study of pre-hospital emergency care personnel's perception of ethical and clinical caring challenges in the field: a qualitative study

Un estudio de la percepción del personal de atención de emergencias prehospitalarias sobre los desafíos éticos y de atención clínica en el campo: un estudio cualitativo

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Introduction & Background: Due to their unpredictable and critical working conditions including Out-of-hospital cardiac arrest (OHCA) and Cardiopulmonary resuscitation (CPR), Pre-hospital emergency care personnel experience difficult and complicated situations in the field presenting them with various ethical and clinical caring challenges which affect their clinical decisions.

Objectives: The present study aims to determine pre-hospital emergency care personnel's perception of the ethical and clinical caring challenges they face in the field.

Methods: The present study is a work of qualitative research with a content analysis approach. Data were collected through semi-structured, in-depth interviews and field notes. The collected data were analyzed using conventional content analysis. The participants were 25 prehospital emergency care personnel members in Iran who met the inclusion criteria. They were selected via purposeful sampling which was continued to saturation point. The study lasted from February to November 2020.

Results: Two main themes—paradox in decision-making and patients' ethics and values—with 8 categories were extracted from the collected data.

Conclusion: The results of the present study show that, in the field, pre-hospital emergency care personnel confront various ethical and clinical caring challenges which create paradoxes in their professional performance and ethical decisions. Yet, they should make the best ethical decision and provide care combined with respect for patients' ethical identities and beliefs to achieve satisfactory medical care results. To provide high-quality care, pre-hospital emergency care personnel must be provided with a proper cultural, professional, and organizational environment which is free of ethical distress.

Keywords: Caring challenges, Emergency Medical Services, qualitative research.

Introducción y antecedentes: debido a sus condiciones de trabajo críticas e impredecibles, que incluyen el paro cardíaco extrahospitalario (OHCA) y la reanimación cardiopulmonar (RCP), el personal de atención de emergencia prehospitalaria experimenta situaciones difíciles y complicadas en el campo que les presentan diversos desafíos de cuidado clínico que afectan sus decisiones clínicas.

Objetivos: El presente estudio tiene como objetivo determinar la percepción del personal de atención de emergencias prehospitalarias sobre los desafíos éticos y de atención clínica que enfrentan en el campo.

Métodos: El presente estudio es un trabajo de investigación cualitativa con enfoque de análisis de contenido.

Los datos se recopilaron mediante entrevistas semiestructuradas, en profundidad y notas de campo. Los datos recopilados se analizaron mediante análisis de contenido convencional. Los participantes fueron 25 miembros del personal de atención de emergencia prehospitalaria en Irán que cumplieron con los criterios de inclusión. Fueron seleccionados mediante un muestreo intencionado que se continuó hasta el punto de saturación. El estudio duró de febrero a noviembre de 2020.

Resultados: De los datos recolectados se extrajeron dos temas principales, la paradoja en la toma de decisiones y la ética y los valores de los pacientes, con 8 categorías.

Results

Conclusión: Los resultados del presente estudio muestran que, en el campo, el personal de atención de emergencias prehospitalarias enfrenta diversos desafíos éticos y asistenciales clínicos que crean paradojas en su desempeño profesional y decisiones éticas. Sin embargo, deben tomar la mejor decisión ética y brindar atención combinada con el respeto por las identidades y creencias éticas de los pacientes para lograr resultados de atención médica satisfactorios. Para brindar atención de alta calidad, el personal de atención de emergencia prehospitalaria debe contar con un entorno cultural, profesional y organizacional adecuado, libre de angustias éticas.

