

Knowledge, Attitude and Practice of Child Health Care Professionals Regarding Child Abuse and Neglect

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Abstract

Background: Child Abuse and Neglect (CAN) is a major health problem with serious consequences. Since health care professionals play an important role in identification, management, and reporting CAN cases, they should have precise knowledge on this subject. The aim of this study is to investigate the level of knowledge, attitude and practice of the pediatricians, pediatric residents, and nurses regarding CAN issues as well as their possible needs for any educational programs in this regard.

Methods: 130 pediatric nurses and physicians working at two pediatric tertiary centers, in Tehran, Iran participated in this descriptive cross-sectional study. An anonymous validated and standardized self-report questionnaire was used as the study instrument. The questionnaire consisted of five sections on demographic information, knowledge, attitude, practice and needs assessment. Analytical statistical tests including t-test, Kruskal-Wallis and Mann-Whitney tests were used to analyze the data.

Results: The level of the participants' knowledge was moderate (mean score: 16.6±3.17) and their attitude towards child abuse and neglect was at a good level (mean score: 45.72 ±4.25). The results of this study revealed that the overall performance of the participants in dealing with a suspicious case of child abuse and neglect was moderate. Almost all participants (95.5%) indicated the need for educational programs on child abuse both for nurses and physicians.

Conclusion: Results of our study revealed that the overall knowledge, attitude, and practice of the health care professionals in the field of pediatrics regarding child abuse and neglect are not satisfactory and training programs on this issue are mandatory for pediatricians, pediatric residents, and nurses due to their serious role in caring for children.

Key Words: Child Abuse, Child Maltreatment, Needs Assessment, Pediatricians.

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1- INTRODUCTION

Child Abuse and Neglect (CAN) is a major social and public health problem worldwide with serious short-term and life-long consequences. As defined by World Health Organization (WHO), child maltreatment is the abuse and neglect that occurs to children under 18 years of age. It includes all types of physical and/or emotional ill-treatment, sexual abuse, neglect, negligence and commercial abuses or other exploitation, which result in actual or potential harm to the child's health, survival, development or dignity (1).

The most important impact of child abuse is child mortality (2). However, there are other consequences in both childhood and adulthood including anxiety, depression, panic disorder, alcohol dependence, conduct disorder, post-traumatic stress disorder, separation anxiety, and suicidal behaviors, low self-esteem and problems in language development and school performance (3-6).

Nearly 3 in 4 children - or 300 million children - aged 2-4 years regularly suffer physical punishment and/or psychological violence at the hands of parents and caregivers (1). However, the true extent of CAN remains unknown and many published studies have been criticized for under-representation (7). In a systematic review and meta-analysis by Mohammadi et al., it was indicated that the pooled estimates of the prevalence of child physical abuse and emotional abuse or neglect in Iran are 43.59%, 64.53% and 40.945%, respectively (8).

Given the high prevalence and the adverse effects of CAN on the victims' lives, early diagnosis, and appropriate approaches to suspected cases of child abuse and neglect are of great importance. In the absence of timely interventions, an abused child has a 10% risk of having fatal injuries (9). Moreover, there is evidence to suggest that 20-30% of children and youth who die

from CAN have previously been seen by health care providers for abusive sequelae before CAN was formally identified (10).

Accordingly, health care professionals play an important role in identification, management, and reporting CAN cases. However, the approach to a suspected case of CAN is a multidisciplinary issue involving not only the physicians but also the nurses, social workers and legal professionals (9). Therefore, precise knowledge on the subject of child maltreatment is essential among these professionals (11). Several studies have revealed that general practitioners and nurses had inadequate knowledge regarding child abuse (12-14).

Thus, providing nurses and physicians with educational programs on child abuse seems necessary. However, it is not much clear whether such programs should be mandatory for pediatricians and nurses working in pediatric hospitals.

Therefore, we decided to investigate the level of knowledge, attitude and practice of the pediatricians, pediatric residents, and nurses regarding CAN issues as well as their possible needs for any educational program in this regard.

