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REVIEW

Emergency Nurses' Approach to Forensic Cases: Review

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Abstract

Emergency nurses frequently encounter victims of violence and trauma. In the emergency department, the main focus is on saving lives and stabilizing patients' conditions. The next important task is to preserve valuable evidence that could potentially help identify a crime. The nurse should be able to identify forensic or potentially forensic cases and report them to the relevant forensic authorities. They should also assist in the identification, collection, storage and recording of evidence and be aware of their legal responsibilities. The destruction of evidence will be prevented if nurses are knowledgeable and sensitive at the same time. The aim of this article is to raise the awareness of nurses working in the emergency department about forensic cases and to discuss the basic knowledge and approaches in the evaluation of forensic cases. The emergency nurse's knowledge about the forensic case and the correct approach to the case will contribute significantly to the provision of justice.

Keywords: Emergency nursing, forensic case, knowledge level

INTRODUCTION

Emergency departments are one of the most important units of hospitals. They provide integrated service every hour and every day of the week. They are obligated to care for a wide array of patients under stressful and crowded conditions. (1,2).

Emergency departments are one of the most common units in hospitals where forensic cases are encountered (3) Every day, nurses in emergency departments around the world provide care to patients who present with injuries as a result of trauma and violence. These injuries can be caused by a wide variety of reasons such as motor vehicle accidents, gunshot wounds, burns, interpersonal violence, mass disasters and bioterrorist acts. Emergency department (ED) nurses have an important role in identifying, assessing, medically treating, preserving and collecting forensic evidence. While an ED nurse provides care to victims of violence, this ED nurse is also considered to provide forensic nursing care (4).

Working as a forensic nurse requires specific skills and knowledge to recognize the signs and symptoms of violence and abuse. Inadequate awareness by emergency nurses can lead to misidentification of evidence and injustice. For emergency nurses to fulfill their role effectively, they need to have more than the ability to identify injury or evidence. They also need to have the necessary skills to provide high quality, evidence-based care and meet the standard of care for their patients (5).

Gültepe (2022) stated that nurses did not have sufficient knowledge about forensic cases and did not want to take legal responsibility in forensic cases. Karabulut et al. (2023) stated that they did not have information about forensic nursing. In the study of Akcin and Yılmaz Güven (2024), it was determined that healthcare professionals working in the emergency department did not have sufficient knowledge in their approach to forensic cases, collection and storage of evidence. In the study of Kırmızıgül et al. (2023), it was stated that the training given about the evidence protection approaches and legal responsibilities of nurses was effective.

Based on the studies in the literature, we can say that emergency nurses have insufficient knowledge about forensic evidence preservation. The aim of this article is to discuss basic information that can help nurses' approach to forensic cases in the emergency department.

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1 History of Emergency Nursing in Turkey

An emergency nurse is a person who has a wide range of knowledge and the ability to present this knowledge in order to provide nursing care in a short time to individuals of all ages and with different health problems who experience perceived or real, physical or emotional health changes, who have not yet been diagnosed, who require urgent and advanced intervention (6,7).

In Turkey, the first professional organization in the field of nursing was established in 1933 with the Turkish Society of Nurses. This society was renamed the Turkish Nurses Association in 1943. In 1954, with the Nursing Law, the roles and responsibilities of the nursing profession were determined. In the 1970s, with the progress in science and the change in nursing, branch nursing was shaped and innovations were brought to the roles and responsibilities of emergency nursing, which is based on a wide knowledge base and provides services to meet the needs of the patient. In 1996-1997, Marmara University Institute of Health Sciences started Emergency Nursing postgraduate education in 1996-1997, which led to specialization in emergency nursing. Later, with the Law No. 5634 dated 25/04/2007, the roles and responsibilities of nurses according to their positions in their working areas were explained. On March 8, 2010, in the nursing regulation numbered 27515, the duties, powers and responsibilities of the emergency room nurse were clearly stated (8,9, 10). Today, Ondokuz Mayıs University, Izmir Katip Çelebi University, Acıbadem University and Gaziosmanpaşa University have opened graduate programs and continue these programs. Ondokuz Mayıs University started the first doctoral program in emergency medicine nursing and still trains nurses with doctoral titles in this field (11). In addition, emergency nursing is given as a compulsory / elective course in nursing schools in our country. Many different institutions, associations or universities, especially the Ministry of Health, organize various courses and certificate programs for nurses actively working in the profession. (12).