Palabras clave: Desafíos asistenciales, Servicios médicos de emergencia, investigación cualitativa.

oday, in most societies, pre-hospital emergency care is an integral and decisive part of the treatment of patients in need of emergency care including Out-of-hospital cardiac arrest (OHCA) and Cardiopulmonary resuscitation (CPR)1. Pre-hospital emergency medical services comprise of medical services which are provided to patients outside hospitals before they are transferred to the nearest medical center². Prehospital emergency care is characterized by unpredictable working conditions and the personnel have to work in difficult and complicated situations where they frequently confront ethical and clinical caring challenges, including how to triage patients at the scene of accidents, patients' refusal to be transferred to a medical center, delivery in the ambulance, and patients' companions' interference in the personnel's' execution of Out-of-hospital cardiac arrest (OHCA) and Cardiopulmonary resuscitation (CPR) in the field ³⁻⁵. According to several studies, the responses of pre-hospital emergency care personnel to the ethical dilemmas they face are influenced by a variety of factors, including respect for patients' values and preferences, professional and organizational values, socio-economic factors, and cultural^{6,7}. Factors considering the fact that not much is known about emergency care personnel's perception of the ethical and clinical caring challenges which they confront in the field and the factors which influence that perception, as well as the challenging nature of work in pre-hospital emergency care and lack of qualitative research into this area of medical practice in the context of Iranian culture, the present study aims to determine pre-hospital emergency care personnel's perception of the ethical and clinical caring challenges which arise in the field.

he present study is a work of qualitative research with a conventional content analysis approach. Conventional content analysis is applied when there is a lack of information about the subject under study. Since there is little literature on pre-hospital emergency care personnel's perception of ethical and clinical caring challenges, the present study relies on this type of analysis^{8,9}.

The participants were 25 pre-hospital emergency care personnel members who met the inclusion criteria: being Iranian, speaking Farsi, having at least two years of work experience, and being able to provide rich data. The participants were selected via purposeful sampling to represent a wide range of demographics, including age, gender, work experience, and marital status. The study lasted from February to November 2020.

Data were collected through 25 semi-structured, individual interviews and field notes. The interviews were conducted in private places chosen by the participants. Each interview started with a few general questions: "Can you describe a stressful day on your job?", "What factors influence your ethical and clinical performance?", and "What conditions influence your ethical performance?". Subsequently, based on the participants' answers, follow-up questions, e.g. "Can you explain further?", "What do you mean by that?", and "Can you give an example?" would be asked to add to the clarity of the information. The interviews were oriented around the main objective of the study.

Each interview lasted from 40 to 80 minutes. As soon as it ended, every interview was transcribed by the first author. Then the data were analyzed and the next interview was designed based on the results gathered from its predecessors. The interviews were continued to the saturation of data. Saturation has been achieved when no new categories can be extracted from the data and the categories become saturated in terms of characteristic and dimension^{10,11}.

As they were collected, the data were analyzed using conventional content analysis. Based on the explicit and hidden content of meaning units, key points in the text were extracted as open codes. These codes were classi-

fied according to their differences and similarities and the abstraction process was continued until themes could be extracted. The trustworthiness of the results was tested using Lincoln and Guba's criteria¹². At the outset of the study, the researchers set aside all their prior knowledge of and personal opinions about nursing care and patient dignity to avoid any bias in obtaining an accurate description of the phenomenon under study. In addition, to increase the credibility and accuracy of the data, the researchers relied on a combination of sources: semi-structured interviews and field notes, immersion and prolonged engagement, member check, and peer check.

n the present study, 25 pre-hospital emergency care personnel members were interviewed. The demographics of the participants are shown in (Table 1). Analyses of the collected data yielded two main themes—paradox in decision-making and patients' ethics and values—with 8 categories. (Table 2) shows the themes and categories.

