

# Perceptions of child abuse and neglect among nurses: an investigation in family health centers

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## ABSTRACT

**Aims:** This study aims to examine the perceptions of nurses working in family health centers regarding child abuse and neglect, their involvement in reporting processes, and the challenges they encounter.

**Methods:** A cross-sectional descriptive study was conducted with 157 nurses working in family health centers. Data were collected through face-to-face interviews using a descriptive information form, the nurses' diagnosis of child abuse and neglect symptoms and risks scale (NCAN-RS), and the healthcare provider attitudes toward child maltreatment reporting scale (CMRS). The data were analyzed using descriptive statistics, correlation analyses, and multiple correspondence analysis.

**Results:** The findings revealed that 56.1% of the nurses had received prior training on child abuse and neglect, but only 37.5% found the training sufficient. A significant proportion (96.2%) had never reported a child abuse case. Awareness of child rights organizations was also limited, with only 37.6% of participants able to specify an institution. Nurses who received training, were aware of child rights organizations, and acknowledged the legal obligation to report abuse had significantly higher scores on the CMRS and NCAN-RS scales ( $p < 0.05$ ). The lack of institutional support negatively influenced reporting behaviors.

**Conclusion:** Although nurses play a critical role in identifying and reporting child abuse and neglect, gaps in education, institutional support, and awareness persist. Strengthening training programs, enhancing institutional support, and raising awareness about legal responsibilities may contribute to improved reporting behaviors among healthcare professionals.

**Keywords:** Child abuse, child neglect, nurses, mandatory reporting, primary health care

## INTRODUCTION

Child abuse and neglect is a serious public health issue that affects all societies and can have lasting negative consequences for individuals. It manifests in physical, sexual, emotional, or economic forms of neglect or exploitation, all of which can harm a child's health, development, and dignity.<sup>1,2</sup> In 2023, 11.8% of the 217,000 children referred to security units in Turkey were victims of sexual crimes.<sup>3</sup> International reviews and meta-analyses indicate that 18–20% of girls and 8–10% of boys experience sexual abuse during childhood.<sup>4,5</sup> These statistics highlight the alarming prevalence of sexual offenses against children and underscore the need for effective measures to reduce these numbers in the coming years.

Nurses working with children play a critical role in ensuring their safety. Their responsibilities include preventing abuse, providing early intervention, and addressing the physical and psychosocial needs of victimized children.<sup>6</sup> Pediatric and child health nurses intervene in cases of abuse and neglect by directly engaging with children and families or referring them to child protection services.<sup>7</sup> As one of the primary

professional groups working with children at risk of abuse and neglect, nurses represent the largest group among healthcare professionals<sup>6</sup> Consequently, healthcare professionals play a key role in the early detection of child abuse and neglect cases and in reporting them to the relevant authorities.<sup>8</sup>

This study aims to assess the knowledge levels of nurses working in family health centers regarding child abuse and neglect, their involvement in reporting processes, and the challenges they encounter. While previous studies have mainly focused on healthcare professionals in hospital settings, this research addresses nurses in primary healthcare services, filling a significant gap in literature. By examining the impact of nurses' education levels, institutional support, and awareness of legal responsibilities on reporting behaviors, this study seeks to identify barriers to reporting child abuse and propose improvements. The findings are expected to contribute to the development of training programs for healthcare professionals and the strengthening of child protection mechanisms.

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## METHODS

### Ethics

This study was approved by Van Yüzüncü Yıl University Non-interventional Ethics Committee (Date: 08.03.2024, Decision No: 2024/03-29). All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki.

### Design

This study was conducted as a cross-sectional descriptive study.

### Sample and Population

The study aimed to include all 187 nurses working in family health centers; however, it was conducted with the 157 nurses who agreed to participate. The sample was selected using a convenience sampling method, including nurses who met the inclusion criteria and voluntarily participated in the study.

### Place and Time

The study was conducted through face-to-face interviews with nurses working in family health centers in a province between May 1, 2024, and October 31, 2024.

### Inclusion Criteria

- Nurses working in FHCs
- Communicative nurses who accept voluntary participation in the study

### Exclusion Criteria

- Nurses who did not accept voluntary participation

### Data Collection Tools

Descriptive information form, and nurses' diagnosis of child abuse and neglect symptoms and risks scale and healthcare provider attitudes toward child maltreatment reporting scale were used as data collection tools. Data were collected by face-to-face interviews with nurses and self-report method.

