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Pediatric Residents' Knowledge and Attitudes Towards Child Abuse

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Abstract

Background: Child abuse causes serious mental, physical, and social problems, and it is considered as a universal problem occurring in every society. Pediatricians are often the first professionals who see the children with symptoms of child abuse; thus, they must play a crucial role in the diagnosis, treatment, and prevention of child abuse. This study evaluated pediatric residents' knowledge and attitudes towards this issue.

Methods: This cross-sectional descriptive study was performed to describe the knowledge and attitudes of pediatric residents toward child abuse. Eighty-one out of all pediatric residents of (n = 121) Shiraz University of Medical Sciences were enrolled (using the census sampling method). The data were collected by using a questionnaire, the validity and reliability of which were confirmed by experts in the field of pediatrics and medical ethics. The questionnaire consisted of three parts, including demographic information, questions about the knowledge of participants, and queries which were designed to assess the participants' attitude toward child abuse. Descriptive and inferential statistics were used for analyzing the data.

Results: The pediatric residents had "good" knowledge with a mean score of 57.48 $\pm$ 6.46 (score range: 23 to 69) and "moderate" attitudes with a mean score of 54 $\pm$ 7.73 (score range: 16 to 80) toward child abuse, although they did not recognize some of the most important risk factors and symptoms. No relationship was confirmed between gender, age, academic level, and previous source of information and knowledge or attitudes ($P > 0.05$).

Conclusions: Pediatricians serve an important role in reducing the rate of child abuse. However, a large proportion of the respondents did not recognize some of the most important risk factors and symptoms regarding suspected cases of abuse in their practice. Thus, they need more specific training and support to increase their competence with better case identification and report.

Keywords: Maltreatment, Child Abuse, Pediatric Residents, Knowledge, Attitude

1. Background

The World Health Organization defined child abuse as "all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment, or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development, or dignity in the context of relationship of responsibility, trust, or power". Any act, neglect, or failure to act that violates the rights of children or jeopardizes their optimum health, safety, survival, and development is considered as child abuse. Child abuse could be classified as neglect, physical, emotional, or sexual abuse (1).

Studies have shown child abuse could cause serious mental, physical, and social problems such as fatality, brain injuries, disabilities, fractures, sexually transmitted diseases, ischemic heart disease, cancer, chronic lung diseases, irritable bowel syndrome, fibromyalgia, drug abuse, violence against others, anxiety, psychosomatic disorders, suicidal behaviors, post-traumatic stress disorder, major depression, anxiety disorders, and sleep disorders (2-8).

There is a lack of precise statistical data showing the prevalence of child abuse around the world; however, it seems this problem is more common in low- and middle-income countries. Fatal child abuse rate was reported 2 - 3 times higher in these countries. Physical, emotional, and psychological abuse are frequently considered as parenting techniques to discipline the child in these areas (9-13). Harassment and punishment of children is also an issue in Iran, although there are no exact statistical data to show its incidence rate.

Some studies reported the rate of child abuse is about 32.8 - 70% in different cities of Iran (14). Considering that many families in Iran culturally think the issue is private and do not report the accidents to the authorities, the authorities mostly become involved when the child needs hospital care. Pediatricians are often the first professionals who see children with symptoms of child abuse such as fractures, bruises, burns, trouble in walking or sitting, depression, poor growth, and poor hygiene. Accordingly,

they must play a crucial role in the diagnosis, treatment, and prevention of child abuse by knowing the symptoms and risk factors, instilling appropriate physical examinations and assessments, and working in cooperation with child welfare services and law enforcement. In this study, we evaluated pediatric residents' attitudes, knowledge, and practice regarding child abuse.

2. Methods

All the pediatric residents in Shiraz University of Medical Sciences, including fellows and residents, were enrolled in this study that was performed from June to September of 2016. At the time, the population number was 121; however, 81 pediatric residents (44 males and 37 females) completed the questionnaire.

A researcher-made questionnaire was used to collect the data. The preliminary draft of the questionnaire was designed based on experts' opinions and guidance from related literature.

The questionnaire consisted of three parts. The first part contained basic demographic information. The second part included 23 Yes/No questions (yes = 3, somewhat = 2, and no = 1) about the knowledge of participants with scores ranging from 23 to 69 (23 - 38 = Poor, 39 - 54 = moderate, and 55 - 69 = good knowledge). The third part included 16 queries designed in 5-point Likert-scale (completely agree = 5 to completely disagree = 1) to assess the participants' attitude towards child abuse with scores ranging from 16 to 80 (16 - 36 = low, moderate = 37 - 58, and 58 - 80 = good).