Table 1. Individual social characteristics of the participants

| Participants | Sex | Age (year) | Marital status | Educational level | Work experience (years) |
|--------------|-----|------------|----------------|--|-------------------------|
| P1 | Man | 31 | Married | Bachelor of nursing | 4 |
| P2 | Man | 27 | Married | master of nursing | 7 |
| Р3 | Man | 38 | Married | Bachelor's degree in medical emergency | 10 |
| P4 | Man | 27 | Married | Bachelor's degree in medical emergency | 4 |
| P5 | Man | 32 | Married | Bachelor's degree in medical emergency | 8 |
| P6 | Man | 38 | Single | master of nursing | 10 |
| P7 | Man | 33 | Married | Bachelor's degree in medical emergency | 7 |
| P8 | Man | 38 | Married | master of nursing | 9 |
| P9 | Man | 39 | Married | Bachelor's degree in medical emergency | 19 |
| P10 | Man | 48 | Married | Bachelor of nursing | 20 |
| P11 | Man | 32 | Married | Bachelor's degree in medical emergency | 5 |
| P12 | Man | 40 | Married | Bachelor's degree in medical emergency | 15 |
| P13 | Man | 28 | Single | Bachelor of nursing | 3 |
| P14 | Man | 24 | Married | Bachelor of nursing | 2 |
| P15 | Man | 28 | Single | Bachelor of nursing | 3 |
| P16 | Man | 37 | Single | Bachelor's degree in medical emergency | 12 |
| P17 | Man | 40 | Married | Bachelor's degree in medical emergency | 17 |
| P18 | Man | 30 | Married | Bachelor of nursing | 7 |
| P19 | Man | 25 | Married | master of nursing | 3 |
| P20 | Man | 39 | Single | master of nursing | 11 |
| P21 | Man | 33 | Married | Bachelor of nursing | 6 |
| P22 | Man | 27 | Single | Bachelor of nursing | 2 |
| P23 | Man | 29 | Single | master of nursing | 5 |
| P24 | Man | 42 | Married | Bachelor's degree in medical emergency | 18 |
| P25 | Man | 28 | Married | Bachelor's degree in medical emergency | 2 |

Materials and methods

| Table 2. Themes and categories extracted from content analysis category | theme |
|---|--------------------------------|
| Choosing between patients Complying with the guidelines Being committed to professional ethics Complying with the regulations | Paradox in decision- making |
| Respect for patients' physical privacy Respect for patients' sexual privacy Respect for patients' psychological privacy Respect for patients' religious beliefs | Patients' ethics and values |



The participants stated that they are sometimes faced with conditions in the field which challenge their ethical decision-making capacity and place them in ethical dilemmas about the right course of action. They have to cope with emotion paradox in their decision-making. The theme of paradox in decision-making consists of four categories: choosing between patients, complying with the guidelines, complying with the regulations, and being committed to professional ethics.

A. Choosing between patients

The interviewed emergency care personnel declared that, occasionally, at the scene of an accident, they have to choose between two patients both of whom are in need of immediate medical attention. Thus, one patient receives emergency care prior to the other one(s). Selecting one patient is very stressful and places the personnel in difficult ethical dilemmas as to what is the right choice.

"In pre-hospital emergency care here, there are often two of us and we try to get to the scene as soon as possible. Usually, at the scene of an accident, we get stressed over which patient should be given priority. We sometimes have to choose between patients in critical conditions and start by doing Cardiopulmonary resuscitation (CPR), or performing other procedures for one of them. We really don't know whether to give priority to kids or the elderly when they equally need attention. At the scene of accidents, deciding which patient should receive medical care first is a very challenging choice and the thought of whether our choice was right or not can haunt us for a long time" (Participant 4).

B. Complying with the guidelines

The participants stated that, occasionally, when the patients' conditions are critical, there are too many patients to attend to, or there is a lack of emergency care personnel at the scene of an accident, they cannot provide care systematically in accordance with established instructions and guidelines. The fact that they have to perform medical procedures more quickly and, inevitably, with less care places them in an ethical dilemma as to whether they should strictly comply with the guidelines or not.

"Sometimes, like on Farvardin 13th [Nature's Day] when many people go to the country, the rate of road accidents soars and there too many people with injuries to attended to when we arrive at a scene. Right, we do triage and those whose conditions are more serious receive treatment first; but, for example, if someone has an arm scratch or a torn tissue, I quickly rinse their cut with normal saline and then bandage it, but I don't know how correctly I've done my job. Or I'm not sure how accurately I do my CPRs; all I know is I try my best but I still can't help thinking that because I didn't stick to the guidelines, something bad may happen for the patient. Basically, we can't act according to the guidelines in critical conditions

and we feel doubtful about the correctness of what we do" (Participant 11).

