



ORIGINAL ARTICLE

Assessment of emergency medicine residents' ability to identify child neglect and abuse in the first and second halves of their training

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Abstract

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This study aims to assess the knowledge, skills, and awareness of emergency medicine residents regarding child abuse and neglect-an extremely sensitive and serious public health issue. It also seeks to examine the impact of specialty training and certain demographic characteristics on this awareness and to identify and propose necessary actions within the context of medical ethics and law. In conclusion, this study aims to highlight key areas that will improve the clinical diagnostic accuracy of emergency medicine specialists working in the field and enhance early diagnosis rates in order to protect vulnerable children. This is a single-center descriptive study. Participants consisted of 167 emergency medicine residents receiving specialty training at the emergency departments of various



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training and research hospitals affiliated with the University of Health Sciences, Hamidiye Faculty of Medicine, in Istanbul. Resident physicians were divided into two groups based on whether they were in the first or last two years of their training. The participants were administered the "Scale for Identifying the Signs and Risks of Child Abuse and Neglect" along with a demographic information form. Data were analyzed using the SPSS 25 software package. No statistically significant differences were found between residents in the first and second halves of training regarding scale and subscale scores related to physical and behavioral signs of abuse, neglect indicators, and child, familial, or parental risk characteristics ($p>0.05$). However, residents without children demonstrated greater recognition of physical signs of abuse ($p=0.044$), while those with children scored higher on behavioral indicators of child abuse ($p=0.018$). A weak negative correlation was also observed between age and knowledge/awareness levels in detecting child abuse and neglect ($p=0.003$; $r = -0.226$). The study found no significant difference in the ability to identify child abuse and neglect between physicians in the first and second halves of their emergency medicine training. It was concluded that more research is needed to identify factors that may influence physicians' ability to recognize and understand this important and sensitive issue.

Introduction

The World Health Organization defines child abuse and neglect as acts that cause physical, emotional, or sexual harm, or involve neglect or exploitation that negatively affect the well-being of children under 18 [1]. This global issue has serious consequences for individuals and society. Around one billion children—half of the world's child population—are affected by abuse or neglect each year [2].

In Türkiye, a 2010 UNICEF study found that among 1,886 children aged 7–18, 25% had experienced neglect, 50% emotional abuse, and 45% physical abuse [3]. Another study by Aslan et al. reported 309 cases of child sexual abuse recorded by Child Monitoring Centers between 2019 and 2020 [4].

Abuse and neglect can lead to serious psychological outcomes, including disorders like schizophrenia and psychosis [5,6]. Healthcare professionals—especially those in emergency care, pediatrics, and family medicine—often serve as first responders [7]. In a 2014 study, 82% of pediatricians, 70.5% of residents, and 54.8% of general practitioners reported encountering child abuse cases [8].

Physicians have a key role in identifying and reporting abuse. If not recognized early, 30–50% of children may face repeated abuse, and 5–10% could die as a result [9]. Recognizing and reporting suspected abuse is a legal and ethical duty.¹

To fulfill this responsibility, healthcare workers need proper training and awareness. Several studies have highlighted knowledge gaps. A 2011 U.S. study by Menoch et al. showed low awareness among pediatric and emergency physicians [10]. A 2021 study in Florida found higher awareness among

¹ Article 280 – Turkish Penal Code No. 5237 (1) Any healthcare professional who, in the course of performing their duties, encounters indications that a criminal offense has been committed but fails to report the matter to the competent authorities or unduly delays in doing so shall be subject to a penalty of imprisonment for a term of up to one year.

(2) The term “healthcare professional” shall be understood to include physicians, dentists, pharmacists, midwives, nurses, and other individuals engaged in the provision of healthcare services.



pediatric emergency physicians, likely due to residency training, but legal knowledge remained limited [11].

In Türkiye, many studies have examined the knowledge of family physicians, pediatricians, emergency doctors, nurses, and midwives [8, 12–18]. Okur and Parlak (2019) found that many emergency department staff lacked proper training in managing suspected abuse [19]. However, no study has specifically evaluated emergency medicine residents in Türkiye. This study aims to assess their knowledge, awareness, and skills regarding child abuse and neglect, examine how demographic and educational factors influence these, and offer recommendations from ethical and legal perspectives.

