

Moral Distress in the Care of Anesthetized Patients: The Experience of Iranian Anesthesiologists

Soolmaz Moosavi¹, Atefeh Mokhtardokht², Alireza Parsapoor³,
Afshar Etemadi-Aleagha⁴, AmirAhmad Shojaei^{5*}

Abstract

Background: Although ethical practice is critical in anesthesiology, few practical measures have been presented to implement ethical clinical practice to this specialty.

Aim: This study was performed aimed to identify Iranian anesthesiologists' perceptions of moral distress in caring of anesthetized patients.

Method: This qualitative study was performed using conventional content analysis approach based on semi-structured interviews of 15 anesthesiologists which worked in the hospitals affiliated to Tehran University of Medical Sciences in 2019. The sampling method was purposive and the data were analyzed based on Granheim and Landmann method.

Results: Ethical distress perceived by anesthesiologists was classified into the following eight categories: (i) Ethical distress regarding informed consent and respect for patient autonomy, (ii) Ethical distress regarding the cancellation or postponement of patient's surgery, (iii) Ethical distress regarding the anesthesiologist's relationship with patients undergoing surgery, (iv) Ethical distress regarding surgical patients' companions, (v) Ethical distress regarding patients' privacy and confidentiality, (vi) Ethical distress regarding surgeon's colleagues and other OR colleagues, (vii) Ethical distress regarding end-of-life patients, and (ix) Ethical distress regarding fair distribution of resources and equipment.

Implications for Practice: The findings of the present study can provide a better understanding of situations that cause moral distress for anesthesiologists and can be used in policy making and preparing ethical codes and ethical guidelines for working in the operating room. Identifying ethical distresses of anesthesiologists in the hospital is the first step in conducting managerial interventions to improve the state of clinical ethics and organizational ethics in a care provider setting.

Keywords: Anesthesiologist, Confidentiality, Ethical distress, Informed consent, Privacy

-
1. PhD in Nursing, Medical-surgical Department, School of Nursing and Midwifery, Akhtar hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran
 2. Internal Medicine Residency, Department of Internal Medicine, School of Medicine, Tehran University of Medical Sciences, Tehran, Iran
 3. Assistant Professor of Medical Ethics, Medical Ethics and History of Medicine Research Center, Department of Medical Ethics, Faculty of Medicine, Tehran University of Medical Sciences, Tehran, Iran
 4. Associate Professor of Anesthesiology, Anesthesiology and Intensive Care Department, Amir Alam Hospital, Tehran University of Medical Sciences, Tehran, Iran
 5. Assistant Professor of Medical Ethics, Department of Medical Ethics, Faculty of Medicine, Medical Ethics and History of Medicine Research Center, Tehran University of Medical Sciences, Tehran, Iran

* Corresponding author, Email: a_shojaei@sina.tums.ac.ir

Introduction

Respecting the patients' rights and treating them with altruism has long been the concern of care providers and has been emphasized in old medical texts (1). It is very important to pay attention to human relationships when people are physically and mentally injured, and it is also effective in the recovery of patients (2). Therefore, the necessity of ethical issues in medical profession can be seen in different aspects (2). Anesthesia as a medical specialty started at the beginning of the 20th century, when physicians started administering vital actions during surgery and also simply induced anesthesia and woke up the patients at the end of the surgery (3). For a long time, anesthesia has been considered as a behind-the-scenes specialty (4) and currently it is one of the important branches in the field of medicine, which in addition to their extensive role in the management of patients in the operating room, it also plays an important role in code teams and pain clinics (5). The importance of proper communication with the patient before the surgery to obtain informed consent, the role of pre-operation evaluation by anesthesiologists in reducing the rate of cancellation of elective surgeries or surgical delays, the complex environment of the operating room, the continuous examination of the patient's needs and attention to safety standards can be the basis of ethical challenges and conflicts (5,6). But in Iran it seems that the patients and even some colleagues in the hospital are not aware of the extensive role of this specialty in the care of patients even among educated people and who live in urban areas (7).

