RESEARCH

Assessment of Clinical Ethics Application and Patient Satisfaction in Anesthesiology Services: A Cross-Sectional Study

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ABSTRACT

Background: Clinical ethics is currently widely discussed in anesthesiology practice in hospitals. The implementation of clinical ethics is very important in providing patient care. Anesthesiology services are a type of medical service that is full of ethical dimensions because each procedure, from pre-operative, perioperative, and post-operative, is directly correlated with the four quadrants of clinical ethics. There have been few studies conducted regarding the implementation of clinical ethics and the quality of patient satisfaction.

Objective: The purpose of this study was to describe the implementation of clinical ethics in anesthesiology and the quality of patient satisfaction.

Methods: An observational study using cross sectional design was conducted at Dr. Zainoel Abidin Hospital, Banda Aceh, Indonesia, in October-December 2023 on 111 patients receiving anesthesiology services, male and female, aged 2-65 years, who will undergo elective surgery.

Result: The present study found that the implementation of clinical ethics in anesthesiology services was 62.45%, with each category being medical indications (72.26%), patient preferences (66.21%), quality of life (60.21%), and contextual features (51.12%). Meanwhile, the level of patient satisfaction with anesthesiology services was as follows: strongly satisfied (69.37%), satisfied (18.02%), neutral (8.10%), not satisfied (2.71%), and strongly not satisfied (1.80%). Factors influencing the lack of implementation of clinical ethics in anesthesiology services include short consultation times, inadequate patient understanding of clinical ethics issues, and excessively detailed information. One way to improve the implementation of clinical ethics is by providing comprehensive clinical ethics information during anesthesia consultations and pre-operative care.

Conclusion: The implementation of clinical ethics in anesthesiology services was moderate. Higher perceived clinical ethics practices may be associated with increased patient satisfaction; however, causal conclusions cannot be drawn from this study.

Keywords: anesthesiology services; clinical ethics; effective communication; patient care; patient satisfaction

INTRODUCTION

In the last few decades, there has been much talk about clinical ethics in various clinical situations, because clinical ethics is believed to be a methodology in the process of ethical clinical decision-making.[1] Clinical ethics is very useful for a clinician because it is very helpful in solving ethical problems in clinical situations that are divided into four-quadrant topics.[2,3] The four approaches often referred to as the four-box method are a tool to collect ethical review data by dividing it into four approaches of ethical analysis review covering quality of life, medical indications, contextual features, and patient preferences. Through this approach, clinical decisions will become more systematic and ethical.[2,3,4]

Clinical ethics plays a major role in clinical practice and patient care in all medical services, including anesthesiology services.[2] Specifically, there is no clinical ethics assessment instrument in anesthesiology, so clinical ethics assessment refers to the clinical ethics of Jonsen, Siegler, and Winslade. The main objective of implementing clinical ethics for clinicians is to improve the quality of health care for patient satisfaction.[5] Clinical ethics guidelines will guide clinicians to act professionally when treating patients. This support is expected to encourage practitioners to practice medical ethics in daily health service activities. Theoretically, there is no direct relationship between clinical ethics and patient satisfaction. However, in practice, if clinical ethics is implemented properly, it will increase patient satisfaction with medical care. Thus, there is a strong relationship between clinical ethics and quality of patient satisfaction, namely that the quality of health services is built on ethical standards and principles, and ethical clinical practices improve the quality of medical care.[3,4,5]

Hospital quality is characterized by good, ethical, and humanistic service to patients. Patient satisfaction is one indicator of hospital quality, so much research has been conducted on it.[6] Patient satisfaction is a balance between expectations and reality. If the service provided by the anesthesiologist is in accordance with his expectations, then the patient will feel satisfied.[7] Conversely, if the reality he receives is not in accordance with his expectations, then the patient will not feel satisfied. The quality of hospital services is characterized by increasing the level of public health, satisfying the needs and expectations of patients and consumers. Health service providers must work effectively and efficiently in quality service institutions that will increase public trust, which, of course, increases satisfaction. Interaction between the three main parties, namely hospitals, service providers, and the community in health services that are in harmony, balanced, and harmonious will make all three-feel mutual satisfaction.[6,7]