Materials and Methods

Study design and setting

This was a single-center, cross-sectional descriptive study aimed at evaluating how emergency medicine residents recognize and respond to child abuse and neglect, and how this is influenced by training and demographic factors.

Sample of study

The sample of the study consisted of emergency medicine residents receiving specialty training at the emergency departments of various training and research hospitals affiliated with the University of Health Sciences, Hamidiye Faculty of Medicine in Istanbul. The sample selection was based on voluntary participation, and a total of 167 emergency medicine residents were included in the study.

Data collection procedures

The data collection process was conducted face-to-face with the participants. Two main measurement tools were utilized to collect the data:

1. **Demographic Information Form:** A questionnaire evaluating the participants' age, marital status, parental status, and previous education or clinical encounters regarding child abuse.
2. **Scale for Identifying Symptoms and Risks of Child Abuse and Neglect:** Developed by Aynur Uysal, this tool consists of 67 items across six domains: physical and behavioral symptoms in the child, signs of neglect, parental and family risk factors, and characteristics of at-risk children. The scale items are rated on a 5-point Likert scale (ranging from 5 = completely true to 1 = not true at all). Negatively worded items are reverse-scored, and the maximum possible total score is 335, with higher scores indicating better recognition skills.

Data analysis

Reliability analysis showed strong internal consistency, with a total Cronbach's alpha of 0.924. Subscale alphas ranged from 0.596 (child-related risks) to 0.892 (parental risks), indicating good reliability overall.

Data analysis was performed using SPSS version 25. The Mann–Whitney U test was used for comparing two independent groups, and the Spearman correlation test examined associations between non-normally distributed variables.

Ethical approval

Ethical approval was obtained from the Ethics Committee of Hamidiye Faculty of Medicine, University of Health Sciences (Date: 19.01.2024, Decision number: 1/60). All participants gave informed consent, and the study adhered to the Declaration of Helsinki.



Results

Demographic characteristics of emergency medicine residents participating in the study

Demographic characteristics of the emergency medicine residents included in the study were analyzed. Among the participants, 42.5% (n=71) were aged 18–27 years, 53.9% (n=90) were aged 28–37 years, and 3.6% (n=6) were aged 38 years or older. Regarding marital status, 67.1% were single, 31.1% were married, and 3% (n=3) were classified under other categories.

When asked whether they had received education on the relevant topic during their undergraduate studies, 69.5% responded affirmatively, while 30.5% responded negatively. Concerning the ability of emergency medicine residents to presumptively diagnose child abuse and neglect, 94% answered affirmatively, whereas 6% answered negatively.

Regarding self-assessed competency on this subject, 3% of participants reported being “not competent at all,” 15% “not competent,” 50.9% “partially competent,” 26.9% “competent,” and 4.2% “highly competent.” Furthermore, when asked about the need for further education on this topic, 88.6% of the participants expressed a need, while 11.4% did not.

Table 1. Demographic characteristics of emergency medicine residents participating in the study.

	n (%)	
Age Group		
18-27	71 (42.5)	
28-37	90 (53.9)	
38 or more	6 (3.6)	
Marital Status		
Single	112 (67.1)	
Married	52 (31.1)	
Other	3 (1.8)	
Primary Caregiver for Their Children		
Mother, Mother-in-law, Close Relative	11 (6.6)	
Caregiver	1 (0.6)	
Daycare or Nursery	2 (1.2)	
Other	6 (3.6)	
	Yes n (%)	No n (%)
Whether information about the topic was received during school	116 (69.5)	51 (30.5)
Attendance at conferences or seminars on the topic	35 (21)	132 (79)
Encountering cases of child abuse and neglect	69 (41.3)	98 (58.7)
Emergency medicine residents' ability to presumptively diagnose child abuse and neglect	157 (94)	10 (6)
Emergency medicine residents' perceived need for further education on the topic	148 (88.6)	19 (11.4)
Emergency medicine residents' self-assessed competency on the topic	n (%)	
Not competent at all	5 (3)	
Not competent	25 (15)	
Partially competent	95 (50.9)	
Competent	45 (26.9)	
Highly competent	7 (4.2)	



Findings related to the subdimensions of the child abuse and neglect scale

The mean scale score of emergency medicine residents regarding the physical and behavioral signs of abuse and neglect in children, characteristics of children prone to abuse and neglect, their parents, and familial factors was found to be 274.73 ± 22.22 .