Ethical concepts in the field of anesthesia like other fields are based on four principles. No maleficence: It means any harm to the patient. But sometimes, for example, the need to perform general anesthesia for a surgery can lead to cardiac arrest as a result of hypoxia, so achieving this principle is not an easy task. Autonomy: It means that the patient can make informed decisions about his care. The patient can accept or reject diagnostic or therapeutic interventions. Applying pressure is unethical even if it is not the best decision for the medical condition. Justice: It means that the provision of anesthesia services to all surgical patients should be fair. Physicians should evaluate the legal rights of the patients as well as possible conflicts with the law of that place. Beneficence: It is necessary for the care provider to do the best for the patient according to different situations. Therefore, to reach this principle, the care provider should update his scientific and practical ability (8). But it is not surprising to say that medical ethics has not paid enough attention to anesthesia (9) and ethical problems and distresses are experienced by health care providers for various reasons.

Jamton first introduced the concept of ethical distress in 1984 when under specific circumstances, individuals know right actions to do while they cannot implement them in practice for various reasons (10). According to previous studies, clinical situations as well as internal and external factors (e.g., providing futile interventions, insufficient clarity of roles, lack of care plan, and lack of awareness, incapability to work in a team, insufficient support and training) cause ethical distress (2, 11-13).

Important ethical distresses in the field of anesthesia can be classified in the fields of surgical care, pain clinics, intensive care units, end-of-life conditions, brain death and organ donation, operation management and interaction with surgeons and medical staff members present in the operating room (14). Lack of awareness of anesthesia, fear of the unknown, loss of control, not waking up, pain, nausea and vomiting after the surgery are the factors that cause anxiety for the patients before surgery. The role of the anesthesiologist in providing sufficient information to the patient varies from giving complete explanations to the patients regarding the duration of the patient's NPO in the pre-anesthesia stage to explaining the possible dangerous and fatal side effects which may occur during anesthesia of the patients (15). Since real-world experiences of anesthesiologists can establish valid criteria for understanding their ethical distress cases, this qualitative study was conducted aimed to identify anesthesiologists' perceptions of ethical distress in the hospitals affiliated to Tehran University of Medical Sciences.

Methods

This qualitative study was conducted using a conventional content analysis approach in five general hospitals affiliated to Tehran medical universities in 2019. After receiving the introduction letter from Tehran University of Medical Sciences and presenting it to the officials in target educational-medical centers, eligible candidates were selected to enter the study after receiving informed consent. The inclusion criteria was at least 6 months of work experience in clinical and care environments as an

anesthesiologist or resident. A total of 15 anesthesiologists were selected using purposive sampling. Data was collected using semi-structured interviews through open-ended questions. The place and time of the interviews were chosen by participants' consent and permission, and the interviews lasted for an average of 30 minutes. During the interviews, detailed questions regarding ethical distress cases were asked (e.g., "Have you ever been in a situation where you could not act the way you want to?"; "Can you explain in detail through examples?"). The audio recorder was used during the interview with the permission of the participants.

Data were analyzed using conventional content analysis proposed by Graneheim and Lundman (2004) (16). The audio interviews were transcribed, and then the transcripts were read several times. After immersing in data, the meaning units were identified and the initial codes were extracted, and then initial codes were categorized into subcategories, and finally categories were determined considering their relationships, similarities, and differences among subcategories (16).

For credibility of data, the researchers spent sufficient time for collecting, reading, understanding, and analyzing the data. After conducting the interviews and coding them, data were reviewed by the research team. Dependability of the results was evaluated by peer check of three experienced specialists, as external reviewers to review the interviews, codes, and extracted themes. Also, some interviews were returned to the participants for member check. For data transferability in the research's report, sufficient descriptive data were provided so that the readers could evaluate the application of data in other contexts (17).

In this research, all ethical considerations were observed. Before interviews, the interviewers explained the research objectives and methods to the participants and they were ensured that all collected data was kept confidential. Researchers obtained written informed consent. The interviewees could leave the study at any stage of the study without any adverse consequences, and the confidentiality of personal information, data, and evidences were promised.

