

# Analysis of awareness for healthcare professionals in forensic nursing

## Abstract

The possibility of facing forensic cases among healthcare professionals is quite high. However, most of the time these forensic cases may be skipped due to lack of knowledge of healthcare professionals on these issues. This study is aimed to evaluate the level of knowledge of healthcare professionals in forensic nursing. Between February 2015-June 2015, in a public hospital in Istanbul, 56 healthcare professionals were asked to fill out open-ended questions to determine to what extent they pay attention to the processes and regulations in forensic nursing practices. The results, which were obtained in the light of the collected data, have been analysed. The level of knowledge of the healthcare professionals on the forensic nursing and its own process is insufficient. Knowledge of the healthcare professionals facing hospital forensic cases should be updated through in-service training programs. The results emphasized the need for continuing training in this area.

**Keywords:** forensic nursing, forensic sciences, healthcare professional

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## Introduction

Healthcare service is a product of a team effort. From doctors to nurses, caregivers to administrative personnel working in the hospital, all are parts of this team. Nurses who work in emergency services, intensive care units, inpatient services and even in the outpatient services are the first healthcare professionals who face victims and offenders.<sup>1</sup> Since there is no job description for forensic nurses in Turkey there are no forensic nurses who legally provide such a service. Such shortcomings cause insufficiency in collection and preservation of evidence in forensic cases. The nurses, who manage the legal process in forensic cases, should receive training in forensic nursing in their training process.<sup>2,3</sup> Any physical injuries caused by firearms, explosives, sharp objects, pricking objects or by crusher, any traffic accidents, fall events, assault cases, occupational accidents, intoxications, burn injuries, electric shocks, lightning strikes, asphyxia, any suicide attempts, any murders, suicides, and any suspected accidental deaths and any suspected deaths presenting to emergency services or health care providers are considered as forensic cases.<sup>4</sup> Forensic cases are the ones which need to be intervened in as soon as possible. The cases often arise as a result of careless acts, imprudence or intentional harms. Due to accidents, suicide attempt or traumas permanent injuries may occur in physical integrity and even it may result in death.<sup>5</sup>

Some of the forensic cases which are presenting to the emergency services of the hospitals are directed to the operating units for surgical operations. The legal process starts also in the operating room as soon as the patient gets in. The clothes may be very important for some police investigations in finding out the offender and/or victim information. In a research conducted, almost a quarter of the healthcare professionals mentioned that they did not carefully remove the clothes of the patient and keep them properly, and that, on the contrary, in case they needed to remove the clothes of the patient, they tore the

clothes using the already existing holes. However, tearing the clothes using the already existing holes would mean destroying the evidence. Because those holes on the clothes are very significant in identifying the entrance and exit of the bullet and from which direction the victim was fired at.<sup>6</sup> In such cases, all healthcare professionals should be informed on the forensic case process in order to avoid legal issues.<sup>7,8</sup>

Generally paediatric forensic cases are observed as child abuses (physical abuse, sexual abuse, emotional abuse, economic abuse). Nurses have tremendous responsibilities in managing the paediatric forensic cases. Symptoms of physical abuse (e.g., scars, bruises, burn marks, due to impact of trauma, etc.) in paediatric forensic cases arise as results of acts of violence by parents, the individuals who take care of those children or others who try to bring them up, discipline or try to make the children obey the rules by frightening them. Such incidents may cause psychological traumas as well as harming the integrity of their bodies. Healthcare professionals should know that those are forensic cases and should be informed about the relevant process.<sup>9-11</sup> According to the Turkish Criminal Law Article 280, "any healthcare professional, who, while performing his/her task, faces any signs of a crime but fails to inform or delays in informing the relevant authorities, shall be sentenced up to one year imprisonment".<sup>12</sup> Furthermore, since the healthcare professionals working at the emergency services are generally the first professionals who face forensic cases, they are usually liable to prepare forensic reports.

It is significant both in terms of assisting the judicial process and of protecting the public health that healthcare professionals and managers, who work in healthcare institutions providing 24/7 healthcare services, should be informed on the forensic case process. This research has been carried out to determine the awareness of the healthcare professionals regarding the forensic cases, as well as the deficiencies in that regard.

## Materials and methods

The research was conducted between February-June 2015. The sample of the research consisted of 56 healthcare professionals including 2 Midwives, 12 Health Officers and 42 Nurses working at a public hospital in Istanbul, which allowed the research to be conducted. The healthcare professionals were asked to respond to the survey questions. The first part of the survey aimed at knowing and defining the healthcare professionals, and the second part aimed to identify the gender distribution in nursing professionals and while in the last part open-ended questions were asked to determine to what extent the processes and regulations were obeyed during forensic nursing applications. The results, obtained within the scope of the collected data, have been analysed. This study was approved by Istanbul Yeni Yuzyil University, Ethics Committee, Ethical approval: 2015/1, May 2015.

