

Research Article

Assesment of Child Neglect and Abuse Education in Medical Education

Araştırma Makalesi

Tıp Eğitiminde Çocuk İhmal ve İstismarı Eğitiminin Değerlendirilmesi

Cüneyt Destan CENGER ¹, Giray KOLCU ^{2*}

¹ Istanbul University, Department of Forensic Medicine, Istanbul, Türkiye

² Suleyman Demirel University, Department of Medical Education and Informatics, Isparta, Türkiye



ABSTRACT

Introduction: Child abuse and neglect (CAAN); These are all actions and inertia that are directed to the child by an adult such as a mother, father or caregiver, which are considered as inappropriate or harmful by social rules and professional persons, preventing or restricting the child's development. In our study, it is aimed to assess the CAAN education of the 5th year students in the medical education program before graduation.

Methods: The study was designed as quasi-experimental pretest-posttest application in quantitative research design. The study was conducted by 354 students using the face-to-face interview technique (n: 354). The Scale for the Diagnosis of CAAN Symptoms and Risks was used in the study.

Results: The mean scores of the students' total scores of CAAN scale were 275.86 ± 20.71 in the pretest and 293.18 ± 20.35 in the posttest. Students' CAAN scale total scores and subscale scores increased statistically. In addition the data according to the G-theory shows that there is a statistically significant difference between the pre-test / post-test.

Discussion: In our study, it was seen that there was a difference in the pre-test / post-test assesments. In our study, students' knowledge levels increased with CAAN education. In addition to the increase in the knowledge of the students, it was observed that there was a change in their self-assessment. In the study, in the forensic internship in the medical education program, the knowledge level of the students about CAAN increased while the students evaluated their own experiences in the direction of CAAN. This shows that students reflect on their experiences.

Anahtar Kelimeler: Medical Education, Forensic Medicine, Child Neglect And Abuse, Evaluation



Ö Z E T

Giriş: Çocuk istismarı ve ihmali (CAAN); Bunlar, anne, baba veya bakıcı gibi bir yetişkin tarafından çocuğa yöneltilen, toplumsal kurallar ve profesyonel kişilerce uygunsuz veya zararlı görülen, çocuğun gelişimini engelleyen veya kısıtlayan eylem ve eylemsizliklerdir. Çalışmamızda tıp eğitimi programında yer alan 5. sınıf öğrencilerinin mezuniyet öncesi CAAN eğitimlerinin değerlendirilmesi amaçlanmıştır.

Yöntem: Araştırma, nicel araştırma olarak yarı deneysel ön test-son test uygulamalı olarak tasarlanmıştır. Araştırma yüz yüze görüşme tekniği kullanılarak 354 öğrenci (n: 354) ile gerçekleştirilmiştir. Çalışmada CAAN Belirtileri ve Riskleri Tanı Ölçeği kullanılmıştır.

Bulgular: Öğrencilerin CAAN ölçeği toplam puanlarının ortalamaları ön testte $275,86 \pm 20,71$ ve son testte $293,18 \pm 20,35$ 'tir. Öğrencilerin CAAN ölçeği toplam puanları ve alt ölçek puanları istatistiksel olarak artmıştır. Ayrıca G-teorisine göre veriler ön test / son test arasında istatistiksel olarak anlamlı bir fark olduğunu göstermektedir.

Tartışma: Çalışmamızda ön test / son test değerlendirmelerinde farklılık olduğu görülmüştür. Çalışmamızda CAAN eğitimi ile öğrencilerin bilgi düzeyleri artmıştır. Öğrencilerin bilgilerindeki artışın yanı sıra öz değerlendirmelerinde de değişim olduğu gözlenmiştir. Çalışmada tıp eğitimi programında yer alan adli stajda öğrencilerin CAAN ile ilgili bilgi düzeyleri artarken, öğrenciler kendi deneyimlerini CAAN doğrultusunda değerlendirmektedir. Bu, öğrencilerin deneyimleri üzerinde derinlemesine düşündüklerini gösterir.

Keywords: Tıp Eğitimi, Adli Tıp, Çocuk İhmal Ve İstismarı, Değerlendirme



1. Introduction

Forensic medicine is a field of expertise that answers questions by examining the methods and approaches of medical science and the subjects of forensic nature (1,2). Child abuse and neglect (CAAN) in forensic medicine are the whole of actions and nonactions that are directed to the child by an adult such as mother, father, or caregiver. These are considered as inappropriate or harmful by the social rules and professionals, preventing or limiting the development of the child. As a result of this action or nonaction, the child may be physically, mentally, sexually, or socially harmed, and their health and safety may be at risk (3,4).