2- MATERIALS & METHODS

This is a descriptive cross-sectional study. The study population included nurses and physicians working at two pediatric tertiary centers, in Tehran, Iran, namely Children's Medical Center and Bahrami Hospital affiliated to Tehran University of Medical Sciences in 2019. These two single specialty hospitals, with over 50 years of experience in providing medical and surgical services to the pediatric population, would see almost 200,000 patients annually at the outpatient and emergency departments.

2-1. Instrument

An anonymous validated and standardized self-report questionnaire was used as the

study instrument. The questionnaire consisted of five sections. The first section was about demographic characteristics of the subjects, which included 12 questions about Age, Gender, Marital status, Field of study, Work experience, Academic rank, and degree.

The second section was about Knowledge which consisted of 22 questions generally about risk factors and suggestive signs and symptoms of child physical and sexual abuse as well as neglect. Knowledge questions had three choices (true, false, I do not know) in which score 1 indicated "true", and score 0 indicated "false", and "I do not know". The total knowledge score was 22 and was classified into three levels of low (0-10), moderate (11-16), and good (17-22).

The third section consisted of Attitude questions, including 10 questions mainly about Corporal punishment, Imprisonment, Exclusion of meal, Mentally retarded children, Mock, and Verbal punishment. Attitude questions had five choices with the following options: strongly agree, agree, neutral, disagree, and strongly disagree. Strongly disagree, disagree, neutral, agree, and strongly agree were assigned 5,4,3,2, and 1 scores, respectively. Therefore, the minimum attitude score was 10 (negative attitude towards dealing with child abuse) and the maximum score was 50 (positive attitude towards dealing with child abuse). Attitude scores were classified into three levels: weak (0-25), moderate (26-37), good (38-50).

The fourth part dealt with Performance. This part consisted of 7 multiple choice questions mostly about the participant's experience of facing with a suspicious case of child abuse or neglect and the participants' capability of identifying suggestive physical and psychological signs and symptoms of child abuse or neglect. Performance questions had one correct answer only.

We did not find the cut-off point for knowledge, and attitude scores; therefore, we divided the intervals as the following: the scores less than 50 percent of the total score were considered as low/weak, scores within the range of 50 % to 75% of the total score were classified as moderate and the scores over 75% of the total score were considered as good.

To describe practice scores, we estimated the number of participants whose answers were correct. In each domain, if the rate of correct answers was within the range of 0-50%, the performance of the participants in that domain was considered weak; and the rates within the range of 50-75% and 75-100% were considered moderate and good, respectively.

The fifth and the last part of the questionnaire consisted of 13 open-ended questions with the aim of needs assessment regarding the issues about dealing with a suspicious case of CAN. The questions were mainly concerned with the supporting systems in Iran, reporting child abuse cases, and education programs on how to deal with suspicious cases of child abuse or neglect.

2-2. Validity and reliability of the tools

To evaluate the validity and the reliability of the questionnaires, the questionnaires were first sent to 15 faculty members. After applying the suggested modifications, the questionnaire was presented to 10 faculty members (5 other members in another university and 5 members who had previously evaluated the questionnaire). The content validity of the questionnaires was confirmed accordingly. Its reliability was measured through Cronbach's alpha test. The reliability coefficient was 0.85 for knowledge, 0.82 for attitude and 0.74 for practice.

2-3. Sampling

Contact information of 130 physicians and nurses working at the aforesaid hospitals was available. Thus, according to the community size, based on Morgan's Chart and since the study was a descriptive one, the sample size was calculated 97. The questionnaires were designed in Google Doc format and then sent to 130 individuals. After several reminders, the questionnaires were sent back to the research group. Eight questionnaires were excluded due to incomplete answers. Therefore, 89 questionnaires were evaluated in this study.

2-4. Data analysis

The descriptive statistics are reported as frequency and percentage, mean, and standard deviation. In addition, the analytical (inferential) statistics including t-test, Kruskal–Wallis and Mann-Whitney tests were used to analyze the data, in which the mean scores were considered between two groups of nurses and physicians in terms of the normality or non-normality. The level of significance was considered at 0.05. The collected data was analyzed through SPSS software version 22.