2 History of Emergency Nursing in the World

Many of the developments in emergency services were first pioneered in the UK and Germany. After World War II, emergency services began to gain importance in the United States. In the 1970s, the importance given to nursing education increased significantly and emergency nursing started to develop as a specialty with the initiatives of the Emergency Department Nurses Association (EDNA). EDNA published groundbreaking studies such as Emergency Nursing Practice Standards and Journal of Emergency Nursing and then continued to legalize emergency nursing specialization (7,13). In 1985, the group changed its name to the Emergency Nurses Association, while the Emergency Nursing Practice Standards were updated. In the 1990s, innovation and leadership in nursing came to the fore. The Emergency Nurses Association Foundation (ENAF) was established to promote emergency nursing through research and scholarships. Guidelines were published to support emergency nursing and patient care. In 1995, the scope of emergency nursing practice was expanded to include injury prevention. In the 2000s, it targeted core competencies and reorganized around concepts such as management, advocacy, membership, professional development, research and practice (7).

3 Forensic Nursing in Emergency

Since emergency departments are the places where forensic cases are most common, emergency service workers are faced with forensic cases much more frequently. The priority in the emergency department is to fulfill the medical care and treatment of the patient. However, in forensic cases or cases that are likely to be forensic cases, the nurse should be careful and approach the patient correctly with the awareness of her/his legal responsibilities. Because the emergency nurse is usually the first to see the suspect/victim, the first to make physical contact and the first to communicate. The emergency nurse should first evaluate whether each patient who enters the emergency department is forensic or not. Evaluating the forensic case, performing physical examination, collecting the materials that are evidence and can be considered as evidence, storing and recording them under appropriate conditions are carried out by the nurse and physician. The emergency nurse's knowledge about the forensic case and correct approach will contribute greatly to the provision of justice (14,15). It is not the nurse's duty to investigate and conduct forensic investigations. The main task is to identify cases of forensic importance, to report them to the relevant authorities, and to assist in the identification, collection, storage and recording of evidence. In emergency cases, nurses and healthcare workers have legal responsibilities in forensic cases and the importance of keeping records should not be forgotten (16).

Failure to properly identify, collect and preserve evidence in patients admitted to hospital as forensic cases may lead to changes in the structure of evidence, losses or deficiencies in the evidence delivery chain.

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Lack of appropriate evaluation may cause the necessary punishment not to be given and the case to be concluded incorrectly (17). The duty of health personnel working in emergency services is to ensure the continuation of the life of patients, to prevent complications that may develop, as well as to make efforts to detect, collect and preserve the traces that may exist in the victim or attacker in forensic cases (18).

In this regard, health personnel working in the emergency department should have sufficient knowledge about their responsibilities such as identifying the forensic case, physically evaluating, identifying, collecting, protecting and recording the available evidence in order to secure patient rights (19).

However, the nurse should be impartial, record the patient's history completely and record the statements directly from the patient's mouth, show the physical signs (cuts, ecchymosis, wounds, etc.) on the body diagram, complete the reporting procedures, and cooperate for security and treatment procedures (18).

4 Forensic Case Evaluation Process

- Story retrieval
- Physical Examination
- Identification of Evidence
- Collecting Evidence
- Preservation of Evidence
- Ensuring the Evidence Chain of Custody
- Recording Evidence
- Crisis Intervention (20).

5 Forensic Nursing Process in Emergency Services

Although the patient's complaint is the priority in forensic cases, in addition to the general nursing history, the history of the patient/injured should be taken by asking questions about what happened, where it happened and when it happened. While the nurse takes this information, the statements should be recorded completely without distortion and should not be medicalized. Emergency nurses should not record their emotions and feelings. While taking the history, the nurse should ask understandable and answerable questions without directing the patient. When documenting the patient's history, adequate and forensically useful details should be provided by quoting the patient directly whenever possible. Patient statements recorded in medical records may be accepted by the court as an exception to hearsay (20,4).