### Descriptive Information Form

To assess socio-demographic characteristics—including age, gender, educational status, marital status, number of children, employment duration, and prior education on child abuse and neglect—a 20-question form was administered. This form was developed based on a review of the literature.<sup>7,9</sup>

### Nurses' Diagnosis of Child Abuse and Neglect Symptoms and Risks Scale (NCAN-RS)

The scale, developed by Uysal (1998), consists of 67 items and six sub-dimensions: physical symptoms, behavioral symptoms, neglect symptoms, parent characteristics, child characteristics, and familial characteristics. A higher mean score indicates a greater level of knowledge in the respective area. In Uysal's<sup>10</sup> study, the scale demonstrated high reliability, with a Cronbach's alpha coefficient of 0.92. In this study, the overall reliability coefficient of the scale is 0.84.

### Healthcare Provider Attitudes Toward Child Maltreatment Reporting Scale (CMRS)

The Turkish validity and reliability study of the scale was conducted by Turan.<sup>11</sup> The scale consists of 19 items and two sub-dimensions: reporting responsibility and reporting concerns. It is evaluated using a 5-point Likert scale.<sup>11</sup> In the present study, the overall reliability coefficient of the scale was found to be 0.84.

### Statistical Analysis

The study data were analyzed using SPSS 26 statistical software. Descriptive statistics, including mean, standard deviation, percentage, and minimum-maximum values, were calculated. Normality distribution was assessed using kurtosis and skewness values. Student's t-test was used to compare two groups when assumptions were met, while the Mann-Whitney U test was applied when assumptions were not met. For multiple group comparisons, one-way ANOVA was used, and the Kruskal-Wallis H test was applied when assumptions were violated. Pearson and Spearman correlation analyses were performed, and effect size was evaluated using eta-square ( $\eta^2$ ). Multiple correspondence analysis (MCA) was conducted to examine relationships between categorical variables. A significance level of  $p < 0.05$  was considered statistically significant.

## RESULTS

The majority of the nurses were between 26 and 32 years of age (54.8%), female (77.7%), and married (61.8%). More than half (56.1%) had received training on child abuse, with 72.7% of this training provided as in-service education. However, only 37.5% found the training to be sufficient. A significant proportion (96.2%) stated that they had never reported a case of child abuse. While 57.3% claimed to know the institutions responsible for children's rights, only 37.6% could name one. The percentage of those who acknowledged a legal obligation to report abuse was 29.9%, whereas 70.1% believed they had no such duty. Regarding barriers to reporting, cultural structure (29.9%) was cited as the most significant factor, followed by lack of awareness (26.8%) and insufficient education (24.8%). Among the challenges influencing reporting behavior, lack of institutional support (33.1%) and workload pressure (20.4%) were prominent. When asked about reporting in the absence of concrete evidence, 45.9% stated they would do so, while 46.5% expressed hesitation (**Table 1**).

In the study, the mean score of the CMRS scale was  $72.6 \pm 7$ , with a minimum of 59 and a maximum of 87, and its reliability coefficient was 0.846. The sub-dimensions reporting responsibility ( $35.9 \pm 4.9$ ,  $\alpha = 0.772$ ) and reporting concerns ( $36.7 \pm 3.5$ ,  $\alpha = 0.896$ ) were identified. The total mean score of the NCAN-RS was  $223.1 \pm 24.2$  ( $\alpha = 0.843$ ), with an average item score of  $3.3 \pm 0.4$ . Correlation analyses revealed a strong positive correlation between CMRS and reporting responsibility ( $r = 0.888$ ), reporting concerns ( $r = 0.763$ ), and NCAN-RS ( $r = 0.511$ ) ( $p < 0.001$ ). Additionally, there was a moderate correlation between reporting responsibility and reporting concerns ( $r = 0.379$ ) and NCAN-RS ( $r = 0.428$ ), while