3- RESULTS

A Total of 130 nurses and physicians were invited for the survey and the number of responders was 89. Among the responders, 41 (46.06) were physicians, and 48 (53.93%) were nurses. Age ranges of the subjects are shown in **Table 1**. Among the participants 18 (20.2%) were male and 71 (79.8%) were female. Most of them 64 (71.9%) were married. 62 (60%) had job experiences more than 5 years in their respective fields. The characteristics of the responders along with their experience in the profession as well as their academic degrees and ranks are provided in **Table 1**.

In this study, Knowledge of the participants was found to be at a moderate level (mean score: 16.6 ± 3.17). The mean scores of knowledge among physicians and nurses were 16.95 ± 2.72 and 16.42 ± 3.51 , respectively. There was no significant difference between knowledge scores in the two groups. Frequency of answers given to knowledge questions are listed in **Table 2**.

In our survey, attitude of nurses and physicians towards child abuse and neglect was at a good level (mean score: 45.72 ± 4.25). The mean score of attitude was 45.95 ± 4.02 among physicians and 45.52 ± 4.47 among nurses. There was also no significant difference between attitude scores in the two groups. Frequency of answers given to attitude questions are listed in **Table 3**.

The levels of knowledge and attitude of the participants are demonstrated in **Table 4**.

As presented in **Table 5**, there was no significant difference between the mean scores of knowledge and attitude in terms of gender, marital status, profession, academic degree, and rank.

The results of this study revealed that the overall performance of the participants in dealing with a suspicious case of child abuse and neglect was moderate; because over 50 % but less than 75% of the participants gave correct answers to the majority of questions in the performance section. However, their performance in two domains of "the appropriate time for sampling in a suspicious case of sexual abuse" and "Identifying psychological signs of a suspicious case of child abuse" was weak (**Table 6**).

Regarding the needs assessment, 74.2% of the participants had faced at least once with a suspicious case of child abuse but only 41.6% of them had reported the cases to the relevant services.

Table-1: Demographic Data

Demographic Data		Number	Percent%
Sex	Male	18	20.2
	Female	71	79.8
	Total	89	100
Marital Status	Single	25	28.1
	Married	64	71.9
	Total	89	100
Age (year)	20-30	15	16.9
	31-40	31	34.8
	41-50	31	34.8
	51 and older	12	13.5
	Total	89	100
Number of Children	0	40	45
	1	20	22.4
	2	24	27
	3	4	4.5
	4 and more	1	1.1
	Total	89	100
Physicians' Academic Degree	Resident	7	6.9
	Subspecialty Fellow	8	9
	Specialist	6	6.7
	Subspecialist	20	22.5
	Total	41	46.1
Nurses' Academic Degree	PhD	11	12.4
	Master of Science	11	12.4
	Bachelor of Science	26	29.2
	Total	48	53.9
Academic Rank	Assistant Professor	9	10.2
	Associate Professor	59	66.3
	Full Professor	17	19
	Other	4	4.5
	Total	89	100
Profession	Nurse	48	53.9
	Physician	41	46.1
	Total	89	100
Working experience at hospital (year)	Less than 5 years	27	30.3
	5-10 years	26	29.2
	10-15 years	14	15.7
	15-20 years	6	6.7
	Over 20 years	16	18
	Total	89	100

Table-2: Frequency and percentage of the participants answers to each question in the "knowledge section"