Table 2. Findings related to the subdimensions of the child abuse and neglect scale.

	Median (min-max) / Mean \pm SD
Physical signs of abuse on the child	82,00 (60-90)
Behavioral signs of child abuse	63 (47-75)
Signs of neglect on the child	31(23-35)
Familial characteristics in child abuse and neglect	19 (12-23)
Characteristics of parents prone to abuse and neglect	33 (23-40)
Characteristics of children prone to abuse and neglect	48,81 \pm 5,51
Total scale score	274,73 \pm 22,22

Comparison of scale scores according to being in the first or second half of emergency medicine residency

No significant difference was observed between physicians in the first two years and those in the last two years of emergency medicine residency regarding their ability to identify findings and characteristics such as physical and behavioral signs in abused and neglected children, as well as the traits of children and parents prone to abuse.

Table 3. Comparison of scale scores based on being in the first or second half of emergency medicine residency.

	First half (1st and 2nd year) Median (min-max) / Mean \pm SD	Second half (1st and 2nd year) Median (min-max) / Mean \pm SD	Z/t	p
Physical signs of abuse on the child	82 (61-93)	80,50 (60-94)	-0,283 ^Z	0.777
Behavioral signs of child abuse	63 (47-75)	63,50 (50-74)	-0,020 ^Z	0.984
Signs of neglect on the child	31 (23-35)	31 (25-35)	-0,061 ^Z	0.951
Characteristics of children prone to abuse and neglect	19 (12-23)	19 (13-21)	-0,695 ^Z	0.487
Familial characteristics in child abuse and neglect	33 (23-40)	33 (26-40)	-0,057 ^Z	0.954
Characteristics of parents prone to abuse and neglect	48,76 \pm 5,59	49,06 \pm 5,27	-0,282 ^t	0.778

^Z: Mann-Whitney U test statistic | ^t: Independent samples t-test statistic

Comparison of scale scores based on emergency medicine residents' parental status

Comparison of scale and subdimension scores according to the parental status of emergency medicine residents revealed that residents without children had significantly higher scores for physical signs of abuse on the child compared to those with children ($p=0.044$). Conversely, participants with children scored significantly higher on behavioral signs of child abuse than those without children ($p=0.018$). No significant differences were observed for other parameters.

Table 4. Comparison of scale scores according to parental status of emergency medicine residents.

	Has children Median (min-max) / Mean ± SD	Does not have children Median (min-max) / Mean ± SD	Z/t	p
Physical signs of abuse on the child	78,5 (66-89)	82 (60-94)	-2,018	0.044*
Behavioral signs of child abuse	59,50 (51-69)	31 (23-35)	-2,373	0.018*
Signs of neglect on the child	29,50 (24-35)	31 (23-35)	-0,573	0.567
Characteristics of children prone to abuse and neglect	18 (13-21)	19 (12-23)	-1,298	0.194
Familial characteristics in child abuse and neglect	32 (24-40)	33 (23-40)	-1,240	0.215
Characteristics of parents prone to abuse and neglect	46,85±4,50	49,08±5,60	-1,708	0.089

*: $p < 0,05$ | Z: Mann-Whitney U test statistic | t: Independent samples t-test statistic

Relationship between knowledge and awareness levels in identifying child abuse and neglect and age

A very weak negative correlation was found between participants' ages and their scores on physical signs of abuse in children ($p=0.001$; $r = -0.172$). No significant correlation was observed between participants' ages and behavioral signs of child abuse scores ($p=0.564$). A weak negative correlation was identified between age and signs of neglect on the child ($p=0.043$; $r = -0.157$). No significant correlation was found between age and characteristics of parents prone to abuse and neglect ($p=0.051$). A weak negative correlation was found between age and characteristics of children prone to abuse and neglect ($p=0.046$; $r = -0.015$).