Results

Descriptive results of the present study showed that the age range of anesthesiologists participating in the study was 35 to 65 years, and 50% of participants were female and 50% were male. Participants' work experience varied between five and 25 years (Table 1). Five anesthesiologists were working in Imam Khomeini Hospital, four in Amir Alam Hospital, three in Shariati Hospital, two in Pediatric Medical Center Hospital, and three in Sina Hospital. Based on the experiences of the participants, the categories were as follows: (i) Ethical distress regarding informed consent and respect for patient autonomy, (ii) Ethical distress regarding the cancellation or postponement of the patient's surgery, (iii) Ethical distress regarding the anesthesiologist's relationship with the patients undergoing surgery, (iv) Ethical distress regarding patients' companions, (v) Ethical distress regarding patients' privacy and confidentiality, (vi) Ethical distress regarding surgeon colleagues and other OR colleagues, (vii) Ethical distress regarding end-of-life patients, and (ix) Ethical distress regarding fair distribution of resources and equipment. Table 2 showed the categories,

Table 1. Demographic characteristics of the study participants

ID	Sex	Age	Academic Rank	Work experience (year)
1	Male	65	Professor	25
2	Male	53	Associate Professor	16
3	Male	54	Associate Professor	19
4	Male	48	Associate Professor	13
5	Male	50	Associate Professor	17
6	Male	35	Assistant Professor	5
7	Male	40	Assistant Professor	11
8	Male	46	Associate Professor	14
9	Female	42	Assistant Professor	10
10	Female	55	Associate Professor	15
11	Female	57	Associate Professor	15
12	Female	38	Assistant Professor	6
13	Female	48	Assistant Professor	14
14	Female	50	Assistant Professor	16
15	Female	56	Associate Professor	18

Table 2. Categories and subcategories based on the participants' experiences (n=15)

categories	subcategories
Ethical distress regarding informed consent and respect for patient autonomy	Challenges in emergency surgery Challenges in urgent and necessary surgery Challenges of patients under normal circumstances
Ethical distress regarding the cancellation or postponement of the patient's surgery	Problems due to patient error Problems caused by errors in hospital system Problems caused by the error of anesthesiologist or surgeon
Ethical distress regarding patients' privacy and confidentiality	Violation of patients' privacy due to hospital management Violation of privacy caused by medical staff
Ethical distress regarding end-of-life patients	Lack of clear rules Lack of palliative care centers
Ethical distress regarding the relationship between anesthesiologist and patients undergoing surgery	Visiting the patient for a surgical permission Including interview and examination Examination in OR Examination in the recovery room Answering patient's questions
Ethical distress regarding surgical patients' companions	confidentiality breaking bad news
Ethical distress regarding surgeon colleagues and other OR colleagues	Lack of teamwork imprudence
Ethical distress regarding fair distribution of resources and equipment	Problems with the supply of resources and equipment Problems in distributing resources and equipment

subcategories and selected quotes from the participants.

Ethical distress regarding informed consent and respect for patient autonomy

This ethical distress refers to how to provide explanations to patients and their companions in emergency and non-emergency situations as well as challenges in respecting patient autonomy when the patient's decisions contradicts the physician's opinion. Failure to provide adequate explanations about the patient's condition and the possible consequences of surgery may make patients be mentally unprepared to accept the complications of surgery, which can be distressing. According to the reports of participants, when obtaining informed consent from the patients, due to the legal consequences for anesthesiologists in some surgeries, they overstate surgery's risks more than scientific guidelines to make patients and companions take risks seriously.

"For a female patient, in absence of patient's husband, father or son, the anesthesiologist may hesitate to schedule the surgery with the consent of the patient's daughter, due to Iran's law. Resolving ethical side and legal consequences is challenging for anesthesiologist." (M.11)

"Sometimes, specific anesthesia methods are preferable for patients, but the patient does not accept and insists on another technique." (M. 7)

Ethical distress regarding the cancellation or postponement of the patient's surgery

According to the reports of participants, this ethical distress is one of the most distressing decisions for anesthesiologists. Cancellation or postponement of surgery may prolong patient's suffering from the underlying disease while creating challenges such as imposing financial costs on patients and their companions, work or study leave, accommodation for patients or companions.

"When a patient comes to the hospital on the morning of surgery and forgets to take medications for diabetes, thyroid or heart problems, so the surgery is cancelled." (M.8)

"Many patients come to hospitals from distant cities and their companions are temporarily settled around the hospital, so delaying surgery under such conditions becomes a difficult decision for

anesthesiologists to make." (M. 13)

Ethical distress regarding patients' privacy and confidentiality

Although all participants endorsed that ethical distress regarding respect for patient's privacy as patient's rights, lack of attention and adequate measures to this issue and insufficient monitoring were cited as challenges. Participants stated that no clearly defined framework for observing patient's privacy was developed, and compliance with such issues depends on moral commitment of physicians and Operation Room (OR) team.

