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Information and approaches of emergency department physicians in the Cappadocia region regarding the preparation of forensic reports

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ABSTRACT

Aims: Forensic reports; these are physician's opinion and opinion reports, which are mostly prepared by emergency room physicians regarding the medical conditions of people and reported to the judicial authorities. In this study; it was aimed to examine the attitudes and behaviors of emergency physicians working in the Cappadocia region regarding the preparation of forensic reports.

Methods: This cross-sectional study; it was conducted with a survey applied to 73 emergency physicians working in *** city center and districts. The data was created based on the answers given to this survey form.

Results: The majority of physicians participating in the study are general practitioners (87.7%). The average length of service of the participants is 2.3 1.1 years. Most physicians reported that the forensic medicine training they received was insufficient (75.3%). Survey answers of the participants; They were compared in terms of their titles, length of service and forensic medicine training.

Conclusion: Regular in-service training should be provided at intervals so that more appropriate forensic reports can be kept and physicians can have more information about the legal part of forensic reports.

Keywords: Forensic medicine, forensic report, emergency service

INTRODUCTION

Forensic medicine; It can be defined as a branch of science that deals with the application of medical science to the law and justice system and legal situations in the healthcare system.[1] As a result of the person's will, unwillingness or negligence; A person who is actively or passively affected by a situation that can be called a physical or mental illness is considered a judicial case.[2] Traffic accidents, falls, assault cases, work accidents, poisonings, burns, electric and lightning strikes, all kinds of asphyxia cases, stabbing & cutting tool injuries, gunshot wounds, abuse cases or suspected abuse and suicide attempts are considered as legal cases.[2,3] Forensic reports are; It is defined as reports prepared by physicians regarding the medical conditions of forensic cases and requested by judicial authorities.[4]

Since forensic cases are most frequently seen in emergency departments; Emergency room physicians encounter these cases more frequently and prepare more forensic reports.[5] Physicians are responsible for examining forensic cases in detail, recording the examination findings completely and keeping a forensic report.[3]

In this study, emergency room physicians working in the Cappadocia region; A survey was conducted to measure their knowledge and approaches to preparing forensic reports. Factors such as title, length of service and forensic medicine training; It is aimed to prepare forensic reports and examine their impact on the approach to forensic cases.

METHODS

Our study is cross-sectional and was conducted between 01.01.2022 and 30.06.2022 in the city center and districts of Nevşehir, called the Cappadocia region. Approval for our study was received from Nevşehir Hacı Bektaş Veli University Ethics Committee (Date: 25.10.2021, Decision No: 2021.09.318). All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki. Physicians working in emergency departments in this region and volunteering to participate in the study were included in the study. A 20-question survey form prepared by an emergency

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medicine specialist and a forensic medicine specialist was applied to the physicians participating in the study. Survey forms were delivered to participants by phone and e-mail, and their identity information was not collected. Survey form; It includes questions about the participants' sociodemographic information (gender, title, length of service, etc.), and their attitudes and behaviors regarding forensic medicine and forensic report preparation.

Statistical Analysis

The data were analyzed in the SPSS 22.0 for Windows package program. Pearson χ2 analysis and Fisher exact χ2 test were used for comparisons of categorical data. Analysis of the data was performed in R 4.0.3 (www.r-project.org) . The significance level was accepted as $p < 0.05$.

RESULTS

73 physicians working in emergency departments in the city center and district hospitals participated in the study. 9 (12.3%) of the physicians are emergency medicine specialists and 64 (87.7%) are general practitioners. 30 (41.1%) of the participants were women and 43 (58.9%) were men. The average service period of the participants ±was calculated as 2.3 1.1 years. Only 18 (24.7%) of the physicians reported that they received adequate forensic medicine training. The type of forensic report that the physicians participating in the study usually prepared was questioned; It was determined that 26 (35.6%) of them prepared mostly temporary reports and 47 (64.4%) of them prepared final reports. The sociodemographic characteristics of the participants, their participation in the examination of the dead and the internal body examination are summarized in **Table 1**.