## Results and discussion

While vast majority of the participants (60.72 %) had bachelor's degree, the proportion of the secondary school graduates were relatively less (21.12%). The number of the participants who had associate's degree and who had master's degree were equal (8.93%). Most 42, of the participants were nurses (75%), 12 were health officers (21.42%) and 2 were midwives (3.58%). Based on the frequency of presenting of the forensic cases, the participants mostly serve in emergency services (19.65%), surgery rooms (17.86%), general surgery services (14.28%), paediatric services (8.93%), intensive care units (5.35%), internal medicine services (1.79%), gynecology services (1.79%) and other services (Infection, Hemodialysis, Quality Unit, Diagnosis-related Groups, Training Department, Patient Rights Department, Laboratory, Personnel, Inventory Unit, X-ray, 30.35%). The socio-demographic characteristics of the participants are shown in Table 1, and the results of the survey questions are exhibited in Table 2.

**Table 2** The frequency distribution of questions (n=56)

	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Do you have knowledge about forensic nursing?	13	23.22	43	76.78	56	100
Did you face any forensic cases while working in your institution?	49	87.5	7	12.5	56	100
Do you have any information on process management regarding forensic cases?	23	41.07	33	58.93	56	100
Are you aware of your roles and legal responsibilities while serving at forensic cases?	25	44.65	31	55.35	56	100
Did you attend any in-service training programs for forensic cases?	6	10.72	50	89.28	56	100
Is there any management procedure regarding forensic cases in your institution?	24	42.86	32	57.14	56	100

Of the participants, 87.50% mentioned that they faced forensic cases while working at the healthcare institutions and 12.50% mentioned that they did not. Furthermore, 41.07% of the participants mentioned that they were informed about the process management in the forensic cases and 58.92% mentioned that they were not. About

**Table 1** Socio-demographic characteristics of participants (n=56)

		Number	%
Gender	Female	31	55.35
	Male	25	44.65
Degree	Secondary	12	21.42
	Associate	5	8.93
	Bachelor	34	60.72
	Master	5	8.93
Title	Midwife	2	3.58
	Health Officer	12	21.42
	Nurse	42	75
Department	Emergency Services	11	19.65
	Paediatric Service	5	8.93
	Operating Room	10	17.86
	Intensive Care	3	5.35
	Obstetric & Gynecology	1	1.79
	General Surgery	8	14.28
	Internal Medicine	1	1.79
	Others*	17	30.35

\*Infection, Haemodialysis, Quality Unit, Diagnosis-related Groups, Training Department, Patient Rights Unit, Laboratory, Personnel, Inventory Unit, X-ray Unit

44.6% of the participants mentioned that they were aware of their roles and legal liabilities while serving in forensic cases however, 55.36% of the participants mentioned that they were not. The rate of the ones who attended in-service trainings on management of forensic cases in the institution is only 10.72% and 89.28% mentioned that they did

not attend any training on that issue. Regarding management process for forensic cases, 57.14% of the participants mentioned that there was no such a procedure in the institutions they have been working at and 42.86% mentioned that there was such a procedure. Another open-ended question was “What are the things that you pay attention to during patient admissions and evidence collection?”, and 62.50% of the participants mentioned their opinions about the question while remaining 37.50% did not.

It was observed that most of the healthcare professionals, who had expressed their opinions, did not have adequate information regarding evidence protection. The participants, who had knowledge, mentioned that the records must be kept correctly while protecting evidences, the blood samples must be kept in suitable conditions; and the doctors were the ones who were authorized to prepare forensic reports. However, research revealed that they were not knowledgeable about how to communicate with the patients during medical examination, about the techniques of taking samples of nail, saliva, semen, hair from the patients; that they did not have sufficient knowledge on how to keep the patients' clothes properly; and that, they did not have proper organization or sufficient technical information on how to take and keep the photos of wounds and bruises caused by trauma and violence.

Another open-ended question was “With which institution do the nurses facing forensic cases share the information?”, and 57.14% of the participants mentioned their opinions about the question while remaining 42.85% did not. Most of the healthcare professionals who had expressed their opinions, mentioned that the nurses did not have legal responsibility when it comes to official correspondences, the doctors were the ones who held responsibility in official correspondences. On the other hand, some participants mentioned that in case the nurses receive a letter from the prosecutor regarding the correspondences and evidences, the hospital management could share the evidences and information with relevant institutions. The rate of the participants who shared their information on another open-ended question “Which occupational groups should be in on any forensic case?” was significantly high (94.64%). The participants mentioned that the hospital police, the doctor and healthcare professionals who carry out the clinical examination, hospital management, prosecutor, gendarmerie, forensic institution, psychologist, sociologist, and occupational safety specialists who were involved in any forensic case.

The quality of service of health institution depends on healthcare professionals, the physical conditions of the place where the service is delivered and the management process of the service.<sup>13</sup> It has been observed that especially the healthcare professionals who work in the emergency services, although they face more forensic cases, do not have sufficient information due to lack of both information and job description. Furthermore, for the question “Do you have knowledge about the process management in forensic cases?” 41.07% of the participants mentioned that they were informed about the process management in the forensic cases and 58.93% mentioned that they were not. Although 49 individuals working at the institution have faced forensic cases, 58.93% were not informed about the process management in the forensic cases. Pursuant thereto, the roles to be given to the healthcare professionals regarding the forensic cases must be determined and good practices in process management must be ensured by providing all relevant healthcare professionals with in-service training on forensic cases.