Table 1. Descriptive findings on sociodemographic characteristics and child abuse (n=157)				
Variables	Categories	n	%	
Age	18-25	26	16.6	
	26-32	86	54.8	
	33-39	28	17.8	
	40 years and over	17	10.8	
Marital status	Single	60	38.2	
	Married	97	61.8	
Gender	Female	122	77.7	
	Male	35	22.3	
Number of children	One	36	22.9	
	Two or more	35	22.3	
	No child	86	54.8	
Years of working in the profession	1-5	60	38.2	
	6-10	47	29.9	
	11-15	29	18.5	
	16 years or more	21	13.4	
Previous training on child abuse and neglect	Yes	88	56.1	
	No	69	43.9	
Place of training	In-service trainings	64	72.7	
	Environment*	18	20.5	
	School, social media-TV	6	6.8	
Adequacy of the training received	Sufficient	33	37.5	
	Not sufficient	26	29.5	
	Partially	29	33.0	
Previous reporting of child abuse and/or neglect	Yes	6	3.8	
	No	151	96.2	
Being aware of institutions and organizations related to children's rights	Yes	90	57.3	
	No	67	42.7	
Specifying institutions and organizations for children's rights	At least one institution specified	59	37.6	
	Did not specify any institution	98	62.4	
Reason for not being aware of institutions and organizations for children's rights	Lack of training	27	40.3	
	Lack of awareness	40	59.7	
Status of reporting child abuse by law	Obligation to notify	47	29.9	
	No obligation to notify	110	70.1	
The reason why the recorded data on abuse and neglect incidents is lower than the estimated rate	Cultural structure	47	29.9	
	Lack of awareness	42	26.8	
	Lack of training	39	24.8	
	All	29	18.5	
Does the lack of support from the organizational (hospital) culture prevent reporting possible abuse?	Yes	52	33.1	
	No	105	66.9	
Do you think that child abuse cases can be solved without the involvement of child services?	Yes	14	8.9	
	No	143	91.1	
Do workload pressures discourage reporting child abuse?	Yes	32	20.4	
	No	125	79.6	
Should cases of child abuse and neglect be reported even if the evidence is uncertain?	Yes	72	45.9	
	No	12	7.6	
	Hesitating	73	46.5	

a strong correlation was observed between reporting concerns and NCAN-RS ( $p < 0.001$ , **Table 2**).

In the study, no significant differences were found between age, gender, marital status, number of children, years of professional experience, or place of education and the CMRS and NCAN-RS scores ( $p > 0.05$ ). However, individuals who received training had higher scale scores, with a large effect observed in reporting responsibility and CMRS ( $\eta^2 = 0.16-0.19$ ), and a moderate effect observed in the other scales ( $p < 0.05$ ). Additionally, those who were aware of child rights institutions had higher scores ( $p < 0.05$ ). The scores of those who accepted the legal obligation to report were significantly higher ( $\eta^2 = 0.20-0.23$ ). Lack of corporate culture support negatively affected reporting behavior ( $\eta^2 = 0.08-0.09$ ). Furthermore, the scores of those who stated they would report abuse even in the absence of concrete evidence were the highest ( $\eta^2 = 0.09-0.27$ , **Table 3**).

Multiple correspondence analysis was conducted for the variables "receiving training on child abuse and neglect before", "being aware of institutions and organizations for children's rights", "specifying institutions and organizations for children's rights", "reporting child abuse by law", "lack of support from the hospital culture preventing reporting possible abuse", and "reporting child abuse and neglect cases even if evidence is uncertain", which were found to be correlated with both CMRS and NCAN-RS (**Table 4**).

According to the results of the Multiple Correspondence Analysis, a two-dimensional model was created. The first dimension includes variables A, B, C, F, G, and H, while the second dimension includes variables D and E. The eigenvalue of the first dimension was 3.056, explaining 44.7% of the total variance, while the eigenvalue of the second dimension was 1.375, explaining 16.4% of the total variance. Together, these two dimensions explain 61.1% of the total variance. In the first dimension, the variables "previous training on child abuse and neglect" (0.651), "reporting child abuse by law" (0.58), and "reporting child abuse even if evidence is uncertain" (0.472) were found to have high discriminative power. In the second dimension, the variables "being aware of institutions and organizations for children's rights" (0.517) and "specifying institutions and organizations for children's rights" (0.492) also had high discriminative power. These findings suggest that the first dimension represents awareness and reporting behaviors related to child abuse and neglect, while the second dimension highlights the level of awareness of children's rights and knowledge of relevant institutions (**Table 4**).

Variables A, B, C, F, G, and H tend to cluster around the first dimension (on the X-axis), while variables D and E cluster around the second dimension (on the Y-axis). In the first dimension, the variables with high discriminative power are "receiving training on child abuse and neglect before (C)" (0.651), "reporting child abuse by law (F)" (0.58), and "reporting child abuse and neglect cases even if evidence is uncertain (H)" (0.472). In the second dimension, the variables with high discriminative power are "being aware of institutions and organizations for children's rights" (0.517) and "specifying institutions and organizations for children's rights" (0.492). These variables reflect the participants' awareness of public institutions and organizations addressing child abuse (**Figure 1**).