No.	Item	True		False/I don't know	
		Frequency	Percentage	Frequency	Percentage
1	Children below 4 years of age are at increased risks of child abuse.	58	65.2	31	34.8
2	Boys are at higher risk of physical abuse compared to girls.	58	65.2	31	34.8
3	Girls are at higher risk of sexual abuse compared to boys.	69	77.5	20	22.5
4	Boys are at higher risk of parental neglect compared to girls.	32	36	57	64
5	Children in lower socioeconomic status are at higher risk of sexual and physical abuse.	73	82	16	18
6	Children in lower socioeconomic status are at higher risk of parental neglect.	81	91	8	9
7	Children living with one parent are at higher risk of sexual and physical abuse.	63	70.8	26	29.2
8	Children living with one parent are at higher risk of parental neglect.	57	64	32	36
9	Children of educated parents are at higher risk of sexual and physical abuse.	86	96.6	3	3.4
10	Child abuse is more prevalent in children with one or two parents suffering from psychological disorders.	82	92.1	7	7.9
11	Children with mental retardation are at lower risk of child abuse.	78	87.6	11	12.4
12	Children might suffer from permanent physical or psychological disorders because of physical punishment.	88	98.9	1	1.1
13	Presence of unusual bruising might be a sign of child abuse.	85	95.5	4	4.5
14	Burn injuries on unusual parts of the body might be a sign of child abuse.	84	94.4	5	5.6
15	Bone fractures in children can be a sign of child abuse.	81	91	8	9
16	Inappropriate growth patterns can be a sign of parental neglect.	75	84.3	14	15.7
17	Inappropriate child training and poor social interactions might be signs of child abuse.	79	88.8	10	11.2
18	Child's extreme fear of his/her parents might be a sign of child abuse.	87	97.8	2	2.2
19	Child's extreme attachment to his/her parents might be a sign of child abuse.	47	52.8	42	47.2
20	Unusual genital infection in a child might be a sign of sexual abuse.	71	79.8	18	20.2
21	Seductive behavior in a child might be a sign of sexual abuse.	49	55.1	40	44.9
22	Children who are repeatedly referred to a physician because of not getting well might suffer from child abuse.	61	68.5	28	31.5

Table-3: Frequency of the participants' selecting each choice in the questions of the "Attitude Section"

No.	Choices Questions	Number of participants selecting each choice				
		Completely Agree	Agree	No Idea	Disagree	Completely Disagree
1	Children must be punished verbally if they do not follow their parents' commands.	2	14	3	41	29
2	When children behave inappropriately, they must be punished physically.	0	0	0	19	70
3	When children behave inappropriately, they must be banned from one meal.	0	1	4	23	61
4	In case of inappropriate behavior, the child must be kept in a room.	0	6	2	24	57
5	Boys must be punished more severely than girls in case of bad behavior.	0	1	1	29	58
6	Older children must be punished more severely than younger ones in case of the same bad behavior.	1	3	8	26	51
7	Physical punishment is necessary for child rearing.	0	1	2	23	63
8	Making children feel scared of imaginary creatures in order to prohibit the child from doing specific activities is necessary.	0	2	4	19	64
9	Laughing at children's mistakes is OK.	0	0	0	18	71
10	A child with mental retardation does not suffer much from physical abuse.	0	0	1	13	75

Table-4: The participants' level of knowledge and attitude

Item		Low		Moderate		Good		P value
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	
All Participants	Knowledge	4	4.5	37	41.6	48	53.9	-
	Attitude	0	0	3	3.4	86	96.6	
Nurses	Knowledge	4	8.3	20	41.7	24	50.0	p=0.156
Physicians		0	0	17	41.5	24	58.5	
Nurses	Attitude	0	0	1	2.1	47	97.9	p=0.593
Physicians		0	0	2	4.9	39	95.1	

Table-5: Comparing the knowledge and attitude of the participant in terms of gender, marital status, profession, academic rank and degree

