

Ethical Challenges in Dentistry Education from the Dental Faculty Members and Students' Perspective

Habibolah Rezaei¹, PhD;
Seyede Yasamin Hossayni²,
DDS; Seyed Alisaleh Golami²,
DSD; Masoud Yousefi³, PhD;
Fatemeh Mohammadi², DSD

¹Cellular and Molecular Research Center, Yasuj University of Medical Sciences, Yasuj, Iran

²Yasuj University of Medical Sciences, Yasuj, Iran

³Department of Environmental Health, Mamasani Higher Education Complex for Health, Shiraz University of Medical Sciences, Shiraz, Iran

Correspondence:

Habibolah Rezaei, PhD;
Cellular and Molecular Research Center, Yasuj University of Medical Sciences, Yasuj, Iran

Email: rezaie.habib1@gmail.com

Received: 15 April 2023

Revised: 21 May 2023

Accepted: 17 June 2023

Abstract

Background: Identifying ethical challenges and then developing ethical codes and making ethical decisions are one of the solutions to promote professional ethics in any field. Given that ethical challenges in Iranian dentistry education have not been identified so far, the aim of the present study was to explain the ethical challenges in dentistry education.

Methods: The present qualitative research was performed using qualitative content analysis approach. Participants included faculty members and students of general dentistry from dental schools of metropolitan area 5 of Iran (Shiraz, Yasuj, Bushehr, and Bandar Abbas); they were selected using purposeful sampling. The researcher collected data using semi-structured interviews and focus group. Participants' conversations were recorded, implemented immediately, and analyzed using MAXQDATA software version 10. Confirmability, credibility, dependability, and transferability were used as the criteria used to ensure scientific accuracy.

Results: A total of 16 faculty members attended focus group sessions and individual interviews. A total of 114 codes were extracted, which were classified into three main categories: ethical challenge in the educational system (three subcategories), educational ethical challenge related to faculty members (four subcategories), and educational ethical challenge related to students (two sub-categories).

Conclusion: There are many ethical challenges in the field of dental education from the faculty members and students' perspective that must be addressed by faculty authorities, faculty members, and students. It is suggested that solutions to address these challenges should be considered in future researches; if necessary, appropriate ethical codes should be codified in this regard.

Please cite this article as: Rezaei H, Hossayni SY, Alisaleh Golami S, Yousefi M, Mohammadi F. Ethical Challenges in Dentistry Education from the Dental Faculty Members and Students' Perspective. *J Health Sci Surveillance Sys.* 2023;11(3):508-521.

Keywords: Ethics, Dentistry, Education, Student, Iran

Introduction

The word ethics is the plural of the term *mood* meaning temperament. The knowledge of examining and attaching value to human temperaments and behaviors is called ethics.¹ Ethics has long-standing roots in Iran and Iranians have abided by ethics in various fields, such as

work and profession since the Achaemenid civilization.¹ Professional ethics refers to a set of principles and standards governing human behavior in a professional structure. In other words, a set of ethical rules derived from the nature of the profession or occupation is called professional ethics.² Undoubtedly, professional ethics in medical sciences is also one of the most challenging

topics, and almost all personnel in this profession, including dentists, encounter ethical issues in their work on a daily basis. Ethical behaviors among dentists are a reflection of the emphasis on teaching ethical principles during their studies.³ Ethical principles can be taught using formal or informal education. Formal ethics education has grown increasingly in dental schools for students over the past years.⁴ However, this issue has not yet been addressed in a number of developing countries.⁵ A relevant course has been added to the curriculum of general dentists in Iran in 2017.⁶ We can help promote the observance of professional ethics by the students through educating the faculty members who offer this course as well as those faculty members who are in contact with the students. If they receive education on principles of professional ethics, dental faculty members can provide better services and nurture more ethical people, minimize professional stress, improve relationships with patients, colleagues and other members of the health team, and finally implement the principles of professional ethics more consciously.⁷

One solution to make ethical decisions and overcome ethical challenges is to develop ethics guidelines or codes in education, research, and dental services that should be considered in the student's curriculum. In the United States, ethical codes have been codified for dentists when providing services for patients; however, there is no such a code in Iran although it has been stated in the abstract of an article presented by Khourshidian in a conference that such codes have been codified.^{8,9} However, such codes have not been codified in the case of ethics education. In different countries, including Iran, dental researchers have studied the ethics principles in the educational field, published many articles, and discussed the method of teaching ethics.^{10,11} However, there has been no study on the ethical challenges in the field of general dentistry education. Identifying ethical challenges and, thus, formulating ethical codes and making ethical decisions are one of the solutions to promote professional ethics in any field.¹² Given that ethical challenges in the field of general dentistry education have not been identified in Iran so far, the aim of the present study was to explain the ethical challenges in the field of dentistry education from the perspective of dental faculty members and students from the metropolitan area 5.