As stated in the regulation on "Physical Examination, Genetic Examinations and Determination of Physical Identity in Criminal Procedure", internal body and external body examinations can be performed by a physician on the suspect and the accused in order to obtain evidence of a crime. However, one of the data collection methods is physical examination, which takes place during the nursing diagnosis of the patient's condition. Before the physical examination, verbal consent should be obtained after providing information in a way that the patient can understand. It would be correct to perform the physical examination in an environment where other people are not present and voices cannot be heard, with the participation of another nurse if desired. There should be sufficient lighting and medical equipment for the examination in the place where the examination is performed. The nurse's approach to the case should be reassuring. The patient/injured person who is thought to be a forensic case should be prevented from changing his/her clothes and taking a bath before the examination. While performing a systematic and comprehensive physical examination, the nurse must wear gloves in order not to contaminate the evidence (19,21,22,20,4,23).

The first step in a forensic case is the identification of forensic evidence. The nurse's recognition and recording of small details of the forensic case may reveal a forensic event, or the potential value of this evidence may be lost forever due to mistakes. The police may find it difficult to effectively investigate the criminal situation. As a result, the person responsible for violence and suffering may not be punished. By identifying evidence, the nurse can further assist the patient and family and at the same time prevent further psychological and physiological harm. Forensic evidence is defined as anything that is presented to the court to support or refute a theory or statement. Evidence can be tangible, such as medical records, DNA, clothing, bullets or photographs, or intangible, such as a patient's reported history, excited utterances and smell. Physical evidence, including but not limited to clothing, bullets, swab samples and photographs of injuries, must be handled and documented carefully to avoid disrupting the chain of evidence or compromising evidence. Therefore, it will need to be kept for later examination. Non-physical evidence is the assessment of trauma propensity such as suicide attempts, abuse, violence when taking a psychosocial history (19,24,4).

When a trauma patient enters the door of the ED, one of the first steps in the assessment and treatment of the patient is to remove all clothing. If the patient's clothes

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are to be removed by the nurse, he/she must wear gloves as touching the clothes directly directly increases the possibility of the nurse's DNA remaining on the clothes. If the clothes are to be cut, they should be cut away from the injured area and along the seams of the clothes. A card with the phrase "clothes cut" should be placed or recorded in the patient file. Before the trauma patient arrives, the Emergency nurse can immediately lay two clean hospital sheets on the floor, one on top of the other. As clothing is removed from the patient, it can be quickly placed on these two sheets. Each piece of clothing should be kept separate to prevent cross-contamination. If the patient is able to undress themselves, the patient is allowed to undress on two hospital sheets. The nurse should not leave the room while the patient is undressing to ensure preservation of evidence. The top sheet will catch any debris and physical evidence that falls as the patient undresses. In either case, the clothing or the top sheet that has come into contact with the patient is collected. If possible, the hospital sheet is also collected. Clothing removed from the patient should not be shaken off, as shaking may cause evidence on the clothing to fall off and be lost. Clothes should not be folded as much as possible, and if they must be folded, paper should be placed on the overlapping parts of the clothes. The patient should also remove shoes, as they can be important clues. Each piece of clothing or sheet is placed in a single clean paper bag with gloved hands- no plastic. Paper bags are breathable and make it easier to protect the contents. If the clothes are damp, they should be allowed to dry as much as possible on their own before being placed in the bag. Moisture can lead to the growth of bacteria and mold, which can destroy proteins and DNA. Paper bags should be sealed with tape because a stapler can damage the contents or injure the person opening the bag. The emergency nurse should date and initial the bag to determine whether someone has opened it. Finally, each piece of clothing is documented and each piece is described (e.g. blue shorts with a stain on the left leg, etc.)(20,4).