Item		Knowledge				Attitude			
		Mean	Median	SD	P value	Mean	Median	SD	P value
Gender	Male	17.39	18.00	2.004	0.48	44.50	45.50	4.86	0.24
	Female	16.48	17.00	3.39		46.03	48.00	4.06	
Marital Status	Married	17.11	18.00	2.83	0.37	45.47	47.00	4.3	0.033
	Single	15.52	16.00	3.73		46.36	48.00	4.14	
Number of Children	0	16.00	16.00	3.49	0.63	46.23	47.00	3.84	0.14
	1	17.30	18.00	2.67		44.85	46.00	4.20	
	2	17.08	18.00	3.03		46.63	49.00	3.92	
	3	17.25	18	3.09		41.00	40.50	7.25	
	4 and more	18.00	18.00	0.00		40.00	40.00	0.00	
Working experience at hospital	Less than 5 years	17.11	19.00	3.43	0.19	46.00	48.00	4.20	0.90
	5-10 years	17.42	17.50	2.35		45.85	47.00	3.81	
	10-15 years	15.50	15.50	3.69		46.00	49.00	5.26	
	15-20 years	14.50	15.50	3.14		44.50	45.00	4.80	
	Over 20 years	16.50	16.50	3.12		45.25	45.50	4.29	
Physicians' Academic Degree	Resident	17.57	19.00	4.96	0.270	48.14	50.00	4.05	0.167
	Specialist	15.83	15.50	2.92		45.67	46.00	2.33	
	Fellowship Student	17.00	17.00	2.00		44.50	45.50	4.14	
	Subspecialist	16.25	18.00	3.38		45.65	47.00	4.51	
Nurses' Academic Degree	Bachelor of Science	16.38	16.00	3.11	0.654	46.31	47.00	3.63	0.408
	Master of Science	17.09	18.00	2.66		46.09	48.00	4.41	
	PhD	17.27	18.00	3.37		43.45	44.00	5.61	
Academic Rank	Assistant Professor	15.67	17.00	4.79	0.80	46.22	49.00	4.84	0.79
	Associate Professor	16.66	17.00	3.06		45.81	47.00	4.24	
	Full Professor	17.29	18.00	2.59		45.12	46.00	4.22	
	Other	16.25	16.50	3.30		45.75	47.50	4.57	
Profession	Nurse	16.42	16.50	3.51	0.712	45.52	47.00	4.47	0.967
	Physician	16.95	17.00	2.72		45.95	47.00	4.02	

The majority of the participants did not know where to report the cases. Most of the responders (59.6%) mentioned "insufficient information about the reporting process" as the main reason for not reporting suspicious cases of child abuse.

Other more frequent answers were: "Concerns about legal consequences of reporting" (18%), "Insufficient knowledge of signs and symptoms of child abuse" (11.2%). The majority of the participants

had never attended any educational courses on child abuse issues such as dealing with suspicious cases, doing physical examination, treatment, and documentation. Thus, almost all participants (95.5%) indicated the need for educational programs on child abuse both for nurses and physicians.

The most frequent answers given to each question on needs assessment are shown in **Table 7**.

Table-6: Frequency and percentage of the participants' giving correct answers to each question in the "Performance Section".

No.	Item	Frequency of the Correct Answer	Percent
1	Identifying the history suggestive of child abuse	58	65.2
2	Identifying burn injuries suggestive of child abuse	80	89.9
3	Identifying symptoms suggestive of sexual abuse	63	70.8
4	Identifying the appropriate time for sampling in a suspicious case of sexual abuse	16	18
5	Identifying a suspicious case of neglect	55	61.8
6	Identifying psychological symptoms of a suspicious case of child abuse	64	71.9
7	Identifying psychological signs of a suspicious case of child abuse	41	46.1

Table-7: The most frequent answers given to each question in the "Needs Assessment section"

No.	Item	The Most Frequent Answer	Frequency	Percent
1	Any Confrontation with a case of child abuse	Yes	66	74.2
2	Presence of any supporting systems in Iran	No	51	57.3
3	Rate of child abuse in Iran	High	51	57.3
4	Any personal experience of reporting child abuse	No	52	58.4
5	Where to report child abuse	Forensic Medicine Team	48	53.9
6	Problems with reporting suspicious cases of child abuse	Insufficient information about the reporting process	53	59.6
7	Participating in any educational programs on dealing with a suspicious case of child abuse	Never	53	59.6
8	Receiving appropriate education on documentation of a suspicious case of child abuse	Never	42	47.2
9	Receiving appropriate education on having a good interaction with a suspicious case of child abuse	Never	47	52.8
10	Receiving appropriate education on doing physical examination in a suspicious case of child abuse	Never	37	41.6
11	Receiving appropriate education on understanding feelings in a suspicious case of child abuse	Never	45	50.6
12	Receiving appropriate education on treating various aspects of child abuse in children	Never	51	57.3
13	Feeling any necessity for educational programs on child abuse	Yes	85	95.5

