



Challenges of professional ethics encountered by anesthesiology students at Kashan: A qualitative content analysis

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Abstract

Background: Anesthesiology students undergo a comprehensive education that includes theoretical, practical, and clinical training, preparing them for their future professional roles. However, failing to adhere to professional standards and ethical guidelines during their academic journey can lead to significant ethical dilemmas.

Objectives: This study aims to identify the professional ethics challenges faced by anesthesiology students.

Methods: Utilizing a conventional qualitative content analysis approach, we selected participants through purposive sampling until data saturation was achieved. Data were gathered through semi-structured interviews, and subsequent analysis, coding, and categorization were conducted using MAXQDA-10 software.

Results: A total of 16 interviews were conducted, each lasting between 30 to 45 minutes. From these discussions, we extracted 437 initial codes, which were organized into 26 subcategories and 14 overarching categories. Our analysis revealed five primary themes: "Antecedents of Challenges," "Academic Challenges," "Clinical Challenges and Complexities," "Three Aspects of Professional Ethics," and "Consequences."

Conclusion: The findings indicate that both individual and social factors contribute to the emergence of various challenges. Notably, issues within university and hospital settings, such as repressive or blame-oriented interactions between students and their instructors or mentors, were highlighted. Our research identified three critical aspects of professional ethics: responsibility, confidentiality, and effective communication. The negative repercussions of these ethical challenges -such as discouragement, demotivation, anger, and isolation- significantly impact students' experiences. By acknowledging these challenges, we can develop innovative ethical guidelines and educational programs that foster a more supportive environment for future anesthesiology professionals.

Keywords: Professional ethics, Anesthesiology students, Qualitative research, Ethical challenges, Content analysis.

Introduction

Ethics is a fundamental subject that has garnered significant attention from planners, higher education institutions, and universities in Iran.^[1] It is defined as the study that seeks to determine the right way of living. As a branch of philosophy, ethics aims to clarify whether people's behaviors and actions in various situations are considered good or bad.^[2] Undoubtedly, ethics and moral values play a crucial role in guiding human behavior, with the ultimate goal of enhancing community health.^[3,4]

Applied ethics is a distinct branch of ethics that includes professional ethics as one of its key sub-disciplines.^[5]

Professional ethics focuses on the adherence to ethical standards within various professions, requiring individuals to uphold certain principles and conduct themselves appropriately in their respective roles. Each profession, therefore, possesses a unique set of ethical obligations tailored to its mission within society.^[5-7]

In academic environments, professional ethics refers to a collection of values that are established based on institutional goals, often articulated in a code of ethics or set of ethical principles. This framework aims to instill moral virtues among employees, faculty, and students, guiding their actions and behaviors in alignment with

these ethical standards. Research by Abadiga et al. highlighted that various dimensions of the moral climate - such as governing laws, work autonomy, ethnicity, gender, and religion- can positively or negatively influence job satisfaction among nurses. Maintaining a positive moral climate is essential for enhancing job satisfaction in the nursing profession.^[8]

Unethical behavior stands in stark contrast to ethical conduct. It is defined as behavior that deviates from the accepted moral norms of society. Ignoring ethical challenges can lead to a decline in performance quality, increased turnover, poor decision-making, ineffective communication with colleagues, diminished motivation, inadequate learning experiences, and an incomplete moral identity. These issues collectively contribute to a reduction in well-being, vitality, and mental health.^[9-11] Research has shown that various challenges and moral conflicts can adversely affect both patients and medical staff, leading to distress, disappointment, and dissatisfaction.^[12] Furthermore, Giannetta et al., emphasized the need for additional research to better understand the differences between the triggers of moral distress and the sources of moral dilemmas across different academic and clinical settings.^[13]