Anesthesiology includes services that are full of dimensions of clinical ethics because every anesthetic procedure, from pre-operative, during-operative, and post-operative, is directly related to the four quadrants of clinical ethics.[4,8] To our knowledge, there is no literature discussing this approach in the field of anesthesia. The implementation of ethics in anesthesia can increase professionalism, marked by increased attitudes of altruism, empathy, accountability, and responsibility.[8] Based on the results of the researcher's study, until now in Aceh, there has been no research data on the implementation of clinical ethics, and it describes the quality of patient satisfaction in anesthesiology services. The purpose of this study was to describe the implementation of clinical ethics in anesthesiology and the quality of patient satisfaction.

METHOD

This study is a descriptive study with a cross-sectional design conducted at Dr. Zainoel Abidin Hospital, Banda Aceh, Indonesia, and uses primary data through filling out questionnaires. This research instrument uses a questionnaire (Google Form) developed by researchers adopted from the 4 topic quadrants in the book written by Jonsen, Siegler, and Winslade entitled Clinical Ethics: A Practical Approach to Ethical Decisions in Clinical Medicine. The questionnaire, adapted from the Jonsen, Siegler, and Winslade clinical ethics instrument, has passed validity and reliability tests. The questionnaire was tested using SPSS, and all questionnaires had values higher than the r-table threshold of 0.576. Reliability testing showed that all questionnaires had Cronbach's Alpha values higher than the threshold of 0.700, thus concluding that the questionnaire is valid and reliable.

The study was conducted in the period October-December 2023, with the criteria for respondents who could participate being patients who received anesthesiology services, male and female, aged 2-65 years, and patients who would undergo elective surgery. This study has been approved by the Medical Research Ethics Committee of Dr. Zainoel Abidin Hospital, Banda Aceh, Indonesia, with reference number 142/ETIK-RSUDZA/2023. This study guarantees the confidentiality of respondents by not taking personal identities and asking respondents to participate voluntarily and have the right to stop at any time.

Sample size calculation was based on the Slovin formula; the number of patients who received anesthesiology services in 2023 was 1245 people. The minimum sample size is determined using the Slovin formula with a margin of error of 10% and a confidence interval of 90%. The minimum sample size was 91 people, but considering the possibility that respondents did not fill in completely, so that they were categorized as dropouts, 10% was added, so that the minimum sample size increased to 111 people. The sampling technique used in this study was the nonprobability sampling technique with the consecutive sampling method, meaning that the sample was taken by including the entire population that met the inclusion criteria and removing samples that met the exclusion criteria. All samples that met the criteria were taken during the research period until the sample size was met. The data was then collected into Microsoft Excel, and a unique code was created for each respondent who had answered. The data obtained were then described in a univariate frequency tabulation by calculating the percentage of respondents who answered each section of the questionnaire.

RESULTS

This study was conducted on patients who received anesthesiology services at Dr. Zainoel Abidin Hospital, Banda Aceh, Indonesia, with a data collection period of two months, namely October 4, 2023, to December 4, 2023. There was a total of 111 respondents who participated in this study, and data collection was carried out using primary data, namely questionnaires.

The demographic characteristics of the respondents were obtained as in Table 1. Based on Table 1, it was found that out of 111 respondents, there were more female respondents (63.96%). Most respondents were aged between 36-45 years (22.52%), respondents with orthopedic surgical diseases had the

largest number of respondents (21.62%). In the type of anesthesia variable performed, most respondents received general anesthesia services (93.69%).