Methods

This qualitative research was performed using a qualitative content analysis. Participants included dental faculty members and general dentistry students of the metropolitan area 5 (Shiraz, Yasuj, Bushehr, and Bandar Abbas) who were selected using purposeful sampling. Data collection was carried out using six main questions raised in a semi-structured interview. Dental faculty

members and students from different specialties were invited to participate in a focus group session or individual interviews. A letter was sent to the heads of the dental schools in metropolitan area 5, and after we explained the research objective, they were asked to invite dental faculty members from different specialties in a focus group session according to inclusion criteria. Inclusion criteria for faculty members included having at least one year of experience in teaching, willingness to participate in research, and mental and psychological readiness to participate in interviews and focus group sessions.

Inclusion criteria for students included one year passed since the time of study, willingness to participate in research, and mental and psychological readiness to participate in interviews. Exclusion criteria also included the reluctance of individuals to continue participating in the study. Dental schools of Yasuj and Bushehr held focus group sessions that lasted two hours. Hormozgan and Shiraz Schools of Medical Sciences failed to hold focus group sessions since the faculty members were on trip; also, as suggested by the faculty officials, individual interviews were conducted with eligible people who had rich data. The focus group sessions lasted two hours and the individual interviews also lasted 30 to 60 minutes. The focus group session was attended by supervisors and research advisors, the students and faculty members participating in the present research project. The focus group session was held at each university mentioned above. At first, the research supervisor explained the research objective to the faculty members and expressed his thank to them for attending this session. He then obtained permission of the faculty members to record the interviews and explained that all these conversations would be kept confidential. He then asked the first research question, that is, "Tell us about your experiences with ethical problems and challenges in dentistry", and began talking about an experience he had in this regard. Then, the other faculty members shared their experiences that occurred to their minds as listening to these experiences. The session was chaired by the supervisor who attracted people's attention to the main topic when they were digressing from it. According to the interview process, new questions were added to this interview; that is, in practice, a semi-structured interview was conducted and the session ended after all the faculty members attending the session shared their experiences and had nothing else to say. Participants' conversations were recorded using an audio recorder (MP3 player), the content was transcribed immediately after each session, and the interviews were analyzed using MAXQDATA version 10 software. The statements were coded by the students and then sent to the supervisor who later investigated and approved them. The interviews continued until data saturation.

To ensure the authenticity and reliability of the data, we used the Guba & Lincoln criteria of confirmability, credibility, dependability, and transferability as the criteria ensuring scientific accuracy in qualitative research presented. The data credibility was ensured by reviewing the accuracy of the participants' statements through member check, peer check, prolonged engagement with the subject matter, and integration of the research and approval of the researcher. Researchers spend sufficient time in the field, talk to different people, build relationships, and check for misinformation stemming from the researcher or the informants. Sufficient time was allocated for continuous study and analysis of data in order to establish proper communication and achieve a true data perception. The first-level codes were confirmed by member checking by the participants in the research. Searching for conflicting findings and negative case analysis data was conducted in the midst of a participant's conversation or among different participants. The peer check was performed by providing the extracted codes and themes to the research supervisor who agreed on the selected codes and classification of the themes. The selected codes or classification of themes on which there was no agreement were reviewed and confirmed by referring to the interview texts. The triangulation approach was used in this study by combining different participants from different specialties. The credibility was also ensured by the supervisor who had previous experience of carrying out qualitative study and publishing qualitative articles.

Regarding dependability, an external observer with experience in qualitative research evaluated and confirmed the data collection and analysis process; therefore, dependability reliability of the study was ensured. The external observer had access to such items as recorded interview audios, transcribed texts, notes, analyzed data, study findings, extracted meanings, codes, theme classifications, details of the study process, initial aim of the study, interview questions and, in general, the details of the study, which ensured both dependability and conformability of the study. The credibility or stability of the findings was guaranteed by creating a similar situation for the participants and by providing them with the interview text, meaning units, and extracted codes. The researcher also attempted to achieve conformability by abandoning his own ideas and using an external observer.

Regarding transferability, all the details of the research ranging from sampling to the data collection and analysis processes were fully described, so that there was no ambiguity about transferability and the context. The ethical considerations included allowing faculty members of all faculties to voluntarily participate in the research. The research objective was explained to all faculty members and they participated in the research if they were willing to do so. Anonymity principle was observed while recording, transcribing the interviews and

during the publication of the results. Prior to the study, permission was also obtained from the faculty officials and approval from the University Ethics Committee (IR.YUMS.REC.1398.050 and IR.YUMS.REC.1398.058).

