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Original Article

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Resolving Ethical Issues in the Field of Anaesthesia: A Mixed-Methods Study

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Abstract

Objective: Ethical problems related to the field of anaesthesia and reanimation are generally addressed within the scope of reanimation and intensive care medicine by overseeing the particular issues of medical ethics in the practice of anaesthesia. The existing literature shows that a very limited number of studies are found on this issue. This research aims to address this gap in the academic literature and to discuss ethical approaches to these problems.

Methods: A search was conducted to compile key themes of ethical problems. These were combined with similar themes in the limited existing literature. Next, a questionnaire consisting of 20 multiple choice and open-ended questions and two Likert scales were developed. The answers to the questionnaire were collected on-line after 2 months.

Results: The survey was conducted with 226 participants. 82.79% of the participants received ethics training only before graduation, and 95.40% stated that ethics training is required during their residency training. 67.80% of participants think that informed consent forms are sufficient in terms of content and readability, but 89.90% note that such forms are not read by patients. In the preoperative period, communication with patients, interaction with surgical teams, long working hours and high workload, problems in informing patients, lack of institutional support in malpractice cases, lack of authority, responsibility and rights of anaesthesiologists are the most important ethical and legal issues in the field.

Conclusion: There are complex ethical issues in the field of anaesthesiology that should be discussed with in the frame of deficiencies in training, ethical reasoning for patient autonomy, informed consent, paternalism and professional satisfaction to shed light on potential solutions.

Keywords: Medical ethics, clinical ethics, anaesthesiology

Introduction

Rationale: Ethical problems related to the field of anaesthesia and reanimation are generally addressed within the scope of reanimation and intensive care medicine. The development of life support units and intensive care services have enabled the mechanical prolongation of the human life. A longer life span brought new concepts into discussion. Euthanasia, instructions for not to resuscitate, assisted suicide, withdrawal or withholding treatment, and futile treatment are some of these concepts, which have been frequently discussed within the scope of intensive care and reanimation ethics. This led the way towards discussions of ethical issues related to anaesthesia applications, within the scope of anaesthesia and reanimation specialisation.

However, anaesthetic practice contains issues of medical ethics, since they initiate and manage a process where the patient is completely unconscious. Moreover, anaesthetists work in close cooperation with other specialties. A systematic screening in the relevant academic literature confirms that most of the research in the field is related to reanimation and intensive care ethics.

When the web pages of national and international specialist associations are examined, it is determined that ethical norms related to this specialty are prepared for intensive care and reanimation ethics rather than anaesthetic practices.

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Objectives: This research aims to determine what ethical problems exist in the field of anaesthesia to reveal the appropriate ethical approaches to these problems. The hypothesis of the research is the assumption that there are inadequately addressed ethical problems in the field of anaesthesia. In fact, it is confirmed that medical practitioners are typically aware of the existence of such problems. Furthermore, a thorough scan of the existing literature shows that a very limited number of studies are found on this issue. The main purpose of this descriptive research is to define the problems and develop solutions within the framework of ethical theories, instead of retesting the previously mentioned hypothesis.

Methods

To determine the ethical problems in the field of anaesthesia and the solutions for such problems, a search study was conducted. In this search study, opinions were collected from four field experts. These opinions were combined with those in the limited academic literature, and a questionnaire form consisting of 20 multiple choice and open-ended questions and two Likert scales were created.

Prior to the research, approval was received from the TOBB ETU Clinical Research Ethics Committee with the file number KAEK 118/033 on March 20, 2019 with the decision number 026.

Anaesthesiologists working in private, public or university hospitals and member of the Turkish Anaesthesiology and Reanimation Society from all genders and ages were included in the research. After receiving the Ethics Committee approval, the Turkish Anaesthesiology and Reanimation Society sent the questionnaires to its members via e-mail. The data were collected for 6 months through an on-line survey platform. During this period, members were sent three reminders (every 2 months). An online informed consent form was included at the entrance of the questionnaire, and the participants were able to access the questionnaire only after submitting the consent form. No personal information from the participants was collected.

Main Points

- Ethical problems related to the field of anaesthesia and reanimation are generally addressed within the scope of reanimation and intensive care medicine by overseeing the issues of medical ethics in the practice of anaesthesia.
- A thorough scan of the existing literature shows that a very limited number of studies are found on this issue. This research aims to address this gap in the academic literature.
- The results show that there are inadequately addressed ethical problems in the field of anaesthesia and confirm that anaesthesiologists are aware of the existence of such problems
- The results are discussed within the frame of deficiencies in residential training, ethical reasoning for patient autonomy, informed consent and paternalism and professional satisfaction to shed light on potential solutions.