4- DISCUSSION

Child abuse and neglect (CAN), as a global health and social problem, result from interactions of several risk factors such as parental depression, stress, social isolation, high levels of unemployment or poverty, gender and social inequality, etc. (1, 15). Since physicians serve an important role in CAN detection and reporting, it is vital that they be provided with the appropriate knowledge about the risk factors and interventions that prevent child abuse (12).

The main focus of this study was to investigate knowledge, attitude and practice (KAP) of the pediatricians, pediatric residents and nurses regarding CAN issues. There are several studies in the literature evaluating KAP of the general practitioners, dentists and nurses regarding child abuse and neglect (2, 9, 14, 16, 17). However, there are only a few publications investigating this subject in the child health care professional (15, 18, 19).

This study revealed that the pediatricians, pediatric residents, fellows, and pediatric nurses have moderate knowledge of the CAN risk factors and its possible signs and symptoms regarding. In a study performed in Turkey on 550 pediatricians, pediatric residents and general practitioners, the results showed that knowledge of the participants regarding CAN was not adequate. Additionally, in the same study the mean scores of knowledge about child abuse and neglect were lower in residents of pediatrics compared to pediatricians and practitioners, though the difference was not statistically significant. (19) In our study, likewise, there was no significant difference among the knowledge scores of pediatricians, pediatric residents and nurses.

In our survey, the participants' attitude towards CAN was rather in a good level. Similarly, in a study conducted in Sri

Lanka on 246 medical officers, nursing officers and social workers, it was found that the majority of the participants had favorable attitudes towards CAN (9) In contrast, several studies have revealed improper attitudes regarding CAN (12, 20). Discrepancies among the results of the various studies might be due to the diversities in study populations and different concepts considered in designing the questionnaires as the study material.

As indicated in the results section, the participants' practice in dealing with a suspected case of CAN is at a moderate level. The majority of the responders had moderate to good performance in correctly identifying the history, signs and symptoms which are suggestive of CAN. However, in a study by Sathiadas et al., overall practice of the participants was at a satisfactory level. This might result from the adequate knowledge of the participants regarding CAN and consequently it can be concluded that sufficient knowledge of child abuse and neglect issues leads to appropriate performance in dealing with a suspected case.

Regarding the demographic characteristics of the respondents, we found no significant difference between knowledge and attitude of the participants in terms of gender, marital status, working history, and academic ranks or degrees. In contrast, in a study by Kara et al., it was shown that female physicians had higher knowledge scores compared to males (19). Given the importance of work experience, Sathiadas et al. revealed that knowledge, attitude and behavior towards child abuse were significantly good in the participants with experience in the field of pediatrics and judicial medical work, when compared to those who did not have the experience in these two fields.(9) Surprisingly, in another study it was indicated that Australian physicians with longer work experience were less likely to report

suspected child abuse than the less experienced physicians (11).

It remains unclear whether there is any correlation between the knowledge of health care professionals regarding CAN with their work experience in terms of the duration and field of occupation (pediatrics vs other fields). Although some studies indicate that the awareness of health care providers working in the field of pediatrics is higher than that of those not working in the other fields; however, providing both groups with educational programs on CAN is frequently recommended.

As emphasized in previous studies, one of the most challenging issues in dealing with a case of child abuse and neglect is reporting the victim to relevant institutions/authorities and making a legal notice (18, 21, 22). It is known that victims and perpetrators of child abuse do not usually self-report to child protection services. Medical officers, being the first responders in most cases, are in an ideal position to report abuse. Hence, it is very important for medical officers to be familiar with medico-legal aspects of child abuse (9).