Results

Sixteen faculty members attended the focus group sessions and individual interviews. A total of 9 participants (56.2%) were male and 7 (43.8%) were female. The number of student interviewees was 57, of whom 33 (57.89%) were female. A total of 114 codes were extracted and classified into three main categories: ethical challenge in the educational system, educational ethical challenge related to faculty members, and educational ethical challenge related to students. The main category of ethical challenges in the educational system consists of three subcategories, including ethical challenges related to faculty managers and staff (13 codes), ethical challenges due to lack of planning and supervision (16 codes), and ethical challenges due to lack of manpower and equipment (8 code). The main category of educational ethical challenge related to faculty members consists of four sub-categories, including ethical challenges related to the management of faculty member education (19 codes), ethical challenges related to exams (10 codes), inappropriate treatment of students, colleagues and staff (18 codes), and preferring personal interest over education (4 codes). The main category of educational ethical challenge related to students includes two sub-categories, including actions taken to reduce the faculty member's motivation (15 codes) and non-observance of professional ethics (11 codes). Table 1 shows the sub-codes related to each subcategory.

Ethical Challenges Related to Faculty Managers and Staff

According to the findings of the present study, the participants believed that favoritism in faculty education, improper treatment of students by education authorities, inadequate attention to student affairs in faculty education, unreasonable support of the faculty member by the faculty vice chancellor for education, negligence of faculty members by the university vice chancellor for education, unreasonable support for the students by the vice chancellor for education, holding different views towards different faculty members by the vice chancellor for education, changing a student's grade without asking for the faculty member's permission by the education authorities, failure to show sufficient productivity in the ward by the nurses due to non-payment of salaries, improper treatment of the student by the ward nurse, showing discrimination towards students by ward technicians, negligence towards any cheating by the security personnel of university, and disclosure of exam questions by the person in charge of the photocopier are the most important ethical challenges related to with faculty managers and staff.

Table 1: Main categories, subcategories, and codes extracted from the interviews

Main categories	Subcategories	Codes
Ethical challenge in the educational system	Ethical challenges related to faculty managers and staff	Favoritism in faculty education
		Improper treatment of students by education authorities
		Inadequate attention to student affairs in faculty education
Unreasonable support of the faculty member by the faculty vice chancellor for education		
Neglect of faculty members by the university's vice chancellor for education		
Unreasonable support for the students by the vice chancellor for education		
Holding different views towards to different faculty members by the vice chancellor for education		
Changing a student's grade without asking for the faculty member's permission by the education authorities		
Failure to show sufficient productivity in the ward by the nurses due to non-payment of salaries		
Improper treatment of the student by the ward nurse		
Ethical challenges due to lack of planning and supervision	Ethical challenges due to lack of planning and supervision	Showing discrimination towards students by ward technicians
		Showing negligence towards any cheating by the security personnel of university
		Disclosure of exam questions by the person in charge of the photocopier
		Lack of proper system for managing patient admission and distribution among students
		Disregarding promotion of the faculty by faculty officials
		Cancellation of some classes and wards
		Improper organization of lessons and its impact on student learning
		Ignorance of the faculty members' performance and mere attention to their physical presence
		Workshops held for faculty members by non-specialists
		Decreased motivation of faculty members due to be treated unkindly by officials
		Increasing the number of universities with dental schools regardless of their quality
		The high status of international students in the faculty due to paying and supporting the university with international tuition fees
		Taking the time of other students due to allocating time for international students
		Attracting an international student without sufficient scientific ability
		Lack of attaching importance to education by the country's educational system
		Massive curriculum
		Ethical challenges due to lack of manpower and equipment
Use of inefficient faculty members		
Lack of commitment of temporary faculty members to student education		
Failure to comply with student safety infrastructure		
Reducing the education quality due to shortage of faculty member		
Failure to provide the student with materials needed to ensure necessary amount of practice and mastery of the related skills		
Decreased quality of education in some wards due to the small number of technicians		
Negative effect of lack of educational experts on the education quality		
Incomplete of student grade due to shortage of faculty members		
Forcing students to buy educational equipment including pens, dental milling machines and turbines		
Educational ethical challenge related to faculty members	Ethical challenges related to the management of faculty member education	Delayed provision of equipment to faculty members
		Inadequate education in wards and theoretical classes (faculty members do not fully teach educational content to students due to lack of motivation, old age and boredom, worry about making competitors for themselves, ...)
		Lack of attention and interest to the quality of student education
		Lack of proper supervision of over student's performance in the ward
		Failure to observe the predetermined teaching schedule
		Showing indifference to theoretical classes
		Showing reluctance to student education
		Lack of commitment to the student
		Excessive expectations from new students
		Inducing despair and hopelessness in the student
		Creating no motivation in the student
		Lack of proper order in the faculty
		Non-observance of professional ethics
		Providing old educational resources to the student (outdated educational content)

