

Research Article

# Identifying and Explaining the Challenges and Effective Solutions to Improve the Quality of Teaching Assistants' Professional Ethics

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## Abstract

Teaching the principles of professional ethics in medical sciences is directly related to people's health. The principles of professional ethics and compliance with medical standards have always been considered in the training of assistants. The purpose of this research was to identify the challenges and effective solutions on the professional ethics of assistants. The present qualitative study was conducted using the content analysis method. The articles were related to professional ethics, professional ethics training for specialist assistants, challenges of professional ethics, professors' professional ethics training, evaluation of assistants' professional ethics. 24 articles were selected for final review. Open coding of articles was done using MAXQDA10 software. In the next step, the conceptual and semantic similarity of grouping and each class was named with titles that showed its characteristics. The results of data analysis led to the identification of 5 challenges (lack of professional ethics lesson plans in the assistants' training program, students' encounter with professional ethics challenges in the process of treating patients, conflicts between the roles of professors between education and treatment, professional ethics in the curriculum Neglected, non-contractual approach of professional ethics) and 9 solutions (formation of professional ethics in students through the exemplary role of the professor, teaching active professional ethics to students at the patient's bedside, creating a suitable clinical environment to improve the quality of students' professional ethics learning, Evaluation accurate professional performance of assistants during the training course, developing a comprehensive training program of professional ethics in the official training program, maintaining patient safety by promoting the professional ethics training of assistants, improving the quality of teaching professional ethics of professors to assistants by using diversity in teaching methods, creating A suitable educational opportunity to improve the quality of professional ethics training for students, improving the quality of professional ethics with the development of medical skills and knowledge. It is necessary to teach the principles of professional ethics to assistants who are the key elements of treatment and education in teaching hospitals, who must serve in society as specialists in the future. This research will improve the quality of professional ethics training for assistants by identifying the challenges facing assistants' professional ethics training and providing appropriate solutions.

## Keywords

Ethics, Professional Ethics, Resident, Professional Ethics Training, Quality

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## 1. Background

Today, the education of medical sciences requires a fundamental change and revision in the methods and processes of clinical education and evaluation, so that universities of medical sciences can show that their graduates have the necessary qualifications during their studies. They earn to play their professional role [1]. The health sector is one of the most important sectors that provides services to the people, and efforts to improve the performance of the health system by officials are necessary to achieve the goals [2]. Quality in medical and health care is defined as providing the right care to the patient at the right time. The World Health Organization (WHO) <sup>1</sup>defines patient safety as not harming the patient during the treatment period [3]. Education in the clinical environment is considered as the first source of learning and shaping the professional identity of medical students and it is very important so that it is known as the heart of professional education and the basis of acquiring skills [4]. The Accreditation Council of Graduate Medical Education (ACGME) <sup>2</sup>developed guidelines for the training of residents in response to improving the quality of education and complying with disease safety priorities [3]. Although assistants are in training to become specialists, they do a lot of daily patient care [5]. Many assistant programs are not implemented according to educational standards, which should be corrected [6]. In the training of specialty courses, the goal of training is to reach an acceptable level of knowledge and clinical skills [7]. Assistants are considered as one of the key elements in the promotion and improvement of the educational and treatment system, and the round-the-clock treatment of patients in medical science educational centers is the responsibility of the assistants [8]. The direct effect of the activity of specialized assistants in improving proper service delivery in the field of health and reducing medical errors, as well as the effect of creating favorable working conditions for these people by improving the quality of education, shows that it is important to pay attention to the needs and concerns of the training of assistants as future specialists., should be paid special attention [9]. In 1999, the IMO (Independent Commission on Human Rights) released a report stating that 44,000 to 98,000 Americans die annually from preventable medical errors in teaching hospitals. examined these errors [10]. Medical errors that have resulted in significant mortality have been reported to be associated with low levels of professional ethics [11]. Physician burnout, dissatisfaction, and depression are associated with negative effects on the patient. Stress may have a negative effect on teaching and learning. The World Medical Association (WMA) adopted the International Code of Medical Ethics (ICoME) to outline the professional duties of physicians for the first time in 1949. [12] Ethics is one of the oldest theoretical disciplines and as a separate department Philosophy is inevitable during the formation of society (slavery). Un-