Table 1. Demographic Data of the Participants

Gender	**Female** **Male**	**52.56% (n = 113)** **46.51% (n = 100)**
Institutions where participants work	University hospital	47.91% (n = 103)
	Public hospital	30.70% (n = 68)
	Private hospital	12.56% (n = 27)
	Other	8.84% (n = 19)
Professional experience	1-5 years	12.09% (n = 26)
	6-10 years	32.5% (n = 70)
	11-15 years	14.88% (n = 32)
	16-19 years	13.49% (n = 29)
	20 years and above	26.98% (n = 58)
Age	20-39	32.56% (n = 70)
	40-59	64.18% (n = 138)
	60-79	3.26% (n = 7)
Total		100% (n = 215)

The total number of members is 2,130, which constitutes the entire universe of the research. In this descriptive qualitative research, the aim was to reach 213 participants based on the knowledge that 10% of the universe constitutes the ideal sample size.

The obtained data revealed the main ethical problem areas in anaesthesia, their contents and the key themes related to solution/approach suggestions.

The ethical problems in the results have been resolved within the framework of the principles and teleological ethical theories, and a framework has been proposed for an ethical decision based on these analyses.

Results

Two hundred and twenty-six participants approved the consent form. The rate of completion of the survey is 72%. Demographic data of the participants are given in Table 1.

- Medical ethics education

When the participants were asked about their education in the field of medical ethics, it was stated that 82.79% (n = 178) of them received ethical education only before graduation, 10.70% (n = 23) during specialist training and 12.09% (n = 26) after specialisation. 9.77% (n = 21) participants stated that they have never received any ethical education.

Table 2. Perceptions of Participants About Ethical Values, Duties and Responsibilities of Anaesthesiologists

	Agree	Do not agree
In the relationship between the anaesthesiologist and the patient, the patient's well-being should always be at the forefront	87.93% (n = 0153)	10.34% (n = 18)
The anaesthesiologist should allow the patient to decide and respect the patient's decisions	88.51% (n = 154)	8.62% (n = 15)
Anaesthetist is responsible for the privacy and physical and psychological safety of the patient under anaesthesia	77.59% (n = 135)	21.26% (n = 37)
Anaesthesiologist is responsible for protecting the privacy of patients' information	77.01% (n = 134)	20.11% (n = 35)
Anaesthesiologist is responsible for the preservation of dignity of the patients in the pre- and periop periods	54.60% (n = 95)	35.06% (n = 61)
Anaesthesiologist should participate in the decision process in the preop period	95.40% (n = 166)	4.02% (n = 7)
The patient should be informed about the people who will be in the anaesthesia team and their degree of responsibility	77.01% (n = 134)	18.39% (n = 32)
The patient should be informed and consent should be obtained if the assistant physicians and technicians are included in the anaesthesia team	46.55% (n = 81)	45.40% (n = 79)
The anaesthesiologist should report this if she detects the inadequacy/incompatibility in the surgical team	86.21% (n = 150)	5.17% (n = 9)
Anaesthesiologist may refuse surgery, including emergency cases, when there is a logistical inadequacy in the institution where she works	79.89% (n = 139)	13.79% (n = 24)
Anaesthesiologist should be regularly tested for professional competence after specialist training	77.01% (n = 134)	15.52% (n = 27)
Anaesthesiologist has responsibility for patient care in the postop period	73.56% (n = 128)	21.84% (n = 38)
In experimental surgical procedures, a separate consent is required for anaesthesia	87.93% (n = 153)	5.17% (n = 9)

Furthermore, 95.40% (n = 205) stated that a preplanned and programmed ethics training is required during their specialty training (Table 2).

- Ethical problems in the field of anaesthesia

When participants were asked about the person responsible for obtaining the informed consent of the patients before the application of anaesthesia, 62.32% (n = 129) of them stated that those were obtained by the anaesthesiologist while 52.17% (n = 108) stated that it was done by the assistants. In addition, 11.11% (n = 23) of the participants stated that the consent for the anaesthesia was included in the consent for the surgical procedure; therefore, there was no need to get a separate consent for anaesthesiology. 8.70% (n = 18) of participants stated that the consent was obtained by the nurse, anaesthesia technician secretary or a general practitioner of the hospital.