C. Complying with the regulations

The interviewed personnel also mentioned that in many cases, the conditions are highly critical at the scene of accidents or the number of casualties is much more than the initial estimates. According to the law, they should triage the injured first and then intervene. And if they are uncertain about the triage results, they must contact the doctor at the central pre-hospital emergency care department. However, in critical conditions, contacting the doctor can result in loss of precious time for saving the injured. Thus, the personnel have to choose between professional regulations and ethics.

"I was on the night shift on Farvardin 13th (April 2th) that is Nature's Day of Iran. At night, we were sent to the scene of an accident. They told us 4 people had been injured. When we got to the scene, we found 13 had been injured. It seemed that after the first accident and before our arrival, some other accidents had happened. There were 2 of us and 13 people with injuries. 6 of the injured needed attention more, 3 of whom were in critical conditions. This was what we gathered at first sight. We didn't have time for accurate triage or contacting our doctor. The rest of those who were injured and other people gathered around us and kept telling us to do something fast. If we'd spent time to contact the doctor, we might have lost the golden hour to save those people. In the end, from all those people with injuries and those three whose conditions were critical, we selected two and started the procedures for them. All the time, we were worried that the third patient's condition might be worse than we thought and our diagnosis was not right. We were also worried that we might end up in legal trouble for not calling the doctor. A doctor must be present at every center at such times, but that's not how things are and we are in touch only by phone or radio. Our dilemma is whether what we're doing is right or not, is it legal or not" (Participant 8).

D. Being committed to professional ethics

The participants stated that they sometimes confront patients who have the symptoms of a dangerous infectious disease, e.g. Ebola, COVID-19, and H1N1. Since they do not have the necessary equipment to provide care to such patients, they are faced with the ethical dilemma of whether to conform to the ethical principles of their profession and provide care as best as they can or worry about their own safety.

"I have sometimes gone to the homes of sick people, especially the elderly, who seemed to have contracted an infectious disease, like Ebola, the flu, or COVID-19, without any personal protection equipment and tried to attend to them wearing a simple mask. At such times, I am really frightened and find myself in a dilemma. On the one hand, I have my conscience and professional ethics

to consider and on the other, my own health. Despite my fear, I give first aid as quickly and systematically as I can and transfer them to the nearest medical center" (Participant 23).

II. Patients' ethics and values

In the present study, the interviewed personnel remarked that though maintaining respect for the physical-sexual privacy, values, and religious identity of patients at the scene of accidents is very hard, it is essential. The theme of patients' ethics and values comprises of four categories: respect for patients' physical privacy, respect for patients' sexual privacy, respect for patients' psychological privacy, and respect for patients' religious beliefs.

A. Respect for patients' physical privacy

One of the most important subcategories extracted from the data is showing respect for patients' physical privacy. Due to physical disorders or diminished consciousness, patients in need of emergency care need to have their physical privacy maintained by medical staff. Furthermore, in the Iranian culture, maintaining individuals' physical privacy, including keeping patients' bodies covered in the presence of caregivers, especially when they are of the opposite sex, is very important.

"Sometimes, we come across young women with chest pain who must have cardiac monitoring immediately. For the patients, and even for us who are Iranian, it is awkward and unethical to have their bodies exposed. It is true that we are in a special situation, but the patients feel very uncomfortable. So if there is a woman around, we teach her how to attach the chest leads on the patient's chest, and if there aren't any, we try to explain to the patient what the situation is and why we have to perform cardiac monitoring and then quickly attach the chest leads. Still, the patients feel extremely upset and uncomfortable" (Participant 17).

B. Respect for patients' sexual privacy

The participants also stated that showing respect for patients' sexual privacy is very important to patients and their families in the Islamic culture of Iran.

"Once, at the scene of an accident, we confronted a pregnant woman whose water had broken and was in labor. We did a quick venipuncture and put her on a drip. But in the ambulance, her condition became more critical and her baby started to come out. We had to help her deliver the baby. I hadn't been trained for a situation like that and had to stay on the phone with a doctor to help the patient deliver. But taking the special position for giving birth was hard for not only the patient, but me and her companion. After all, we're Muslim and according to our ethical principles, at a time like that, a woman should care for the patient. But we don't have any females on the emergency care staff" (Participant 21).