The measurement of the implementation of clinical ethics in anesthesiology services at Dr. Zainoel Abidin Hospital, Banda Aceh, Indonesia, was assessed using a questionnaire adapted from quadrant four topics in clinical ethics.[2] The present study found that the implementation of clinical ethics in anesthesiology services was 62.45%, with each category being medical indications (72.26%), patient preferences (66.21%), quality of life (60.21%), and contextual features (51.12%). Data related to the implementation of clinical ethics can be seen in Table 2. Measurement of patient satisfaction quality in anesthesiology services at Dr. Zainoel Abidin Hospital, Banda Aceh, Indonesia, was assessed in a Likert scale questionnaire. The level of patient satisfaction with anesthesiology services was as follows: strongly satisfied (69.37%), satisfied (18.02%), neutral (8.10%), not satisfied (2.71%), and strongly not satisfied (1.80%).

The implementation of clinical ethics in anesthesiology services for the most frequent medical indication quadrant is patients' medical problems, history, diagnosis, and prognosis (80.18%), while the least frequently implemented is alternate plans if therapy fails (59.46%). For the patient preference quadrant, the most frequent is decision-making competence (76.77%), and the least frequent is understanding of the patient's unwillingness to receive treatment (46.85%). For the quality-of-life quadrant, the most frequent is assessment of patient's future life (66.67%), and the least frequent is physical, mental, and social impairments that the patient will experience if treatment is successful (45.05%). For the contextual features, the most frequent are financial factors influencing treatment decision-making (81.98%), and the least frequent is resource constraints influencing treatment decision-making (42.34%). Distribution of respondents' answers regarding the implementation of clinical ethics in anesthesiology services can be seen in Table 2. After presenting each quadrant of clinical ethics implementation, it can be summarized that the implementation of quality of life, medical indications, contextual features, and patient preferences can be seen in Table 3.

Table 1. Demographic data of the participants (N=111)

Characteristics	Category	Frequency (n=111)	Percentage (%)
Gender	Male	40	36.04
	Female	71	63.96
Age	2-5 years	2	1.80
	6-18 years	10	9.09
	19-26 years	21	18.92
	27-36 years	22	19.82
	37-46 years	25	22.52
	47-56 years	16	14.41
	57-66 years	15	13.51
Diagnose group	Neurosurgery	4	3.60
	Eye surgery	4	3.60
	ENT and neck surgery	10	9.09
	Oral surgery	6	5.41
	Thorax surgery	2	1.80
	Digestive surgery	21	18.92
	Urological surgery	4	3.60
	Obstetrics and Gynecology	14	12.61
	Orthopedic	24	21.62
	Pediatrics surgery	4	3.60
	Oncology surgery	14	12.61
	Plastic surgery	3	2.70
Anesthesia types	General anesthesia	104	93.69
	Regional anesthesia	7	6.31
The level of patients' satisfaction	Extremely Satisfied	77	69.37
	Satisfied	20	18.02
	Neutral	9	8.10
	Not satisfied	3	2.71
	Extremely not satisfied	2	1.80

Table 2. Distribution of respondents' answers regarding the implementation of clinical ethics (N=111)