Recognizing the critical role of ethics in education, care, and treatment, universities and medical institutions establish guidelines in the form of a code of ethics. These codes serve to promote integrity in professional conduct and safeguard the rights of all stakeholders.^[14] Aghamohammadi et al., noted that due to the close interactions nurses have with patients and surgical teams in operating rooms, adherence to ethical standards can significantly enhance the quality of care and foster effective collaboration among team members.^[15]

Kashan University of Medical Sciences has implemented specific ethical guidelines for its staff and students. These codes require students to demonstrate commitment to their field, pursue continuous learning, engage respectfully with others, adhere to professional dress codes, accept constructive criticism, and maintain trustworthiness.^[16] Moreover, students are expected to honor patients' decisions and rights, uphold human dignity, respect diverse values and beliefs, and avoid causing harm to patients or resources.^[17,18]

Similarly, faculty members are dedicated to supporting students in their academic pursuits while instilling essential human virtues. This collaborative environment allows students to gain both theoretical knowledge and practical experience under the guidance of their professors, preparing them for their future professional

roles. However, failure to adhere to these ethical obligations can lead to challenges and moral distress for students, potentially resulting in conflicts.^[19-21]

Given this context, it is crucial to analyze the challenges related to professional ethics during academic training and to investigate the underlying factors contributing to these challenges in both academic and clinical settings. A review of existing literature reveals that while some studies have explored definitions and experiences related to academic ethics, clinical ethics, and the professional ethical dilemmas faced by medical, nursing, and midwifery students,^[19-21] there remains a gap in research specifically addressing the ethical challenges encountered by this group.

Objectives

The current study aims to explore these ethical challenges through a qualitative approach, focusing on the experiences and insights of students. As there is currently no psychometric tool available to assess these issues comprehensively, this research is designed to shed light on the ethical dilemmas faced by students in their academic journeys.

Methods

Study design and participants

This qualitative content analysis study aimed to explore the professional ethical challenges faced by students enrolled in the bachelor's program in anesthesiology at Kashan University of Medical Sciences. The study involved 16 participants, including both current students and recent graduates. Participants were selected through purposive sampling, ensuring a focus on those with relevant experiences.

Data collection was carried out through face-to-face, semi-structured interviews conducted from 2019 to 2022. Prior to each interview, the researcher explained the study's purpose and coordinated the time and location based on the participants' preferences. Inclusion criteria required students to have either completed or entered clinical training in operating rooms, while graduates were those who had completed their studies within the last six months.

The main researcher conducted all interviews independently. To refine the interview process, a pilot interview was conducted with two individuals who were not part of the study. The first participant was recommended by the research advisor, who identified a student known for her engagement and commitment to ethical practices in her education and clinical training.

Subsequent participants were recruited through referrals from earlier interviewees.

Ethical considerations were thoroughly addressed, and all participants provided informed consent before the research commenced. Interviews took place on the campus of Kashan University of Medical Sciences, in student dormitories, or in other locations agreed upon by the participants.

The interview questions focused on participants' experiences and perceptions regarding the ethical challenges encountered during their studies. The guide included questions such as:

“What comes to mind when you hear the term student or academic ethics?”

“Based on your experience, what moral or academic challenges have you faced?”

“Can you share any experiences related to these challenges?”

“Have you ever found yourself or your classmates in a situation involving a moral dilemma? If so, can you describe it?”

“What do you believe contributed to this moral challenge?”

“How do you define ethical principles in clinical practice?”

“Have you experienced any moral challenges at the patient's bedside?”

“What were the consequences of these moral challenges for you?”

Each interview began with general questions, followed by probing inquiries tailored to the participants' responses. This approach aimed to elicit deeper insights and clarify any ambiguities in their statements.

Data analysis

Data analysis commenced following the first interview and continued until saturation was achieved. The interviews were recorded and meticulously transcribed word for word using Microsoft Office, incorporating field notes taken during each session. This approach ensured that data were collected directly from participants without imposing the researcher's biases or preconceived notions.