67.80% (n = 139) of the participants stated that the consent forms used in their clinics for anaesthesia are sufficient and appropriate in terms of content and readability. However, 89.89% (n = 178) of the participants stated that the patients signed consent forms without reading. The shortcomings of informed consent forms in terms of readability and content and negative patient attitudes that effect reading the forms are given in Table 3.

The participants were asked about the source of the most common important ethical issues in the field of anaesthesia. Of the participants, 63.83% (n = 120) accused the long working hours and the exhausting workload, 60.73% (n = 116) held the lack of institutional support in malpractice cases responsible, 56.54% (n = 106) complained about the relationship between the anaesthesia team and the surgeons, 53.40% (n = 102) indicated not informing patents about the intended procedures in detail and 52.36% (n = 100) talked about the poor communication with the patients and their relatives in the preoperative period.

When asked what are the most important legal problems in the field of anaesthesia, 81.61% of the participants (n = 142) stated uncertainty about physicians' rights in patient complaints, 64.94% (n = 112) stated uncertainty about responsibility and liability in complications with anaesthesia, 63.22% (n = 110) noted the overtly long working hours, according to professional standards, 55.75% (n = 97) of participants referred to the deficiencies in the definition of the authority and responsibilities of anaesthesiologists and 39.08% (n = 68) indicated towards inadequate information being provided to patients and relatives.

The participants were also asked how the decision process works in a case, where more than one anaesthesia method

Table 3. Deficiencies in Terms of Readability and Content of Consent Forms and Negative Patient Attitudes That Affect Reading the Forms

Readability issues	Patients do not have enough time to read
	Include very long and incomprehensible expressions that are not suitable for the patient's education level
	Font size is very small and illegible
	Some patients are illiterate
	Consent texts are too long
	Too many medical terms
	Low print quality of the consent form
Problems with patient attitudes	Taking the consent form to sign, not to read
	Lack of reading habits of patients/low education levels
	Have the habit of signing without reading
	Patients think that the consent form content is already told to them
	Not understanding the significance of the consent form/indifference, disregard for the process
	Patients' prejudices that they will not understand, even if they read
	Considering that consent is not necessary because anaesthesia is mandatory for surgery
	The stress level of the patients makes them avoid reading long texts
Content issues	Insufficient information about the risks of the method to be applied
	Insufficient details about anaesthesia intervention or blocks to be performed
	Lack of specific information for the patient and the method to be applied
	Insufficient information on legal issues

Table 4. Patient Groups with Problematic Informed Consent Process

Emergency situations	51.72% (n = 90)
Migrant patients	41.95% (n = 73)
Paediatric and geriatric age groups	39.66% (n = 69)
Psychiatry patients	20.11% (n = 35)

can be applied. 35.75% of the participants said they would explain the methods to the patient and help them choose a suitable method, 30.43% of participants said they would report the method that will be least risky and most beneficial to the patients, while 26.57% of participants said that they would determine the method appropriate for their patients.

In another question, participants were asked whether the informed consent process taken before anaesthesia was functioning adequately and correctly and if not, what were the main problem areas. Only 9.77% (n = 17) of the participants stated that this process was sufficient and correct, whereas the remaining participants noted that there were difficulties in the process. They stated that the patient groups as mentioned in Table 4 had more issues with the consent processes compared with the other groups.

- Professional satisfaction and professionalism

The participants were asked what changes in their working conditions would enhance their professional satisfaction as anaesthesiologists. The most frequently mentioned (86.78%, n = 151) issue was wage increase. Other issues were a more supportive attitude towards academic and scientific studies (70.11%, n = 122), elimination of the problem of violence against physicians (63.79%, n = 111), decent working hours (52.87%, n = 92) and lowering working hours and duty calls for senior anaesthesiologists (43.68%, n = 76). Some other issues that are considered to be vital for increasing professional satisfaction are as follows:

1. Increasing the variety and quality of materials, devices and hardware,
2. Providing fair revenue instead of performance-based payment system,
3. Setting clear legal standards and securing anaesthesiologists legally,
4. Developing legal regulations regarding patient and employee safety,
5. Regulation of physician and patient rights, and
6. Encouraging surgeons and patients to be respectful towards anaesthesiologists

54.02% (n = 94) of respondents think that the legal and ethical regulations between anaesthesiologists and other stakeholders of the operation process (consultants, anaesthesiologists and surgeons, nurses, anaesthesia technicians) are insufficient. Only 14.94% (n = 26) of participants consider is the regulations to be sufficient, while 31.03% (n

= 54) of participants stated that they did not know about the legal regulations was.