"Unfortunately, some OR colleagues do not pay enough attention to patient's clothing coverage, and there is no monitoring of such cases."(M. 4)

Ethical distress regarding end-of-life patients

According to the reports of participants, this ethical distress arises from lack of clear rules for functioning in such conditions, as well as lack of end-of-life care and support centers. The participants stated that, according to the law, they are obliged to continue care and support for end-of-life patients regardless of effectiveness; however, allocating limited facilities and medical staff to such patients are not scientifically and clinically justified and may deprive other patients in need.

"Prolonging the death of patients with incurable disease and definite imminent death due to distress of complaints, religious issues and legal consequences impose suffering on patients and their companions" (M.7)

"Some patients may be in need of an ICU bed while it is dedicated to an end-of-life patient. The question is whether it is right to prolong the death of such patients using medications and devices, imposing high costs on healthcare system and the patients?" (M.11)

Ethical distress regarding the anesthesiologist's relationship with the patients undergoing surgery

This ethical distress refers to the problems and challenges due to the following factors: (i) how the anesthesiologist enters the treatment team and introduces to the patient, (ii) obscure nature of the anesthesia for patients due to the anesthesiologist's short-term relationship with the patient; and, (iii) large number of patients during clinic visits for anesthesia consultation, and short consultation visit. According to the reports of participants, low communication with patients is a significant challenge. Since patients as candidates for surgery are referred to the hospital for surgery by a surgeon or other physicians, they are not exposed longtime to anesthesiologists during this process. Often, patients consider the surgeon or the referring physician as their primary care doctor, and initial exposure of patients to anesthesiologists occur in OR. All aforementioned factors can affect how they interact and whether to achieve the expected outcome of the surgery.

"Low exposure to patients before the surgery is one of the main challenges in the field of anesthesia." (M.2)

"Surgery is a major and uncertain procedure for some patients, and many factors cause concerns for them: patients' unconsciousness during the surgery and impossibility of attending patients' bedside in OR due to the rules and conditions of OR"(M.2)

Ethical distress regarding surgical patients' companions

Based on the participants' experiences, ethical distress regarding the patient's companions pointed to the challenges of providing explanations to the patient's companions about the patient's condition as well as risks and complications of the forthcoming surgery. Since surgery is often a high-risk and uncertain procedure for patients' companions and they are not aware about their patient's status in OR, it doubles the companions' anxiety. Providing adequate information and timely explanations to the patient's companions mentally prepares them to accept possible surgery's consequences and prevents further distress. However, in Iran's current cultural context, adhering to the principle of confidentiality and talking to patients about their serious condition causes distress in anesthesiologists. Companions often consider such attitude as a sign of the doctors' lack of empathy, compassion and indifference to the patient's condition, and therefore may cause contradiction, conflict or enmity with the doctor. Moreover, due to the sensitive condition of some patients, empathy and compassion with patients' companions have a significant role in relationship with companions in the field of anesthesia.

"In a patient who has a high risk of death due to surgery, the necessary explanations should be provided to the patient or their companions? In Iranians' culture, companions consider direct explanation to the patient as doctors' lack of empathy and compassion, and they think direct explanation to the patient about conditions deteriorates the patients' mood and attitude. Therefore, initially, anesthesiologists are often forced to explain illness status and conditions to the patient's companions." (M.11)

"To tell the news of patients' deaths during the surgery to families and companions, no protocol is arranged so that it provides sufficient support and details on how to deliver news." (M.14)

Ethical distress regarding surgeon colleagues and other OR colleagues

This ethical distress refers to lack of teamwork skills as well clarity of roles and job descriptions in the field of anesthesia. Since anesthesiologists' activities, especially in OR environment, involve teamwork, functionality of an OR team member affects that of the anesthesiologist, and factors affecting the teamwork are as follows: patient's unpreparedness for surgery while the surgeon insists on surgery, demand for unusual provisions during surgery, and prolonging surgery due to surgeon's insufficient surgical skills. Also, the surgeon does not perform the necessary tests and consultations before referring the patient to the anesthesiologist and expects the anesthesiologist to approve the patient for surgery immediately.