Additionally, a weak negative correlation was detected between age and familial characteristics in child abuse and neglect ($p=0.020$; $r = -0.180$), as well as between age and the overall score reflecting identification of signs and risks of child abuse and neglect ($p=0.003$; $r = -0.226$).

In conclusion, a significant negative correlation was observed between emergency medicine residents' age and the following subdomains: physical signs of abuse on the child, behavioral signs of child abuse, signs of neglect on the child, characteristics of children prone to abuse and neglect, familial characteristics in child abuse and neglect, and the total score representing identification of signs and risks of child abuse and neglect. However, no significant correlation was found between age and characteristics of parents prone to abuse and neglect.

Table 5. Relationship between knowledge and awareness levels in identifying child abuse and neglect and age.

Variables		Age	2	3	4	5	6	7
Physical signs of abuse on the child	r	-0,172	1					
	p	0.026						
Behavioral signs of child abuse	r	-0,163*	0,683**	1				
	p	0.035	<0.001					
Signs of neglect on the child	r	-0,157*	0,520**	0,606**	1			
	p	0.043	<0.001	<0.001				
Characteristics of parents prone to abuse and neglect (p = 0,051)	r	-0,152	0,390**	0,487**	0,539**	1		
	p	0.051	<0.001	<0.001	<0.001			
Characteristics of children prone to abuse and neglect	r	-,0155*	0,231**	0,294**	0,416**	0,546**	1	
	p	0.046	0.003	<0.001	<0.001	<0.001		

Familial characteristics in child abuse and neglect	r	-0,180*	0,502**	0,565**	0,611**	0,688**	0,545**	1
	p	0.020	<0.001	<0.001	<0.001	<0.001	<0.001	
Identification of signs and risks of child abuse and neglect 1	r	-0,226**	0,790**	0,832**	0,759**	0,754**	0,547**	0,826**
	p	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

***: Correlation is significant at the 0.01 level (two-tailed).*

**: Correlation is significant at the 0.05 level (two-tailed).*

Discussion

In our study, no statistically significant difference was observed between Emergency Medicine residents in the first two years and those in the final two years of their specialty training in terms of their scores on various subscales. These subscales included recognition of the physical signs of abuse in children, behavioral indicators associated with abuse and signs of neglect, characteristics of children prone to abuse and neglect, familial risk factors, and parental characteristics linked to abuse and neglect. These findings suggest that increased duration of specialty training in Emergency Medicine does not appear to have a positive effect on the ability to identify and diagnose cases of child abuse and neglect. However, contrasting results have been reported in the literature involving other healthcare professionals. For example, a study conducted by Kamiloğlu in 2018 noted that family medicine residents in Ankara demonstrated a significant improvement in their ability to recognize abuse and neglect during the later years of their residency training [15].

A significant portion of the Emergency Medicine residents (69.5%) reported that their only formal education on child abuse and neglect was during medical school. Furthermore, the majority of participants (79%) stated that they had not received any additional information or training through seminars or conferences after graduation. Based on the data obtained in our study, both formal and informal education received by Emergency Medicine residents regarding child abuse and neglect was insufficient in terms of enhancing their ability to identify such cases. Supporting this, a 2021 study involving family physicians also found no significant relationship between having received training on child abuse and neglect and the scores on the related assessment scale [20]. These findings collectively suggest that post-graduate education in its current form remains inadequate for improving physicians' ability to recognize and diagnose child abuse and neglect. One possible explanation for this deficiency may be the limited practical training on child protection topics in the current medical education curricula.