Suggestions for solving legal and ethical problems are listed as follows:

1. Assistant personnel (nurses and anaesthesia technicians) should be trained on legal and ethical issues.
2. Legal problems encountered in the operating room and the rights and responsibilities of patients and employees should be added to the undergraduate curriculum.
3. Ethical and legal responsibilities should be added to the anaesthesia and surgery specialists training program.
4. Specialist and professional NGOs should organise training and information meetings.
5. These issues should be addressed in scientific congresses.

In addition, 95.40% (n = 166) of participants stated that a planned and programmed ethics education/training is required during anaesthesia specialisation training. The views regarding the issues that should be included in the content of such training are as follows:

1. The right and justification of the anaesthesiologist's rejection of the patient,
2. Powers and responsibilities of the anaesthesiologist in patient care,
3. Powers and responsibilities of anaesthesia assistants,
4. Responsibilities of anaesthesiologist in patient privacy,
5. Relationship between anaesthesiologist and surgeons,
6. Anaesthesiologist's responsibility to give a consultation,
7. Anaesthesiologist's position in clinical trials,
8. Responsibilities of the anaesthesiologist regarding the quality of service,
9. Financial connections and conflict of anaesthesiologists, and
10. Responsibilities of anaesthesiologists towards institutions and the society where they work.

Discussion

The foundation of medical ethics is the patient–physician (or patient–provider) relationship. However, because the patient–anaesthesiologist relationship is frequently established shortly before surgery or upon admission to the intensive care unit, it is often challenging to raise or consider ethical questions with patients when those relationships are so new. Moreover, as consultant physicians, we also share a relationship with our surgeons or interventionalist colleagues.

The results of this study represent the whole set of hospitals, university, public, private and other clinics in the health care system. Hence, it is plausible to think that a broad spectrum of ethical issues in the field of anaesthesia across various health care settings are reflected in this study. Besides, majority (87.85%) of the participants are practicing physicians for more than 5 years, which indicate that they could sufficiently experience the ethical issues in their field of expertise. Therefore, it would be plausible to say that the results of this study reflect the most prominent ethical problems to be addressed in anaesthesia.

- Education

Medical ethics education is a part of core undergraduate medical curricula. Every medical student receives training on medical ethics. However, the number and content of these courses differ widely among medical faculties. Since the number of qualified academicians in ethics is extremely limited, medical ethics classes are tutored by academicians from various backgrounds, such as public health, physiology or paediatrics, who often lack any formal training in medical ethics.[1] For this reason, the quality and quantity of ethics education, which 90.23% of participants have received, become questionable. The high percentage of (95.40%) participants' consensus for previously planned and programmed ethics training during anaesthesia residency is another indication of the lack of proper training during undergraduate training and the need for ethics courses during their residency training; such training of essential for the anaesthesiologists to have awareness of unique ethical issues of their field and gain knowledge about how to address the issues.

- Informed consent, patient autonomy and paternalism

Respect for autonomy of the patients is one of the four main ethical principles of the medical field. It acknowledges the right of patients to acquire information about their health issues and standard and alternative treatment options, to decide without undue coercion of others and to be able to act or be treated, in accordance with their decisions.[2] Informed consent entails the procedure through which these rights are respected. The results of this survey show that most of the anaesthesiologists have an understanding about their duty to obtain informed consent from patients before anaesthesia. However, they do not have a broad understanding about the ethical grounds for this duty. A proper informed consent procedure should be composed of the following main components:

1. Competence: the capacity to make decisions;
2. Disclosure: providing information and answering questions;
3. Understanding: checking if the patient could comprehend the disclosed information;
4. Voluntariness: making sure that no coercive factors are present and the patient is deciding voluntarily;
5. Consent: expression of consent by signing the informed consent document or verbally in particular cases.

The survey results show that anaesthesiologists degrade this five step procedure to one step: Signing the consent form. The results suggest that disclosure and understanding are

overlooked since these steps are covered by residents or auxiliary staff such as nurses or technicians. The consensus about poor readability of the informed consent forms and low rate of reading before signing indicates the negligence in proper disclosure and insurance of understanding. Moreover, it is apparent that readability is not the only problem with the informed consent forms. Insufficient information about risks of anaesthesia procedure and specific information about the procedure to be applied to the patient also make the forms inadequate. This implies that the informed consent forms contain general information and technical terms with reader unfriendly fonts.