**Figure 2** illustrates the multiple fit analysis, visualized according to the categories that represent the sub-dimensions of the variables. Fields 2 and 3 correspond to the categories of the variables associated with the first dimension, while Fields 1 and 4 correspond to those related to the second dimension. Participants who scored above the average on the CMRS and NCAN-RS scales are located in Field 2 ( $X = +1, Y = +1$ ). This group includes individuals who have received training on child abuse and neglect, those who are aware of the legal obligation to report child abuse, those who believe that hospital culture does not hinder reporting behavior, and those who would report child abuse even in the absence of definitive evidence. Conversely, participants who scored below the average on the CMRS and NCAN-RS scales are positioned in Field 3 ( $X = -1, Y = -1$ ). This group consists of individuals who have not received training, those who believe there is no legal obligation to report child abuse, those who perceive a lack of hospital support as a barrier to reporting, and those who are hesitant to report suspected child abuse. Participants who are aware of institutions and organizations advocating for children's rights and can identify them are situated in Field 4 ( $X = +1, Y = -1$ ), whereas those who lack such awareness and cannot specify these institutions are placed in Field 1 ( $X = -1, Y = +1$ ). This analysis effectively highlights the relationship between participants' scale scores and the distribution of the variables.

## DISCUSSION

In this study, CMRS results indicated that healthcare professionals' awareness levels were generally moderate. Metinyurt et al.<sup>12</sup> reported that while healthcare professionals exhibited higher awareness in recognizing behavioral symptoms of child neglect and abuse, they had deficiencies

**Table 2.** Results of the scales and correlation between scales

	$\bar{X} \pm SD$	Min-max	Median (mode)	( $\alpha$ )	Reporting responsibility*	Concerns related to reporting*	NCAN-RS
CMRS	72.6 $\pm$ 7	59-87	72(77)	0.846	r:0.888**	r:0.763**	r:0.511**
Reporting responsibility*	35.9 $\pm$ 4.9	22-46	36(35)	0.772		r:0.379**	r:0.428**
Concerns related to reporting*	36.7 $\pm$ 3.5	29-44	37(36)	0.896			r:0.425**
NCAN-RS	223.1 $\pm$ 24.2	160-261	226(260)	0.843			
NCAN-RS (Mean)	3.3 $\pm$ 0.4	2.4-3.9	3.4(3.9)				

$\bar{X} \pm SD$ : Mean $\pm$ standard deviation, Min-max: Smallest-Greatest value, Median (mode): Most repeated value,  $\alpha$ : Cronbach's alpha reliability coefficient, r: Pearson correlation coefficient (parametric correlation)  
\*CMRS sub-dimensions, \*\* $p < 0.001$