A study conducted in 2009 in Bolu, Turkey showed that 90.9% of the healthcare professionals working in clinic faced forensic cases; that 65.9% did not receive training in forensic cases; that 22.7% could not remove and keep the clothes of the patient properly; that although 90.9% thought that they were sufficient in forensic cases only 18.2% had adequate information in forensic cases.<sup>14</sup> As a result of a research conducted with 233 emergency service personnel in Turkey, it showed that the healthcare professionals were not sufficiently informed about forensic cases.<sup>15</sup> In 2008, 58% of 38 nurses working at a hospital in the United States mentioned that they have undergone training on forensic nursing however, it was identified that the knowledge level of the nurses working in emergency services were better than that of the nurses working in intensive care units.<sup>16</sup> In 2014 in Saudi Arabia, as a result of a research conducted with 99 healthcare professionals, it has been identified that although 33% of the healthcare professionals mentioned that they were knowledgeable about forensic nursing, but their answers to the open-ended questions were found invalid. The remaining 77% expressed that they have not undergone a training process regarding forensic cases.<sup>17</sup>

For the question “What are the things you pay attention during patient admissions and evidence collection in forensic cases?” 62.50% of the participants expressed their opinions about the question while remaining 37.50% did not. It has been identified that most of the healthcare professionals who have expressed their opinions, did not have adequate information regarding evidence protection. The participants, who were informed, mentioned that the records must be kept properly while collecting evidences; that the blood samples must be kept in appropriate conditions; that the doctors were the ones who were authorized to prepare forensic reports. However, the findings showed that they were not informed about how to communicate with the patients during medical examination, about the techniques of taking nail, saliva, semen, hair samples from the patients; that they had inadequate information on how to keep the patients' clothes properly; and that, they did not have effective organization and sufficient technical information on how to take and keep the photos of wounds and bruises caused by trauma and violence. The results of our study were similar to that of the studies conducted previous.<sup>18-20</sup>

This study indicates that the healthcare professionals are neither aware of their legal liabilities on forensic cases, nor adequately knowledgeable about the regulations and procedures available in the institutions they are working at. Regarding the question “Is there any management procedure for forensic cases in your institution?” Table 2 exhibits 57.14% of the participants mentioned that there was no such a procedure in the institution they were working at and 42.86% mentioned that there was such a process. However, most of the participants, who mentioned that there was management process for forensic cases; did not have information regarding the content of the process. This result indicates that most of the healthcare professionals working in the institution do not know the management process for forensic cases; and increases the possibility of the healthcare professionals to cause service defects during practices.

Furthermore, when they were asked “Are you aware of your roles and legal liabilities while serving in forensic cases?” among those participants 44.64% mentioned that they were aware and 55.36% mentioned they were not. When the explanations of the participants who have mentioned that they were aware of their legal liabilities while serving in forensic cases were analysed, the number of the participants who claimed correct explanations of their legal liabilities

was very low. In the light of these findings healthcare professionals should receive in-service trainings on forensic sciences and legal issues on a regular basis.

In this research it was aimed at finding out the answers to the question “Which occupational groups should be in on any forensic case?” given by the healthcare professionals who participated the survey as well as their opinion on cooperation with other occupational groups. The number of the participants who expressed their opinion was significantly high (94.64%). The participants mentioned that the hospital police, the doctor and healthcare professionals who conduct medical examination, hospital management, prosecutor, gendarmerie, forensic institution, psychologist, sociologist, and occupational safety specialists are involved in on any forensic case. While the accuracy of those opinions is unquestionable, the study shows that healthcare professionals are well informed about this issue.

In-service training programs on forensic cases are important. As illustrated in Table 2, for question “Did you attend in-service trainings on management of forensic cases in the institution?” while only 10.72% of the participants mentioned that they did, 89.28% mentioned that they did not. The facts that 87.50% of the healthcare professionals working in the institution face forensic cases, but that 89.28% did not attend any in-service training, would cause failures as a result of negligence and service defects in forensic cases process.

## Conclusion

Management of forensic cases frequently faced in health institutions is a very significant process. When the forensic cases are not handled in line with the procedure, negative results may occur for both the victim and the assailant. It is no doubt that, due to the above mentioned reason, hospital management’s taking necessary measures will play a very significant role in solving the incidents in the scope of forensic cases which can be faced in health institutions. The healthcare professional must be informed on how to act in forensic cases, on the issues they should be careful while taking the medical history, and on the whole process. The equipment for sampling should be sufficient, the forms should be prepared properly and the records should be kept accordingly while delivering the samples to the relevant departments. The collected evidences will play a significant role in the legal process.

Therefore, it may be necessary to keep those evidences in appropriate conditions, and to share them with security forces and forensic units in order to help to enlighten the case. Taking into consideration that forensic cases frequently present to the health institutions and that the healthcare professionals continuously face forensic cases, organizing in- service trainings on regular periods and notifying all healthcare professionals regarding the process related issues, which have to be considered, will prevent problems in management of forensic cases.

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## Conflicts of interest

The authors declare there is no conflicts of interests.

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