doubtedly, ethics includes a set of moral obligations and determines what is right in our actions. [13] Ethics is considered an inseparable part of medical science and its recommendations guide the behaviors and methods of the profession. It is [14]. Although professional ethics is necessary in all jobs, it is of great importance in the medical profession because it is related to human life [15]. Improving clinical performance and patient care is not only provided through increasing medical knowledge and technology, but improving professional ethics and the ability of doctors to analyze cases in the face of challenges is essential. Professional ethics is the main essence of this profession. Medical professional ethics is a structured system for solving ethical issues and providing appropriate solutions in the field of medicine [16]. Professionalism was and is one of the main goals of medical education. It refers to the complex process by which medical professionals acquire and apply essential knowledge and skills along with acceptable values and ethics to serve society. However, teaching and assessing professionalism is not a simple task. Its complexity is due to its real nature, which is influenced by many factors in different dimensions, including individual, interpersonal and larger social or institutional levels [17]. The principles of professional ethics and compliance with medical standards have always been considered in the training of assistants. Teaching the principles of professional ethics in medical sciences is directly related to people's health. Ethical principles should be taught by professors who consider themselves obliged to comply with these matters and finally be evaluated [9]. Frequent media reports of discord between professors, assistants, and patients have been alarming, indicating a growing divide and decline in the values of the profession. The basis of professionalism and medical ethics is trust, truth, human values and strong social commitment, which has an immediate and long-term effect on the quality of education and patient care [19]. Considering the importance of professional ethics and its impact on the process of treating patients, it seems that this issue has not been seriously considered in the discussion of assistants' training. In the annual evaluation of assistants in Iran, professional ethics is the only part that if the assistant does not get the minimum score, in addition to the assistant not being allowed to participate in the promotion test, he will not be allowed to participate in two promotions at the same time in the following years, and necessarily one year to His term will be added. Out of 30 marks of professional ethics, 20 marks are the responsibility of the relevant training group and the other 10 marks are the responsibility of the hospital's educational assistant. The application of personal opinions in determining the ethics score by some professors may have a negative effect on the assistants' ethics score, and an exact criterion for obtaining this score may not be taken into account. Although attention to the issues of medical ethics and professional commitment has been more or less emphasized in the latest

1 World Health Organization

2 Accreditation Council for Graduate Medical Education

edition of educational programs for specialized fields in Iran, there are serious questions and doubts about the extent to which it is planned and adhered to in implementation and practice. there is Considering the importance of discussing professional ethics in the process of treating patients, in this research, an attempt will be made to identify the challenges and solutions effective in improving the quality of professional ethics training of assistants.

## 2. Methods

This research was conducted with a qualitative approach and conventional content analysis method. The purpose of content analysis is to identify the goals, values, culture and tendencies of the text or the author of the text or the interviewee, or observed. Content analysis first dealt with the objective description of the system and some of the content of the obvious relationships, but over time, it reached the interpretation of the hidden content [20]. The study was conducted over a period of 12 months. The research sample of articles related to professional ethics, professional ethics training of specialist assistants, challenges of professional ethics, professional ethics training of professors, evaluation of assistants' professional ethics. The criteria for entering the research were articles in the field of assistant and assistant professional ethics, as well as articles related to the field of professional ethics challenges. Exclusion criteria were lack of full access to

the article text as well as low quality studies. A total of 200 articles were identified. The full texts of the articles were also evaluated based on the eligibility criteria and finally 24 articles were selected for the final review according to the purpose of the research. After selecting the articles, the text of the articles was loaded into the MAXQDA10 software. Data analysis was done using conventional content analysis method according to Granheim and Lundman (2004) method [21]. Open coding was done using MAXQDA10 software. The text of each of the selected articles was coded and organized after being loaded into the software. In open coding, the text of the articles was broken into semantic units. The initial codes were listed and at the end of the coding, the output from the software was taken as Excel. The code and text assigned to each code were specified in Excel file format and based on each article. After extracting the open codes, the codes were grouped based on conceptual and semantic similarity, and each class was named with titles that indicated its characteristics. Gradually, with constant comparison and integration, the data was placed in the main classes and finally the challenges and solutions were identified.

