Original Article

Factors behind Moral Distress among Iranian Emergency Medical Services Staff: A Qualitative Study into their Experiences

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Abstract

Background: The unique characteristics of each emergency situation and the necessity to make prompt decisions cause emergency medical services (EMS) staff's ethical conflicts and moral distress. **Objectives:** This study aimed to explore EMS staff's experiences of the factors behind their moral distress. **Methods:** This qualitative study was conducted on 14 EMS staff using the conventional content analysis. Data were collected through unstructured and semi-structured interviews. Each interview was started using general questions about moral issues at workplace and barriers to professional practice. The five-step content analysis approach proposed by Graneheim and Lundman was used for data analysis. **Results:** The factors behind EMS staff's moral distress were categorized into 13 subcategories and 5 main categories. The main categories were staff's lack of knowledge and competence, inability to adhere to EMS protocols, restraints on care provision, ineffective interprofessional communications, and conflicts in value systems. The subcategories were, respectively, inadequate knowledge and experience, working with incompetent colleagues, artificial services, working in unpredictable situations, lay people's interference in care provision, resource and equipment shortages, barriers to early arrival at the scene, obligatory obedience to the system, poor interprofessional interactions, inadequate interprofessional trust, refusal of care, challenges in obtaining consent, and challenges in telling the truth. **Conclusion:** EMS staff experience moral distress at work due to a wide range of factors. Given the negative effects of moral distress on EMS staff's physical and mental health and the quality of their care services, strategies are needed to prevent or reduce it through managing its contributing factors.

Keywords: *Content analysis, Emergency medical services, Moral distress, Prehospital*

Introduction

Emergency medical services (EMS) staff need to provide care in problematic, unsafe, and uncontrollable situations in various environments such as home settings, public places, and crime and accident scenes.[1] They also experience high levels of tension and confront ethical conflicts related to the refusal of treatments or transfer, taking informed consent, protecting privacy and confidentiality, and giving bad news.[2,3] Decision-making in such situations puts them at risk for moral distress.[4]

Moral distress is a negative experience in which the person knows the right action, but organizational limitations prevent him/her from taking it.[5] For decades, moral distress has been a major problem among different health-care providers, including nurses, pharmacists, social workers, physicians, and managers.[6-8] The intensity of moral distress varies in different settings.[9,10] The highest levels of moral distress

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were reported to be among nurses who needed to perform invasive procedures and provide care to patients who did not significantly benefit from treatments.[4] However, a study found low levels of moral distress among emergency nurses.[11]

The most important factors behind moral distress are heavy workload, staff shortage, organizational policies, budget constraint, invasive treatments,[12] stressful working atmosphere, colleagues' professional incompetence, care futility, unnecessary or invasive procedures for dying patients, unfair power distribution at workplace, and lack of organizational support.[10] Of course, these factors vary according to the profession, situation, and underlying problems. For instance, a study reported that the highest levels of moral distress were related to working with incompetent colleagues and fulfilling family members' requests for saving patients' lives.[11]

Despite the wealth of studies into moral distress in nursing, particularly critical care nursing, moral distress in prehospital settings has been inadequately addressed[6,13-15] and little information is available on its related factors and appropriate management among EMS staff. Thus, previous studies recommended further studies into moral distress among EMS staff.[11,16]

Objectives

This study aimed to explore EMS staff's experiences of the factors behind their moral distress.

Methods

This qualitative study was conducted in 2016–2017 using the qualitative content analysis approach.

Setting and participants

Participants were prehospital EMS staff who were conveniently and purposefully selected from several cities in Iran. Inclusion criteria were an associate degree or higher in medical emergency, anesthesia, operating room, or nursing, a work experience of 3 years or more as an EMS staff, and willingness to participate in the study. Iran is a large country in the Middle East with a population of around 80 million. EMS was established in Iran, as a free service, in 1975 by the Ministry of Health for emergency care provision, basic life support, and patient transfer to hospital settings.[17]

Data collection

Data were collected through in-depth unstructured and semi-structured interviews. Initially, several unstructured interviews were conducted, and then, an interview guide was developed and used to facilitate data collection through semi-structured interviews. Interviews were started using general questions about moral issues at workplace such as "Can you tell me about your experiences of the problems and issues associated with care provision?" "Have you ever faced any situation in which you wanted to do something but you could not for some reasons?" "What were the reasons?" "What was your reaction in such situations?" Then, probing questions (such as "Please explain more" and "Please provide some examples") were asked in order to collect more detailed data. Each interview lasted 40–75 min and was recorded using a voice recorder. Data collection was continued until reaching data saturation.