		<p>Making no change in the PowerPoints and educational content in different semesters</p> <p>Failure to provide lesson plans to the student</p> <p>Avoiding the student to do patient work and learn</p> <p>Lack of special privacy between faculty member and student due to being too intimate</p> <p>Comparing the quality of work of novice students with faculty members and making fun of them</p> <p>Inadequate student education due to patient compliant</p> <p>Non-observance of justice while giving grades due to putting in a good word for some students, being a relative, tribalistic thought, reaching the basic science test</p> <p>Non-standard test questions</p> <p>Lack of proper response to student protests</p> <p>Giving no feedback to the student</p> <p>Telling white lies to avoid giving a grade to the student</p> <p>Lowering the student's grade in case of any objection</p> <p>Non-compliance with security issues regarding test questions</p> <p>Taking repeated exams and designing no new question</p> <p>Some faculty members putting in a good word for some students from another faculty member to increase his/her grade</p> <p>If the patient's payment receipt is not available at the cashier desk, this patient will not be added to the student's resume.</p>
	Ethical challenges related to the exam	
	Inappropriate treatment of students, colleagues, and staff by faculty members	<p>Unjust and discriminated treatment of the student</p> <p>Taking stance and getting back at students</p> <p>Creating a stifling atmosphere against objection</p> <p>Showing disrespect to the student (inappropriate treatment of the student in front of the patient and when asking questions)</p> <p>Being considered as no role model for students</p> <p>Showing inflexibility towards different treatment plans</p> <p>Weakening student's self-confidence</p> <p>Ethical abuse of the faculty member-student relationship</p> <p>Forcing the student to find the patient</p> <p>Not taking students seriously</p> <p>Do not allowing the student to do practical work in the surgical wards</p> <p>To be on the bad terms with the students</p> <p>Blaming the student for his mistake</p> <p>Having a gender perspective on the student</p> <p>Having no cooperation with a student with a specific medical problem</p> <p>Keeping no promise</p> <p>Inappropriate treatment of colleagues</p> <p>Showing no respect each other</p>
	Preferring personal interests over education	<p>Introducing students to technicians' personal laboratories</p> <p>Forcing students to outsource their work</p> <p>Obliging the student to buy equipment from a particular company</p> <p>Being easygoing to increase his / her evaluation score</p>
Educational ethical challenge related to students	Actions taken by the student to reduce faculty member's motivation	<p>Showing disrespect to the faculty member</p> <p>Indiscipline</p> <p>Do not listening to the faculty member when teaching</p> <p>Teasing the faculty members</p> <p>Do not studying the lessons</p> <p>Formation of teams against the faculty member</p> <p>Do not standing up as a sign of disrespect to the faculty member</p> <p>Showing no trust in the efforts of faculty members</p> <p>Having unreasonable expectation from the faculty member regarding giving a grade</p> <p>Making fun of the faculty member</p> <p>Respecting the faculty member solely for the sake of the grade</p> <p>Being absent in the classroom</p> <p>Absence of culture of hard work among students</p> <p>Loving the easy-going faculty member and disliking the stern ones</p> <p>Do not study by bring lousy excuses of having physical and family problems</p>

Non-observance of professional ethics by the student	Cheating
	Failure to deliver the test sheet on time in the test session
	Preferring personal interests over the interests of other students
	Inadequate cooperation of senior students with junior ones
	Giving faculty members' slides to another person without his/her permission
	Hiding their mistakes from the faculty member in various ways
	Showing dishonesty when filling out the evaluation form of faculty members due to fear and ...
	Showing no commitment to the community health due to having an economic view to their major
	Resorting to different ways to get a grade (contacting relatives, lying, being intimate to the faculty ...)
	Lack of prestige in dental work in some students (mismatch between students' tone and speech, lack of proper coverage, having long or implantable nails)
	Having delays due to doing jobs in other wards

Participant No. 1 said about the favoritism in the faculty education: "One thing that can be frequently seen in this city is the evident impact of ethnic and kinship issues and ... on everything! For example, in giving grades... presenting a unit! Even we had a student who took two different units within one hour! That is, he could take 8-9 class, two units, in one hour and one day, which is normally impossible!"

Participant No.12 said about the inappropriate treatment of the student by the education officials: "Education officials treat students very aggressively! They were about to slap one of them! The student was also a girl! He raised his hand to slap in front of every... but he did not!"