**Table 3.** Results related to the comparison of the scale and its sub-dimensions according to independent variables

	Reporting responsibility		Concerns related to reporting		CMRS		NCAN-RS	
	$\bar{X}\pm SD$	Statistics	$\bar{X}\pm SD$	Statistics	$\bar{X}\pm SD$	Statistics	$\bar{X}\pm SD$	Statistics
<b>Age</b>								
18-25	35.2±3.7	F:1.318	36.6±3.3	F:0.04	71.8±5.8	F:0.74	3.3±0.4	F:1.061
26-32	36.4±4.8	p:0.271	36.8±3.5	p:0.989	73.2±7	p:0.53	3.4±0.3	p:0.367
33-39	34.5±5.2		36.7±3.3		71.2±6.6		3.2±0.4	
40 years and over	36.4±6		36.6±4.2		73.1±9.2		3.3±0.4	
<b>Marital status</b>								
Single	35.9±4.4	KW:0.3	36.8±3.7	KW:2.12	72.7±6.4	KW:1.03	3.4±0.3	KW:0.26
Married	35.8±5.1	p:0.861	36.6±3.3	p:0.346	72.4±7.2	p:0.597	3.3±0.4	p:0.877
Divorced	37.7±7.8		40±4		77.7±11		3.3±0.2	
<b>Gender</b>								
Female	35.8±5	t:-0.31	36.9±3.4	t:0.722	72.6±7.2	t:0.142	3.3±0.4	t:-0.702
Male	36.1±4.3	p:0.757	36.4±3.7	p:0.472	72.5±6.4	p:0.887	3.4±0.3	p:0.484
<b>Number of children</b>								
One	36.9±4.4	KW:1.49	37.1±3	KW:1.01	74±6.2	KW:1.91	3.4±0.3	KW:0.14
Two or more	35.6±6.2	p:0.475	37±3.9	p:0.601	72.5±8.5	p:0.383	3.3±0.4	p:0.929
No child	35.6±4.4		36.5±3.5		72.1±6.6		3.3±0.4	
<b>Years of working in the profession</b>								
1-5	36±4.3	F:0.469	36.8±3.7	F:0.76	72.8±6.7	F:0.817	3.4±0.4	F:0.649
6-10	35.8±4.6	p:0.704	36.5±3.2	p:0.518	72.3±6.6	p:0.487	3.3±0.3	p:0.585
11-15	36.5±5.5		37.4±3.2		73.9±7		3.4±0.4	
16 years or more	34.9±6		36±3.8		70.9±8.4		3.3±0.5	
<b>Previous training on child abuse and neglect</b>								
Yes	37.6±4.6	t:5.478	37.7±3.4	t:3.997	75.3±6.6	t:5.99	3.4±0.3	t:3.685
No	33.7±4.4	p:0.000*	35.6±3.2	p:0.000*	69.2±5.8	p:0.000*	3.2±0.4	p:0.000*
		r:-.387*		r:-.300*		r:-.418*		r:-.235*
		$\eta^2:0.16$		$\eta^2:0.09$		$\eta^2:0.19$		$\eta^2:0.08$
<b>Place of training</b>								
School	37.3±3.7	F:0.781	37.3±3.3	F:0.407	74.6±6.2	F:0.219	3.5±0.3	F:0.591
Media-Environment	39.8±3.7	p:0.461	36.8±4.1	p:0.667	76.7±3.6	p:0.804	3.5±0.3	p:0.556
In-service trainings	37.5±4.8		37.9±3.4		75.3±7		3.4±0.3	
<b>Adequacy of the training received</b>								
Sufficient	35.2±4.4	KW:1.13	35.9±3.9	KW:4.80	71.1±7.2	KW:2.61	3.3±0.4	KW:1.50
Not sufficient	36±4.8	p:0.568	37.6±3	p:0.09	73.6±6.4	p:0.271	3.4±0.3	p:0.472
Partially	36.2±6.1		36.9±2.9		73.1±7.6		3.3±0.4	
<b>Previous reporting of child abuse and/or neglect</b>								
Yes	38.7±5.9	U:325.5	38±3.5	U:365	76.7±9	U:325	3.6±0.2	U:207.5
No	35.7±4.8	p:0.25	36.7±3.5	p:0.429	72.4±6.9	p:0.249	3.3±0.4	p:0.025*
								r:-.180*
								$\eta^2:0.03$
<b>Being aware of institutions and organizations related to children's rights</b>								
Yes	36.6±4.8	t:2.374	37.2±3.5	t:2.015	73.9±7.2	t:2.68	3.4±0.3	t:2.092
No	34.8±4.7	p:0.019*	36.1±3.4	p:0.046*	70.9±6.4	p:0.008*	3.3±0.4	p:0.038*
		r:-.148		r:-.155		r:-.172*		r:-.149
		$\eta^2:0.03$		$\eta^2:0.02$		$\eta^2:0.04$		$\eta^2:0.02$
<b>Specifying institutions and organizations for children's rights</b>								
At least one institution specified	37.5±4.9	t:3.364	37.7±3.3	t:2.866	75.2±7	t:3.829	3.4±0.3	t:0.762
Did not specify any institution	34.9±4.6	p:0.001	36.1±3.4	p:0.005	71±6.5	p:0.000	3.3±0.4	p:0.815
		r:-.241*		r:-.228*		r:-.267*		r:-.267*
		$\eta^2:0.16$		$\eta^2:0.09$		$\eta^2:0.19$		$\eta^2:0.19$

Table continued...