Data analysis and trustworthiness

The five-step content analysis approach proposed by Graneheim and Lundman was used for data analysis. Interviews were transcribed, and then, transcripts were read for several times to obtain a broad understanding about their content. Then, meaning units were identified and coded, and the generated codes were categorized, and the latent concepts and content of the data were extracted.[18]

Trustworthiness was applied to the study through Guba and Lincoln's four criteria, namely credibility, dependability, confirmability, and transferability.[19] These criteria were addressed through 1-year prolonged engagement in data collection and analysis, maximum variation sampling (respecting participants' university degrees, work experience, and workplace), member checking, and peer checking. For member checking, study findings were presented to two EMS staff who were not among study participants to compare with their own experiences. Moreover, for peer checking, the codes and categories were mainly generated by the first author and were reviewed by the study supervisors (coauthors) who were experienced qualitative researchers.

Ethical considerations

The Ethics Committee and the Institutional Review Board of the University of Social Welfare and Rehabilitation Sciences, Tehran, Iran, approved the study (ethical approval code: IR.USWR.REC.1396.210). Before interviews, participants were informed about the objectives and the methods of the study, voluntariness of participation, and confidentiality of data handling. All participants signed the informed consent form before interviews started.

Results

Study participants were 14 male EMS staff, namely 6 nurses with bachelor's degree and 8 medical emergency technicians with associate degree. They ranged in age from 26 to 45 years and had a work experience of 8.1 ± 4.6 [Table 1].

Table 1: Participants' personal characteristics

Number	Age (years)	Marital status	Degree	Work experience (years)
1	36	Married	EMT	7
2	34	Married	EMT	6
3	45	Married	Nurse	22
4	27	Single	EMT	5
5	36	Married	Nurse	7
6	26	Single	EMT	4
7	38	Married	Nurse	10
8	35	Married	Nurse	6
9	27	Single	EMT	5
10	27	Single	EMT	4
11	32	Married	EMT	8
12	36	Married	Nurse	9
13	33	Married	Nurse	8
14	36	Married	EMT	12

EMT: Emergency medical technician with associate degree

Participants' experiences of the factors behind moral distress were categorized into 13 subcategories and then into the 5 main categories of staff's lack of knowledge and competence, inability to adhere to EMS protocols, restraints on care provision, ineffective interprofessional communications, and conflicts in value systems.

Staff's lack of knowledge and competence

EMS staff have to provide safe services in accordance with professional standards and protocols. Therefore, they need to have great professional knowledge and competence; otherwise, they may be unable to provide quality care and hence may experience moral distress. The two subcategories of this main category were inadequate knowledge and expertise and working with incompetent colleagues.

Inadequate knowledge and experience

According to participants, staff's inadequate knowledge and experience may lead to ineffective and even unsafe care provision. Therefore, they may be at risk for moral distress due to their inability to adhere to the principle of nonmaleficence. A technician with 5 years of professional experience said: "*University trainings were not practical enough. We were not adequately trained to manage emergency situations. In an accident scene, I could not appropriately perform triage. Moreover, we had limited knowledge about medications. Such lack of knowledge can lead to tensions" (P. 4).* Another participant commented: *"... we had not received adequate trainings to use ambulance equipment and hence in the first years, we faced problems at the scene" (P. 5).*

Working with incompetent colleagues

Participants also noted that working with colleagues who were not competent enough in care provision was distressful. Particularly, they experienced moral distress when they could not prevent or had to ignore low-quality care or malpractice by an incompetent colleague. A nurse with 6 years of professional experience said: "*Some people entered this profession ... without having adequate competence. and hence, they sometimes made errors. However, we had to keep silent because the public might lose its trust in the system" (P. 8).* Another participant commented: *"Sometimes, I experienced distress because my colleagues prescribed medications that I knew were not safe or beneficial" (P. 2).*

Inability to adhere to emergency medical services protocols

Most participants noted that they sometimes have ineffective performance in stressful situations or in situations where patients' relatives or people at the scene put pressure on them. More seriously, some people interfere in care provision and thereby inflict harm on patients. In such situations, EMS staff may experience moral distress because the principle of nonmaleficence may be violated. This category consisted of the three subcategories of artificial services, working in unpredictable situations, and lay people's interference in care provision.