Again, the physicians who participated in the study were asked, 'How do you find the approach of judicial law enforcement officers to forensic cases?' The question was posed. 37 (50.7%) of the physicians answered that it was sufficient and 36 (49.3%) answered that it was inadequate.

Participants were asked 11 questions to measure their approach to forensic cases and their level of knowledge on legal issues and forensic cases. Two of these questions aimed to evaluate an exemplary forensic case. Physicians' answers to the questions; They were compared in terms of their titles, length of service and forensic medicine training (**Table 2**). Participants; They were divided into two groups according to their titles: general practitioner and specialist physician, according to their length of service, those who worked for 5 years or less and those who worked for more than 5 years, and whether they received forensic medicine training or not. Physicians' answers to the questions; They were compared in terms of their titles, length of service and forensic medicine training (**Table 2**). Participants were asked: 'Do you know which cases are considered judicial cases?' When the question was compared in terms of service period, a statistically significant difference was found (p=0.036). Again, 'Do you know the legal responsibility of forensic reports?' When the question was compared according to titles, a statistically significant difference was found (p=0.003). In the survey; 'In a case injured with a cutting tool, if it is thought that the tool entered the abdomen but there was no major vascular or organ injury, the forensic report to be given; Is there a life-threatening situation?' The sample forensic case question asked was compared for all groups, but no statistically significant difference was found (p>0.05). Again, 'Do you use the lists and tables prepared by the Forensic Medicine Institute and the association of forensic medicine experts in your reporting?' Only 21 (28.8%) of the participants answered yes to the question.

In the survey; ' How would you evaluate simple medical intervention (STM) in a forensic case admitted due to head trauma, with normal physical examination findings and no injuries to the head or face?' The sample forensic case question was compared for all groups; A statistically significant difference was found only in the comparison made according to titles (p<0.001). Details of the comparison of the survey questions asked to the participants according to groups are summarized in **Table 2**.

Table 1. Distribution of sociodemographic characteristics of participants

Sociodemographic characteristics	n	%
Gender		
Woman	30	41.1
Male	43	58.9
Organisation		
*** State Hospital	33	45.2
District State Hospitals	35	48
Private sector	5	6.8
Title		
Specialist Physician	9	12.3
General practitioner	64	87.7
Service time		
≤ 5 years	46	63.1
>5 years	27	36.9
Have you received adequate forensic medicine training?		
No	55	75.3
Yes	18	24.7
Type of forensic report prepared		
Temporary	26	35.6
Thick	47	64.4
Forensic death examination procedures		
I agree	35	47.9
I do not agree	38	52.1
Internal body examination		
I do	12	16.4
I don't	61	83.6

Table 2. Comparison of the survey conducted to measure the level of awareness of forensic cases according to the participants' titles, length of service and forensic medicine education