In relationship with colleagues, some participants experienced distress with the surgical assistant colleagues especially in emergencies, when they insist on surgery despite the patient's unpreparedness. Postponing patient's surgery in such situations is a difficult decision for the anesthesiologist due to the concerns of companions and patients, financial problems and companions' accommodation. Moreover, the level of ethical distress regarding the surgeon's colleagues depends on their specialty; in some specialties, such as neurosurgery, the surgeon is under more stress, anesthesiologists experience more distress.

"Even if anesthesiologists disagree with the scientific indications for surgery, they are obliged to participate in the surgery, since it is legally the surgeon's responsibility to decide on performing surgery." (M.9)

"Sometimes, patients enter OR without completing diagnostic tests requested by the anesthesiologist, which creates challenges for anesthesiologist." (M.5)

Ethical distress regarding fair distribution of resources and equipment

This ethical distress refers to lack of high-quality resources and equipment, as well as their unfair distribution. From participants' perspective, the decision to prioritize patients for admission to ICU due to lack of established scientific protocols in this field is a distressing working condition, especially when patients are in a clinically similar situation, and anesthesiologists are pressured by peer recommendations and official influence. Other raised issues were the importance of equipment in this field as well as its imperative role in patient's management. Lack of palliative care for pain management of postoperative patients has challenged anesthesiologists and caused patients suffering.

"Some patients need to be admitted to the ICU after surgery, and if the ICU bed is unavailable, it is very difficult to decide." (M.13)

"The field of anesthesia is related to equipment both in terms of medications and technology, and absence or lack of these two affects the outcome of the anesthesiologist's activities." (M.4)

Discussion

Distress regarding informed consent and respect for patient autonomy refers to the challenges faced by anesthesiologists during emergency, urgent and necessary surgeries as well as normal circumstances. In patients who need emergency surgery, although anesthesia is challenging and distressing, due to necessity of saving patient's life, it is beneficial, advisable and desirable (18). For patients who are in need of immediate and necessary surgery, anesthesiologists face distress during, before, and after the surgery. Majority of such distress belong to preoperative period regarding patient's unpreparedness for surgery, increasing the risks of anesthesia and surgery. Such distress can be reduced through the following actions: (i) anesthesiologist and surgeon communication about the necessity and urgency of surgery, (ii) assessing the risk of anesthesia, (iii) the benefits of surgery, and

(iv) joint decision-making by the anesthesiologist and surgeon (4). An issue in obtaining informed consent from patients under normal circumstances is how to provide information to the patient before surgery. In cases when the patient is in a normal condition, the physician should provide sufficient information to patients or legal guardians to decide on surgery and inform the patient of anesthesia's dangers (18). Ethical issues are important in anesthesia before, during and after surgery (8). Obtaining informed consent before surgery and providing adequate explanations in the operating room has led to better results (4). Previous studies showed that patients are not satisfied with how informed consent is obtained in various stages and conditions of surgery, which can affect the relationship between patient and treatment team and cause further distress (19-21). The findings of Manzari et al.'s study also showed that giving sufficient information along with family support and spending enough time to speed up the process of informed consent is helpful even in patients who are candidates for organ donation (22,23).

Distress regarding the cancellation or postponement of the patient's surgery occurs due to inadvertent errors of the patient, physician or organization. Hospital error is usually caused by lack of facilities as well as system or personnel errors. Therefore, hospitals should compensate for such shortcomings while reporting deficiencies of equipment and services which caused this delay. Furthermore, hospitals should compensate the cost of the patient's surgery and subsequent care. Cancellation of surgery for any reason, in addition to creating ethical distress for anesthesiologists, damages the reputation of the organization and causes a waste of resources. The findings of Hovlid's research showed that the cancellation of the scheduled surgeries prolongs the patient's pain and suffering in addition to waiting time for patients as well as wastes limited resources of the healthcare system (24). However, a preoperative anesthesiologist's visit can significantly reduce cancellation of surgeries. Findings of the study by Mahouri et al. showed that preoperative evaluation in an anesthesia clinic can reduce cancellation of elective surgeries on the day of surgery. In this study, 83% of patients who had canceled surgeries did not visit or consult an anesthesia clinic before surgery (7).