Artificial services

One of the distressing factors in prehospital settings is the necessity to provide artificial services in order to prevent harms to staff and equipment. Sometimes, EMS staff may decide to transfer a patient who has no serious problem due to their concern over patient's legal prosecution and its subsequent legal problems for them. One of the participants remembered a situation in which they demonstrated that they are resuscitating a deceased patient: *"… we resuscitated a deceased patient even though we knew that he had died a long time ago. We did so in order to control the situation. We also transferred that deceased patient to hospital to prevent others' blames" (P. 6).* Another participant commented: "*We had to transfer a patient who actually did not need hospitalization because his family members might prosecute a legal case against us" (P. 11).*

Working in unpredictable situations

According to participants, most emergency-related decisions are made in unpredictable situations, and hence, EMS staff sometimes have to perform futile interventions due to their placement in stressful environments. Such practice may cause them moral distress. Moreover, they may need to drive the ambulance more quickly, break traffic laws, and enter unsafe environments. A technician with 5 years of experience said: *"... if a patient is seriously-ill or needs cardiopulmonary resuscitation, we may decide to drive*

faster. However, if we encounter a significant problem in these situations, nobody will support us" (P. 9).

In addition, they may visit patients with serious mental or contagious diseases and hence put themselves at risk for serious health problems. These situations require prompt decisions which may eventually result in moral distress for them. One of the participants commented: "*While visiting psychiatric patients, we are always worried about being hurt because we usually have no information about patients, their conditions, and the emergency situation…" (P. 10).*

Lay people's interference in care provision

Participants highlighted that in case of accidents in public places, many people crowd around the victim(s), cause traffic congestion, delay ambulance arrival, and interfere in and disrupt care provision by making unreasonable requests. These situations may cause EMS staff some levels of moral distress. Two participants said: *"Unfortunately, a large number of people crowd around the victim, disrupt patient transfer, and thereby, worsen victim's conditions" (P. 8). "Sometimes the atmosphere of the scene prevents our staff from care provision there and forces them to immediately transfer the victim to hospital" (P. 4).*

Restraints on care provision

Different restrains can limit EMS staff's ability to provide quality care and hence cause them moral distress. The three subcategories of these restraints were resource and equipment shortages, barriers to early arrival at the scene, and obligatory obedience to the system.

Resource and equipment shortages

The shortage of EMS staff, stations, and equipment negatively affect care quality and thereby result in moral distress for EMS staff. Referring to the equipment shortages, a participant said: *"Equipment shortage forces us to just perform our patient transfer role. It is exhausting to work with outdated equipment. Sometimes, we have no option but to tell lie due to the shortage of equipment such as electrocardiogram or due to using defective equipment such as a worn stretcher" (P. 1).* Citing to the staff shortage, another participant commented: *"Given the shortage of EMS stations in the area, we have to perform numerous missions. Such heavy workload tires us and reduces the quality of our care services" (P. 3).*

Barriers to early arrival at the scene

Barriers to early arrival at the scene include traffic jams, speed bumps, long distance between EMS station and accident location, and inability to find the location due to unfamiliarity with the area, poor street naming, and wrong information from the dispatch center. Subsequent late arrival not only negatively affects care quality and outcome but also causes moral distress for EMS staff. Two participants commented: *"Some staff may be unfamiliar with addresses and hence, they may arrive late at the scene" (P. 7). "Sometimes, we arrive late at the scene due to the long distance or traffic jam and hence, experience considerable stress about how to justify our delay for the patient and his/her family members" (P. 11).*

Obligatory obedience to the system

EMS staff may be required by EMS authorities, EMS physician, dispatch staff, or organizational policies to provide unnecessary care services or make unnecessary patient transfers. Provision of such unnecessary services may eventually cause them moral distress.