## 3. Results

The results are shown in two tables. [Table 1](#) (challenges of professional ethics) and [Table 2](#) (solutions to improve the quality of professional ethics).

**Table 1.** Challenges affecting the quality of professional ethics training for assistants.

category	sub Category
Lack of professional ethics course plan in assistants training program	The teaching of mandatory and prohibitive moral principles alone is not enough, and new ethical solutions to solve problems must be taught to medical students [22]. Many professional ethics books and related educational programs are written only based on ethical theoretical principles and have not paid attention to its practical aspect [22]. Many of the ethics courses available in the country's medical schools are based on ethical principles that are interdisciplinary and there is almost no specific model that is related to the field of medicine [22]. Many students of medical sciences have received training related to professional ethics in a theoretical form, and certainly prominent professors have explained the theoretical foundations of professional ethics, but they have not paid attention to the practical aspect [23]. In order to improve the subject of professional ethics in medical sciences, it is necessary to develop training, evaluation and intervention programs from the very beginning years of medical education. Plans for its continuation should be presented during the following years [23]. Unfortunately, there is no professional education and medical ethics during training, and medical students and assistants learn by accident [24]. Unfortunately, the curriculum in medicine is designed based on the acquisition of clinical knowledge and skills, and professionalism and medical ethics have no place in it [24]. It is necessary to include medical ethics in education and practice in developing the competencies needed to provide ethical health services [25]. Educational programs in Iran lack courses in ethics and medical law, which can lead to patient dissatisfaction [26]. There is a lack of training in ethics and professionalism as a vacuum [27]. Medical ethics curriculum is not enough for medical students [28].
Students facing the challenges of professional ethics in the process of treating patients	The progress and expansion of knowledge and technology in the processes of prevention, diagnosis and treatment have made patients and doctors face many choices, and this has created new issues that we are not able to answer with Hippocratic medical ethics [22]. Expanding the use of mass communication tools and increasing the level of education of people in today's societies and many other factors have led to an increase in the level of awareness of patients and a change in their attitude, which can be one of the causes of creating new ethical issues [22]. The ever-increasing progress of science and the provision of new treatment methods in the medical profession are effective in the occurrence of ethical problems [22]. Medical errors that have led to death have been reported to be

category	sub Category
The conflict between teachers' roles between education and treatment	<p>associated with a low level of professional ethics [29]. To treat patients, the doctor should use a method that has a scientific basis and not associate with those who violate this principle [30]. There is always a challenge between the expectations of doctors and organizational behavior [30]. Patient safety, dignity, and abuse of health care workers at work were identified as the most problematic ethical issues of assistants [30]. Health care professionals and students who are trained in health care professions face a variety of ethical problems in their clinical practice [31]. Healthcare professionals and students in clinical practice face problems every day, choosing between "right" or "wrong" that affects their decision-making and the quality of care provided by them [31].</p> <p>Clinical professors in teaching hospitals have a dual responsibility, treating the patient and teaching medical students as future doctors, unfortunately, professional ethics training is not part of the professors' training [24]. personal or clinical training [24]. Frequent reports show differences between professors, assistants and patients, which indicates a gap in compliance with medical professional principles [24]. Working as a doctor and lecturer in universities of medical sciences has a dual responsibility towards patients and patients' companions and students, which causes the principles of professionalism and medical ethics to be unfortunately only teaching [24] the little interaction between professors and students is one of the reasons Inadequate teaching of professional ethics to students [30]. Healthcare professionals and students in clinical practice face problems every day, choosing between "right" or "wrong" that affects decision-making and the quality of care provided by them [31]. The doctor has a moral obligation for the benefit of the patient, to prevent or minimize harm [32]. The multiple social and ethical roles in which doctors are placed should be adequately considered in the regulation and practice of health care [33]. The virtue of civility is an aspect of the medical professional responsibilities of university professors and leaders that is ignored [34].</p>
Neglected curriculum professional ethics	<p>Professionalism in the medical curriculum remains part of the hidden curriculum and no specific time frame is considered for professional training and evaluation [27]. Academic leaders need to be aware of the hidden curriculum. There can be a hidden curriculum and culture of rudeness that is toxic to professional formation and therefore to the professional culture of an organization. An inability of leaders to recognize, acknowledge, and confront incivility may perpetuate a culture of silence and further institutionalize the hidden curriculum [34].</p>
Non-contractual approach to professional ethics	<p>Morality usually sets a higher standard of behavior than law. What is legal is not necessarily synonymous with what is ethical or moral [25]. What is legal is not necessarily moral [28]. Medical ethics is easily understood. Contractualism is not compatible with healthcare professionalism [33].</p>