The most important point that distinguishes abuse from neglect is that abuse is active while neglect is a passive form of behavior (5). Physicians have a very important place in the diagnosis and treatment of CAAN and have ethical, moral, and legal obligations. Similarly, hospitals are obliged to accept these children both for medical reasons and their safe environment (6,7).

Many physicians in Turkey are not trained enough about their responsibilities in judicial matters and are concerned about writing judicial reports (8–11). In this context, CAAN is one of the most important public health problems in Turkey and the world. Therefore, raising trained and sensitive health workers in terms of CAAN is important for legal processes.

The present study aimed to evaluate the CAAN training of 5th-grade students in the medical education program before their graduation.

2. Material and Method

The study was designed as a quasi-experimental pretest-posttest application in a quantitative research design. The study was conducted by the researcher using a face-to-face interview technique with 354 students who received an internship in the 2018-2019 academic year at the Department of Forensic Medicine of Istanbul Faculty of Medicine, Istanbul University (n:354).

A "Personal Data Survey Form" consisting of 52 questions for determining the sociodemographic characteristics of the participant, the experiences of the person, as well as the definitions about the subject of CAAN and the information and approaches regarding CAAN was prepared by the researchers for the internship students.

The Scale for the Identification of Symptoms and Risks of Child Abuse and Neglect, developed by Aynur Uysal Toraman, was used to diagnose the symptoms and risks of CAAN. This scale consists of 67 items and the following subscales: "Physical symptoms of child abuse (19 items)", "Behavioral symptoms of child abuse (15 items)", "The effects of neglect on the child (7 items)", "Characteristics of parents inclined to abuse and neglect (13 items)", "Characteristics of children inclined to abuse and neglect (5 items)" and "Familial characteristics in child abuse and neglect (8 items)" (12).

The responses are designed as a 5-point Likert form including "strongly true", "quite true", "neutral", "quite false", "strongly false" and contain scores between 1-5. If the average score approaches 5, the questions are answered as "true", and if the score approaches 1, the questions are answered as "false".

The reliability of the scale was studied, and the Cronbach's alpha value of the scale was found to be 0.92 (12). The reliability of the scale was also calculated by Kocaer (2006), and Cronbach's alpha coefficient was found to be 0.81 (13). In our study, the Cronbach's alpha was found to be 0.94 and the G-coefficient was found to be 0.94 according to G-theory.

The "Personal Data Survey" and the "The Scale for the Identification of Symptoms and Risks of Child Abuse and Neglect Survey" were applied on the first day of the internship (pretest) and the last day of the internship (posttest).

3. Results

A total of 354 medical faculty students participated in the study in the academic year of 2018-2019. 51.7% (n: 183) of the students were female, 48.3% (n: 171) were male, 59% were born in 1995, 27.7% were born in 1994, 26% were born in Istanbul, 99.4% were single, and 0.6% were married. While the mean value of the number of siblings of the participants was 2.97 ± 1.54 , 41.2% had two siblings, 28.2% had three siblings, and 6.2% had no siblings. Also, 44.9% of the students were the first child of their family. As for the education levels of the parents of the students, 38.7% of the students' mothers and 61.6% of the students' fathers are university graduates. Considering the working conditions of the parents of the students, 54.8% of the mothers of the students were housewives, 30.6% of the working mothers were teachers, and 36.4% of the fathers were civil servants. In 2018-2019, the monthly income of a family of 4 people was evaluated as a low-income group below the poverty line and a high-income group above the poverty line. 63.6% of the students were from the low and 36.4% were from the high-income group. 91.5% of the students had their parents together, their parents of 4.3% were separated, and the mothers of 1.4% (n:5) and the fathers of 2.8% (n:10) passed away.

36.7% of the mothers and 34.7% of the fathers had a chronic disease. Of these parents, 50.3% of the fathers and 26.3% of the mothers had cardiovascular disease, 38.9% of the fathers and 26.3% of the mothers had diabetes, 8.1% of the fathers and 27.0% of the mothers had the musculoskeletal disorder.