Distress regarding maintaining privacy refers to the challenges due to invasion of privacy as one of the patient's rights that should be fulfilled by the physician. The American Society of Anesthesiologist's medical ethics committee in 2018 explicitly provided advice on patients' privacy issues in OR. Therefore, anesthesiologists must maintain the patient's physical and mental safety, comfort, and dignity, as well as protect the anesthetized patient from any disrespect or abuse by adequate supervision (25). Comply with these protocols, include appropriate and covering OR clothing and gender matching during treatment or diagnostic procedures for the patient and monitoring measures.

According to the reports of participants, distress regarding end-of-life patients is caused by lack of clear rules as well as lack of care and support centers. According to the study performed by Madani and colleagues, providing futile interventions create ethical distress for healthcare providers and leads to deprivation of other patients from effective medical services and loss of limited healthcare resources (26). Lack of clear rules and legal protocols for appropriate performance puts physicians in a moral dilemma. According to the study by Shojaei et al., hospitals should communicate their own ethical policy for terminating the treatment of end-of-life patients who are unconscious and incurable in order to avoid imposing unfair and irrational costs on healthcare system and on patients' family and provide the most effective services to the maximum number of patients (27).

According to the reports of participants, ethical distress regarding the anesthesiologist's relationship with the patient undergoing surgery can be in preoperative, intraoperative and postoperative stages due to the followings: (i) short-term relationship of anesthesiologists with patients, (ii) how the anesthesiologist enters the patient's treatment team, (iii) large number of patients referred to anesthesia clinics, and (iv) short-time visit of each patient for anesthesia consultation. The anesthesiologist enters to patients' treatment team by introduction of the patient's surgeon, making patients consider the surgeon as their primary physician. Moreover, the nature of OR and semi-conscious conditions of patients in recovery rooms does not allow anesthesiologists to communicate with patients. An issue in obtaining informed consent from patients under normal circumstances is on how to provide information to the patient before surgery. Anesthesiologist's relationship with patients undergoing surgery is often limited to the preoperative period during the anesthesia consultation where spent time depends on the number of referrals to clinics; such time is often limited due to large

number of referrals. Furthermore, special conditions of patients admitted to ICUs, including reduced level of consciousness is another factor limiting the anesthesiologist's relationship with patients. According to Bevan et al., in preoperative period, patients first consult with surgeons and then are referred to hospitals, and there is no contact with anesthesiologists until OR raises challenges in their relationship with patients (28). Therefore, admission of patients in anesthesia clinics can help establish a relationship with patients before the surgery.

Distress regarding surgical companions refers to the anesthesiologists' challenges in maintaining patient's privacy and how to deliver bad news to patients. According to the principle of confidentiality, when providing explanations to patients, the anesthesiologist has a duty to communicate necessary explanations about the patient's condition despite being difficult and unacceptable for patients. However, due to the cultural conditions of the patients' companions, they attribute such action to the doctor's lack of empathy and compassion, and they stand in conflict and enmity with the doctor. In the study performed by Sadeghi et al., family and companions of patients undergoing surgery wait for hours to receive news about their patients, and their needs are classified into three groups: mental needs (need for consolation and hope), information needs (need to receive information about the disease and the course of surgery, as well as the need for counseling and guidance), and physical needs (need for a suitable housing and amenities). Therefore, ethical distress in this category is reciprocal, and distress can be reduced by appropriate communication between the anesthesiologist and patient and providing sufficient information (29,30).

According to the reports of participants, distress regarding surgeon and OR colleagues challenges anesthesiologists due to lack of teamwork and medical error. These challenges occur especially when a patient in need of surgery is unprepared for surgery at the appointed time, and anesthesiologist's conflict with surgeons when making decisions for the patient results in ethical distress. According to El-Masry et al., distressing factors are lack of surgeons' attention to the anesthesiologists' opinion, lack of coordination between anesthesiologists and surgeons on surgical priorities and decisions about surgery's urgency (30). Moreover, Nasiripour and colleagues showed that disclosure of medical errors is an effective factor in preventing such errors in hospitals. Therefore awareness of existing tensions and creating a caring and managed system can reduce these errors by helping professionals in disclosing medical errors. Managers need to reduce errors by identifying the effective components in disclosing errors and employing appropriate disclosure system (31).