In our study 74.2% of the respondents expressed that they had confronted at least once with a case of child abuse and neglect in their professional life but only 41.6% of them had reported the case. Although the majority of the participants indicated that there is a rather high prevalence of CAN in the society, they were unaware of supporting systems in Iran which are Social Emergency Services subordinated to Welfare Organization. In a study performed by Lazenbatt et al. including 419 healthcare workers in Ireland, the rate of confronting with physical abuse throughout the occupational life was 60% and the rate of legal notice was 47% (21). In another study by Jones et al. on child abuse reporting experiences, it was found that even at the highest levels of suspicion,

only 73% of injuries were reported to child protective services (22).

In our survey, while the participants were asked about reporting obstacles, the majority expressed unfamiliarity with the reporting process (59.6%). Insufficient knowledge of CAN signs and symptoms (11.2%), worries about reporting consequences (18%) and being unaware of their legal responsibility of reporting (4.5%) were among other answers. Similarly, in other studies almost the same reasons were indicated for underreporting suspected child abuse cases including the lack of knowledge among the physicians about the responsibility to report, concerns about the effect of reporting on their relationship with their patients, fear of legal repercussion from the family, concerns of confidentiality and possible effects on patient-physician relationships, concerns about the lack of security measures in health centers, the feeling that their reports do not receive proper attention from social services, and the bad feeling that they are doing a "policing job" (12, 23).

In Iran, the Child and Adolescent Protection Act, approved in May 2020, covers the main issues regarding child abuse such as the legal process of reporting suspected cases, supervising organizations and supporting services. (24) Accordingly, child abuse is a public crime and needs no private plaintiff. Therefore, a suspected case of child abuse and neglect must be reported to the relevant authorities. Due to their legal and social responsibilities, the physicians should have adequate information and skills on identifying specific physical and behavioral patterns, epidemiology, treatment, and prevention of child abuse. Thus, the physicians should receive adequate education on child abuse and neglect (12).

In our study, the majority of the respondents (59.6%) expressed that they

had never attended any educational program on child abuse and neglect. Thus, 95.5 % of the participants believed that educational programs on child abuse and neglect are necessary for nurses and physicians.

Similarly, another study reported that only 21% of the participants had attended a training workshop on child abuse and 93% indicated that they need some form of education on child maltreatment (9). A survey on the perception and attitude change of first-line healthcare providers after child abuse education in South Korea revealed that the educational program on the assessment of child abuse and reporting methods increased healthcare professionals' knowledge and confidence and improved their willingness to report suspected child abuse in a low-perception environment (25). Froula et al. also confirmed the effectiveness of case-based workshops for teaching child abuse prevention among resident physicians (26).

As highlighted in numerous studies, educational programs on child abuse and neglect seem mandatory for health care professionals in order to better identify, manage and prevent such an important social and public health problem. This is also confirmed in our study. However, investigation of knowledge, attitude and practice of health care professionals other than pediatricians and pediatric nurses even in general hospitals through observational studies or newer evaluation methods are encouraged to have a broader view of challenges in dealing with child abuse and neglect cases.

5- CONCLUSION

Results of the present study revealed that the overall knowledge, attitude, and practice of the health care professionals in the field of pediatrics regarding child abuse and neglect are not satisfactory and training programs on this issue is mandatory for pediatricians, pediatric

residents, and nurses due to their serious role in caring for children. However, more well-developed studies with larger populations are essential to better assess the appropriate content of the educational programs on child abuse and neglect not only for general practitioners and nurses but also for the professionals working in the field of pediatrics in particular.

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8- ETHICAL CONSIDERATIONS

The objectives of the project were explained to the participating nurses and physicians and the informed consent was obtained through an online form before presenting the questionnaire to the participants. This study has been approved at Sina Research Committee of Tehran University of Medical Sciences with the ethical code of 95-03-38-32876.

9- CONFLICT OF INTERESTS

None

10- REFERENCES

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