Participant No. 3 said about the lack of proper handling of student affairs in the faculty education: "The education department doesn't solve our problems at all. My letter was in his hand for 1 month. I couldn't attend the course on practical dental materials due to being ill. My letter was in his hand for 1 month, but he still didn't deliver it to the person in charge in the down stair... After one month, I came to him one day. "He said, 'I just wanted to submit your letter, which I submitted myself. "

Participant No. 8 said about the inappropriate treatment of the student by the ward nurse: "They feel that we are under their control! They do not behave us with respect! "

Participant No. 6 said about the discrimination between students by the technician: "However, nurses do an extraordinary job if they are good with someone. For example, I see that they don't give me that material I need, but they gave the same material for five times to the student with whom they have friendship; although the student has destroyed it, they still give it to that student!"

Ethical Challenges Due to Lack of Planning and Supervision

Based on the research findings, the participants referred to issues such as absence of a proper system

for managing patient admission and distribution among students, disregarding promotion of the faculty by faculty officials, cancellation of some classes and wards, improper organization of lessons and its impact on student learning, ignorance of the faculty members' performance and mere attention to their physical presence, workshops held for faculty members by non-specialists, decreased motivation of faculty members due to unkind behaviour of officials, increase in the number of universities with dental schools regardless of their quality, high status of international students in the faculty due to paying and supporting the university with international tuition fees, taking the time of other students due to allocating time for international students, attraction of an international student without sufficient scientific ability, lack of attaching importance to education by the educational system in the country, massive curriculum, disregarding students' eligibility upon graduation, use of inefficient faculty members, lack of commitment of temporary faculty members to student education as the most important ethical challenges due to the lack of planning and supervision.

Participant No. 8 said about the negative effect of the absence of patient distribution system among students on the quality of education: " For example, there was no distribution system in the pediatric ward. A patient who came, the person who admitted the patient sooner, would work on him/her. Well, our faculty members often only think about increasing their claims and do not pay attention to the fact that their teammate has visited only one patient, but they have visited 5! He worked by himself, and the faculty members had no supervision over this issue. However, when giving grades, they neglect how the person visited more patients, how did he/she grab the patient's attention and give her/him a higher grade".

Participant No. 7 said about the considering no importance for the promotion of the faculty by the faculty officials: "An important issue that I always think about, in my opinion, is order, which belongs to ethics! Good order and management! This is exactly

where our school has problem. Now seven to eight years have passed since its establishment; some steps must have been taken at least during the few years! “Unfortunately, no effort is made and the student suffers because of this problem.”

Participant No. 5 mentioned the non-holding of some classes and wards: “In the diagnostic ward, for example, only a few of its courses are held. “Diagnosis courses 3 and 4 are not held, the courses are not presented, they are in the list, but are not taught.”

Participant No. 8 talked about the temporary faculty members’ lack of commitment to student education: “Some of them are my faculty members who, because they just want to end their project, do not spend much time and only come and go, and most students are not satisfied academically and that are mistreated by faculty members.”

Ethical Challenges Due to Lack of Manpower and Equipment

Based on the research findings, participants mentioned issues such as failure to comply with student safety infrastructure, reducing the education quality due to shortage of faculty member, failure to provide the student with materials needed to ensure necessary practice and mastery of the related skills, decreased quality of education in some wards due to the small number of technicians, negative effect of lack of educational experts on the education quality, incomplete student grade due to shortage of faculty members, forcing students to buy educational equipment including pens, dental milling machines and turbines, delayed provision of equipment to faculty members as the most important ethical challenges due to lack of manpower and equipment.

Regarding failure to comply with student safety, participant No. 2 said: “First of all, lead shielding was not observed in the imaging room at all. When we passed Endos 1 and 2 courses, there was no lead shielded at all. The patient and we were constantly being exposed! We did not even know that this wall is not lead shielded! “During those two semesters, when we went to the ward one day a week, we each had a patient and each patient had at least 5 radiographs. See how much we were exposed.”

Participant No. 7 said about reduced quality of education due to shortage of faculty member: “You know, we didn’t not read any book on prosthesis at all, and we came to the ward and found out we did not know anything at all! We are totally unfamiliar with prosthesis books! The problem is the shortage of faculty members”.

Regarding the reduction in the quality of education in some wards due to the small number of technicians, participant No. 8 said: “For example, we have many problems in the prosthesis ward. There are few

technicians, and data transfer is small and not useful.”

Regarding the negative impact of the absence of educational expert on the quality of education, participant No. 7 said: “Most importantly, there is no educational expert in our faculty, that is, someone who knows how to teach the courses, arrange the exams correctly, and this is a big problem.”

Participant No. 4 pointed to the high status of international students in the faculty due to the paying and supporting the university with international tuition: “We also have international students and we want the faculty members to give them a grade because they pay tuition. As a faculty member, when I give a grade to the international student, the stigma of such an action disappears, and because they pay lots of money each semester, I have to give them a grade so that they don’t have to pay lots of money next semester again. The faculty member knew the rules that he/she should not let the international students fail because they are paying a lot of money. On the other hand, because they were supporting the university and paid a lot of money, as compared to me who was am not a paying student, faculty members also supported them. “During my residency, there was a female doctor from Armenia who did not take the exam and also came to study orthodontics and this student did everything in our ward.”