Distress regarding fair distribution of resources and equipment is resulted from problems related to the supply and distribution of high-quality resources and equipment. According to the reports of participants, a challenge occurs on the triage of candidate patients with similar conditions admitted to the ICU. Most participants stated that valuing patients based on social, cultural, occupational, and educational status is not ethically true; however, in practice, distress is caused due to the lack of facilities and equipment, complicating ethical decision-making and providing ethical performance.

One of the strengths of the present study was listening to the conversations of an important group of health care providers regarding ethical distress, which had received less attention from researchers in Iran and the other countries. Also, most of the studies focused on examining distress from the perspective of patients or other members of health care providers and specialties. In addition, in foreign studies, more investigations have been conducted in the field of end-of-life patients and ethical decision-making in these patients. Therefore, positive steps can be taken to improve the doctor-patient relationship by identifying the most important ethical distress.

One of the limitations of the present study was that the study was carried out at the same time as the covid-19 pandemic, which doubled the difficulty of access to anesthesiologists in normal conditions due to their presence in the operating room. Therefore, according to the desire of the participants, two interviews were held virtually to solve this limitation.

Implications for practice

The findings of the present study provide a better understanding of situations that cause moral distress for anesthesiologists and can be used in policy making and preparing ethical codes and guidelines for working in the operating room. Identifying ethical distress of anesthesiologists in the hospital is the first step to conduct managerial interventions in order to improve the state of clinical and organizational ethics in the care provider settings. Due to the nature of anesthesia and its use in OR, most ethical distress perceived by anesthesiologist was related to clinical situations in OR. So,

identifying ethical distress and its causes can show the importance of cares and consultations for decision makers and planners and improve the quality of patient care by making appropriate interventions.

Acknowledgments

This study was approved by the Ethics Committee of Tehran University of Medical Sciences with code (IR.TUMS.VCR.REC.1397.1017). The researchers would like to thank all the participating anesthesiologists.

Conflicts of interest

The authors declared no conflict of interest.

References

1. Riddick FA. The code of medical ethics of the American Medical Association. *Ochsner Journal*. 2003; 5(2): 6-10.
2. Epstein EG, Hamric AB. Moral distress, moral residue, and the crescendo effect. *Journal of Clinical Ethics*. 2009; 20(4): 330-42.
3. Najafi A, Kohan F, Sotoudeh G, Khajavi M, Barkhordari KH. Evaluation of patient's knowledge about anesthesia And responsibilities of anesthesiologist. *Journal of iranian society anaesthesiology and intensive care*. 2004; 25(45): 57-69.
4. Hariharan S. Ethical issues in anesthesia: the need for a more practical and contextual approach in teaching. *Journal of anesthesia*. 2009; 23(3): 409-12.
5. Bagabas AM, Aashi MM, Alamoudi AO, Alaidarous SA, Filemban SK, Bahaziq WK. Knowledge about anesthesia and the role of anesthesiologists among Jeddah citizens. *International Journal of Research in Medical Sciences*. 2017; 5(6): 2779-2783.
6. Mahoori AR, Heshmati F, Noorozi H, Sina S. The effect of anesthesia preoperative evaluation clinic on cancellation of elective surgery at operating day. *Iranian Journal of Anesthesiology and Critical Care*. 2008; 30(64-63): 60-66.
7. Salimi A, Monjazebi F, Jamaati H, Sharifi H, Rabanian H, Aminnejad R. The Public Awareness Regarding Anesthesia and the Role of Anesthesiologists In Iran. *Journal of iranian society anaesthesiology and intensive care*. 2018; 40(3): 2-15.
8. Freeman B, Berger J. *Anesthesiology Core Review*. McGraw-Hill Education; 2014.
9. Eckles RE, Gaffney EM, Helft PR. Medical ethics education: where are we? Where should we be going? A review. *Academic Medicine*. 2005; 80(12): 1143-52.
10. Jameton A. *Nursing practice: The ethical issues*. 1984.
11. Beikmoradi A, Rabiee S, Khatiban M, Cheraghi MA. Nurses distress in intensive care unit: a survey in teaching hospitals. *Iranian Journal of Medical Ethics and History of Medicine*. 2012; 5(2): 58-69.
12. Hamric AB, Borchers CT, Epstein EG. Development and testing of an instrument to measure ethical distress in healthcare professionals. *AJOB Primary Research*. 2012; 3(2): 1-9.
13. Wolf LA, Perhats C, Delao AM, Moon MD, Clark PR, Zavotsky KE. It's a burden you carry": describing ethical distress in emergency nursing. *Journal of Emergency Nursing*. 2016; 42(1): 37-46.
14. Van Norman GA, Jackson S, Rosenbaum SH, Palmer SK, editors. *Clinical ethics in anesthesiology: a case-based textbook*. Cambridge University Press; 2010.
15. Esmaeeli R, Nasiri E, Heydari J, Jafari H. Anaesthesiologists Attitude Towards Preoperative Patients Education Needs In 2005. *Journal of mazandaran university of medical sciences*. 2006; 16(53): 105-11.
16. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse education today*. 2004; 24(2): 105-12.
17. Guba EG, Lincoln YS. Epistemological and methodological bases of naturalistic inquiry. *ECTJ* 1982; 30(4): 233-52.
18. Larijani B, Jafarian A, Kazemian A, Sadrhoseini SM. *Physician and ethical considerations*. Tehran: BarayeFarda Publications. 2004:241.