The analysis utilized a conventional content analysis method based on the framework established by Graneheim and Lundman.^[22] To facilitate coding, categorization, and data management, MAXQDA-10 software was employed. Initially, the researcher read through the transcripts multiple times to gain a comprehensive understanding of the content. Significant statements and concepts relevant to the research questions were then highlighted.

Each significant statement was assigned a code that aligned with the study's objectives. This coding process involved using the participants' own words or closely related phrases. Subsequently, the extracted codes were organized into categories. New codes that emerged during initial coding were compared with existing ones and placed into the most appropriate subcategories. Throughout the analysis, subcategories and their corresponding codes were continually compared with one another and with the original data. Similar and related subcategories were then merged into broader categories, culminating in the extraction of main themes related to ethical challenges.

In qualitative research, interviews continue until no new information is being uncovered from participants.^[23] In this study, a total of 16 interviews were conducted until data saturation was reached. The rigor of the qualitative methodology was assessed using Lincoln and Guba's criteria, which are well-suited for qualitative approaches.^[24] To ensure credibility, data triangulation was employed through a combination of interviews and notes, along with member checking, which involved obtaining feedback from participants regarding the findings and interpretations. Some participants were presented with the findings to confirm whether they resonated with their experiences.

The thorough descriptions provided by participants about their experiences and the contexts in which these occurred contributed significantly to the credibility of the data. Additionally, subject-matter experts conducted peer checks to evaluate the findings' credibility. The researcher was mindful of potential biases due to prior experiences in ethical challenges during their own education, taking care not to influence participants' responses.

Dependability of the data was enhanced by thoroughly documenting the data collection procedures, which aids in replicating the research process. An audit trail was established through a detailed review of data and supporting documents by an external observer -a faculty member from the Faculty of Nursing. Furthermore, interview transcripts and findings were reviewed and validated by other researchers and faculty members familiar with qualitative research methodologies.^[24]

The study involved interviews with 14 undergraduate students and 2 graduates in anesthesia, comprising 5 males and 11 females [Table 1]. Each interview lasted between 30 to 45 minutes and was conducted in Persian. The mean age of the participants was 21.66 years, and they were at various stages of their studies or had recently graduated. To gather more detailed insights, follow-up virtual

interviews were conducted with participants numbered 3, 6, and 13.

Ethical considerations

All participants were thoroughly informed about the research objectives. Participation in the interviews was entirely voluntary, and informed consent was obtained from each individual before proceeding. To ensure confidentiality, participants' information was anonymized with assigned identification numbers. Participants were also assured that, if desired, they would receive a summary of the study's findings. Additionally, they were made aware that they could withdraw from the study at any time

without any repercussions. The research was conducted in accordance with ethical guidelines, as indicated by the ethics code IR.KAUMS.NUHEPM.REC.1402.004.

Results

A total of 437 initial codes were extracted from the interviews. After several rounds of review, these codes were organized into relevant subcategories and categories based on their similarities and differences. Ultimately, the analysis yielded 26 subcategories, 14 categories, and 5 main themes, which are detailed in Table 2.

Table 1. Demographic information of the participants

	Sex	Age, year	Marital status	Semester	Grade Point Average (Gpa)	Housing	Nationality	Employment status
1	Female	21	Single	3	16.67	A resident of Kashan	Iranian	Jobless
2	Female	20	Single	3	13.5	Dormitory resident	Iranian	Jobless
3	Female	21	Single	3	12.68	Dormitory resident	Iranian	Jobless
4	Male	22	Single	3	15	A resident of Kashan	Afghan	Employed
5	Female	22	Single	4	16	A resident of Kashan	Iranian	Jobless
6	Male	21	Single	4	16	Dormitory resident	Iranian	Employed
7	Male	22	Single	4	15.5	Dormitory resident	Iranian	Employed
8	Female	20	Single	4	15	Dormitory resident	Iranian	Jobless
9	Female	21	Single	4	16	Dormitory resident	Iranian	Jobless
10	Male	23	Single	6	17	Dormitory resident	Iranian	Jobless
11	Male	21	Single	6	17	Dormitory resident	Iranian	Jobless
12	Female	22	Single	6	16	Dormitory resident	Iranian	Jobless
13	Female	23	Single	8	17.10	Dormitory resident	Iranian	Jobless
14	Female	23	Single	8	16.80	A resident of Kashan	Iranian	Jobless
15	Female	23	Single	Graduated	17.36	Dormitory resident	Iranian	Jobless
16	Male	23	Single	Graduated	18	Dormitory resident	Iranian	Employed