C. Respect for patients' psychological privacy

Another important category extracted in the present study is showing respect for the psychological privacy of the injured and their companions. According to the participants, sometimes, in a critical situation, the selfish behavior of some of the injured, their failure to understand the critical conditions of the others, and thinking that they should be given priority disturb the pre-hospital emergency care personnel. This may cause the personnel to treat the patients and their companions harshly and disrespect their psychological privacy, a major ethical challenge as perceived by pre-hospital emergency care personnel.

"When I arrived at the scene, there were a few people with injuries. I triaged them quickly and started to perform interventions But some of the injured or their families started to act selfishly and expected me to give them priority. For example, someone came up to me and said his child's hand was bleeding and was painful. Well, I had seen that, but he didn't have priority over the others. Just the same, out of respect for the psychological privacy of the child and his family and to calm them, I put a bandage on his hand and taped it fast. Another patient was bleeding severely and his blood pressure was dropping and I was attending to him. That child's family started to insult me and tell me to attend to their child.... I understood that they were worried and the child was crying non-stop and was impatient ... I tried to keep my cool and explain the situation to them calmly, but they began to insult me again. I got really upset and shouted, "Can't you see how this guy is bleeding? His condition is getting worse. Have some patience! Understand the situation!" Well, we may sometimes overreact to the behaviors of the injured or their companions and say things which undermine their spirits and dignity, and this is a very common ethical dilemma and distressing issue that the personnel experience in the filed" (Participant 8).

D. Respect for patients' religious beliefs

One of the ethical principles in pre-hospital emergency care is showing respect for patients' religious beliefs and values toward guaranteeing justice in the provision of care. The participants mentioned that some patients and their families have special religious/spiritual beliefs and values which they believe help them endure hardships in a critical situation. However, the performance of certain spiritual rites in a medical emergency situation can increase the risk of infection and interfere with the personnel's work. Professional ethics demand that the personnel should respect the patients' beliefs and values as long as they do not pose a threat to the patients' safety.

"Once, we were transferring an 8-year-old child who had fallen into a big pot of hot milk to the burns center. She had severe burns on nearly 70% of her body. I was worried her wounds would become infected. Suddenly, I saw her mom unfasten her necklace which had a pendant with the name of Allah on it and went on to put it around

her daughter's neck. I said, "What are you doing?" and she said she wanted her daughter to wear the necklace so Allah would save her. I got angry but then I thought to myself, "She believes that this will help her child." I took the necklace from her and put it in a bandage and hung it from her bed cover. I told her that Allah would still protect her child. I've learned how to respect the beliefs of patients and their families as best as possible while I make sure that no harm comes to the patients" ((Participant 12).

n the field, emergency care personnel are faced with a variety of clinical challenges, some of which place them in ethical dilemmas and affect the quality of care. Providing high-quality care combined with respect for the principles of professional ethics at the scene of accidents is an important ethical and professional responsibility of pre-hospital emergency care personnel. The findings of the present study can help determine prehospital emergency care personnel's perception of the ethical dilemmas which they face in the field. Two main themes were extracted from the collected data: paradox in decision-making and patients' ethics and values. Many national and international nursing organizations regard ethical care to be at the core of healthcare¹³. Accordingly, systematic and ethical performance is one of the most important responsibilities of caregivers, including pre-hospital emergency care personnel, in healthcare systems 14. All pre-hospital emergency care personnel are expected to comply with the professional regulations and provide care in accordance with the guidelines^{15,16}.

In the present study, it was revealed that at the scene of accidents, emergency care personnel often experience uncertainty (paradox) in their decision-making. This theme consists of four categories: choosing between patients, complying with the guidelines, complying with the regulations, and being committed to professional ethics. Similarly, recent studies report that pre-hospital emergency care personnel are unsure about their decisions, including how to triage the injured, and face ethical dilemmas, which is the result of the critical conditions of the injured, lack of workforce, and the large number of injured individuals who need immediate medical attention at the scene of accidents¹⁷⁻²⁰.