Code	Information provided	Implemented (n,%)	Not implemented (n,%)
	Medical indication		
MI1	Patient's medical problems, history, diagnosis, and prognosis	89 (80.18)	22 (19.82)
MI2	Nature of illness, acute or chronic, critical or emergency, chances of recovery	73 (65.77)	38 (34.23)
MI3	Patient's goal of treatment	85 (76.77)	26 (23.23)
MI4	Chance of successful treatment	81 (72.97)	30 (27.03)
MI5	Alternate plans if therapy fails	66 (59.46)	45 (40.54)
MI6	Advantages and disadvantages of medical care	87 (78.38)	24 (21.62)
	Average	72.26%	27.72%
	Patient preferences		
PP1	Decision-making competence	85 (76.77)	26 (23.23)
PP2	Decision-making incompetence	85 (76.77)	26 (23.23)
PP3	Opportunity to choose a treatment method	76 (68.47)	35 (31.53)
PP4	Advantages and risks of treatment	77 (69.37)	34 (30.63)
PP5	Decision-making when the patient is incompetent	73 (65.77)	38 (34.23)
PP6	Patient's indication of something he or she prefers	66 (59.46)	45 (40.54)
PP7	Understanding of the patient's unwillingness to receive treatment	52 (46.85)	59 (53.15)
	Average	66.21%	33.79%
	Quality of life		
QL1	The chance of a return to normal life for the patient	72 (64.86)	39 (35.14)
QL2	Physical, mental, and social impairments that the patient will experience if treatment is successful	50 (45.05)	61 (54.95)
QL3	Factors influencing clinician assessment of patient quality of life	73 (65.77)	38 (34.23)
QL4	Assessment of the patient's future life	74 (66.67)	37 (33.33)
QL5	Plans for future treatment	71 (63.96)	40 (36.04)
QL6	Plans for comfort and palliative care	61 (54.95)	50 (45.05)
	Average	60.21%	39.79%
	Contextual features		
CF1	Financial factors influencing treatment decision-making	91 (81.98)	20 (18.02)
CF2	Religious and cultural factors influencing treatment decision-making	64 (57.66)	47 (42.34)
CF3	Belief factors influencing treatment decision-making	66 (59.46)	45 (40.54)
CF4	Resource constraints influencing treatment decision-making	51 (45.95)	60 (54.05)
CF5	Legal issues influencing treatment decision-making	53 (48.18)	58 (51.82)
CF6	Institutional conflicts of interest influencing treatment decision-making	57 (51.35)	54 (48.63)
CF7	Clinical research considerations influencing patient clinical decision-making	48 (43.24)	63 (56.76)
CF8	Public health considerations influencing clinical decision-making	41 (36.94)	70 (63.06)
CF9	Patient care related to research considerations	49 (44.14)	62 (55.86)
CF10	Patient care related to public health and safety considerations	47 (42.34)	64 (57.66)
	Average	51.12%	48.88%

(Information: MI= medical indication, PP= patient preferences, QL= quality of life, CF=Contextual features)

Table 3. Implementation of clinical ethics in anesthesiology services (N=111)

Code	Informatic provided	Implemented	Not implemented
MI	Medical indication	72.26%	27.72%
PP	Patient preferences	66.21%	33.79%
QL	Quality of life	60.21%	39.79%
CF	Contextual features	51.12%	48.88%
	Implementation of clinical ethics	62.45%	37.55%

DISCUSSION

Research related to clinical ethics worldwide has been very developed. Clinical ethics are believed to be able to help doctors make medical decisions that balance between the doctor's guidance in treating patients and trying to meet the needs and expectations of patients. In anesthesiology services, studies on clinical ethics are also very necessary.[3,4]

It should be noted that what is assessed in this study is the implementation of ethical components of routine anesthesiology practice using the Four-Box Framework, not clinical ethics consultation or ethical dilemmas.

Anesthesiology services are not only about making patients comfortable during surgery but can also be used to communicate what should and should not be done to patients, especially during pre-surgery.[4,8] Philosophically, the patient's desire and hope are healing. It should also be noted that patients are not only biological creatures but also psychological, social, and cultural, so that complete services can be provided to increase patient satisfaction while improving the quality of patient care. To answer all the needs of patients as biological, psychological, and sociocultural beings, a clinical ethics approach can be taken.[6,7]

For an anesthesiologist, medical indications conveyed to the patient are physical and psychological conditions in the form of facts and clinical interpretations that become the basis for clinical considerations of an anesthesiologist, so that the goal of patient treatment through anesthesia procedures can be achieved.[6] In addition, medical indications also contain information about the history of diagnosis, prognosis, and possible choices of medical interventions to be performed.[7] Medical indications include the patient's condition, diagnosis, disease course, treatment options, and prognosis.[8] This topic is the first step in clinical ethics analysis and applies the bioethical principles of beneficence and nonmaleficence that help doctors formulate available treatment options and determine how each decision will benefit the patient.[9,10]

In considering medical indications, an anesthesiologist provides information to the patient about why the anesthesia procedure will be performed. For example, in the case of a patient with a neuro-anesthesia procedure, the information needed by the patient is provided. For example, a patient experienced a primary brain injury. Head injuries are classified into primary injuries and secondary injuries. This classification is useful for considering therapy. Primary injury is damage caused by mechanical impact and acceleration-deceleration stress on the skull and brain tissue, resulting in a fracture of the skull (head bone or skull base) and intracranial lesions.[11,12]