Theme 1: Antecedents of challenges

The first category under this theme pertains to individual factors related to moral challenges, encompassing subcategories such as Unawareness, Stress, and Differences in Culture and Education.

One participant highlighted the issue of Unawareness, stating: *"The cause of most ethical challenges is students' lack of awareness and their unfamiliarity with the academic environment"* (P.6).

The subcategory of Stress was illustrated by another participant's experience: *"During my third semester, I entered the operating room for the first time. The technician asked me to apply an oxygen mask, and because it was my first attempt, I felt stressed and forgot to open the oxygen valve"* (P.2).

The second category identified was Social Factors, which included subcategories such as Communication Problems,

Disunity and Lack of Cooperation, and Classroom Issues.

Regarding Communication Problems, one participant remarked: *"We need to communicate in a way that doesn't annoy or offend others. For instance, it's important to speak in a calm tone rather than shouting"* (P.11).

In discussing Disunity and Lack of Cooperation, another participant observed: *"The absence of support and empathy in the classroom has led to disputes. Students often prioritize their own interests over those of their peers and focus solely on their individual desires"* (P.7).

Theme 2: Academic challenges

The second theme highlights the challenges present in the theoretical educational environment, particularly the dynamics between students and professors, as well as the course content. This theme is divided into two main categories and five subcategories.

The first category focuses on challenges related to

instructors and course material, which encompasses the subcategories of Irresponsibility and Inconsistency. One participant expressed concerns about Irresponsibility, stating, “When our professor came to teach, we hadn’t studied the content beforehand. He didn’t take responsibility for ensuring that we learned” (P.13).

In discussing Inconsistency, another participant noted, “Some professors fail to review lesson plans before class. We ended up covering the same topics in two different semesters” (P.12).

The second category addresses the challenges between teachers and students, which includes the subcategories of Disrespectful Behavior by Students, Authoritarian Professors, and Communication Issues. Participants shared their experiences regarding these subcategories:

“Some students gossip about teachers, especially when their behavior or performance doesn’t meet expectations. This negative talk tends to escalate” (P.14).

“In one class, our professor was completely closed off to criticism and ignored our opinions, suppressing our suggestions” (P.8).

“My biggest challenge at the beginning was my unfamiliarity with the university environment; I didn’t know how to interact with my professors or classmates” (P.7).

Theme 3: Clinical challenges and complexities

The third theme revolves around the challenges and complexities inherent in clinical settings. Environments such as hospitals and medical centers present unique difficulties due to the presence of patients and the unpredictable nature of their conditions, which can quickly transform an ideal learning scenario into a chaotic one. Additionally, students must navigate interactions with a diverse range of individuals, including nurses, nursing assistants, service providers, fellow students from different departments, physicians, and patients. This theme comprises two categories and six subcategories.