Nonemergency transfers requested by some colleagues are upsetting. Someone may need emergency services when that we are involved in an unnecessary mission (P. 6).

We should consult the EMS physician even for minor patient problems. If the physician orders transfer or IV line establishment, we have no option but to follow the order even if we understand that the order is not reasonable; otherwise, we will be reprimanded at our arrival at the destination hospital (P. 12).

Ineffective interprofessional communications

In prehospital settings, EMS staff need to communicate with a wide variety of people. Lack of effective communication skills can disrupt the process of care provision and result in problems for patients and moral distress for staff. The two subcategories of ineffective interprofessional communications were poor interprofessional interactions and inadequate interprofessional trust.

Poor interprofessional interactions

In Iran, staff from different organizations, including emergency stations, firefighting stations, Iranian Red Crescent Organization, and police departments, attend emergency situations. Lack of strong interaction and close collaboration among them disrupts the process of care provision and negatively affects care quality. A participant with 10 years of experience said: *"Sometimes, police officers attend the scene with delay and hence, we cannot enter the scene because of security threats…For example, someone may be trapped in a car with a hole in the car fuel tank. But firefighters have not yet arrived at the scene and thus, we cannot do anything but to wait under pressure" (P. 7).*

Inadequate interprofessional trust

One of the limitations of prehospital care is lack of trust among staff, particularly among EMS physician,

dispatch nurse, and EMS staff. Such lack of trust can disrupt the process of care provision and cause some problems for patients and moral distress for EMS staff. Two examples of such distrusts are here:

Sometimes, physicians pay little attention, if any, to the patient history taken by EMS staff and also to their experience; instead, they make their own decisions based on their personally collected data. Thus, we sometimes hide some of our interventions from physicians due to their lack of trust in us or do not follow their unessential orders (P. 8).

Dispatch staff do not collect complete data and hence, most of the times, we are sent to nonemergency missions. Such practice has resulted in mistrust among us. There have been some cases of real emergency in which a patient had serious problems, while we attended the scene with delay due to our lack of trust in dispatch staff (P. 14).

Conflicts in value systems

Participants expressed that in stressful emergency situations, sometimes they need to implement interventions or make decisions which contradict their professional ethics or value systems. Such situations put them at risk for experiencing moral distress. The three subcategories of this category were refusal of care, challenges in obtaining consent, and challenges in telling the truth.

Refusal of care

Based on the moral principle of autonomy, patients have the right to choose the type of treatment. On the other hand, Islamic principles forbid humans from hurting themselves, and hence, EMS staff are responsible for saving patients' lives and preventing them from any damage to themselves. However, some patients or family members refuse some treatments or care services and thereby put themselves at risk for damage. Such conflict between the principles of patient autonomy and staff nonmaleficence causes EMS staff's moral distress. One of the participants remembered a situation in which a patient did not allow him to establish an IV line: *"... and then, he suffered a seizure attack during transfer to the ambulance" (P. 10).* Another participant remembered a situation, in which a pregnant woman needed help: *"The patient was a pregnant woman. When her husband saw me, a male staff, he didn't allow me to enter his home. Thus, we had to go to the hospital and take a midwife" (P. 1).*

Challenges in obtaining consent

When a patient has inadequate mental capacity for making right decisions or does not know his/her legal guardian, EMS staff may have difficulties in making the right decisions. Obtaining consent from these patients in emergency situations would be difficult for EMS staff and may cause them moral distress. One of the participants cited to a situation in which the members of a family asked the EMS staff not to resuscitate their patient and to let him die peacefully. He questioned the researcher: *"Who should provide the necessary consent in these situations? Who is patient's guardian? How can we determine him? If we fail to determine the guardian, some family members may prosecute a legal case against us" (P. 13).* Another participant said: *"There is no clear guideline for managing patients who live alone or have low income and are reluctant to be transferred to hospital. What if we don't take him/her to hospital and he/she develops a serious problem? These concerns stay with us for a long time" (P. 9).*

Challenges in telling the truth

Among the ethical principles are confidentiality and truth-telling, both of which can significantly affect emergency care provision. EMS staff need to maintain the confidentiality of patients' information and tell them the truth about their health conditions and treatments. However, they experience moral distress when family members ask them not to tell the truth about patients' conditions or when they cannot maintain the confidentiality of patients' information due to police officers' request for information. Some of the participants commented:

A patient had spinal cord injury following a road accident; but I couldn't tell him the truth (P. 4).