**Table 3.** Results related to the comparison of the scale and its sub-dimensions according to independent variables (continued)

Reason for not being aware of institutions and organizations for children's rights									
Lack of training	36.3±4.6	t:-0.02	37.1±3.3	t:0.168	73.4±6.7	t:0.07	3.3±0.3	t:-1.792	
Lack of awareness	36.3±5.2	p:0.984	37±3.4	p:0.867	73.3±6.7	p:0.945	3.4±0.3	p:0.078	
Status of reporting child abuse by law									
Obligation to notify	39.1±4.3	t:6.151	38.6±3.2	t:4.645	77.7±6.4	t:6.877	3.5±0.2	t:4.016	
No obligation to notify	34.5±4.4	p:0.000*	36±3.3	p:0.000*	70.4±6	p:0.000*	3.3±0.4	p:0.000*	
		r:-.432*		r:-.343*		r:-.453*		r:-.293*	
		η <sup>2</sup> :0.20		η <sup>2</sup> :0.12		η <sup>2</sup> :0.23		η <sup>2</sup> :0.09	
The reason why the recorded data on abuse and neglect incidents is lower than the estimated rate									
Lack of Training	35.9±5.2	F:1.162	36.4±3.5	F:0.781	72.3±6.9	F:0.929	3.3±0.4	F:1.248	
Lack of Awareness	35.9±5.1	p:0.326	37.4±3.5	p:0.506	73.3±7.1	p:0.428	3.4±0.4	p:0.295	
Cultural Structure	35±4		36.4±3.4		71.4±6.3		3.3±0.3		
All	37.1±5.3		36.8±3.6		73.9±7.9		3.4±0.4		
Does the lack of support from the organizational (hospital) culture prevent reporting possible abuse?									
Yes	33.9±4.7	t:-3.682	35.7±3.4	t:-2.729	69.6±6.1	t:-3.984	3.3±0.4	t:-1.416	
No	36.8±4.7	p:0.000*	37.3±3.4	p:0.007*	74.1±6.9	p:0.000*	3.4±0.3	p:0.159	
		r:.251*		r:.204*		r:.283*		r:.283*	
		η <sup>2</sup> :0.08		η <sup>2</sup> :0.07		η <sup>2</sup> :0.09		η <sup>2</sup> :0.09	
Do you think that child abuse cases can be solved without the involvement of child services?									
Yes	36.1±5.4	U:983	35.3±4.2	U:716	71.4±7.8	U:886.5	3.3±0.5	U:953.5	
No	35.8±4.8	p:0.912	36.9±3.4	p:0.078	72.7±6.9	p:0.485	3.3±0.4	p:0.773	
Do workload pressures discourage reporting child abuse?									
Yes	36.7±5.2	t:1.037	37.4±3.7	t:1.209	74.1±6.9	t:1.329	3.3±0.4	t:0.239	
No	35.7±4.8	p:0.301	36.6±3.4	p:0.228	72.2±7	p:0.186	3.3±0.4	p:0.811	
Should cases of child abuse and neglect be reported even if the evidence is uncertain?									
Yes (A)	38.2±4.7	F:19.263	38.2±3.1	F:15.795	76.4±6.6	F:27.888	3.4±0.3	F:7.786	
No (B)	32.8±3.6	p:0.000*	33.9±2.9	p:0.000*	66.8±5	p:0.000*	3.1±0.4	p:0.001*	
Hesitating (C)	34.1±4.2	A>B.C**	35.8±3.3	A>B.C**	69.8±5.5	A>B.C**	3.3±0.4	A>B**	
		r:-.386*		r:-.325*		r:-.430*		r:-.207*	
		η <sup>2</sup> :0.20		η <sup>2</sup> :0.17		η <sup>2</sup> :0.27		η <sup>2</sup> :0.09	

F: ANOVA, KW: Kruskal Wallis H test, r: Spearman's rho (nonparametric correlation), t: Independent sample t test, U: Mann-Whitney U test, \*\*Post Hoc analysis for multiple comparisons, η<sup>2</sup>: Eta squared effect size, \*p<0.05

**Table 4.** Central coordinates, dimensions and variance explained by the categories of variables

Variables	Categories	X	Y	1	2
A. CMRS*	Below average	-0.558	-0.432	<b>0.341</b>	0.204
	Above average	0.61	0.472		
B. NCAN-RS*	Below average	-0.345	-0.243	<b>0.109</b>	0.054
	Above average	0.315	0.222		
C. Previous training on child abuse and neglect	Received training	0.743	0.139	<b>0.651</b>	0.023
	Not received training	-0.877	-0.164		
D. Being aware of institutions and organizations related to children's rights	Yes	0.476	-0.621	0.304	<b>0.517</b>
	No	-0.639	0.834		
E. Specifying institutions and organizations for children's rights	At least one institution specified	0.719	-0.904	0.311	<b>0.492</b>
	Did not specify any institution	-0.433	0.544		
F. Status of reporting child abuse by law	Obligation to notify	1.165	0.326	<b>0.58</b>	0.045
	No obligation to notify	-0.498	-0.139		
G. Does the lack of support from the organizational (hospital) culture prevent reporting possible abuse?	Yes	-0.846	-0.105	<b>0.288</b>	0.004
	No	0.34	0.042		
H. Should cases of child abuse and neglect be reported even if the evidence is uncertain?	Yes	0.633	0.166	<b>0.472</b>	0.036
	No	-1.077	-0.412		
	Hesitating	-0.66	-0.147		
	Self-value			3.056	1.375
	Variance Explained %			44.7	16.4