The face and content validity of the questionnaire were established by experts' approval (10 pediatricians and 2 experts in medical ethics). They studied the questionnaire individually, subsequently, they commented on the items of the questionnaire. Iterative revisions were made according to their constructive advice.

To assess the reliability of the questionnaire, test-retest method was used; 15 residents, who were selected randomly, were asked to complete the questionnaire in a pilot study. After four weeks, the same individuals were requested to fill the questionnaire for a second time. Responses were evaluated statistically by Spearman's correlation coefficient. The results showed a reliability of 0.89 in the second and 0.87 in the third sections of the questionnaire, which were acceptable.

Descriptive data were analyzed by percentage; discrete and ordinal data were compared using student's *t*-test and ANOVA; besides, Spearman's correlation was also used for assessing reliability of the questionnaire. We considered P value < 0.05 as significant. All the statistical tests were accomplished by using SPSS, version 18.0.

3. Results

Overall, 81 out of 121 pediatric residents were enrolled in this study (with the response rate of 66%), and 54% (44) of the participants were male. Further, 33% of the participants were aged 31 to 40 years, 32% 20 to 30 years, 24% 41 to 50 years, and 11% were older than 50. Demographic information also showed 64% of the participants were married, and 72% of the participants had stated they already had attained some information as to child abuse from media (29%), online sources (35%), and medical resources (36%). Table 1 shows the mean scores of the participants according to previous knowledge and attitudes toward child abuse.

The mean score of knowledge about child abuse among the participants was 57.48 ± 6.46, which can be considered "good", and the mean score of attitudes toward child abuse was 54 ± 7.73, which denotes "moderate" attitudes. According to the P values reported in Table 1, no significant differences in the level of knowledge and attitudes were observed among the participants with respect to their academic education.

The overall score of knowledge was 57.3 ± 6.45 in men (physical abuse = 15.6 ± 2.2, emotional abuse = 29.9 ± 3.7, and ethical issues = 11.7 ± 2.02) and 57.7 ± 6.54 in women (physical = 15.7 ± 1.9, emotional = 29.8 ± 3.8, and ethical issues = 12.1 ± 2.01), which is a little higher. The mean score of attitudes was 54.6 ± 7.9 in men (physical = 16.7 ± 3.2, emotional = 17.4 ± 3.0, and ethical = 20.5 ± 5.47) and 53.3 ± 7.6 in women (physical = 16.4 ± 3.3, emotional = 17.4 ± 2.6, and ethical = 19.5 ± 5.8). No significant differences were observed between men and women regarding knowledge (P = 0.78) and attitudes (P = 0.45) toward child abuse. Also, no significant relationships were detected regarding the participants' age groups and marital status and their knowledge and attitudes.

As mentioned, 58 (72%) the participants stated that they already had information about the topic, which was attained through media, online sources, and medical resources. There was no significant association between previously attained information and the scores (P = 0.72).

Tables 2 and 3 show the participants' responses to the items that evaluated their knowledge and attitudes toward child abuse. More than half of the participants have achieved the maximum score of 3, answering to most of these questions (all the questions except for questions number 8, 11, 13, 14, and 20), which indicate a good knowledge regarding child abuse (Table 2).

About half of the participants had appropriate attitudes and good understanding of ethical issues toward child abuse (Table 3).

Most of the participants (67.6%) had answered properly to the inquiries designed to evaluate their knowledge about child abuse, for instance, most of them (81.5%,

Table 1. Mean Score of the Participants' Previous Knowledge and Attitude Toward Child Abuse

Total Participants (N = 81)	Knowledge Score Ranges				Attitude Score Ranges			
	Physical Abuse (6 - 18)	Psychological Abuse (12 - 36)	Ethical Issues (5 - 15)	Total (23 - 69)	Physical Abuse (5 - 25)	Psychological Abuse (5 - 25)	Ethical Issues (6 - 30)	Total (16 - 80)
Mean score ± SD	15.67 ± 2.05	29.90 ± 3.7	11.91 ± 2	57.48 ± 6.46	16.57 ± 3.2	17.38 ± 2.8	20.05 ± 5.6	54 ± 7.73
Fellow residents	14.58 ± 2.45	29.47 ± 3.81	12.05 ± 2.04	56.11 ± 7.06	15.58 ± 2.76	17.52 ± 2.85	18.7 ± 6.42	51.82 ± 7.66
4th year residents	16.21 ± 1.76	32.00 ± 3.35	12.57 ± 2.02	60.78 ± 5.84	16.85 ± 3.06	17.07 ± 2.36	19.92 ± 6.01	53.85 ± 6.75
3rd year residents	15.21 ± 1.71	29.57 ± 4.76	11.92 ± 1.85	56.71 ± 7.10	17.64 ± 3.20	18.14 ± 2.95	21.50 ± 5.88	57.28 ± 7.71
2nd year residents	16.30 ± 1.65	30.15 ± 3.36	12.25 ± 1.68	58.70 ± 5.37	16.55 ± 3.08	17.85 ± 2.72	19.30 ± 5.76	53.7 ± 8.9
1st year residents	15.93 ± 2.20	28.50 ± 2.92	10.75 ± 2.26	55.18 ± 6.23	16.43 ± 3.91	16.25 ± 3.15	21.25 ± 3.71	53.93 ± 7.05
P value	0.06	0.12	0.11	0.11	0.51	0.36	0.56	0.42