The same study has demonstrated that family physicians who received training on child abuse and neglect are more likely to recognize such cases. According to their findings, 26.8% of physicians who had received education on child abuse and neglect encountered cases in a clinical setting. This rate increased to 41.6% among those who received training either during medical school or after graduation, and further rose to 53.1% among those who received education both during medical school and in the post-graduation period. A statistically significant relationship was found between receiving education on child abuse and neglect and the likelihood of encountering such cases in clinical practice. The study concluded that physicians with training in this field demonstrated a higher rate of identifying cases of child abuse and neglect [20]. Similarly, a study conducted by Dr. Tiyyagura and colleagues in the United States emphasized that educational interventions focusing on the signs of physical neglect and its various clinical presentations can improve the identification and reporting of child abuse and neglect. The authors suggest that providing Emergency Medicine residents with more opportunities to examine suspected cases in clinical settings could help them develop better diagnostic skills for recognizing such cases in the future [21].

These findings suggest that not only education but also clinical experience plays a critical role in physicians' ability to identify child abuse and neglect. Collectively, these studies highlight the need to



restructure current educational programs and emphasize the importance of incorporating more practical, hands-on training activities to enhance diagnostic competence in this area.

No statistically significant difference was identified in scale scores between Emergency Medicine residents in the first and second halves of their specialty training with respect to recognizing the signs of neglect in children, characteristics of children prone to abuse and neglect, familial features associated with abuse and neglect, or parental risk factors ($p>0.05$). However, when examining the relationship between the ability to identify physical signs of abuse and participants' parental status, it was found that residents without children were more successful in recognizing physical indicators compared to those with children. This may be attributed to non-parent physicians perceiving findings such as bruises more seriously, whereas those who are parents may be more inclined to attribute such signs to normal childhood behaviors such as playing, running, or falling. In contrast, when it came to recognizing behavioral indicators associated with child abuse, participants who had children scored higher on the scale than their counterparts without children. This may be due to the fact that parents are more familiar with the range of normal behavior in children and are thus better able to detect deviations that may indicate abuse.

However, in a study conducted by Işık in İzmir in 2015, healthcare professionals who were parents scored higher in the category of recognizing the physical signs of abuse in children compared to those without children [22]. When examining the subscale scores of the instrument, it was found that Emergency Medicine residents scored highest in the subscale assessing the physical signs of abuse in children, while the lowest scores were recorded in the subscale addressing the characteristics of children prone to abuse and neglect. Similarly, in a study conducted by Işık in 2021 involving personnel working in 112 emergency services, participants scored highest in recognizing the physical symptoms of abuse and neglect, and lowest in identifying the characteristics of children vulnerable to abuse and neglect [22]. These results are thought to stem from the fact that physical examination findings in physical abuse can be evaluated more objectively.

According to the data obtained in this study, the majority of Emergency Medicine residents (77.8%) considered themselves fully or partially competent in recognizing child abuse and neglect. However, other studies in the literature report that some physicians feel inadequate in this regard. In a 2015 study conducted on pediatricians, specialists reported feeling more competent than residents in diagnosing child abuse and neglect, although only 15% of specialists stated that they felt very competent [23].

In contrast, a study conducted in 2022 by Ekrem and colleagues evaluating the knowledge level of 112 Emergency Medical Services personnel found a high level of awareness among emergency staff regarding child abuse and neglect [24]. When residents in the current study were asked whether they needed more information on child abuse and neglect, 88.6% responded affirmatively. Despite many feeling competent, there remains a strong need for further knowledge on the subject, which may be due to a lack of experience and insufficient training.

A weak negative correlation was found between participants' age and their knowledge and awareness levels in identifying child abuse and neglect. In other words, as age increased, knowledge and awareness regarding the identification of child abuse and neglect tended to decrease. This finding aligns with the results of studies by Gül (2015) and Solak (2021), both of which concluded that as physicians' age increased, their total scores decreased [20,23]. This situation may be explained by differences in attitudes and behaviors related to social issues between newer generations of physicians and their older counterparts. Similarly, a study conducted in Sweden by Borres et al. in 2007 reported that medical students expressed more concern about child abuse and neglect than practicing physicians, and that young physician candidates viewed child abuse as the most serious social issue [25].

Limitations

This study was limited to third level hospitals in Istanbul and did not include secondary-level hospitals. This limitation was due to the inability to obtain ethical approval from all hospitals.