At the scene of accidents, emergency care personnel must perform the necessary medical procedures as well as they can and as fast as possible to save the injured. However, due to the pressing nature of emergency situations, systematic performance in accordance with the guidelines, especially during CPR, intubation, etc., may not be possible and the personnel cannot execute the procedures step by step as prescribed by the guidelines. At such times, the personnel become agitated and experience ethical distress, which is a major ethical dilemma in providing care

to the injured in pre-hospital emergency care. Likewise, other studies show that the critical conditions at the scene of accidents, especially when the number of the injured is high, subject the emergency care personnel to great ethical distress and tension which can adversely affect their adherence to the prescribed guidelines^{21,22}.

Complying with regulations was another important category under the theme of paradox in decision-making referred to by the participants. In pre-hospital emergency care in Iran, there are usually two staff members at each dispatch center who must arrive at the scene of accidents as soon as possible, be in touch with the doctor at the central department online, describe the conditions of the injured, and start their interventions after triage. However, the conditions in the field are sometimes so critical that if they try to contact the doctor, they lose the golden hour to provide care. Though the personnel try to contact the doctor at the central department at the first chance, they often have to take action on the spot, which places them in the ethical dilemma of whether to comply with the regulations or professional ethics. Similarly, according to Torabizadeh et al., at the scene of accidents, emergency care personnel sometimes experience indecision about whether to act according to the regulations or act ethically²³.

The participants also stated that, due to lack of equipment, they worry for their own safety in the face of dangerous epidemics; however, despite their uncertainty about providing care to the infected and their ethical dilemma, they usually stay committed to professional ethics. These caregivers are the main source of support for the injured. Similarly, other studies point out that the healthcare personnel, including the pre-hospital emergency care personnel, overcome their uncertainty and follow professional ethics when confronted with dangerously infected patients²⁴.

The other main theme extracted in the present study was respect for patients' ethics and values. All over the world, healthcare personnel must respect patients' ethical values and principles which are rooted in their cultural, national, religious, ethnic, or age-related beliefs and provide care without bias²⁵. The theme of patients' ethics and values comprises of the categories of respect for patients' physical privacy, respect for patients' sexual privacy, and respect for patients' religious beliefs. One of the main responsibilities of medical personnel is to maintain patient privacy and patient dignity²⁶. Thus, while providing care, all caregivers are expected to show respect for the privacy of their patients and treat them with dignity. In the present study, one of the major ethical dilemmas, as perceived by prehospital emergency care personnel, is maintaining respect for the physical, sexual, and psychological privacy of the injured. A few other studies report similar results: showing respect for the physical, sexual, and psychological privacy of patients, including sick and injured individuals who are attended to by pre-hospital emergency care personnel in the field, is a major ethical dilemma in providing care to this group^{27,28}.

In addition, in line with their strong Islamic beliefs and values, Iranians believe that the genitalia and breast of individuals, especially women, must be covered and that men and women who are not related to each other must not have any visual or physical contact. Thus, toward maintaining the privacy of patients and the injured, even in pre-hospital emergency care, care should be provided by a caregiver of the same gender as the patient. However, in Iran, according to the law, women cannot work in pre-hospital emergency care centers; women are not even allowed to take the M.A. entrance exam for emergency care. The findings of the present study stress the need for revising the educational and professional programs in Iran.

The participants also emphasized the importance of respecting the psychological privacy of the injured at the scene of accidents where the injured and their companions are worried and may behave aggressively toward the emergency care personnel. At such times, the personnel should understand the situation of the injured and their companions, stay calm, help the injured relax, and manage the conditions at the scene of the accident. Similarly, several other studies stress the role of maintaining the psychological privacy of patients in providing ethical care²⁹.