**Table 2.** Effective strategies for improving the quality of teaching assistants' professional ethics.

category	sub Category
The formation of professional ethics in students through the exemplary role of the professor	<p>Studying at the university is an opportunity for learning and growing morally and professionally, and students should improve moral behavior and decision-making during education and have a suitable model for their actions in the work environment [23]. Polite and well-mannered interaction of expert professors with patients and students and gaining respect from students and patients is the observance of the principles of professional ethics [24]. Being patient and actively listening to the patient without interruption is one of the most desirable characteristics of a specialist doctor [24]. The effective communication between the doctor and the patient and the professor and the student has an effect on the treatment method and the outcome of the patient's treatment [24]. Professionalism should exist in the teacher's behavior as a model so that the resident can learn [24]. The teacher's behavior is reflected to the students as a model [24]. During his training period, the resident should learn the principles of professionalism from his professor [24]. In the absence of a set time frame, professional training happens mainly through modeling [27]. As much as doctors should have comprehensive knowledge and desirable skills in interacting with their patients, the same importance should be given to their professional approach and ethical behavior [27]. Professional ethics is the clinical approach as a unique human relationship between the patient and the doctor [33]. One of the most important functions of professors is how to communicate with patients [34]. Communication with the patient is a basic clinical skill and the most important characteristic required for professors and doctors [34]. Students' perception of professors' relationship with patients can be a predictor of their professional ethics in the components of education and research and relationship with colleagues [34]. Students' perception of professors' relationship with patients can be a predictor of their professional ethics in the components of education and research and communication with colleagues [34]. One of the most important factors affecting the professional ethics of students is the behavior and actions of their professors [34]. Professional ethics can be instilled to students through the exemplary role of professors in the educational environment in an inconspicuous way and through performance [34]. Attitudes, behaviors and performance of</p>