Table 2. The Participants' Response Rate to the Questions on Knowledge About Child Abuse[a]

	Is the Following Symptoms and Behaviors Indicate Probability of Child Abuse or Neglect?	Yes	Somewhat	No
1	Unexplained bruises, skin abrasions or wounds in unusual places	81.5	17.3	1.2
2	Unexplained burns by hot objects (cigarettes iron)	76.5	14.8	8.6
3	Children with disabilities who do not have any particular diagnosis by appropriate assessments and completely heal after several days of hospitalization	64.2	28.4	7.4
4	Girls who are extremely frightened and anxious when examined by male doctors	72.8	21	6.2
5	Frequent nightmares	66.7	28.4	4.9
6	Children who have inability to get along with other children or behaves very grouchy at peers	64.2	25.9	9.9
7	Difficulty in talking, walking and sitting	58	30.9	11.2
8	Children who are sleeping in class and having school problems	46.9	32.1	21
9	Children with physical and psychological illnesses which are not common in their ages	79	12.3	8.9
10	Parents' marital problems and poor family relationships	71.6	21	7.4
11	Children of unwanted pregnancies	49.4	30.9	19.8
12	Parents who had been the victim of abuse can do the same to their children	61.7	28.4	9.9
13	Low-socioeconomic families	49.4	25.9	24.7
14	Crowded family and living space	40.7	16	43.2
15	Parents who suffer from a psychiatric disease	64.2	23.5	12.3
16	Unexplained fractures or dislocations	63	33.3	3.7
17	Unexplained developmental delays	55.6	32.1	12.3
18	Inappropriate social behavior and communication	59.3	34.6	6.2
19	Children who extensively fear their parent	69.1	27.2	3.7
20	Children who extensively depends on their parent	48.1	29.6	22.2
21	Any unusual genital infections in children	69.1	21	9.9
22	Seductive behaviors of the children	56.8	30.9	12.3
23	Children who frequently go to the doctor due to treatment failure	55.6	35.8	8.6

[a]Values are expressed as %.

76.5%, 63%, 55.6%, and 69%) had acknowledged unexplained bruises, burns, fractures, developmental delay, and genital infections as symptoms of child abuse. They mostly recognized that psychosomatic disorders (64%), severe anxiety (72%), frequent nightmares (66%), isolated social status (64%), and poor family relationships (71%) could be considered as reasons or consequences of child abuse. Further, less than half of the applicants reported unwanted pregnancy, low socio-economic status of families, crowded living space, school problems, and child's abnormal dependence as signs or risk factors for child abuse.

Our data showed that pediatricians have low competence regarding the skills related to ethical issues around child abuse; however, it is still satisfying. Participants reported lack of sufficient follow-up by parents to treat their abused children (46.9%). They stated there is no need for parents' consent to treat these children (51%). They approved that child abuse must be criminalized (55%) as a

Table 3. The Participants' Response Rate to the Questions About Attitudes Toward Child Abuse[a]

	How Do You Agree/Disagree with the Following Statements?	Completely Agree	Agree	Somewhat Agree	Disagree	Completely Disagree
1	Yelling at the child in some cases is necessary	2.5	7.4	11.1	44.4	34.6
2	Leaving a 10-year-old child or younger alone at home indicates child abuse	2.5	12.3	18.5	46.9	19.8
3	Touching the genitals of children by their father is a form of child abuse	12.3	17.3	33.3	28.4	8.6
4	Touching the genitals of children by their mother is a form of child abuse	6.2	19.8	34.6	32.1	7.4
5	Sometimes corporal punishment is necessary because of children's failure in their tests	1.2	9.9	12.3	42	34.6
6	If the child uses inappropriate words he/she should be corporally punished	3.7	17.3	13.6	44.4	21
7	If the child smokes he/she should be corporally punished	6.2	30.9	17.3	33.3	12.3
8	The child could be temporarily deprived of his/her favorite activities as a punishment	11.1	38.3	14.8	21	14.8
9	No contact with school authorities is needed in case of children with good grades	2.5	6.2	24.7	46.9	19.8
10	We should take children at the age of 10 or less to school ourselves, otherwise, it could be considered as an abuse	12.3	25.9	24.7	25.9	11.1
11	Lack of sufficient follow-up by parents to treat their children who are suffering from chronic diseases could be considered as an abuse	16	30.9	19.8	27.2	6.2
12	Parents who have abused their children must be punished by legal enforcements	28.4	27.2	18.5	16	9.9
13	Criminalization of child abuse can reduce child abuse incidents	24.7	34.6	16	18.5	6.2
14	All cases of child abuse must be reported to authorities	30.9	23.5	9.9	23.5	12.3
15	Treatments could be started without parental consent in case of children who have been victimized by child abuse	24.7	27.2	14.8	27.2	6.2
16	We should always respect the privacy of patients and their families, even in the case of child abuse	13.6	23.5	21	27.2	14.8