Another important ethical challenge referred to by the interviewed pre-hospital emergency care personnel in the present study is showing respect for the religious beliefs and values of the injured and their companions at the scene of accidents and while they are being transferred to a medical center. Occasionally, those beliefs and values interfere with the principles of care and infection control. However, many studies stress the need for showing respect for patients' beliefs and values when they are receiving care^{30,31}.

In conclusion, the ethical dilemmas in caring for individuals with injuries at the scene of accidents are among the most important issues which pre-hospital emergency care personnel are faced with. Accordingly, educational and medical administrators and policy-makers need to become familiar with the critical conditions, unpredictable working environment, and ethical dilemmas which emergency care personnel have to deal with in the field and make the necessary changes in the emergency care curriculum and the working conditions of the personnel in the field, e.g. acceptance of females in the field of emergency care in universities and allowing them to work at pre-hospital emergency care centers

he unpredictable and critical working conditions and environment of pre-hospital emergency care personnel place them in various ethical and clinical caring challenges, hence the need for identification of these ethical challenges. According to the findings of the present study, paradox in decision-making and respect for patients' ethics and values are the most prominent ethical dilemmas which pre-hospital emergency care personnel are faced with in the field. It appears that elimination of many of the ethical challenges involved in caring for the injured at the scene of accidents by creating the right cultural, professional, and organizational context can contribute to the peace of mind and better performance of the personnel. Therefore, healthcare authorities and policy-makers can use the findings of the present study to create a supportive environment free of ethical distress to make it possible for caregivers to provide high-quality care under different circumstances.

Ethical Considerations

The institutional review board of the medical universities located in the Southeast of Iran provided ethical approval (IR.FUMS.REC.1399.027). At the beginning of each interview, the researcher introduced herself, described the aims of the study, and obtained the informed consent of the participants. The participants were assured that all information would remain confidential. The researcher informed the participants that they were free to withdraw at any stage of the study and assured them that refusal to participate or withdrawal would not have any consequences for them

Limitations

One of the limitations of the present study is that data were collected through individual interviews and field notes only. Employment of other methods of data collection could have added to the richness of the results of this work of qualitative research. Accordingly, it is suggested that future studies employ other ways of collecting qualitative data, including observation and focus group interviews, in addition to individual interviews.

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Conflict of interest

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References

- 1. Blanchard IE, Doig CJ, Hagel BE, et al. Emergency medical services response time and mortality in an urban setting. Prehospital Emergency Care. 2012; 16: 142-51.
- Reay G, Norris JM, Hayden KA, et al. Transition in care from paramedics to emergency department nurses: a systematic review protocol. Systematic reviews. 2017; 6: 260.
- 3. Bremer A, Herrera MJ, Axelsson C, Martí DB, Sandman L and Casali GL. Ethical values in emergency medical services: a pilot study. Nursing ethics. 2015; 22: 928-42.
- 4. Brown JF. Ethics, emergency medical services, and patient rights: system and patient considerations. Advanced Emergency Nursing Journal. 1999; 21: 49-57.
- French E and Casali GL. Ethics in emergency medical services—Who cares? An exploratory analysis from Australia. 2008.
- Becker TK, Gausche-Hill M, Aswegan AL, et al. Ethical challenges in Emergency Medical Services: controversies and recommendations. Prehospital and disaster medicine. 2013; 28: 488-97.
- 7. Erbay H, Alan S and Kadioglu S. Attitudes of prehospital emergency care professionals toward refusal of treatment: A regional survey in Turkey. Nursing ethics. 2014; 21: 530-9.
- 8. Bijani M, Tehranineshat B and Torabizadeh C. Nurses', nursing students', and nursing instructors' perceptions of professional values: a comparative study. Nursing ethics. 2019; 26: 870-83.
- 9. Elo S and Kyngäs H. The qualitative content analysis process. Journal of advanced nursing. 2008; 62: 107-15.
- Speziale HS, Streubert HJ and Carpenter DR. Qualitative research in nursing: Advancing the humanistic imperative. Lippincott Williams & Wilkins, 2011.
- 11. Mohammadi F and Oshvandi K. Male nursing students' perception of dignity in neonatal intensive care units. Nursing Ethics. 2020; 27: 381-9.
- 12. Guba EG and Lincoln YS. Competing paradigms in qualitative research. Handbook of qualitative research. 1994; 2: 105.
- 13. Zahedi F, Sanjari M, Aala M, et al. The code of ethics for