Survey questions	Title		p	Service time		p	Forensic medicine education		p
	Practitioner n=64 (%)	Expert n=9 (%)		≤ 5 years n=46 (%)	>5 years n=27 (%)		Sufficient n=18 (%)	Insufficient n=55 (%)	
Do you get nervous when a forensic case comes?									
No	9 (14.1)	4 (44.4)		5 (10.9)	8 (29.6)		5 (27.8)	8 (14.5)	
Partially	30 (46.9)	2 (22.2)	0.062	21 (45.6)	11 (40.8)	0.116	7 (38.9)	25 (45.5)	0.444
Yes	25 (39)	3 (33.4)		20 (43.5)	8 (29.6)		6 (33.3)	22 (40.0)	
Do you know which cases are considered criminal cases?									
Partially	30(65.2)	2 (22.2)	0.069	38 (59.4)	10 (37.0)	0.036	6 (33.3)	34 (61.8)	0.067
Yes	16(34.8)	7 (77.8)		26 (40.6)	17 (63.0)		12 (66.7)	21 (38.2)	
Do you remove people's clothes during forensic examination?									
Partially	49 (76.6)	7 (77.8)	0.999	37 (80.4)	19 (70.4)	0.487	14 (77.8)	42 (76.4)	0.999
Yes	15 (23.4)	2 (22.2)		9 (19.6)	8 (29.6)		4 (22.2)	13 (23.6)	
Can emergency physicians give a definitive report?									
I don't know	5 (7.8)	0	0.619	2 (4.3)	3 (11.1)	0.352	2 (11.1)	3 (5.5)	0.591
Yes	59 (92.2)	9 (100)		44 (95.7)	24 (88.9)		16 (88.9)	52 (94.5)	
Do you know the legal responsibility of forensic reports?									
No	4 (8.7)	1 (11.1)		5 (7.8)	2 (7.4)		1 (5.6)	5 (9.1)	
Partially	35 (76.1)	2 (22.2)	0.003	48 (75)	15 (55.6)	0.104	10 (55.6)	40 (72.7)	0.169
Yes	7 (15.2)	6 (66.7)		11 (17.2)	10 (37.0)		7 (38.8)	10 (18.2)	
Do you know the effects of forensic reports on prosecution?									
No	6 (9.4)	1 (11.1)		5 (10.9)	2 (7.4)		1 (5.6)	6 (10.9)	
Partially	46 (71.9)	4 (44.4)	0.186	33 (71.7)	17 (63.0)	0.520	10 (55.6)	40 (72.7)	0.140
Yes	12 (18.8)	4 (44.4)		8 (17.4)	8 (29.6)		7 (38.8)	9 (16.4)	
Do you know the impact on the trial process of whether the injury can or cannot be treated with simple medical intervention?									
No	23 (35.9)	3 (33.3)		18 (39.1)	8 (29.6)		10 (55.6)	16 (29.1)	
Partially	35 (54.7)	6 (66.7)	0.691	24 (52.2)	17 (63.0)	0.710	7 (38.9)	34 (61.8)	0.113
Yes	6 (9.4)	0		4 (8.7)	2 (7.4)		1 (5.6)	5 (9.1)	
Do you use the lists and tables prepared by the Forensic Medicine Institute and the association of forensic medicine experts in your reporting?									
No	26 (40.6)	6 (66.7)		17 (37.0)	15 (55.6)		7 (38.9)	25 (45.5)	
I don't know	20 (31.3)	0	0.169	14 (30.4)	6 (22.2)	0.301	7 (38.9)	13 (23.6)	0.440
Yes	18 (28.1)	3 (33.3)		15 (32.6)	6 (22.2)		4 (22.2)	17 (30.9)	
In a case injured with a sharp object, if it is thought that the tool entered the abdomen but there was no major vascular or organ injury, the forensic report to be given; Danger to life									
There is no	15 (23.4)	2 (22.2)		11 (23.9)	6 (22.2)		3 (16.7)	14 (25.5)	
I don't know	13 (20.3)	1 (11.1)	0.89	12 (26.1)	2 (7.4)	0.114	2 (11.1)	12 (21.8)	0.344
Has	36 (56.3)	6 (66.7)		23 (50.0)	19 (70.4)		13 (72.2)	29 (52.7)	
Have you prepared a percent fixed trace report?									
No	54 (84.4)	8 (88.9)	0.999	41 (89.1)	21 (77.8)	0.309	16 (88.9)	46 (83.6)	0.721
Yes	10 (15.6)	1 (11.1)		5 (10.9)	6 (22.2)		2 (11.1)	9 (16.4)	
Do you use the No BTM SMI required pattern?									
Yes	50 (78.1)	5 (55.6)		33 (71.7)	22 (81.5)		13 (72.2)	42 (76.4)	
No	10 (15.6)	3 (33.3)	0.424	9 (19.6)	4 (14.8)	0.696	3 (16.7)	10 (18.2)	0.798
I don't know	4 (6.3)	1 (11.1)		4 (8.7)	1 (3.7)		2 (11.1)	3 (5.5)	
How would you evaluate BTM SMI in a forensic case with normal physical examination findings and no head or facial injuries?									
Remediable	18 (28.1)	9 (100)		15 (32.6)	12 (44.4)		6 (33.3)	21 (38.2)	
Cannot be eliminated	29 (45.3)	0	<0.001	18 (39.1)	11 (40.7)	0.372	6 (33.3)	23 (41.8)	0.505
Does not require	17 (26.6)	0		13 (28.3)	4 (14.9)		6 (33.3)	11 (20.0)	