Medical decision-making in this case not only considers medical aspects but must also consider clinical ethics and medicolegal aspects. The criteria for neuro-anesthesia patients who will be given anesthesia based on ethical considerations can be determined based on the clinical ethics theory.[2,3,4] According to the clinical ethics theory, 4 quadrants can be considered, namely medical indications, patient requests, quality of life, and contextual features, so that this theory is often called the four-box method. Decision-making to perform neuro-anesthesia according to the clinical ethics theory can be seen in Table 4.

Brain injury must be considered for possible disorders of the airway and circulation; the "ABCDE" neuro-anesthesia approach is used to identify life-threatening injuries that require immediate treatment. The ABCDE neuro-anesthesia approach consists of Airway, Breathing, Circulation, Drug, and Environment. Airway, which ensures the respiratory tract is safe without obstruction or foreign objects, Breathing, which provides adequate oxygenation and ventilation, circulation, which ensures the cardiovascular system is stable, Drug, which provides drugs and anesthetic agents that can reduce and stabilize intracranial pressure, and Environment, which maintains body temperature in a mild position. After that, treatment is referred to the neurosurgery division. Next, the neurosurgeon will observe the Glasgow Coma Score (GCS) value when first arriving, and the latest GCS; also, the size and reaction of the pupils and the presence or absence of signs of blood collecting on one side of the cranial cavity (lateralization signs).[11,12,13,14]

Patient preferences are declarations of statements given by the patient or statements from parties who can represent the patient when the patient is unable to do so, regarding any decision related to the patient's treatment.[5] This topic is an approach that applies the ethical principle of autonomy.[4] The request of the patient and/or their family is served using the principle of Autonomy. Autonomy means that every medical action must obtain the consent of a competent patient (or their closest family, if the patient is unable to give consent).[15] In this study, this patient did not have the capacity to give consent; for example, under 18 years old, consent was given by their parents. To the patient's parents, the doctor has explained the anesthesia and surgery to be performed, the alternative procedure, diagnosis, and prognosis. Specifically, the patient's parents did not state a request but only hoped for the best for the patient. The doctor has also explained honestly about the patient's condition; there is no conflict of interest in this matter; the patient's family is very cooperative in submitting the decision to the team of doctors.[4,5,8]

The topic of quality of life is a manifestation of one of the goals of medicine, namely, to improve, maintain, and enhance the patient's quality of life. This topic is used to analyze the appropriateness of treatment in influencing the patient's quality of life, as well as providing a picture of the patient's life before and after being given treatment or medical decisions. This topic applies to the bioethical principles of beneficence, non-maleficence, and autonomy.[4,5,8] In addition to facilitating surgical procedures, in carrying out their duties, there are three goals of anesthesiologists, namely: (1) maintaining brain volume and

intracranial pressure; (2) protecting nerve tissue from injury and ischemia, and; (3) reducing bleeding and treating bleeding.[11,12] The success of anesthesiologists in treating patients with primary and secondary brain injuries can affect the quality of life after anesthesia procedures. Measurement of quality of life is determined using the principles of beneficence, autonomy, and nonmaleficence. The patient's quality of life is a clinical condition after anesthesia procedures in the form of statements of values, levels of satisfaction, and the patient's life experiences after surgery.[11] Consideration of the patient's quality of life after anesthesia needs to be considered to balance medical indications and patient preferences.[5]

The contextual features topic explores broader issues than the other three topics. Contextual Features identify and consider other factors such as family, economic circumstances, religion, culture, legal settings, and the impact of these factors on ethical medical decision making.[7,9] Contextual features are unique quadrants of clinical ethics that are derived by using the principles of fairness and justice. The emphasis of clinical ethics usually pays more attention to issues of medical indications, quality of life, and patient requests because medical decisions should be made together by the doctor and patient, but must also consider other aspects such as finances, beliefs, culture, and religion. Ethical aspects in clinical situations often give rise to ethical dilemmas in the form of dilemmas between medical indications vs. patient preferences, medical indications vs. quality of life, and medical indications vs. contextual descriptions.[4,8]