category	sub Category
Teaching active professional ethics to students at the patient's bedside	<p>professors with patients have an impact on students and lead to the formation of their professional ethics [34]. The goal of medicine is to respect the rights of patients by preserving human dignity [35]. A doctor must respect the patient's right to accept or refuse treatment [36]. In addition to the responsibility of transferring knowledge, professors are a professional model of ethics in the educational environment for students [37]. The ability of clinical faculty members to identify professional and medical ethical issues during students' clinical learning experiences encourages and nurtures students' professional behavior [38]. Educators and medical professors have a powerful position to model, promote and inculcate the professional virtue of the title [39]. Professors should not hesitate to use their central and powerful positions to model, promote and instill professional civility [39]. Clinical professors have an effective role in teaching professionalism in medical education systems and helping learners' professional identity [40]. Teachers can be a good behavior model for learners [40].</p> <p>Teaching professional ethics in medical sciences is not enough only in ethics workshops, it is not enough only at the beginning of the clinical phase, but it should be taught actively, in the hospital and at the patient's bedside as well [23]. Professionalism as "normal and wise use of communication, knowledge, technical skills, clinical reasoning, emotions, values and reflections in relation to the patient [24]. One of the strategies of teaching ethics is teaching ethics at the patient's bedside [34]. Modern educational methods are effective in strengthening the motivation and compliance of ethics in medical students, and bedside training and informal training from clinical experiences are effective in the development of professional ethics of students [29]. Improving clinical practice and patient care is not only provided through increasing medical knowledge and technology, but improving professional ethics and the ability of doctors to analyze cases in the face of challenges is essential [29]. Students in the clinical environment need to identify and respond to practice to learn ethical issues [41].</p>
Creating a suitable clinical environment to improve the quality of learning professional ethics of students	<p>The professional behavior of a doctor is not only related to his individual characteristics, but external factors such as the conditions of the working environment are also effective [29]. In order to comply with ethical standards, the officials should improve the necessary environmental conditions and remove the main obstacles in the way of professional behavior. Ethical people, try to comply with the standards of professional ethics as best as possible [23]. Providing care based on patients' care needs and the complexity of their health conditions is made more complex by the nature of the care environment, which is often chaotic and/or unpredictable, and challenges health professionals and students face every day in clinical practice. [31]. In this type of professional ethics training, instructors should invite learners to describe the behaviors they have observed and whether they consider them civil or uncivil and explain why such training is an important component of discourse transformation. The professional virtue of civility is a key component of medical education [39]. Teaching and learning by asking the professor from the student in the real clinical environment based on the need and learning to comply with ethical obligations in students [42]. A planned curriculum of professional ethics can be adapted to opportunistic teaching in the clinical setting [42]. Create safe and supportive learning environments based on civility that help prevent unnecessary stress and anxiety of the learner [39]. The learning environment plays a very important role in moral education to students, which requires the efforts and experience of teachers [43]</p>
Accurate assessment of assistants' professional performance during the training course	<p>The performance of learners and students should be evaluated periodically and continuously in the three areas of education, research and treatment [23]. Correct assessment of assistants and correct interaction between professor and assistants will create valuable constructive learning [24]. Professionalism and medical ethics are an integral part of medical students' education, but it is very difficult to evaluate it, like clinical knowledge and skills, with an exam system [24]. There is no evaluation component for professionalism in the medical curriculum, so this issue has become challenging [27]. Evaluating ethics and competencies related to professionalism, similar to teaching-learning, requires a variety of tools to ensure appropriate evaluation of students [27]. There are challenges for teaching and evaluating ethics education [31]. By creating a strong competition between students in the formative assessment, which should aim to improve learning, the medical school provides an environment for increasing stress, anxiety, moral damage, and pessimism [41]. If proper targeting and proper evaluation of the professional behavior of specialist assistants is done, the probability of implementing hospital protocols will increase and this will help patients' satisfaction and provide better services [44]. Promotion of professional behaviors is currently one of the main concerns in the field of medical education and is an important and important component of evaluation [44].</p>
Compilation of a comprehensive educational program of professional ethics in the official educational program	<p>Obstacles and problems in the implementation and teaching of professional ethics curricula should be investigated by researchers, curriculum managers and upstream sources, and a practical and comprehensive professional ethics educational content should be included in the curricula for teaching in the previous and subsequent academic courses of students. to be compiled from entering the work environment [23]. Curriculums are based on moral considerations to make people more than anything else [23]. Finally, in order to achieve the goals and institutionalize the principles of professional ethics, it is suggested that it is necessary to comply with the standards of behavior and practice prescribed by the code of medical ethics [24]. Compliance with the standards of behavior and practice prescribed by the Medical Ethics Charter is necessary to strengthen trust in the medical profession [24]. Education and ethics in higher education are parts</p>