Table 2. Themes, Categories, and Subcategories Extracted from the Study

Themes	Categories	Subcategories
Antecedents of challenges	Individual factors	Unawareness Cultural and educational differences Stress
	Social factors	Communication problems Disunity and non-cooperation Problems in the classroom
Academic challenges	Challenge related to teacher and lesson	Irresponsibility Inconsistency
	Challenges of the teacher and student	Badly behaved students Repressive professors Communication problems
Clinical challenges and complexities	Repressive/blaming interactions	Criticism and blame Mistrust Unfair treatment Defective justice
	Non-compliance with the client’s rights	The patient as a teaching tool Violation of the patient’s rights
Three aspects of professional ethics	Sense of responsibility	Enthusiasm and efforts Compliance with rules
	Effective communication and interactions	Respecting the patient Respecting teaching staff Interacting with peers Mutual understanding
	Confidentiality	Confidentiality Privacy
Consequences	Discouragement and demotivation Anger Isolation Defective relationships The superior self	

The first category focuses on Repressive or Blaming Interactions, which includes the subcategories of Criticism and Blame, Mistrust, Unfair Treatment, and Defective Justice. Participants shared their thoughts on these issues:

“When we make mistakes, some of the operating room staff treat us poorly, which discourages us and makes us reluctant to carry out our daily tasks” (P.1).

“Lack of trust in students who are in their eighth semester and not allowing them to take on challenging tasks undermines the confidence of those about to graduate and enter the healthcare field” (P.1).

“Some anesthesiologists have a harsh attitude toward students who don’t act quickly enough in certain situations” (P.8).

The second category addresses Non-Compliance with Patient Rights, encompassing the subcategories of Using Patients as Teaching Tools and Violating Patient Rights. Two participants shared their observations:

“We heard about an incident where a patient was anesthetized so a student could learn laryngoscopy. During the procedure, the patient’s tooth became loose” (P.13).

“Some students mock the religious beliefs of patients in the operating room, dismissing their beliefs as superstition or nonsense” (P.1).

Theme 4: Three aspects of professional ethics

The fourth theme, titled "Three Aspects of Professional Ethics," encompasses three main categories and eight subcategories.

The first category is Responsibility, which includes the subcategories of Enthusiasm and Effort and Compliance with Rules. One participant expressed, *“Newly admitted students should embrace responsibilities such as engaging in educational activities, studying diligently, assisting their peers in learning more effectively, and participating in research to enhance both their own and others’ knowledge”* (P.9). Another participant noted, *“Some students fail to adhere to the professional dress code while at the hospital”* (P.4).

The second category is Effective Communication and Interactions, which comprises the subcategories of Respecting Patients, Respecting Teaching Staff, Interacting with Peers, and Mutual Understanding. Participants shared their thoughts on this topic: *“Some staff members and students are unfriendly towards patients and often disregard their concerns. In some instances, staff have even argued in front of patients due to their own frustrations”* (P.14). Another participant emphasized, *“If students face disrespect in the hospital or classroom or if their rights are violated, they should assert themselves;*

however, it’s essential to express objections politely and maintain respect for teachers” (P.5). One participant reflected on personal experiences, saying, *“I faced jealousy and academic rivalry among my classmates. Since my performance was significantly better than theirs, they often tried to undermine me in various situations”* (P.2).

The third category is Confidentiality, which includes the subcategories of Confidentiality and Patient Privacy. One participant remarked, *“Some professors share our class grades with a representative instead of communicating them directly to us. This can be problematic, as not everyone wants their grades disclosed publicly in the group chat”* (P.2). Another participant recounted a concerning incident: *“In the operating room, I witnessed an elderly woman who was anxious before her surgery. Despite her repeated requests for coverage from the male scrub personnel present, they ignored her discomfort. I ultimately stepped in to cover her myself”* (P.4).

Theme 5: Consequences

The fifth theme explores the consequences of moral challenges faced by students, impacting not only themselves but also their peers and instructors. This theme is divided into five categories: Discouragement and Demotivation, Anger, Isolation, Defective Relationships, and Superiority Complex.

Participants shared their experiences regarding these consequences: *“When we make mistakes, the staff often treats us harshly, which leaves us feeling discouraged and unmotivated to complete even our daily tasks”* (P.4). Another participant stated, *“Navigating academic and clinical challenges can be exhausting, leading us to feel demotivated about our studies. It often feels like we’re constantly angry and disappointed”* (P.12). Yet another participant reflected positively on their growth: *“Facing ethical challenges has taught me valuable lessons. When these issues arise, I’ve learned that it’s crucial to try to avoid them so that others are not harmed”* (P.13).