The suggestion that consent for anaesthesia should be incorporated in the consent for surgery has been renounced because even if anaesthesia is necessary for performing surgical operation, it embraces separate and different risks than the surgery.[3] Therefore, attaching these two consents within one form is not appropriate. Besides, different physicians perform anaesthesia and surgery with distinct professional skills and responsibilities. They do not have enough knowledge to disclose or answer questions about the procedures; moreover, this not in their field of expertise. Despite these facts, the survey revealed that some of the anaesthesiologists still think that it would be ethically acceptable to embed anaesthesiology consent into surgical consent.

Another ethically questionable issue is the paternalistic attitude, which was apparent in one fourth of the participants. The principle of respect for autonomy requires the physician to include the patient in the decision making process and respecting their decision after providing necessary information to them. However, a significant number of anaesthesiologists stated that they would take the call, if there were more than one anaesthesia method which could be applied. This implies the existence of a paternalistic environment, at least in some clinics, and the autonomy of patients are given appropriate regards. Supporters of this paternalistic attitude generally refer to the best interest of patient in the context of utilitarianism. Their main argument is that physicians should act to provide the most medical benefit to their patients, and because of the knowledge asymmetry between the physician and patient, it is the physician's duty to decide for the patient. This is the flow of reasoning that justifies overlooking patient autonomy. However, as discussed in several articles, this attempt for justification is fallacious, since informed consent procedure, with its well defined five steps, is designed to protect the best interest of the patient while respecting their autonomy.[4–6] In other words, paternalism can only be justified when utilitarian considerations for providing benefit do not violate the right to autonomy.[7]

- Professional satisfaction

Demanding working conditions, such as long and exhausting working hours, and persisting tensions have been the main causes of low professional satisfaction and high incidence of burnout syndrome among physicians, which is characterised by emotional exhaustion, depersonalisation and low personal accomplishment.[8] The results of this survey suggest that anaesthesiologists are experiencing continuous stress because of heavy workload. Moreover, there are some specific factors, which increase the emotional burden on them, for example, physical and/or verbal violence or disrespectful attitude from patients, lack of definition of professional responsibilities, ignorance about how to handle legal issues, such as malpractice law suits or defending themselves against patient complaints and low wages. An antidote for these persistent stress factors would be receiving support for academic and scientific studies, but the results show that the work environment, even in training and research hospitals and some universities, does not embrace such an atmosphere.

Low job satisfaction and increasing rates of burnout are becoming more frequent among physicians, not only in Turkey, but in several countries.[9–11] Supportive work environment for academic and scientific studies motivates physicians, even if other inconveniences remain.[12]

While Baban et al.[13] define occupational factors for burnout syndrome as 'imbalance between job pressures and available resources', Karasek remarks demand–control model that underlines perception of low control over inconveniences in high demanding work environments. The results of this study suggest that occupational factors and lack of control over measures that cause strain in work environment play significant roles in the case of low job satisfaction and burnout in the field of anaesthesiology. The proposals for defining roles and responsibilities of all parties in ethical and legal terms indicate that the existing norms and regulations are not enough for orchestrating the practice of anaesthesia.

Last but least, the COVID-19 pandemics shows that public health emergencies may surge unexpected burdens on anaesthesiologists and face them with ethical dilemmas, which they may have not encountered before. The existing problems in this area of expertise make this profession vulnerable to bear the extra burdens that come with the pandemic and challenge the sustainability of health services in this area. Since this survey was conducted before the pandemic, none of these issues were within the scope of this article. However, it is beyond discussion that the ethical and professional issues manifested during pandemic should be addressed in future research.

Conclusions

Consequently, we—as anaesthesiologists—are frequently confronted with complex ethical and moral dilemmas that impact our professional and personal lives.

The ethical issues of note in the field of anaesthesia are communication with the patients and their relatives, interaction with surgical teams, long working hours and high workload, problems in informing the patients, lack of institutional support in malpractice cases, lack of authority, responsibilities and rights of anaesthesiologists in the preoperative period, legal issues and inadequate legal regulations.

In addition, other issues include organisation of ethical training for anaesthesiologists and their responsibilities to their patients and anaesthesia team within the ethical norms, their right and rejection of the patient, authority and responsibilities for patient care and service quality, obligation of consultation, financial connections and conflict of interest, position in clinical research, the authority of their assistants and the necessity of sharing relationships with the surgical team.

Ethics Committee Approval: Ethical committee approval was received from the TOBB ETU Clinical Research Ethics Committee (KAEK 118/033).

Informed Consent: Written informed consent was obtained from all participants who participated in this study.

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