Conclusion

Emergency medicine physicians are key to identifying child abuse and neglect, as many cases initially present in emergency settings. However, our study found no significant correlation between the duration of emergency medicine training and diagnostic accuracy, suggesting that current residency programs may lack sufficient emphasis on this critical issue. Furthermore, demographic factors played a distinct role in clinical sensitivity: residents with children demonstrated higher accuracy in recognizing behavioral signs, whereas residents without children were more successful in detecting physical indicators. While this situation implies that personal experience may improve clinical sensitivity, it also indicates that familiarity with non-abuse possibilities brought about by parenting may lead to an opposite outcome regarding physical signs.

The findings obtained in the study highlight a significant gap in post-graduate medical education; as a significant portion of the residents rely solely on their undergraduate education and simultaneously express a strong need for further education on this topic. On the other hand, it is understood that a systematic reform is necessary in the Emergency Medicine residency curriculum regarding this subject. Relying on passive knowledge is insufficient; training programs must integrate continuous, hands-on clinical experience, case-based learning, role-play, and interdisciplinary collaboration with experienced pediatric and child protection departments. Addressing these educational deficits is not merely an academic issue, but also a profound ethical and legal responsibility. Ultimately, improving the diagnostic skills of emergency department physicians will directly increase early detection rates, prevent repeated abuse, and safeguard the well-being of vulnerable child populations.

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Conflict of interest

The authors declared that there is no conflict of interest.

Data availability statement

The datasets generated and/or analyzed during the current study are not publicly available due to ethical restrictions and the need to protect participant confidentiality, as the data were collected from emergency medicine residents under ethics committee approval. However, anonymized data may be available from the corresponding author upon reasonable request and with permission from the relevant ethics committee.



