as No.(%).**Table 3.** The Relationship Between Neglect and Psychological Abuse, and Demographic Variables in the Yazd Province, During Year 2013

Demographic Related Variables	Neglect			Psychological		
	No	Yes	P Value	No	Yes	P Value
<b>Parents drug abuse</b>			.002			.009
No	102 (18.5)	448 (81.5)		143 (25.7)	414 (74.3)	
Yes	8 (6.8)	110 (93.2)		17 (14.4)	101 (85.6)	
<b>Father or mother education</b>			.01			.4
Academic	14 (28)	36 (72)		14 (28)	36 (72)	
Non academic	95 (15.2)	529 (84.8)		148 (23.5)	483 (76.5)	
<b>Economical status</b>			.1			.001
Low	24 (13)	160 (87)		27 (14.4)	160 (85.6)	
Mid	57 (16.2)	295 (83.8)		91 (25.6)	264 (74.4)	
High	22 (22)	78 (78)		33 (32.4)	69 (67.6)	

**Table 4.** The Relationship Between Child Abuse and Demographic Variables Regarding Physical and Sexual Domains, in the Yazd Province, During 2013

Demographic Related Variables	Physical			Sexual		
	No	Yes	P Value	No	Yes	P Value
<b>Parents drug abuse</b>			< .001			.001
No	371 (67.6)	178 (32.4)		409 (74.5)	140 (25.5)	
Yes	59 (50)	59 (50)		68 (58.6)	48 (41.4)	
<b>Father or mother education</b>			.046			.04
Academic	38 (76)	12 (24)		42 (84)	8 (16)	
Non academic	392 (62.9)	231 (37.1)		439 (70.5)	184 (29.5)	
<b>Living situation</b>			.02			.046
With parents	402 (64.4)	222 (35.6)		449 (72.1)	174 (27.9)	
With others	7 (38.9)	11 (61.1)		10 (52.6)	9 (47.4)	
<b>Student drug abuse</b>			.2			.002
No	417 (64.7)	228 (35.3)		466 (72.4)	178 (27.6)	
Yes	14 (53.8)	12 (46.2)		11 (44)	14 (56)	
<b>Student job</b>			.4			.01
No	391 (64.6)	214 (35.4)		444 (73.3)	162 (26.7)	
Yes	27 (58.7)	19 (41.3)		25 (55.6)	20 (44.4)	
<b>Economical status</b>			.2			< .001
Low	107 (58.5)	76 (41.5)		123 (67.6)	59 (32.4)	
Mid	233 (66.2)	119 (33.8)		272 (77.1)	81 (22.9)	
High	65 (65)	35 (35)		58 (58)	42 (42)	

## 5. Discussion

In our study, the prevalence of various forms of child abuse and neglect was high. Also, there was a significant difference in the prevalence of maltreatment between the two genders, regarding psychological and physical abuse.

According to this study, 36.1% of the secondary school students in Yazd, 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 (12). In another study from South Africa, Madu et al. reported that 27% of students had experienced mild physical abuse (13). In former studies, conducted in different parts of Iran, the overall child abuse rate was variable differing from 23% to 66% (6-9). In Kerman, 35% of school boys and girls had been abused physically, which is consistent with the results of our study (7). Namdari et al. in a study in Khoram Abad found that 58.2% of secondary school boys and girls had been subjected to physical abuse (14). In Kerman, this rate was 9.67% amongst high school students (15). These differences could be explained by different methods, instruments of data collection and the target population. Also various cultures and society definitions of abuse can contribute to different results.

Regarding the psychological domain, this study estimated that 83.8% of the students had been abused. Other studies indicated different rates. These rates were consistent with a study conducted in Tehran by Mohammad khani et al., reporting psychological abuse rate of 83.1% (16), whereas many other studies in Iran have reported lower rates. Miri from Bam reported a frequency of 33.6% for psychological abuse (15). Other studies have shown a prevalence of 60.1%, 17.9% and 45.8% in Qazvin, Kerman and Ahvaz, respectively (7, 9).

Regarding the neglect domain, our prevalence rate of 83.8% was higher than that of other studies. Madu et al. reported that 70.7% of the participants in a study from South Africa had been abused psychologically (13). Mahram et al. reported a prevalence of 32% (9). Khooshabi also reported a rate of 20.5% (17), and the studies conducted by Eslami-Shahrbabaki et al. (7) and Mahram et al. (9) showed a prevalence of 24.59% and 38.3%, respectively. Different results in this domain can also be because of the use of different methods, especially in terms of questionnaires and cultures.

In contrast to many studies from Iran, this study found that the sexual domain had a prevalence of 28.8%. Mahram et al. in 1993, reported that 4.7% of participants in their study had suffered from sexual abuse (9). Also Namdari, in 2003 showed that 32.5% of girls at the investigated secondary schools had been abused sexually (14). Cypress Researchers reported that 47% of males and 53% of females experienced maltreatment in their childhood. Overall, 34% of the study population experienced both physical and emotional abuse; 28% emotional, 26% physical and approximately 5% sexual abuse (18).

Regarding the psychological domain of abuse, girls were abused more often than boys. In the physical domain, there was a statically significant difference between girls and boys; physical harm was often towards boys. 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). Studies done in Kerman and Qazvin revealed that there was no significant difference between the two genders (9, 15).

Also, the relationship between parents' education status and prevalence of psychological and physical abuse was significant. A study from Egypt concluded that poor education of fathers is one of the significant predictors of child abuse (20). Other studies by both Miri (15) and Namdari (14) indicated significant relationships between father's education status and physical abuse. On the other hand, Kermanshahi et al. showed that mothers who are less educated physically abused their children, more often than mothers who are highly educated (21).

There was a significant relationship between substance abuse of parents and all domains of abuse. This is in accordance with a study done in Bam, which indicated a significant relationship between physical abuse and substance abuse of parents (15).

A limitation of this study could be that the adolescents who were not abused and those who were severely abused were separated and for simplicity the data were analyzed based on these categories. Moreover, lack of adequate cooperation of some schools, especially nongovernmental schools, was another limitation of our study. However, the sexual domain of our questionnaire was an advantage, since most similar studies in Iran did not include this part.

Parents, teachers and other people in contact with children should be trained for child abuse, its risk factors, and consequences. Also children should be familiarized with their rights regarding this issue. Providing students with a call-line, which is designated specifically for social problems can be useful to help and support students with this problem and for reporting abuse.

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## Authors' Contributions

Azar Pirdehghan, conceived and designed the study, interpreted the clinical data, performed the statistical analysis and helped draft the manuscript and revised the final version. Mahmood Vakili, participated in designing the study and helped to draft the manuscript. Yavar Rajabzadeh, collected the data and drafted the manuscript.

Mohammad Puyandehpour, participated in the data collection. All authors read and approved the final manuscript.

## Declaration of Interest

The authors declare that they had no conflicts of interest.

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