4.8% (n:17) of the mothers had a psychiatric disorder. Of these mothers with a psychiatric disorder, 23.5% (n:4) had anxiety, 23.5% (n:4) had panic attack, 11.8% (n:2) had depression, 11.8% (n:2) had obsessive-compulsive disorder (OCD), 11.8% (n:2) had bipolar disorder, 5.9% (n:1) had mood disorder, 5.9% (n:1) had psychosis and depression, and 5.9% (n:1) diagnosed with depression and anxiety disorder.

2% of the fathers (n:7) had psychiatric disorders. 28.6% (n:2) of the fathers with psychiatric disorders were bipolar, 14.3% (n:1) had panic attack, 14.3% (n:1) had sleep disorders, 14.3% (n:1) had OCD diagnosis, and 28.6% (n:2) had no known diagnosis.

It was revealed that 35.0% of the mothers who physically abused the students were primary school graduate, 52.2% of the fathers were university graduate; 35.0% of the mothers and 55.2% of the fathers who emotionally abused the students were university graduate; 41.7% of the mothers and 40.4% of the fathers who neglected the students were primary school graduate.

In our study, 56.2% of the students received training on CAAN during the internship programs before starting the forensic medicine internship, 23.1% of them said the training was sufficient. While 99.7% of the students said that the CAAN had a forensic nature, 0.3% did not. 87.3% of those who regard CAAN as a forensic nature, said that they would report it.

In the evaluation of the pretest and posttest questions, 67.9% of the students who stated that they were exposed to emotional abuse by their mothers were female in the pretest and 59.4% in the post-test, and there was a significant difference between the two genders in both the pretest and posttest ($p < 0.05$).

Evaluation of the pretest and posttest questions revealed that of the students who stated that they were exposed to emotional abuse by their fathers, 64.2% were female in the pretest, 54.3% were female in the posttest. A significant difference was detected between the two genders in the pretest ($p < 0.05$). There was no significant difference between the two genders in the posttest.

In this study, reliability analysis with generalizability theory was performed to evaluate the scale's compatibility with the population (Table 1).

Table 1. Variance analysis of the scale

Source	SS	Df	MS	Components				
				Random	Mixed	Corrected	%	SE
B	3809.90505	353	10.79293	0.07615	0.07615	0.07615	7.7	0.00605
M	8214.59339	66	124.46354	0.02850	0.02850	0.02850	2.9	0.03931
Z	0.69829	1	0.69829	-0.00436	-0.00436	-0.00436	0.0	0.00075
BM	15070.70512	23298	0.64687	0.05785	0.05785	0.05785	5.9	0.00388
BZ	167.16738	353	0.47356	-0.00086	-0.00086	-0.00086	0.0	0.00054
MZ	6875.21697	66	104.16995	0.29276	0.29276	0.29276	29.7	0.05047
BMZ	12374.91736	23298	0.53116	0.53116	0.53116	0.53116	53.8	0.00492
Total	46513.20356	47435					100%	

In our study, the variance component predicted for the component of individuals was 7.7%, the variance component predicted for the items was 2.9%, and the variance component predicted for the pretest-posttest application (time) was 0.0%. The percentage of the variance component predicted for the individual-item component was 5.9%, the percentage of the variance component predicted for the individual-time component was 0.0%, and the item-time component was calculated as 29.7%. The percentage of the variance component predicted for the individual-item-time component was calculated as 53.8%.

The relative size of the percentage of variance component estimated for individuals in the evaluation of the scale using generalizability theory shows that systematic differences between individuals can be revealed and that the observed scores have a high potential of representing the universe scores. The relative value of the percentage of the variance component predicted for the items is low, indicating that the item difficulty is at a sufficient level. The percentage of the variance component estimated for the time component is 0.0%, indicating that the raters perform similar scoring for the pretest-posttest application.

The low relative value of the percentage of variance component predicted for the individual-item indicates that participants assume a similar approach when evaluating the scale questions. The relative value of the variance component percentage predicted for individual-time is 0, indicating that the pretest-posttest scores of the participants are similar.

The percentage of the variance component estimated for the individual-item-time shows the sources of variance that cannot be measured as a compound. The high relative value of this percentage indicates the existence of systematic/non-systematic sources of error.

In line with these findings, the scale is proved to be compatible with the population, and the generalization can be made based on it.