References

1. Bakır E, Kapucu S. Reflection of child neglect and abuse to researches in Turkey: A literature review [in Turkish]. *J Hacettepe Univ Fac Nurs.* 2017;4(2):13–24.
2. Centers for Disease Control and Prevention (CDC). About violence against children and youth surveys (VACS). Atlanta: CDC; 2024. Available from: <https://www.cdc.gov/violence-against-children/about/> (Accessed on Aug 14, 2024).
3. UNICEF; United Nations Children's Fund. Definitions of child abuse and possible indicators of harm. 2012. Available from: https://resourcecentre.savethechildren.net/pdf/SAMPLE+DRAFT_Definitions+of+Child+Abuse+and+Possible+indicators.doc/ (Accessed on Aug 14, 2024).
4. Aslan F, Timur S, Pakiř I. Evaluation of child abuse cases affected by COVID-19 pandemic. *Bull Leg Med.* 2020;25(Sp):40–7. doi: 10.17986/blm.2020.v25i.1407.
5. Chaiyachati BH, Gur RE. Effect of child abuse and neglect on schizophrenia and other psychotic disorders. *Pharmacol Biochem Behav.* 2021;206:173195. doi: 10.1016/j.pbb.2021.173195.
6. Türkkan T, Odacı H, Bülbül K. Understanding child abuse and neglect: An ecological approach. *Soc Work Soc.* 2021;32(2):709–28. doi: 10.33417/tsh.847467.
7. Kaya A, Karadayı B, Uygun S, Karadayı ř, Afşin H. Evaluation of bite marks in terms of child abuse in emergency departments [in Turkish]. *Med Bull Haseki.* 2015;53:181–6. doi: 10.4274/haseki.2291.
8. Kara Ö, Çalışkan D, Suskan E. Comparison of the levels of knowledge and approaches in relation with child abuse and neglect in residents of pediatrics, pediatricians and practitioners working in the province of Ankara. *Turk Pediatri Ars.* 2014;49(1):57–65. doi: 10.5152/tpa.2014.984.
9. Güneş T. Early diagnosis and routing of 0-6 year children's negligence and abuse in primary health services [in Turkish]. *J Toplum Soc Serv.* 2017;28(1).
10. Menoch M, Zimmerman S, Garcia-Filion P, Bulloch B. Child abuse education: An objective evaluation of resident and attending physician knowledge. *Pediatr Emerg Care.* 2011;27(10):937-40. doi:10.1097/PEC.0b013e3182307ae5.
11. Mandadi AR, Dully K, Brailsford J, Wylie T, Morrissey TK, Hendry P, et al. A national survey of pediatric emergency medicine physicians on improving education in child maltreatment recognition and reporting child abuse and neglect. *Child Abuse Negl.* 2021;122:105337. doi: 10.1016/j.chiabu.2021.105324.
12. Bilgiç H. Denizli il merkezindeki aile sağlığı merkezlerinde görev yapan ebe ve hemşirelerin çocuk istismarı ve ihmali konusundaki deneyimleri, bilgi ve farkındalık düzeyleri. Master's Thesis. Denizli: Pamukkale University Institute of Health Sciences; 2015.
13. Burç A, Tüfekci FG. Occurance of diagnosis by nurses of symptoms and risks of child abuse and neglect [in Turkish]. *J Ege Univ Nurs Fac.* 2014;6(3):144-51.
14. Kabakoğlu H. Aile sağlığı merkezinde görev yapan hemşire ve ebelerin çocuk istismarı ve ihmali hakkındaki bilgi düzeylerinin değerlendirilmesi. Masters's Thesis. Hatay: Hatay Mustafa Kemal University Institute of Health Sciences; 2018.
15. Kamiloğlu M. Ankara ilinde görev yapan aile hekimliği asistanlarının çocuk istismarı ve ihmali konusunda bilgi düzeyi, tutum ve davranışlarının değerlendirilmesi. Masters's Thesis. Ankara: Health Sciences University; 2018.
16. Kocaer Ü. Hekim ve hemşirelerin çocuk istismarı ve ihmeline yönelik farkındalık düzeyleri. Masters's Thesis. İstanbul: Marmara University; 2006.
17. Türker G. Aile hekimleri, hemşire ve ebelerin çocuk istismarı ve ihmali konusunda farkındalık düzeyleri: Burdur örneği. Masters's Thesis. Konya: Selçuk University; 2017.
18. Uysal A. Çocuk istismar ve ihmalinin belirti ve risklerini tanımlamada hemşire ve ebelerin bilgi düzeylerinin saptanması. Masters's Thesis. İzmir: Ege University Institute of Health Sciences; 1998.
19. Okur A, Parlak S. Awareness and competence levels of emergency services (as first points of application) in child neglect and abuse [in Turkish]. *İZÜ J Educ.* 2024;6(1):97-114. doi: 10.46423/izujed.1353148.

20. Solak Y, Yoldaşcan BE, Okyay RA. Assessment of the knowledge, awareness, and attitudes of family physicians in Adana regarding child abuse and neglect. *J Public Health*. 2021;29:1135-42. doi: 10.1007/s10389-020-01220-3.
21. Tiyyagura G, Gawel M, Koziel JR, Asnes A, Bechtel K. Barriers and facilitators to detecting child abuse and neglect in general emergency departments. *Ann Emerg Med*. 2015;66(5):447-54. doi: 10.1016/j.annemergmed.2015.07.016.
22. Metinyurt Aydan Işık H, Yıldırım Sarı H. Awareness of health professionals about child abuse and neglect [in Turkish]. *J Child Civ*. 2016;1:101-21.
23. Gül H, Yürümez E, Yaylalı FH, Gül A. The perceptions of pediatricians regarding their self-efficacy in child neglect and abuse. *Turk J Pediatr*. 2015;57(5):475-81.
24. Ekrem Çebi G, Kaynar E, Benek E, Toraman Ç. Determining the level of recognition of the symptoms and risks of child abuse and neglect by the health personnel working in 112 Emergency Health Services [in Turkish]. *Med J Mustafa Kemal Univ*. 2022;13(45):44-53. doi: 10.17944/mkutfd.974419.
25. Borres MP, Hägg A. Child abuse study among Swedish physicians and medical students. *Pediatr Int*. 2007;49(2):177-82. doi: 10.1111/j.1442-200X.2007.02386.x.