A swab sample can be taken from suspicious spots on the patient's body using a sterile cotton-tipped applicator moistened with sterile water. Swab samples should be taken from the external surface of the wound in gunshot wounds before surgery or cleaning. The applicator should be air-dried before being placed in a clean envelope or box. The envelope should be sealed with tape immediately after the applicator is placed in the envelope. Licking the envelope increases the risk of disease and cross-contamination. The person collecting the evidence should write the appearance and location of the stain on the envelope and initial over the tape. In gunshot wounds, the Emergency nurse should not clean the hands to remove dried blood and other debris. Paper bags should be applied until the victim's hands are tested for gunpowder residue. Hair, soil, leaves or paint can also be collected as evidence. Fold a clean sheet of paper in thirds, first vertically and then horizontally. Open the paper and use a cotton swab or forceps to place the collected debris on the paper. To collect very small debris (e.g. glitter) you can use the sticky side of a transparent tape. After collecting the debris, place the tape on a glass slide available from the hospital laboratory and cover the slide with white paper and label it.Bullets may contain evidence of ballistic markings that can be used to link them to the weapon from which they were fired. Metal bullets should never be touched with non-rubber-tipped forceps. Otherwise they may be scratched, which may prevent forensic evaluation. Each of the bullets should be placed in separate small containers with sterile gauze to minimize movement (e.g. urine container). Small holes should be made in the container to ensure air circulation. Sharp objects such as needles and knives should not be handled with pliers that do not have a rubber tip like bullets. They should be carefully packed in suitable cardboard boxes or tubes. Needles can be placed in gauze-filled sample containers or glass tubes with air holes to allow ventilation (4,25).

Forensic evidence is of limited value unless it has credibility. If the chain of custody of evidence is not maintained or documented, the entire case may be lost. Each time evidence changes hands (e.g. from the nurse to the police), a record is drawn up and signed by both parties. Such a formal evidentiary document shows that there is an unbroken chain of custody of the evidence and that each person responsible for the evidence has a link in the chain. The emergency nurse must provide a safe and secure place for the storage of evidence for the duration of his/her responsibility for the evidence. Consideration should be given to the number of individuals with access and adequate air circulation. Fans or other means should not be used to quickly dry clothes or other items. An excellent and inexpensive example is a four-drawer filing cabinet with holes drilled in the sides. Each drawer can be used for a different patient. The key to the cabinet should be accessible to nurses but protected and controlled. An ideal solution would be to have the key in an electronic medication dispensing machine. Access to such a machine is restricted and the machine keeps a daily record of who has accessed a particular drawer (20,4).

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CONCLUSION

Working as a health professional in the emergency department requires specific skills and knowledge to recognize the signs and symptoms of violence and abuse. It is extremely important both to clarify a forensic case and to legally secure oneself. Insufficient awareness of emergency nurses can lead to misidentification of evidence and injustice. The sensitivity and knowledge of health professionals in forensic investigations will greatly prevent the corruption of evidence and contribute to the proper collection of evidence (5).

Since there are no forensic nurses in emergency departments in our country, the task of welcoming forensic cases and carrying out the necessary procedure falls to emergency department nurses. In addition, the fact that nurses do not have sufficient knowledge on forensic nursing issues causes them to avoid necessary approaches and practices. For this reason, the evaluation of forensic cases is mostly performed by nurses who have not received special training. In studies conducted in our country, it has been revealed that emergency nurses who encounter forensic cases do not have sufficient knowledge about how to collect and store materials that may have the quality of evidence and how to create a chain of evidence (19,12,21,26).

To have sufficient knowledge, approach and skills related to the forensic case;

It is thought that including forensic nursing and case management issues in undergraduate and graduate nursing curricula and continuing education programs and courses will contribute to the self-development of nurses, learning their roles and responsibilities regarding the protection of evidence in a forensic case and raising awareness.

It is vital to establish and implement forensic nursing protocols for the care of trauma victims and promote collaboration between health systems, law enforcement and forensic investigators to facilitate the process.

It is recommended to increase the number of existing forensic medicine departments and personnel to provide forensic medicine education in undergraduate health specialties.

It is recommended that nurses working in the emergency department should be given the necessary training in the approach to forensic cases and algorithms should be prepared to guide them.

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