The average of the total scores of the students on the Scale for the Identification of Symptoms and Risks of Child Abuse and Neglect was 275.86 ± 20.71 in the pretest and 293.18 ± 20.35 in the posttest. The total scores of the students on the Scale for the Identification of Symptoms and Risks of Child Abuse and Neglect and the average of their subscale scores increased in a statistically significant way ($p:0.000$) (Table 2). Besides, the high relative value of the variance component percentage predicted for item-time in the evaluation of the data according to G-theory shows that there is a statistically significant difference between the pretest and posttest.

Table 2. Analysis of the Scale for the Identification of Symptoms and Risks of Child Abuse and Neglect

	Pretest (Average)	Posttest (Average)	p-value
Physical symptoms of child abuse and neglect (PSCAN)	4.26±0.33	4.53±0.31	0.000
Behavioral symptoms of child abuse and neglect (BSCAN)	4.11±0.33	4.28±0.34	0.000
The effects of neglect on the child (EN)	4.28±0.51	4.64±0.40	0.000
Characteristics of parents inclined to abuse and neglect (CPIAN)	3.96±0.45	4.30±0.45	0.000
Characteristics of children inclined to abuse and neglect (CCIAN)	3.70±0.50	3.87±0.53	0.000
Familial characteristics in child abuse and neglect (FCCAN)	4.20±0.48	4.46±0.48	0.000
Overall Scale Score	4.12±0.31	4.38±0.30	0.000

In addition to the Scale for the Identification of Symptoms and Risks of Child Abuse and Neglect, there was also a change in the perception of the participants' own situation (Table 3).

Table 3: Distribution of CAAN actions that students are exposed to by their parents in the pretest and posttest by gender

		Pretest			Posttest		
		Female n (%)	Male n (%)	Total	Female n (%)	Male n (%)	Total
Actions of physical abuse	Mother	25 (13.7%)	18 (10.5%)	43 (12.1%)	72 (39.3%)	71 (41.5%)	143 (40.4%)
	Father	27 (14.8%)	23 (13.5%)	50 (14.1%)	55 (30.1%)	58 (33.9%)	113 (31.9%)
Actions of emotional abuse	Mother	53 (29.0%)	25 (14.6%)	78 (22.0%)	85 (46.4%)	58 (33.9%)	143 (40.4%)
	Father	43 (23.5%)	24 (14.0%)	67 (18.9%)	57 (31.1%)	48 (28.1%)	105 (29.7%)
Actions of sexual abuse	Mother	0	0	0	0	1 (0.6%)	1 (0.3%)
	Father	0	0	0	0	0	0
Actions of neglect	Mother	11 (6.0%)	4 (2.3%)	15 (4.2%)	13 (7.1%)	11 (6.4%)	24 (6.8%)
	Father	17 (9.3%)	9 (5.3%)	26 (7.3%)	20 (10.9%)	17 (9.9%)	37 (10.5%)

4. Discussion and Conclusion

The first medical approaches to CAAD, one of the most important public health problems in the world and Turkey, was on its treatment. However, in recent years, efforts to prevent child abuse and neglect have been initiated, and, particularly, the health workers have key roles and responsibilities in this regard. For this reason, physicians should have sufficient knowledge to identify and prevent child abuse and neglect (14).

51.7% (n: 183) of the students involved in the study were female, the majority were single (99.4%) and the average number of siblings was 2.97 ± 1.54 .

As for the education level of the mothers of the students evaluated in our study, 38.7% of the mothers graduated from university, 26.0% from primary school, 19.8% from high school, and 9.9% from secondary school. These results are consistent with the results of the studies in the literature reporting that 25.5%-49.7% of the mothers of the students studying at medical faculty graduated from college/university, 23.4%-34.6% from high school and equivalent schools, 18.0%-39.5% from primary school, and 0%-10.2% from secondary school (15–18).

When the education levels of the fathers of the students were evaluated in our study, it was reported that 61.6% were university graduates, 16.4% were high school graduates, 15.0% were primary school graduates, 5.9% were middle school graduates, and 1.1% were literate. In the studies attended by medical school students, 48.4%-69.4% of their fathers graduated from college/university, 16.9%-32.0% from high school, 8%-19.6% from primary school, 0%-9.3% from middle school graduates, and 0%-1.6% were literate. The findings of our study are consistent with the literature. While the percentage of high school graduate fathers in our study is lower compared to the literature, other percentages are compatible with the literature (15–17).

In our study, it was determined that 91.5% of the participants' parents lived together and were alive and that this percentage was 88.7% -93.8% in the previous studies attended by medical school students (16,19).