\* The CMRS and NCAN-RS scales were included in the analysis by transforming them into two categories, below average and above average, according to the mean. X: X (horizontal) axis, Y: Y (vertical) axis, 1: First dimension, 2: Second dimension

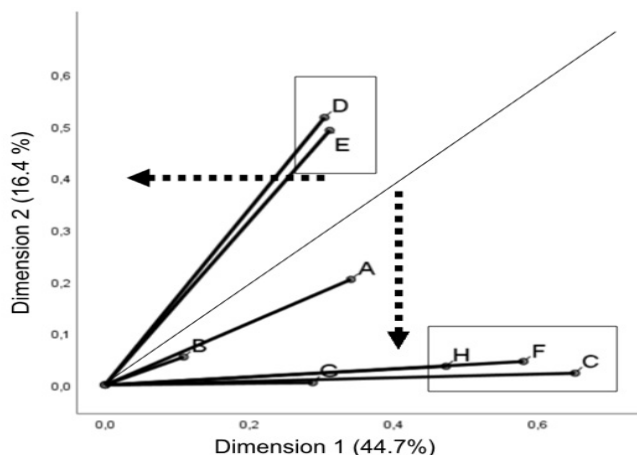


Figure 1. Graph on separation criteria

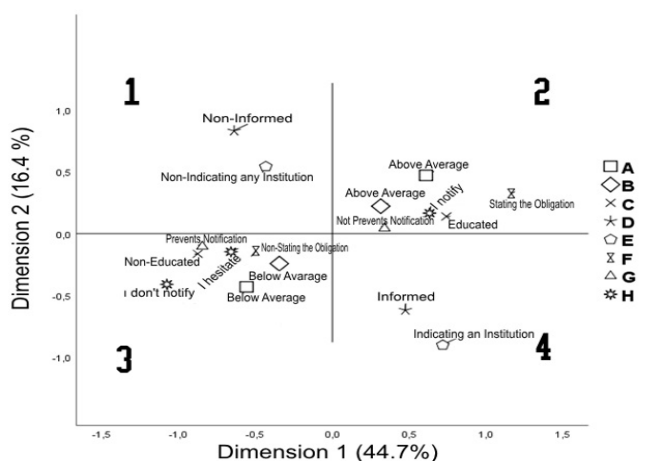


Figure 2. Multiple fit analysis graph

A: CMRS, B: NCAN-RS, C: Previous training on child abuse and neglect, D: Being aware of institutions and organisations for children's rights, E: Specifying institutions and organizations for children's rights, F: Reporting child abuse by law, G: Lack of support from the hospital culture prevents reporting possible abuse, H: Reporting cases of child abuse and neglect even if evidence is uncertain

in identifying characteristics of children vulnerable to abuse. Similarly, Üstündağ<sup>13</sup> found that overall awareness levels were moderate, but awareness of emotional abuse remained relatively low. These findings suggest that awareness levels regarding child neglect and abuse may vary depending on individual characteristics and professional fields. The significant positive relationship observed between CMRS scores and reporting responsibility, concerns about reporting, and general reporting tendencies highlights the role of awareness and perceived responsibility in reporting behaviors. This finding further suggests that personal perceptions and concerns significantly influence individuals' decisions to report child abuse cases.

Mandatory child abuse reporting laws have been established to facilitate early detection of abuse, protect children, and ensure timely interventions.<sup>14</sup> However, the scope of these laws and the reporting obligations they impose vary across countries. In many nations, reporting cases of child abuse and neglect is a legal requirement.<sup>8</sup> Similarly, in Turkey, healthcare professionals and other public officials are legally obligated to report such cases to the relevant authorities.<sup>1,2</sup> In this study, participants who were aware of the legal obligation to report child abuse had higher scale scores, suggesting that awareness

of legal responsibility plays a crucial role in increasing the tendency to report such cases.<sup>9</sup>

Nurses, who interact directly with children, are considered among the most suitable clinical guides for training programs aimed at preventing sexual abuse.<sup>15</sup> Research suggests that child abuse can be prevented through awareness-raising training programs, which play a critical role in early intervention, recognizing risk factors, and implementing protective measures.<sup>16-18</sup> In this study, participants who had received training on child abuse and neglect had higher scale scores, highlighting that such training not only increases awareness but also enhances reporting behaviors.