category	sub Category
Maintaining patient safety by promoting professional ethics training for assistants	<p>that are tied together [37]. Medical ethics and law are essential subjects that should be included in the residency program [26]. Comprehensive training in medical ethics, along with a favorable attitude and sufficient knowledge, equips health care professionals to anticipate, address, discuss, and resolve ethical dilemmas encountered in daily practice [26]. Acknowledging the importance of ethics and professionalism in successful clinical practice, there is a strong need to start a systematic training program with the goal of ethics and professionalism [27]. The proposed educational program is a comprehensive and systematic initiative to expose medical students to the complexities of medical ethics and professional behavior practice. [27] The educational program should cover professional ethics in such a way that students strive to reach the stage of excellence and while doing this, they should adopt an ethical approach and respond to the needs of patients, society and the medical profession itself [27]. The inclusion of professional ethics in laws and regulations is one of the important and vital factors in the growth and development of ethics in health and treatment of countries [29]. The doctor must learn the principles of professionalism for at least 30 hours [35]. Formal education of professionalism and medical ethics is becoming a standard component of medical education [38]. The nature of experiential learning in the process of clinical education increases the importance of professional commitment among individuals [40]. Medical ethics should be more seriously included in the curriculum of British universities of medical sciences [45].</p> <p>Considering the weaknesses that exist in the health system around the world, education to health professionals and patients and more focus in this field, as well as the ability to evaluate them, will help to improve the health and outcomes of patients [23]. By training and raising their awareness in the field of professional ethics, the efficiency and quality of health care will be maximized [23]. In the medical profession, a professional is a symbol of the medical (doctor) relationship and commitment to society as the basis of patient-doctor trust, strong social responsibility to provide the best healthcare services to the patient [24]. The pillar of ethics in medical practice is informed consent and it is a method to provide accurate information to the patient [24]. Medical professional principles should prioritize patient welfare, independence, and social justice [24]. Compliance with the basic principles of ethics is a very vital need for doctors, which not only guarantees patient safety, but also protects doctors when dealing with patients, making decisions and their behavior [27]. The main goal of the medical profession is to serve humanity, to fully respect human dignity, and doctors must be worthy of the trust of patients to take care of them [30]. Moral education is one of these ways to develop moral competences [31]. Compliance with ethics in some professions, such as the medical profession and related sciences, which directly and indirectly deals with human life, is of double importance [34]. Patient satisfaction is very important in healthcare service provider systems. Changing the evaluation indicators and allocating a part of the score to the vice-chancellor of hospital education can be effective in improving the satisfaction level of patients and more adherence of assistants to ethical standards [44]. Professionalism in medicine means commitment as a doctor to society, which is the basis of trust between doctor and patient [44].</p>
Improving the quality of teaching professional ethics of professors to assistants by using diversity in teaching methods	<p>An alternative educational method is simulation-based learning [31]. Learning based on simulation is a method for alternative education of professional ethics [31]. Teaching development of professors in the field of professionalism and medical ethics [38]. The faculty is expected to facilitate the learning and understanding of medical students in the field of professional ethics [38]. The nature of experiential learning in the process of clinical education increases the importance of professional commitment among people [40]. In the three-cycle model of teacher competencies, qualities such as empathy, respect for the learner, avoiding discrimination, and respect for patient confidentiality and organization are mentioned [40]. Integrated and longitudinal moral education "is likely to lead to lasting changes in reasoning and behavior [41]. To teach medical ethics, an educational team should be used, which consists of a psychiatrist, a professor, and a philosopher [41]. Ethical education It should be taught as an interdisciplinary unit [41]. Nowadays, the teaching methods of ethics instructors are very rich and cataloged [42] in the teaching method of professional ethics, the professor is looking for it enables them to identify the gaps in their knowledge, identify the professional ethical lines of a clinical situation with a view to decision-making in clinical practice, and raise their ethical questions in learning professional ethics [42]. In the form of questions and answers, the student is no longer passive [42]. There is no best educational method [43]. Medical ethics experts need to develop new educational methods for issues such as epidemics and increase the clinical pressure of teaching; pay attention to increasing financial concerns and improve medical ethics teaching according to the problems and challenges.</p>
Creating a suitable educational opportunity to improve the quality of professional ethics education for students	<p>Universities of medical sciences are responsible for the education and training of those who can observe ethical principles in their field of study after graduation [34]. Student period is the best time to learn the principles and methods of applying professional ethics in addition to teaching science and skills [34]. The theorists emphasize the importance of positioning professional ethics education, which provides opportunities for medical students in meaningful fields [38]. If ethics education courses are extended beyond the preclinical years, students will have the opportunity to identify ethical issues in a timely manner and practice skills they have previously learned theoretically [41]. In order to answer physiological, biological, and chemical issues in their patients, students need to review their patients' files in a safe place with colleagues and professors they trust [41]. Short-term training courses that are held formally, rather than informal courses, are all effective on learning professional ethics [46]. The average du-</p>

category	sub Category
Improving the quality of professional ethics by developing medical skills and knowledge	<p>ration of professional ethics training can have a lasting effect on learning professional ethics [46].</p> <p>Improving the knowledge of ethics and law among different medical professional groups, including doctors, nurses, assistants and interns, can reduce ethical problems by improving professional communication, protecting the rights of patients, especially the vulnerable and reducing errors [26]. Doctors should continuously try to improve medical knowledge and skill and provide it to their patients and colleagues [30]. Health care professionals and students in clinical affairs need to prepare for the development of their ethical competencies due to their responsibility and commitment to patient care [31]. Doctors must improve their knowledge and skills to be able to serve patients [35]. To promote advanced standards of professional ethics, professors are expected to expand their knowledge and skills through participation [46].</p>

## 4. Discussion

The main goal of the current research is to identify the challenges and strategies to improve the professional ethics of assistants. In the present study, the challenges affecting the quality of teaching assistants' professional ethics were identified with 5 themes and the solutions to improve the quality of teaching assistants' professional ethics with 9 themes were identified.