In our study, 54.8% of the mothers were housewives or did not work. This percentage was found to be between 54.6%-68.6% in studies conducted in other medical faculties, and the present study is compatible with the literature (16–18).

This study determined that 36.5% of fathers were civil servants, 28.5% were self-employed, and 22.6% were retired. In the studies conducted in medical schools, 36.1%-50.4% of the fathers were civil servants, 19.4%-32.5% were retired, 3.6%-16.8% were self-employed; therefore, our study is compliant with the literature (16,18).

In our study, 36.7% of the mothers and 34.7% of the fathers were found to have chronic diseases. While 26.5% of medical students at Gaziosmanpasa University have a chronic disease in their family, the percentage in our study is higher than that in the literature (18).

Our study found that 40.4% of students were subjected to physical abuse by their mothers, 31.9% by their fathers; 40.4% were subjected to emotional abuse by their mothers, 29.7% by their fathers; 6.8% were neglected by their mothers, and 10.5% by their fathers.

According to the results of the 18-month experience of "Izmir Child Abuse Research Group", the abuser was found to be the father in 72% of the cases, the mother in 34%, the stepfather in 6%, and the stepmother in 3% in 32 cases diagnosed with child abuse in the training and research hospitals in Izmir. While 85% of the cases were psychological abuse, 66% were physical abuse, and 38% were sexual abuse. 13% of cases were found to have died due to abuse (20).

It is necessary to follow a systematic, scientific, multidisciplinary, and persistent approach for protection from violence, which is a public health problem, as with other damages and diseases. 61% of deaths linked to child abuse were found to be avoidable (21). Recognizing child abuse by physicians will not only reduce the mortality and morbidity of the abuse but also create the possibility of effective protection (22). One study found that in the last three years, there were no cases diagnosed with abuse in the records of the six prominent hospitals in Istanbul. This suggests that the cases may have been omitted due to the lack of CAAN awareness, and therefore they have been diagnosed differently (23).

In studies conducted for physicians in primary care, it is seen that there is a training gap in terms of CAAN (24). 11.5% of the physicians and 16% of the nurses, who have children and work in pediatric clinics in Trabzon, stated that they abused their children, 46.2% of the physicians, and 46% of the nurses neglected their children (10). According to Goregen's research, 81.1% of healthcare professionals and 80.4% of the physicians physically abused their own children, 75.1% of the healthcare professionals and 51.0% of physicians exposed their own children to emotional abuse and neglect (25). 62% of the male and 39.5% of the female first-grade students at Dokuz Eylul University Faculty of Medicines stated that they were exposed to physical, emotional, or sexual abuse before the age of 18. 23.1% of participants and 12.3% of females and 32.6% of males stated that they had been subjected to physical abuse before the age of 18. 17.9% (n:31) of the participants stated that they had been beaten or punched, 16.7% had been subjected to violence by their father and 16.7% by their elder brother.

40.5% of the first-grade students at Dokuz Eylul University Faculty of Medicine stated that they were exposed to emotional abuse. It was determined that 40.5% of females and 47.8% of males suffered emotional abuse before the age of 18, and 35.8% of participants were exposed to emotional abuse in the form of humiliation. 6.5% of those who suffered emotional abuse in the form of humiliation were exposed to it by their father and 6.5% by their mother. Of the students, 11% stated that they had been sexually abused, 17.9% (n:31) stated that they had been beaten or punched, 16.7% had been subjected to violence by their father and 16.7% had been subjected to violence by their elder brother (26). In a survey conducted with 5742 elementary school students in Israel, 22.2% of the students were found to be physically abused and 29.1% were emotionally abused (27).

According to the results of the pretest and posttest in our study, 39.3% of females, 41.5% of males were physically abused by their mothers, 30.1% of females and 33.9% of males were physically abused by their fathers; 46.4% of females, 33.9% of males were emotionally abused by their mothers; 31.1% of females, 28.1% of males were emotionally abused by their fathers; 7.1% of females, 6.4% of males stated that they were neglected by their mothers, 10.9% of females and 9.9% of males stated that they were neglected by their fathers.

It was reported that 21.6%-80.0% of physicians received training before graduation, 3.8%-80.0% after graduation, 9.4%-30.13% received training on CAAN both during medical education and after graduation, while 39.7%-56.6% received no training on CAAN (10,11,14,28-30). The studies reported that 22.6%-54.1% of those who received CAAN training during medical education and 7.5% - 63.3% of those who received CAAN training after graduation found it sufficient (13,31-33).