Ethical Challenges Related to the Management of Faculty Member Education

Based on the research findings, participants referred to issues such as inadequate education in wards and theoretical classes (faculty members do not fully teach educational content to students due to lack of motivation, old age and boredom, worry about making competitors for themselves), lack of attention to and interest in the quality of students’ education, improper supervision over the student’s performance in the ward, failure to observe the predetermined teaching schedules showing indifference to theoretical classes, showing reluctance to student education, lack of commitment to the student, excessive expectations from new students, inducing despair and hopelessness in the student, creating no motivation in the student, lack of proper order in the faculty non-observance of professional ethics, providing old educational resources to the student (outdated educational content), making no change in the PowerPoints and educational contents in different semesters, failure to provide lesson plans to the student, avoiding the student practice patient work and learn, lack of special privacy between faculty member and student due to being too intimate, comparison of the quality of work of novice students with faculty members and making fun of them, inadequate student education due to patient compliant as the most important codes related to the management of the education of the

faculty members.

Participant No. 5 said about inadequate education in wards and theoretical classes: “We did not learn anything; for example, we do not know yet which tooth can be covered and which tooth should be exposed!”

Participant No. 4 said about the faculty member’s views of the student as a job competitor: “Some faculty members did not teach because they viewed the student as a competitor. One of the faculty members said that you will be our competitor in the job market tomorrow.”

Participant No. 3 mentioned the faculty member’s irresponsibility in the field of education: “For example, in the wards where we do practical work, instead of supervising us, showing us our faults and teaching us something, they sit around together and eat Aush reshteh! Yes, because our time is 8:30 to 11:00, they eat Aush Reshteh until 10:00 ... they talk during 10:00 to 10:30, and make fun of us. At 10:30 a.m., they finally say you can go; the ward is finished!”.

“As a faculty member, I have a duty to read articles every day and update my knowledge, but I do not do that,” said participant No. 9 regarding the lack of up-to-date knowledge of the faculty member.

Regarding the excessive expectation of the newly arrived student in the ward, participant No. 3 said: “Now, it is good that the faculty members talk about their mistakes in class. When our first patient is very stressed, I mean stress peak well, the faculty member should definitely cooperate with you encourage you instead of going indifferently and your teammate soothe you instead of making a fuss.”

Participant No. 3 said about the improper supervision of the faculty members on the student performance in the ward: “They don’t come to the patient bed. You should go and look for the faculty member hold his hand and tell him to come. Then, he says wait, wait, I’ll come. Then, you see the amalgam was set. Well, you should come sooner so that it does not happen like this.”

Participant No. 2 said about the faculty members’ reluctance to teach the student: “For example, when we could not pull a tooth in the surgery department, we called the faculty member and the faculty member himself did not come to explain to us and teach us.”

Participant No. 4 mentioned the lack of creating motivation in the student by the faculty member: “They sometimes make you so upset that the way from the clinic to the dormitory seems to be 5 times longer. You are completely depressed. If they make very small encouragement, one would receive so much energy and morale to do his next job with much more strength.”

Participant No. 4 talked about creation of despair and hopelessness in the student: “You know, they behaved in such a way that one was always stressed;

will I graduate at all?! One does not think it is possible to study this course at all! You think you are stupid in two worlds?”

Participant No. 9 said about the faculty member’s non-observance of predetermined teaching schedule: “Faculty members sometimes are very late and devote less time to the student or they would devote less time in the next ward and the student would fall behind from both wards. The patients also have to wait and the student, for example, tells the patient to come at 9:00 a.m., but because the faculty member is not on time and is usually late, the patient is also kept waiting, and the patient is left unfinished due to the start of the next ward. Ultimately, this delayed attendance of the faculty member caused us to disrupt the order of ward completely, we thus decided not to attend that ward continuously in order not to waist the time of the next wards.”

Ethical Challenges Related to Exams

Based on the findings of the study, participants referred to these issues: not observing justice while giving grades due to putting in a good word for some students, being a relative, having thought, reaching the basic science test, using non-standard test questions, having no proper response to student protests, giving no feedback to the student, telling white lies to avoid giving a grade to the student, lowering the student’s grade in case of any objection, not complying with security issues regarding test questions, and taking repeated exams and designing no new question; some faculty members put in a good word for some students from another faculty member to increase his/her grade. If the patient’s payment receipt is not available at the cashier desk, this patient will not be added to the student’s resume.