19. Guillén-Perales J, Luna-Maldonado A, Fernández-Prada M, Guillén-Solvas JF, Bueno-Cavanillas A. Quality of Information in the Process of Informed Consent for Anaesthesia. *Cirugía Española (English Edition)*. 2013; 91(9): 595-601.
20. Ajmal M. A Study of the Quality of Informed Consent of Anesthesia for Cesarean Deliveries: What and Whatnot was Discussed with Parturients. *Journall of Anesthesia & Clinical Research*. 2014; 5(9): 1000438.
21. Meysami V, Ebrahimmia M, Isfeedvajani MS, Khalagi K. Quality of receiving patient's informed consent in the surgical wards of a military hospital in Tehran at 2016 and its improvement solutions. *Journal of Military Medicine*. 2017; 19(5): 513-22.
22. Manzari Z, Mohammadi E, Heydari A. Role of quality of care and treatment in facilitating decision making and consent to organ donation in brain dead family: a qualitative study. *Evidence Based Care Journal*. 2013; 3(3): 19-32.
23. Manzari ZS, Mohammadi E, Heidary A. Challenges in facing organ donation request of the family of brain-dead patients: a qualitative analysis. *Evidence Based Care Journal*. 2015; 4(4): 47-58.
24. Hovlid E, Bukve O, Haug K, Aslaksen AB, Von Plessen C. A new pathway for elective surgery to reduce cancellation rates. *BMC health services research*. 2012; 12(1): 1-9.
25. American Society of Anesthesia Ethics Committee. Guidelines for the ethical practice of anesthesiology. Approved by the ASA House of Delegates on October. 2003;15.
26. Madani M. Ethical considerations of futile care. *Iranian Journal of Medical Ethics and History of Medicine*. 2013; 6(2): 31-42.
27. Shojaei A. Hospital ethics policy for medical futility in unconscious patients. *Iranian Journal of Medical Ethics and History of Medicine*. 2016; 9(6): 70-8.
28. Bevan JC. Guidelines on the ethics of clinical research in anaesthesia. *Current Opinion in Anesthesiology*. 2005; 18(2): 189-94.
29. Sadeghi T, Dehghan NN, Abbaszadeh A. The needs of family members in waiting time when their patients undergo surgery: a qualitative study. *Journal of the Iranian Institute for Health Sciences Research*. 2015; 15(1): 41-51.
30. El-Masry R, Shams T, Al-Wadani H. Anesthesiologist—Surgeon conflicts at workplace: An exploratory single—Center study from Egypt. *Ibnosina Journal of Medicine and Biomedical Sciences*. 2013; 5(3): 148-51.
31. Nasiripour A, Raeissi P, Jafari M. The Role of Disclosure and Reporting in Medical Errors Prevention. *Journal of Safety Promotion and Injury Prevention*. 2014; 2(2): 48-73.