It has been determined that physicians encounter suspected cases of CAAN in their professional life at the rate of 35.8%-69.9% (10,28,29), and that they encounter CAAN cases at the rates between 20.1%-83.6% (11,13,14,29,31,34,35). In the survey study carried out with pediatric specialists, assistants and medical faculty students by Alnasser et al. on their knowledge and approach to child maltreatment, 83.5% of the participants were trained to recognize and prevent the phenomenon of CAAN given at the medical faculties in their countries, 77.9% also stated that they found the CAAN training given during

pediatrics assistance insufficient (36). In the study conducted by Flaherty et al. to determine the knowledge and experience of physicians regarding child abuse, 451 physicians, who have received some training on child abuse and neglect among 851 physicians who are members of the American Academy of Pediatrics ($p < 0.001$) and who have learned about the abuse and neglect phenomenon was found to be more successful than 127 physicians who never received training (37). In our study, 56.2% of the students received training on CAAN in the pre-forensic internship before the forensic medicine internship, 23.1% of them found it sufficient, 70.9% of the students in the internship after the forensic medicine internship received training on CAAN, 55.4% of them stated that education is sufficient.

In the studies, they stated that the pre-graduate forensic education received by physicians was 33% - 93.3% inadequate (9,38–42).

37.2%-91.0% of the physicians stated that they wanted to study forensic medicine (9,43,44). In the study of Yavuz et al., all of the emergency medical assistants who participated in the study stated that forensic education courses should be given in the form of theoretical courses and/or rotation (45). In a study conducted to medical school students in Turkey where forensic report writing on traumatized cases, legal responsibility, and other issues were evaluated, only 71% of the medical students participating in the survey stated that they found themselves sufficient (46).

When the scores of the students on The Scale for the Identification of Symptoms and Risks of Child Abuse and Neglect (SISRCAAN) are examined, the pre-test is 4.12 ± 0.31 , the posttest is 4.38 ± 0.30 , in Turker's thesis, the average overall scale score of the family physicians is 4.11 ± 0.34 while the average overall scale score of family physicians was 3.86 ± 0.33 in Demir's similar thesis study, 3.86 ± 0.28 for family physician specialists, and 3.92 ± 0.40 in Kocauer's (16) study, the grand average of the physicians was 3.92 ± 0.40 in a similar study conducted by Golge et al. in 2012, and 3.92 ± 0.32 in Trabzon. The findings in our study are higher than those in the literature (10,17,29,35).

However, many physicians in Turkey are not knowledgeable enough about their responsibilities in judicial matters and are concerned about writing judicial reports. The intensity of the administrative duties of the physician with therapeutic and preventive medicine also plays a role in this issue (8).

In Sanyuz's thesis, it was stated that the diagnosis of child abuse by physicians who received professional training in the field of child abuse was statistically significantly different than those who did not receive training (47).

In the studies, 96.4% of physicians will give judicial notice when they encounter a case of CAAN (14). In Sanyuz's thesis study, it was determined that 70% of physicians reported the cases of CAAN they encountered to the official authorities (47). In our study, it was determined that 99.7% of the students according to the pretest and 100% of the students according to the posttest would report CAAN cases as forensic cases.

In studies, it is observed that the physicians and the prospective physicians do not have sufficient information about the authority where they will report the cases of CAAN (10,13,34–36).

Physicians and pediatricians working in emergency departments should be aware of the findings of child abuse, as more severe abuse will be inevitable if minor abuse symptoms such as skin lesions due to abuse are not recognized. When abused children were sent back to their homes without a good assessment, 5-10% were killed and 35-50% were severely hurt in the following period (7). In the studies, 67.9%-93.7% of the physicians wanted to receive training on CAAN (10,29,35,36). In our study, it was shown that training on the CAAN cases in the pre-graduation period increased their knowledge level.

The most powerful aspect of the study was that the knowledge level of the students about CAAN increased statistically significantly during the forensic science internship during the medical education program, as well as, the students who increased their level of knowledge evaluated their experiences in the direction of CAAN. This shows that the students reflect on their experiences and re-evaluate their own experiences with the knowledge they have gained.

Declaration of Ethical Code

In this study, we undertake that all the rules required to be followed within the scope of the "Higher Education Institutions Scientific Research and Publication Ethics Directive" are complied with, and that none of the actions stated under the heading "Actions Against Scientific Research and Publication Ethics" are not carried out.

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