In the context of ethical dilemmas that arise, such as the case above, doctors must be able to communicate well, honestly, and openly in conveying information related to the diagnosis and prognosis to the patient's family. If the doctor is not comfortable providing such information, then he can be assisted by a professional who is adequately qualified in terms of effective communication. At the same time, doctors must also be sensitive to the emotional and psychological needs of the family. Medical decision-making accompanied by ethical decisions is highly recommended.[4]

In this study, it was seen that the implementation of clinical ethics in anesthesiology services was still in the moderate category, with a percentage of implementation (average 51.12 to 72.26 percent). This is certainly not optimal, considering the importance of implementing clinical ethics. Some of the obstacles faced by anesthesiologists are the lack of time to convey all clinical ethics information to patients, the number of patients to be served, and the patient's understanding of clinical ethics information is still very limited. Limited understanding is also influenced by age, level of education, and job position. According to another study, psychological stress, sadness, and anxiety in facing the operation also influence the respondents' understanding.[8]

In the medical indication quadrant, researchers asked respondents about: "Did the anesthesiologist provide information about the patient's medical problems? What is their history? What is the diagnosis and what is the prognosis?" As many 80.18% answered that they had been informed, but as many 19.82% answered that they had not been given the information. On this topic, it appears

that the most information conveyed by the anesthesiologist is the problem of patient diagnosis and the anesthetic procedure to be performed.[15,16,17] Conveying information about anesthesia procedures performed on adult patients is easier because they understand, have a better level of education, and have good mental maturity. Meanwhile, for child patients, it is rather difficult because children do not understand anesthesia procedures, so it must be conveyed to their parents.[15] Anesthesia procedures in pediatric patients are a challenge that needs to be addressed properly, because pediatric patients do not yet have autonomy and competence to make decisions.[18]

In the patient preferences quadrant, when researchers asked respondents about: "Has the patient been informed about the benefits and risks, understood or not the information provided, and given consent?", as many 68.47% answered that they had been informed, but as many 32.53% answered that they had not been given the information. The topic of informed consent really needs to be informed to patients. Some obstacles that make respondents answer that they have never been informed include patients not having enough time to read the information, the information not in accordance with the patient's education level, and the patient's lack of ability to understand the anesthesia procedure to be performed.[15,18] An anesthesiologist must provide information about the risks that will occur, for example, the side effects of administering spinal anesthesia in the form of hypotension and bradycardia.[8]

In the quality-of-life quadrant, when researchers asked respondents about: "What is the patient's current or future condition? Can the patient's future life be assessed as expected?", as many 66.67% answered that they had been informed, but as many 33.33% answered that they had not been given the information. Quality of life after anesthesia is needed to ensure that the patient's life returns to normal. Anesthesia does not reduce the patient's quality of life. By considering quality of life in clinical ethics, doctors and patients find the best solution by making shared decisions.[16,17,18] According to a study, ethical problems in anesthesia related to quality of life are reanimation and intensive care issues. It is necessary to think carefully about the quality of life after the anesthesia procedure.[16]

In the contextual feature quadrant, researchers asked respondents about: "Are there any financial issues that might influence treatment decision making?", as many 81.98% answered that they had been informed, but as many 19.02% answered that they had not been given the information. Generally, contextual features that influence medical and ethical decisions are financial, cultural, and religious. In this study, respondents did not have a conflict of interest in decision-making, either religious or cultural. Likewise, family barriers were not found in decision-making. Financially, there were also no barriers because all patients were covered by the Social Security Administration.[4] The advancement of technology in the form of artificial intelligence (AI) in the field of anesthesia is currently a special consideration as a topic of consideration of contextual features. AI is used by an anesthesiologist to determine pre-surgery evaluation, prognosis prediction, drug dosage used, monitoring the course of anesthesia, and other uses of AI.[17]

In this study, it appears that the level of patient satisfaction is moderate, with strong satisfaction (69.37%) and satisfaction (18.02%), which will automatically improve the quality of patient care. This can be explained by the relatively high level of patient satisfaction with anesthesia services due to several key factors, most of which are related to the quality of interactions between medical staff and patients, as well as effective clinical outcomes.