A patient had cancer and her family members asked us not to tell her about it (P. 11).

Sometimes, patients ask us not to tell their family members about their problems. Moreover, some patients with drug or alcohol abuse ask us not to tell the police anything about their abuse. For instance, a driver who had used alcohol made such request (P. 5).

Discussion

Findings revealed that a wide variety of personal, organizational, and sociocultural factors can cause moral distress for EMS staff. These factors included staff's lack of knowledge and competence, inability to adhere to EMS protocols, restraints on care provision, ineffective interprofessional communications, and conflicts in value systems. Although not in EMS staff, previous studies reported that direct communication problems, shortage of resources, violation of patient right for autonomy, problems in nurse–physician relationships, inability to prevent patient death,[20] stressful work environment, staff's lack of competence, organizational barriers to

care, and care futility[13,21] may result in moral distress for nurses. Another study noted that military nurses are at risk for moral distress due to their confrontation with high levels of stress in crises, direct contact with critically-ill patients, and involvement in the triage of war victims.[22] In addition, organizational factors, lack of competence, unfair resource distribution, communication- and transfer-related problems, and collaboration with the staff of other organizations have been reported as challenges in providing prehospital care.[23]

One of the main findings of this study was that EMS staff's lack of knowledge, competence, and experience can result in low-quality care provision and moral distress. Competence is a key factor behind care quality and effectiveness, patient safety, and patient outcomes.[24,25] In line with our finding, a former study on critical care nurses reported incompetence as a major reason for their moral distress.[13] Our findings highlighted low-quality university education and recruitment of nonmedical staff to the profession as factors contributing to EMS staff's lack of knowledge and competence. An earlier study also reported the same findings.[23] We also found that working with incompetent colleagues and witnessing their medical errors while having no option but to ignore them can also cause moral distress for EMS staff. Similarly, a study reported that health-care providers' limited competence is associated with the highest level of moral distress among nurses.[11] Accordingly, the academic curriculum of professions such as nursing, anesthesia, operating room, and emergency medicine needs to be broadened in order to improve knowledge and competence of the staff who are recruited as EMS staff from these professions.

The present study showed that inability to adhere to EMS protocols, stressful work environment, and other people's pressure on EMS staff can result in moral distress for the staff. Consistently, former studies reported unnecessary diagnostic tests, medical consultations, and cardiopulmonary resuscitations,[21] and futile care provision can result in moral distress for care providers.[26,27]

Our findings also indicated that because of their unpredictable work conditions, EMS staff may decide to quickly transfer a patient when there is a risk of violence or legal prosecution against them. Such transfer may be actually unnecessary and hence cause them moral distress. On the other hand, violence against EMS staff leads to physical and psychological damages to them and affects their care quality.[28] Such worries may negatively affect the quality of care in prehospital settings.

The findings of the present study showed lay people's interference in care provision as one of the factors affecting care quality and causing moral distress. Family members or people at the scene may take actions before ambulance arrival or may intervene in care provision by EMS staff. These actions may cause injuries to patients, negatively affect care quality,[23,29,30] and cause stress for EMS staff.[31] Therefore, public education about such negative effects may reduce lay people's interference in care provision and facilitate effective care provision by health-care professionals.

Restraints on care provision were another major factor behind moral distress for EMS staff. One of these restraints was the shortage of resources such as EMS staff, stations, and equipment. Such shortage requires EMS staff to go on more missions, increases their workload, and hence, reduces their care quality. Similarly, former studies found that resource shortage is a major barrier to effective care provision by nurses,[21] physicians,[32] and EMS staff[33] and thereby is a factor behind their moral distress. These findings denote that moral distress among EMS staff can be relieved through upgrading EMS equipment and alleviating staff and equipment shortage.