Discussion

This study aimed to explore the ethical challenges faced by anesthesia students at Kashan University of Medical Sciences. The findings indicate that undergraduate anesthesia students encounter numerous moral dilemmas within their college, university, and clinical environments. Insights gathered from student interviews reveal that they perceive ethical themes across various dimensions, including behavior, social interactions, communication, and the teaching-learning process in both classroom and clinical settings. Several issues hinder their ability to

achieve personal, professional, and educational goals, ultimately affecting their performance in these environments.

The theme of driving challenges identified in this research highlights factors that contribute to the emergence of ethical dilemmas. Key factors include stress and a lack of awareness regarding ethical issues in both university and hospital settings. Sinclair et al. noted that the inherently complex nature of the clinical environment is fraught with ethical dilemmas, which are exacerbated by students' relative inexperience and unfamiliarity with their surroundings.^[25] Other studies have pointed out that fostering a culture of ethical standards within academic and clinical settings, emphasizing the importance of acquiring ethical skills, and alleviating competitive pressures among students can significantly reduce the incidence of ethical challenges. These observations align with our findings.^[26]

Another recurring theme mentioned by students was the complications arising from the hospital environment, particularly due to the large number of students from various disciplines present in operating rooms alongside specialists, staff, and patients. This situation creates unique ethical challenges. Similarly, Aghamohammadi et al.,^[15] highlighted that the operating room can be a stressful environment due to the invasive nature of procedures and the diverse range of healthcare professionals involved, which can lead to interpersonal conflicts. They suggested that establishing ethical guidelines and standard frameworks could help mitigate these challenges in clinical settings.

Communication-related ethical challenges among students also emerged as a significant concern, as reflected in participants' comments. Antoniadou et al.,^[27] discussed issues such as racism, bullying, jealousy, and cultural differences among dental students, which created conflicts within their cohort. Similar patterns were evident in the interactions among students in our study.

The next theme addressed the challenges present in the theoretical educational environment, focusing on both professors' and students' experiences. Issues such as some professors' lack of accountability regarding their educational responsibilities, poor coordination among faculty members, and insufficient attention to students' learning needs were cited as barriers to achieving educational objectives. In these challenging conditions, students often grappled with moral dilemmas and uncertainty about what actions were appropriate or necessary.

Our findings align with those of Abedini et al.,^[28] who

highlighted similar concerns in their study. They discovered that some teachers have reduced the number of effective teaching sessions, compromised the quality of instruction in certain courses, and become less attentive to students' issues due to their demanding schedules. The researchers noted that some professors dedicate minimal time to their classes and students, often neglecting their educational needs. Similarly, Davies and Heyward reported that certain professors fail to engage deeply with their students, which can hinder meaningful learning experiences.^[20]

In the second theme, participants raised various ethical challenges surrounding the student-professor relationship. Issues such as perceived unfairness and discrimination by professors, instances of student misbehavior towards faculty, a lack of communication between students and professors, and professors' disregard for student feedback were all mentioned. Jamshidi et al.,^[29] noted that some students reported experiencing discrimination and expressed frustration over a range of discriminatory behaviors encountered in clinical settings. They also identified ineffective communication between students and faculty as a significant factor contributing to ethical dilemmas.