[a]Values are expressed as %.

means to protect children (59%), and any kind of child abuse should be reported to authorities (54%) even if it crosses families' privacy (42%).

4. Discussion

Health-care professionals must be alarmed to protect children who are abused or susceptible to maltreatment. In this study, most of the participants (about 70%) had a "good" knowledge score, and more than 75% of them had "moderate" attitude scores regarding the issues related to child abuse. Previously published papers noticed that experienced physicians are more well-informed and female physicians were more likely to report child abuse (15, 16); there was no significant relationship between age, gender, marital status, and academic rank and knowledge or attitudes, which is consistent with the findings of other investigations (17).

It has been reported that the increment of family income has a reverse relationship with child abuse (18). In our study, less than half of the participants recognized low-socioeconomic status of families as a child abuse predictor. Reports from the developing countries have shown that professionals could be biased based on their cultures, for instance, abusive and harmful acts such as "shaking a child" were found acceptable by some medical students (19, 20). Also some of them believed that they should not interfere with parenting whether it is right or wrong, and they preferred not to report the cases (21); nonetheless, our participants ascribed all cases of child abuse must be reported to the authorities and the privacy of families is not a priority in these cases.

Our results are consistent with those of other investigations that found professionals' lack of knowledge and negative attitude is a major problem in child abuse, especially in the developing countries (22-25). Although the participants of this study showed they had a logical and ethical approach in most situations, they did not recognize some of the most important predictors of child abuse such as children with school problems, low socioeconomic families, children of unwanted pregnancies, crowded living space, and leaving a child at home. Acik et al. reported the

same problem in Turkey (26) as physicians did not have adequate knowledge and proper attitudes towards diagnosing and reporting child abuse that could be due to lack of education in this regard. Lack of inter-disciplinary groups such as absence of proper links between healthcare systems and law enforcement agencies is another barrier to the implementation of a potent policy in order to reduce child abuse. Investigations have reported most of pediatricians believed they had inadequate knowledge about legal processes (27). The role of education must be overemphasized by policy-makers to improve the awareness of healthcare professionals, law agencies, and the public in order to reduce child abuse.

4.1. Conclusion

Based on results of previous studies and the findings offered in this study, there were some shortcomings in residents' attitudes toward child abuse issues, especially when behaviors are biased by their culture and environment such as a disciplinary method. This may lead to improper recognition, referral, and management of abused children. From educational and practical perspectives, our study besides other investigations showed some improvements are needed as to knowledge and attitudes towards child abuse among pediatric residents.

4.2. Suggestions

Pediatricians' diagnostic skills and knowledge should be improved by incorporating child abuse issues in educational programs. Also, in-service training programs should pay more attention to the specific areas related to knowledge and skills related to child abuse.

In Iran, the legislative framework and reporting statutes for child protection are ambiguous regarding protective actions and reporting. Therefore, a written statutory law must be provided.

4.3. Limitations

Some limitations of this study must be conceded:

• Only pediatric residents were involved in this project and other medical staff were not included.

• Considering the level of knowledge and attitude alone, regardless of the level of diagnostic skills and performance of participants in this regard was another limitation of this study.

Footnotes

Authors' Contribution: Azamassadat Alavi and Sedigheh Ebrahimi conceived and designed the study. Azamassadat Alavi and Alireza Ebrahimi contributed to the acquisition of data. Sedigheh Ebrahimi supervised data analysis and and interpretation. Sedigheh Ebrahimi, Azamassadat Alavi, and Alireza Ebrahimi contributed to the data analysis and interpretation of data. Sedigheh Ebrahimi and Alireza Ebrahimi wrote of the paper.

Ethical Considerations: Participation in this research was voluntary and the questionnaire was given to be completed, if consented. Before data collection, the anonymity and secrecy of information were explained to the participants.

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