Regarding non-observance of justice while giving scores, participant no. 2 said: “Once at the exam session, of course I do not disclose what the course was, the questions were designed in the multiple-choice format. I saw that some students called the faculty member frequently to come over. Then, I told myself why they ask questions frequently; well, they were multiple-choice questions and quite clear! After the exam, I saw that everyone was happy and I said, “Why did you call the faculty member so much?” They said that the faculty member came and touched the correct option! He was saying the correct answer”.

Participant No. 12 mentioned lowering the student’s grade in case of objection: “I myself did not miss one of the lessons, receiving no negative score and had no delay nothing. He gave me 18 out of 20. My friend was both absent and late, but the faculty member gave him 19.5! We do not dare to say why?! If you ask them, they will lower your score again.”

Participant No. 9 said about the lie told by the faculty member to avoid giving grades: “For example,

someone called and said, my daughter was given 16, give her 20. To avoid giving her 20, I said that her score was 14, and I then gave her 16”.

“Boys have access to questions in many exams; I don’t know where they get them,” said participant No. 8 about the non-observance of security issues regarding questions. “For example, the patient wanted to pay the bill, but the receptionist was absent, and he went and did not come another day, and the patient was not included in my resume because his bill is not there,” said participant No. 4 regarding non-inclusion of the patient in the student’s resume due to absence of the patient’s bill in the cashiers’ desk.

Inappropriate Treatment of Students, Colleagues, and Staff by Faculty Members

According to the research findings, participants referred to unjust and discriminated treatment of the student, taking stance and getting back at students, creating a stifling atmosphere against objection, showing disrespect to the student (inappropriate treatment of the student in front of the patients and when asking questions), being considered as no role model for students, showing inflexibility towards different treatment plans, weakening the student’s self-confidence, ethically abusing the faculty member-student relationship, forcing the student to find the patient, not taking the students seriously, not allowing the student to do practical work in the surgical wards, blaming the student for his mistake, having a gender perspective on the student, having no cooperation with a student with a specific medical problem, keeping no promise, being engaged in inappropriate treatment of colleagues, and showing no respect for each other are among the most important challenges regarding the inappropriate treatment of students, colleagues, and staff by faculty members.

Participant No. 7 talked about faculty members who kept no promise: “You cannot count on the work and words of the faculty members; for example, the faculty member says that my class is optional if you want, you can come. Then, suddenly, you see that he has written the names and started to do a roll call.”

Participant No. 7 mentioned having no role model character of faculty members: “Now, we see fewer faculty members who have that role model and can play their role well for the student. The student should view at him/her as a role model and imitate him. Maybe, it’s because the faculty members are young and they are too intimate with the students, and maybe the necessary privacy has disappeared.”

Regarding having no cooperation with a student with a specific medical problem, participant No. 2 said: “Then, they do not cooperate at all for the sake of the needs of those who have fallen behind! It does not matter to them whether you fall behind 1 semester or 10 semesters! Even if they know your problem is

an acute problem, they will act sternly.

Participant No. 9 said about the moral abuse of the faculty member-student relationship by the faculty member: “There may be moral abuse in the faculty member-student relationship; for example, the faculty member let the student to fail to abuse her/him morally or the student becomes intimate with the faculty member to get a better grade or obtain exam questions from him.”

Participant No. 2 said about taking stance and getting back at students: “In the pathology ward, the faculty member would let one of the boys fail every semester, because once the boy said in the class that pathology is not an important course! The faculty member got back at him ... He asked him questions regarding the course every session, and then let him fail at the end of the semester. The student would have preferred to go to another city to take that course at all.”

Participant No. 4 said about the inappropriate treatment of the student in front of the patient: “Then, the faculty member will come and if you make a mistake, he will humiliate you in front of the patient somewhere.”

Preferring Personal Interests Over Education

Based on the research findings, the participants referred to introducing students to technicians’ personal laboratories, forcing students to outsource their work, obliging the student to buy equipment from a particular company, and being easygoing to increase his/her evaluation score as the most common challenges regarding the preferring personal interests over education.

Regarding the introduction of the student to the technicians’ personal laboratories, participant No. 8 said: “It has been a semester and the faculty member has been coordinating with the technician in such a way that we must take our work to the technician’s laboratory! If we took it elsewhere, he would find frequent faults with our work and even they let us fail the course! “It means there were times when they let the student fail because he did not take his/her work to a specific technician, but to another place.”

Participant No. 4 mentioned the faculty members try to be easygoing, so that their evaluation score increases: “for example, the faculty members take an easy exam only to increase their evaluation score.”