### 1. Challenges:

- (1) Lack of professional ethics course plan in the training program of medical assistants: Educating people who can take steps to improve the health system after completing their duties by complying with professional principles is one of the main duties of medical sciences universities in the country. Alami et al. in their research in 2014 showed that the current official educational programs are not sufficient in the field of professional commitments, which is in line with the results of the present research.
- (2) Residents' encounter with challenges of professional ethics in the process of treating patients: Residents are faced with challenges in their performance in Hawareh teaching hospitals, which will affect the educational process and compliance of professional ethics by the residents. Javadi et al. also showed in their research in 1400 that the burden of treatment has an effect on the compliance of professional ethics by assistants and professors, which is consistent with the results of the present research.
- (3) The conflict between the role of professors between education and treatment in teaching hospitals: duality in the professional identity of medical professors, the conflict between the role of education and patient care has caused problems in their professional performance. In their research in 2019, Javadi et al. showed that increasing the treatment load in teaching hospitals reduces the teaching time of professor to assistant.
- (4) Neglected curriculum professional ethics: Curricula are

elements that play an important role in realizing educational goals. Teaching assistants professional ethics is neglected most of the time and assistants actually learn more from the performance of their professors that sometimes the performance of some professors has problems and professional ethics training will not be done properly. In their research conducted in 2016, Kazemi and his colleagues came to the conclusion that in the teaching of medical ethics, the overlapping of the main axes of medical professional ethics with social realities and the depth and aspects of these topics are not included in the educational curricula and are not taught effectively, and therefore Common teaching of medical ethics is not efficient and effective due to many conflicts, which is in line with the results of the present study.

- (5) Non-contractual approach of professional ethics: ethics is beyond the law. It is possible that a transaction or legal action is correct in the law, but it is reprehensible and ugly in the eyes of ethics, so teaching professional ethics to assistants is sometimes a challenge. In their research in 2012, Janipour and Abbasi showed that compliance with medical principles and standards and obligation to medical ethics obligations are not included in the scope of contracts.

### 2. Solutions:

- (1) The formation of professional ethics in students through the exemplary role of the professor: in medical sciences, one of the good educational methods for teaching professional ethics is the use of the exemplary role of the professor, which is a powerful tool for learning in which the assistants have the opportunity to observe the performance of the professors. Observe the encounter with the patient. In their research in 2019, Moradi and Mohammadi Mehr showed that compliance with the professional and ethical requirements of professors is effective in the quality of teaching and the effectiveness of better and more effective learning for students of the Army University of Medical Sciences. Ahmadi also showed in his research in 1402, the role of a model is a combination of individual characteristics and the professional quality of the patient, which is revealed im-

plicitly in medical education.