BTM -> SMI: simple medical intervention

DISCUSSION

Since forensic reports are of great importance for the functionality of law, utmost care and attention must be paid when preparing these reports.[6] All physicians have forensic medicine duties, but since physicians working in emergency departments encounter forensic cases more frequently, forensic medicine duties are much more important for this group of physicians.[2,7]

Similar to studies in the literature, the rate of male participants in our study is higher.[8,9] Similar to the study conducted by Kumral et al.[10] to evaluate the views of physicians in Tekirdağ province on malpractice, the majority of the participants in our study are general practitioners. Since only physicians working in emergency departments were included in our study and the number of specialist doctors working in emergencies is less in the Cappadocia region where the study was conducted, the majority of the participants are general practitioners. Unlike studies in the literature, the average length of service of the participants in our study was found to be lower.[8,9] The reason for this is; The reason may be that only physicians working in the emergency department were included in our study and most of them were young general practitioners.

Similar to Yavuz et al.[11] study, in which they evaluated the knowledge and attitudes of physicians working in emergency departments regarding forensic reports, the majority of physicians in our study reported that they did not receive adequate forensic medicine training. Many studies in the literature have shown that participants found the forensic medicine education they received inadequate.[8,9,12] Again, the participants who answered forensic medicine education as insufficient; 'Do you get nervous when the forensic case comes?' It was determined that the answer to the question was 'partially and yes' at a higher rate. It is thought that when adequate forensic training is not received, physicians become uneasy about forensic cases due to the fear of making mistakes.

Participants were asked: 'Do you know which cases are considered judicial cases?' When the question was compared in terms of service period, a statistically significant difference was found (p=0.036). Participants with more than 5 years of service answered yes to this question at a higher rate. It is thought that this rate is high due to the increase in the experience of physicians as the length of service increases.

While the type of forensic report prepared in our study was mostly determined as a definitive report, in the study conducted by Yavuz et al.[11] with participants working in the emergency departments of university hospitals, the type of temporary forensic report was higher. Since all emergency services in the provinces and districts of the Cappadocia region were included in our study, it is thought that the rate of final forensic reports is higher.

'Do you know the legal responsibility of forensic reports and their effects on the trial?' Most of the participants partially answered the questions. Similarly, in the literature, it is seen that the level of knowledge of the participants regarding legal liability and laws is insufficient.[11,12] Again, the rate of specialist physicians answering 'yes' to these questions is higher than general practitioners. It was thought that specialist physicians were more knowledgeable on these issues due to their experience and training.

CONCLUSION

Associated with more experience and education; It is thought that people are less anxious about judicial cases and these cases can be evaluated more clearly. Since most physicians consider the forensic medicine education they receive to be inadequate; It would be beneficial to organize in-service training in this field, especially after graduation. It has also been determined that most physicians do not have sufficient knowledge about the legal liability of forensic cases and their effects on the trial. Providing training and information regarding this will make it easier for physicians to prepare forensic reports more properly.

ETHICAL DECLARATIONS

Ethics Committee Approval

The study was carried out with the permission of Nevşehir Hacı Bektaş Veli University Ethics Committee (Date: 25.10.2021, Decision No: 2021.09.318).

Informed Consent

All patients signed the 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

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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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