- nurses. Iranian journal of public health. 2013; 42: 1.
- 14. Sizoo EM, Taphoorn MJ, Uitdehaag B, et al. The end-of-life phase of high-grade glioma patients: dying with dignity? The oncologist. 2013; 18: 198.
- 15. Ebrahimi H, Nikravesh M, Oskouie F and Ahmadi F. Stress: Major reaction of nurses to the context of ethical decision making. Razi Journal of Medical Sciences. 2007; 14: 7-15.
- 16. Ebrahimi H, Nikravesh M, Oskouie F and Ahmadi F. Ethical behavior of nurses in decision-making in Iran. Iranian journal of nursing and midwifery research. 2015; 20: 147.
- 17. Ebrahimian A, Khalesi N, Tourdeh M and Dargahi H. Attention and related factors in Tehran night shift prehospital emergency personnel. Health in Emergencies & Disasters Quarterly.2015;1(1):15-22 (Persian).
- 18. Kirsch NR. Ethical decision making: application of a problem-solving model. Topics in Geriatric Rehabilitation. 2009; 25: 282-91.
- 19. Siebens K, De Casterlé BD, Abraham I, et al. The professional self-image of nurses in Belgian hospitals: A cross-sectional questionnaire survey. International Journal of Nursing Studies. 2006; 43: 71-82.
- 20. Svensson A and Fridlund B. Experiences of and actions towards worries among ambulance nurses in their professional life: a critical incident study. International Emergency Nursing. 2008; 16: 35-42.
- 21. Ebrahimian A, Seyedin H, Jamshidi-Orak R and Masoumi G. Exploring factors affecting emergency medical services staffs' decision about transporting medical patients to medical facilities. Emergency medicine international. 2014; 2014.
- 22. Gunnarsson B-M and Stomberg MW. Factors influencing decision making among ambulance nurses in emergency care situations. International emergency nursing. 2009; 17: 83-9.
- 23. Torabi M, Borhani F, Abbaszadeh A and Atashzadeh-Shoorideh F. Barriers to ethical decision-making for pre-hospital care professionals. Nursing Ethics. 2020; 27: 407-18.
- 24. Torabi M, Borhani F, Abbaszadeh A and Atashzadeh-Shoorideh F. Experiences of pre-hospital emergency medical personnel in ethical decision-making: a qualitative study. BMC medical ethics. 2018; 19: 95.
- 25. Faulkner J and Laschinger H. The effects of structural and psychological empowerment on perceived respect in acute care nurses. Journal of nursing management. 2008; 16: 214-21.
- 26. Sautier LP, Vehling S and Mehnert A. Assessment of patients' dignity in cancer care: preliminary psychometrics of the German version of the Patient Dignity Inventory (PDI-G). Journal of pain and symptom management. 2014; 47:

- 27. Mohammadi F, Rakhshan M, Molazem Z, Zareh N and Gillespie M. Caregivers' perception of dignity in teenagers with autism spectrum disorder. Nursing ethics. 2019; 26: 2035-46.
- 28. Mohammadi F, Tabatabaei Hs, Mozafari F and Gillespie M. Caregivers' perception of women's dignity in the delivery room: A qualitative study. Nursing ethics. 2020; 27: 116-26.
- 29. Matiti MR and Trorey GM. Patients' expectations of the maintenance of their dignity. Journal of clinical nursing. 2008; 17: 2709-17.
- 30. Baillie L, Ford P, Gallagher A and Wainwright P. Nurses' views on dignity in care. Nursing older people. 2009; 21.
- 31. Kang K, Im J, Kim H, Kim S, Song M and Sim S. The effect of logotherapy on the suffering, finding meaning, and spiritual well-being of adolescents with terminal cancer. Journal ofCurrent Directions in Psychological Science. 2009; 312.