Previous research indicates that a lack of knowledge about child abuse and neglect, fear of retaliation or personal harm after reporting, concerns about income loss, social pressure, and fear of legal consequences negatively impact individuals' willingness to report such cases.<sup>19,20</sup> Additionally, many individuals are unaware of the existence of reporting mechanisms and the authorities responsible for handling these situations.<sup>21</sup> These factors may hinder individuals from recognizing and engaging with institutions dedicated to children's rights. In this study, participants who were aware of institutions related to children's rights had higher scale scores, suggesting that awareness levels directly influence reporting behaviors. Therefore, training programs to address knowledge gaps and initiatives to raise awareness about children's rights may encourage individuals to fulfill their reporting responsibilities.

Pre-hospital care providers transport a significant number of pediatric patients to emergency departments each year, making their role crucial in the healthcare system.<sup>22</sup> However, due to limited training in child abuse and neglect, they often feel inadequate in recognizing and managing suspected cases.<sup>23,24</sup> Although mandatory reporting laws have evolved over time, training for these professionals has not been updated at the same pace, and curriculum development as well as clinical support have remained insufficient.<sup>25</sup> Additionally, research indicates that nurses may avoid involvement in child abuse cases and reporting due to fears of misjudgment that could result in legal consequences.<sup>26</sup> In this study, participants who stated that they would report abuse even in the absence of conclusive evidence had higher scale scores than other groups, suggesting a stronger tendency to fulfill reporting responsibilities. A lack of training and inadequate clinical support may contribute to healthcare professionals' hesitancy in reporting child abuse. Therefore, updating training programs and strengthening institutional support mechanisms are essential to enhance pre-hospital care providers effectiveness in recognizing and reporting abuse cases.

Studies have identified various factors that influence healthcare professionals' tendency to report child abuse and neglect, highlighting the critical role of organizational structure, welfare services, community resources, and professional relationships in this process.<sup>9,27,28</sup> In this study, it was found that a lack of support from the institutional culture negatively impacted both reporting responsibility and awareness. Insufficient institutional support not only increases individual

hesitations but also limits healthcare professionals' knowledge of their legal obligation to report, ultimately weakening their reporting behaviors. Consistent with previous research,<sup>1,9,13</sup> this finding suggests that effective reporting of child abuse requires not only individual awareness and legal regulations but also a well-structured organizational framework, clear reporting protocols, and strong professional support systems.

### Limitations

This study has several limitations. First, it was conducted only with nurses working in family health centers in a specific region, limiting the generalizability of the findings to the broader nursing population. Second, the study employed a cross-sectional design, preventing the assessment of changes in nurses' knowledge and attitudes over time. Third, data were collected through self-reports, which may introduce the risk of social desirability bias. Future research should explore this topic with larger sample sizes and longitudinal study designs to gain deeper insights.

### CONCLUSION

This study evaluates the knowledge levels, participation in reporting processes, and challenges faced by nurses working in family health centres regarding child abuse and neglect. The findings suggest that increasing nurses' awareness and education on child abuse and neglect positively influences reporting behaviours. Nurses who received training, were knowledgeable about children's rights, and were aware of the legal obligation to report abuse demonstrated a higher tendency to report cases. However, factors such as a lack of institutional support and inadequate training negatively impacted the reporting process. Therefore, developing comprehensive training programs, strengthening institutional support mechanisms, and increasing awareness of legal responsibilities are essential to improving healthcare professionals' reporting behaviours.

### ETHICAL DECLARATIONS

#### Ethics Committee Approval

This study was approved by Van Yüzüncü Yıl University Non-interventional Ethics Committee (Date: 08.03.2024, Decision No: 2024/03-29).

#### Informed Consent

All patients signed and free and informed consent form.

#### Referee Evaluation Process

Externally peer-reviewed.

#### Conflict of Interest Statement

The authors have no conflicts of interest to declare.

#### Financial Disclosure

The authors declared that this study has received no financial support.

#### Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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