Key factors contributing to this high level of satisfaction include effective communication and information. Patients feel satisfied when they receive clear and understandable explanations regarding anesthesia procedures, including potential side effects and their management. Good communication between anesthesiologists and nurses reduces patient anxiety and worry before surgery.[19,20]

Patients have high confidence and trust in the competence of medical staff (anesthesiologists and paramedics), who act effectively, quickly, and appropriately when needed. This reliable technical skill ensures patient safety.[19] The caring and attentive attitude provided by medical staff during the pre-operative, perioperative, and post-operative periods makes patients feel valued and supported, which directly increases their satisfaction.[20]

The level of satisfaction is usually subjective, but it can be used to determine the standard of service that has been carried out, whether it is of good quality or not. Patient satisfaction is related to the quality of patient care, both individually and in society. The suitability between expectations and reality in the form of a good quality of life after anesthesia procedures can provide added value to improving the overall quality of the hospital.[6]

Several studies have been conducted on patient satisfaction with anesthesia care from various parts of the world.[21] Gebremedhn et al. concluded that there was no direct relationship between the anesthesiologist's introduction during the preoperative visit and patient satisfaction.[22]

In a study at Gondar University's teaching hospital, a significant proportion of patients expressed dissatisfaction with anesthesia services. Determinants of dissatisfaction included the duration of general anesthesia, intraoperative awareness, pain during surgery, and immediate postoperative pain.[23]

A study by Andemeskel et al. concluded that overall patient satisfaction with perioperative anesthesia care was moderate, with information provision as the weakest dimension. This highlights the importance of information, communication, and the doctor-patient relationship in patient satisfaction. Patient socio-demographic and clinical factors influence satisfaction levels, so improvements need to be made in providing more comprehensive and easily understood information. Likewise, anesthesiologists' communication skills in conveying information to patients, especially during the preoperative period, need to be improved.[24]

However, according to Ambulkar et al., patient satisfaction is an important indicator of quality in today's healthcare. Effective and effective preoperative communication with patients contributes significantly to patient satisfaction. Similarly, effective management of pain and postoperative complications contributes significantly to high overall patient satisfaction.[25]

Quality of service is a consequence that must always be maintained by health service providers so that they can create complete patient satisfaction, patients come to the hospital expecting healing, but also friendly service, punctuality, dedication, attention and empathy are certainly added values of this satisfaction, such things are obtained from the implementation of clinical ethics, professional ethics, professionalism and humanism, so that the motto appears in Dr. Zainoel Abidin Hospital, Banda Aceh, Indonesia namely "giving more than expected".[4,5,8]

A limitation of this study is that it does not analyze the causal relationship between the application of clinical ethics and patient satisfaction levels. This study only describes an assessment of the application of clinical ethics along with information about patient satisfaction with anesthesia services.

Future programs include further enhancement of effective communication training and the existence of standard operating procedures on the application of clinical ethics in anesthesiology services, as well as additional training on clinical ethics in clinical situations.

Table 4. Solving ethical dilemmas in anesthesiology with a clinical ethics approach

Criteria	Conditions discussed
Medical indication	Clinical conditions that include a review of the diagnosis, prognosis, medical history, and treatment options for the patient.
Patient preferences	Shared decision making between doctor and patient, the doctor maintains medical indications while paying attention to the patient's requests and desires.
Quality of life	The goal of treatment is to improve and maintain the patient's quality of life.
Contextual features	Clinical encounters can also be influenced by financial considerations, family, hospital policies, infrastructure limitations, technological advances, laws, customs, research, etc.

CONCLUSION

The implementation of clinical ethics in anesthesiology services was moderate. Higher perceived clinical ethics practices may be associated with increased patient satisfaction; however, causal conclusions cannot be drawn from this study.

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