- (2) Teaching active professional ethics to students at the patient's bedside: Teaching at the patient's bedside is an important part of teaching assistants. In addition to teaching medical skills, clinical training in facing the patient will strengthen the way of interacting with the patient and the professionalism of the assistants. In their research in 2012, Moqtadaei et al. showed that the concept of professionalism from the participants' point of view is closely related to how they deal with clinical cases in the educational sector, which is in line with the results of the present study.
- (3) Creating a suitable clinical environment to improve the quality of students' professional ethics learning: The clinical environment is very important in the process of professional training of medical students. Bedside education is an important part of medical education. In his research in 2015, Rezaei also showed that it is necessary to provide a suitable clinical training environment, use experienced instructors and deal with students in order to solve the problems of nursing and midwifery clinical training, which is consistent with the results of his present study.
- (4) Accurate evaluation of assistants' professional ethics performance during the training course: despite all the emphasis on the necessity of ethics education and professional commitment in the internship course, the evaluation of assistants' professional ethics is not done correctly. In their research in 2019, Pirjani et al. implemented a project to design, implement and evaluate professional commitment, which had a positive effect on the professional behavior of assistants, which is in line with the results of the current research.
- (5) Development of a comprehensive training program on professional ethics for assistants: In order to promote professional ethics, it is necessary to develop detailed training programs and the assistants should learn professional ethics from the teachers from the beginning of the course according to these training programs. In their research in 2019, Dehghani et al. showed that it is very necessary to develop uniform educational programs that contain professional ethics from upstream sources. Emami Razavi and Amirkhani also showed in their research in 1402 that the inclusion of professional ethics in educational programs, its effective implementation by educational groups, and the modification of professional ethics training processes can be effective in improving the quality of services and building trust in the field of health.
- (6) Maintaining patient safety by improving the quality of professional ethics education: Patient safety is a very important issue that should always be considered in medical education. The discussion of ethics has a high and special place due to the value of the medical profession and maintaining the safety of the patient. Improving the quality of professional ethics education will increase the safety of patients. In their research in 2019, Sadralahi et al concluded that teaching the principles of professional care ethics was effective in improving the attitude of nursing clinical managers towards patient safety culture, therefore, the intervention emphasizing the teaching of ethical principles as an effective method in the programs Training to promote the patient safety culture of nurses is recommended.
- (7) Improving the quality of professors' professional ethics training by using diversity in teaching methods: In terms of the high status of professional ethics training in medical sciences, by using diversity in professional ethics training methods by professors, many features, skills and abilities in the program A lesson will be taught to the assistants, Adel Mashhad, Seri and Atai, in their research in 2011, concluded that moral education in the traditional way alone cannot meet the needs of the country's healthcare system in order to have committed and expert doctors. So, as a result of creating transformation and using new methods of education that is based on society, it can benefit both the medical profession and the patients. In his research in 1402, Khabaz Mafinejad came to the conclusion that there is a wide range of teaching and learning methods in professional behavior education, which confirms that one method cannot be considered as an isolated and effective method. The training of professional behavior and commitment in the curriculum is done using various teaching and learning methods, which is consistent with the results of the present study.
- (8) Creating suitable educational opportunities to improve the quality of teaching assistants' professional ethics: Professors as training facilitators and information transmitters should provide appropriate educational opportunities at the patient's bedside to teach assistants professional ethics. In their research conducted in 2013, Khaqani et al. concluded that all medical professors should be obliged to provide the basis for the emergence of ethical and professional skills in students by using behavioral models. In 2022, Andersson and colleagues showed in their research that creating clinical opportunities for clinical practice is necessary to promote ethics education, which is in line with the results of the present study.
- (9) Improving the quality of professional ethics by developing medical skills and knowledge: If a doctor is more skilled in terms of medical skills and knowledge, he will have a better job performance, which will improve the quality of professional ethics. In their research in 1400, Malekshahi et al showed that improving the work ethics of professors is associated with increasing their job performance, which is in line with the results of this research.



## 5. Conclusion

The quality of medical education plays a decisive role in the health of the community and the quality of patient care. The professional behavior of residents plays a very important role in improving hospital performance and patient satisfaction. Residents are the main pillars of the treatment process in teaching hospitals, and their quality education certainly has a significant impact on the treatment process of patients. Residents, as future specialist physicians, must receive the necessary training in the field of professional ethics so that they can provide quality service to patients. Paying attention to the evaluation of the professional ethics of residents in teaching hospitals emphasizes the importance of this issue. The findings of this study identify the need to pay attention to the challenges facing the quality of professional ethics of teaching residents and will improve the quality of professional ethics of teaching residents by providing appropriate solutions.

## Author Contributions

Javadi Zeinab Sadat is the sole author. The author read and approved the final manuscript.

## Ethical Considerations

This article is extracted from a research project with ethical code IR. MUMS. REC. 1403.116.

## Research Limitations

Very little research has been done in the field of assistantship, especially the discussion of professional ethics training, and this has caused us to have difficulty finding articles in this area. This was one of the serious limitations of this research.

## Ethics Approval and Consent to Participate

Given that this review was conducted on related articles, there was no need to obtain consent from individuals in this study.

## Consent for Publication

There is no problem with publishing.

## Availability of Data and Material

Given that the data was extracted from a review of various articles, there is no problem in this regard and the articles are

available.

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## Conflicts of Interest

The authors declared no conflicts of interest.

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