The next theme explored the challenges and complexities of the clinical environment, revealing two categories: repressive/blaming interactions and patient neglect. Students voiced concerns about inappropriate behavior from some staff members and experts when mistakes occurred during learning experiences, describing these reactions as insulting and demeaning. Abedini et al. indicated that students expect hospital personnel to treat them as colleagues and to uphold their dignity, which resonates with our findings.^[28]

Conversely, students observed a troubling lack of respect for patients' rights and dignity, leading to ethical challenges. Participants reported behaviors such as recording videos of patients without consent, mocking or dismissing patient opinions, and failing to respect patient privacy. These violations were attributed to both medical staff and students.^[29] The study by Arbabisarjou et al. revealed that issues like trustworthiness, confidentiality, and patient privacy were not consistently upheld by some students.^[30] Additionally, Mehdipour Rabori et al. found that nursing students often neglected patient rights and demonstrated little concern for educating patients and their families. These observations align with our research findings.^[31]

The fourth theme addresses professional ethics, beginning with the critical aspect of responsibility.

According to participants, this element is vital in creating ethical challenges. Escolar et al., emphasized that students must adhere to established rules and regulations; failure to do so can lead to moral distress. The second category within this theme focuses on the importance of appropriate interaction and communication.^[32]

In their study on "Agreeableness," Bergmann et al.,^[33] highlighted that students' reluctance to collaborate and assist one another fosters a competitive atmosphere, which can lead to moral dilemmas. This observation aligns with our findings. Similarly, Farzi et al.,^[34] discussed the concept of an "unsuitable educational climate," emphasizing that fostering cooperation without fear or oppression among students, professors, and clinical staff is essential. A friendly and respectful educational environment can enhance learning and bridge the gap between theoretical knowledge and clinical practice.

The third theme identified in our research pertains to patient confidentiality and privacy. This issue has been addressed in various studies, including one by Arbabisarjou et al.,^[30] which revealed that some students fail to uphold trustworthiness, confidentiality, and patient privacy. Additionally, Mehdipour Rabori et al., noted that nursing students often disregard patients' rights and show little concern for educating patients and their families.^[31]

Participants in our study also expressed the emotional toll of facing moral challenges, frequently reporting feelings of anger, discouragement, and sadness. Morley et al.,^[9] found that such challenges can lead to discomfort, moral conflict, uncertainty, despair, and a sense of powerlessness. Pals et al., similarly indicated that ethical dilemmas can contribute to students' discouragement and negatively impact their skills and competencies.^[35] Furthermore, Naseri-Salahshour and Sajadi pointed out that a lack of support from staff, coupled with rude treatment, can leave students feeling isolated and uncomfortable.^[36]

Interestingly, some participants noted that certain moral challenges had a positive impact on their growth, fostering self-awareness and learning. Ribeiro et al.,^[37] suggested that students often learn from the ethical contradictions they encounter in clinical settings, which helps them navigate future challenges more effectively. McDonald et al.,^[38] also emphasized that sharing experiences related to ethical dilemmas aids students in making informed decisions when faced with similar situations in the future.

A limitation of qualitative research is the potential for recall bias among participants. To mitigate this, the researcher employed probing questions to encourage accurate recollections. Additionally, some participants

may not have fully disclosed their experiences due to various considerations. However, a key strength of this study lies in its ability to identify challenges related to professional ethics, which can inform the development of an ethical code tailored for universities and their students.

Conclusions

The findings of this study indicate that both individual and social factors -such as a lack of awareness regarding environmental and academic conditions, along with individual and cultural differences- can contribute to various challenges for students. Notable issues within university and hospital environments include repressive or blaming interactions among students, teachers, mentors, and healthcare staff. Our research identified three key aspects of professional ethics: responsibility, confidentiality, and effective communication. The negative consequences of these ethical challenges -such as discouragement, demotivation, anger, and isolation- have a significant impact on students.

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Competing interests

The authors declare that they have no competing interests.

Abbreviations

None.

Authors' contributions

All authors read and approved the final manuscript. All authors take responsibility for the integrity of the data and the accuracy of the data analysis.

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Availability of data and materials

The data used in this study are available from the

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Ethics approval and consent to participate

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Consent for publication

By submitting this document, the authors declare their consent for the final accepted version of the manuscript to be considered for publication.

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