Another restraint on care provision which induced moral distress in EMS staff was barriers to early arrival at the scene. In line with our finding, an earlier study reported traffic jams, lack of access to ambulance passages, and inconsistent street naming as barriers to care provision to road accident victims.[29] These problems can be alleviated through modifying urban design, street naming, and driving culture.

Obligatory obedience to the system was the other restraint on care provision and a factor behind EMS staff's moral distress. Organizational rules and regulations had required our participants to obey the orders of their senior colleagues and EMS physicians. The obligation to consult EMS physician even for trivial things had given them a feeling of incompetence and caused them moral distress. Similarly, two earlier studies reported that mandatory patient transfer following an EMS physician's order and inefficient support system for EMS staff were stressful to them.[34,35] Such organizational limitations and staff's lack of authority to make independent decisions have also been reported to play significant roles in their moral distress.[13,21] Therefore, organizational rules and regulations need to be modified to enhance EMS staff's autonomy in decision-making.

The fourth main category of the present study was ineffective interprofessional communications. In

emergency situations, police officers are responsible for providing security, firefighters for extinguishing fire, and Red Crescent staff for releasing victims. Thus, any delay in their arrival at the scene can prevent EMS staff from timely care provision and thereby cause them moral distress. Similarly, an earlier study reported that any lack of effective collaboration among the staff of different professions is a major barrier to effective prehospital care provision. Thus, the World Health Organization recommends using a joint dispatch system for the closer coordination and collaboration among different organizations. Moreover, as police officers and firefighters may arrive at the scene earlier than EMS staff, resuscitation education to them can result in early resuscitation onset and thereby better treatment outcomes.[23]

Inadequate interprofessional trust was the other subcategory of the ineffective interprofessional communications. Findings revealed that inadequate trust between physicians and EMS staff causes physicians to order patient transfer without paying careful inattention to the information provided by EMS staff. This practice may require the EMS staff to either provide unrealistic information to physicians or avoid following some of their orders, both of which cause moral distress for EMS staff. Consistently, an earlier study reported that conflicts among different prehospital care staff can make them stressed.[1] Thus, enhancing intra- and interprofessional communications can reduce moral distress among health-care providers.[13]

Conflicts in value systems were the last category of the factors behind moral distress among EMS staff. Some patients may refuse transfer or treatments. Our participants had also faced challenges in obtaining informed consent in some emergency situations. Such problems cause EMS staff to experience moral distress due to the conflicts between the principle of patient autonomy and the principle of beneficence. In agreement with this finding, two earlier studies in Iran[1] and Turkey[36] identified refusal of transfer or treatment and difficulties in obtaining consent in emergency situations as sources of moral distress for EMS staff. In such situations, EMS staff may have fears over the legal consequences of their decisions because patients may prosecute a legal case against them.[37]

This study also showed that EMS staff face challenges in telling the truth to patients or their family members, and hence, they may suffer moral distress due to the conflicts between confidentiality maintenance and truth-telling. Some of the earlier studies have also cited to the inability to tell the truth as one of the factors contributing to moral distress among nurses[22] and EMS staff.[36]

This was the first qualitative study in its kind into the factors behind moral distress among EMS staff in Iran. Of course, the findings cannot broadly be transferred to different settings; however, they have numerous potential applications. Although we ensured participants of the confidentiality of their information, some participants did not consent for recording parts of their interviews. Consequently, we made notes of those parts.

Conclusion

This study indicates that a wide range of personal, organizational, and sociocultural factors can cause EMS staff different ethical conflicts in prehospital emergency situations, negatively affect care quality, and cause them some levels of moral distress. EMS managers and authorities can use the findings of the present study to develop strategies for managing the factors behind moral distress and thereby improve EMS care quality and reduce EMS staff's moral distress. These strategies may include, but are not limited to, public education about EMS staff's job specifications, in-service educational programs for promoting staff's competence, first aid training to other staff who attend emergency situations, effective resource management and allocation, upgrading EMS equipment, modification of EMS guidelines and organizational rules, and use of a joint dispatch system. Future studies are recommended to evaluate the effects of these strategies and also to develop culturally appropriate tools for moral distress assessment among EMS staff.

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Conflicts of interest

There are no conflicts of interest.

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