Actions Taken by the Student to Reduce the Faculty Member’s Motivation

Based on the findings of the study, participants referred to showing disrespect to the faculty member, having no discipline, not listening to the faculty member when teaching, teasing the faculty members, not studying for the courses, forming teams against the

faculty member, not standing up as a sign of respect to the faculty member when he/she enters, showing no trust in the efforts of faculty members, having unreasonable expectation from the faculty member regarding giving a grade, making fun of the faculty member, respecting the faculty member solely for the sake of the grade, being absent in the classroom, having no culture of hard work among students, loving the easy-going faculty member and disliking the stern one, and not studying and showing lousy excuses of having physical and family problems as the most important issues in actions taken by students to reduce the faculty member's motivation.

"There used to be a lot of times when we were negligent or didn't have a logbook and didn't get a signature," said participant No. 11 about being undisciplined.

As to not listening to the faculty member while teaching, participant No. 1 said: "The faculty member comes and sees that all students have their heads in their cellphone. It is actually a very bad scene. The students ruined faculty member's motivation to teach."

Participant No. 7 said about not studying for the courses: "The classes were held, the faculty member came and taught some parts, and we did not read anything anymore; now we understand what a mistake we made."

Participant No. 9 said about not standing up in front of the faculty member as a sign of respect for the faculty member: "They do not stand up in front of the faculty member, or they only respect the faculty member in the university and in the classroom and do not even greet them outside the university."

"Some students are really nuisance and bother us," said the participant No. 1 regarding the teasing the faculty members by the student.

Non-observance of Professional Ethics by the Student

Based on the research findings, the participants referred to cheating, not handing out the test sheet on time in the exam session, prioritizing personal interests over those of other students, not cooperating with junior students by senior ones, giving faculty members' slides to another person without his/her permission, hiding their mistakes from the faculty member in various ways, showing dishonesty when filling out the evaluation form of the faculty members due to fear and, showing no commitment to the community health due to having an economic view to their major, resorting to different ways to get a grade (contacting relatives, lying, being intimate to the faculty), having no prestige in dental work in some students (mismatch between students' tone and speech, lack of proper coverage, having long or implantable nails), and having delays due to doing jobs in other wards as the most important issues in

the field of non-observance of professional ethics by the student.

About cheating, participant No. 2 said: "For example, they say we have to deliver this large number of teeth within 2 weeks! The students purchase the teeth! "There is no other choice. We would take pictures of the teeth from two different angles and deliver them instead of the two teeth."

As to preferring personal interests over the interests of other students, participant No. 8 said: "For example, there was no distribution system in the pediatric ward. They are trying to increase the number of patients they visit and do not pay attention to the fact that their teammate has visited only one patient, but they have visited 5!"

Regarding the students' dishonesty in filling out the faculty member evaluation form, participant No. 4 said: "Student evaluations are not honest at all; for example, they choose the excellent option for faculty member performance evaluation so as to increase their grades."

As to resorting to different ways to get a grade, participant No. 1 said: "We have this problem in small towns; for example, when we want to send the grades, they send the other faculty members to ask for higher grades for them, and sometimes they themselves do it. The city is small, and everyone knows that they cause a lot of inconvenience and a lot of annoyance."

Participant No. 7 said about the student's lack of commitment to the health of the community due to having economic view of his/her field of study: "On the other hand, the student has a moral commitment. When a medical student becomes a dentist, he/she has a commitment to the community. I do not see this commitment in many students, or I see it less frequently. Many of them may have no interest in their field at all and enter this field only because of financial issues or because of family pressure and economic pressure, which is actually a factor of economic security in this field. They only attach importance to earning their specified level of income and have no high commitment towards the community health any more. We see those who carry out many aggressive and complex beauty treatments for the patient only due to a small problem ... Why does the dentist look for financial issues in the patient? Because they have no commitment, have no interest in their field, and choose this field only because of financial issues".

About the inappropriate cooperation of the senior students with the junior ones, participant No. 1 said: "The number of patients is large, and the responsibility lies with the junior student who does not know anything; there is no one to help them! "They leave the patients like this and go."

As to giving the faculty member's slides to another person without his/her permission, participant No.

9 said: “For example, we should give the faculty member’s slides to another faculty member or student without his/her permission.”

Regarding the lack of occupational prestige in some students, participant No. 7 said, “In general, the culture of students has changed a lot. For example, I had a female student who came to the university in short trousers in such a way that her leg was seen completely in a class that was not suitable, according to our cultural standards.”

Discussion

Ethics has a high status in dentistry. There are ethical challenges in dentistry and instructions and ethical codes can be provided to overcome these challenges, so that all people in the dental profession are required to use them. The aim of the present study was to explain the ethical challenges in the field of dentistry education from the perspective of dental faculty members and students of metropolitan area 5. According to the results of the present study, ethical challenges in dentistry were classified into three main categories: ethical challenge related to the educational system, faculty members, and students. The main category of ethical challenges in the educational system consists of three subcategories, including ethical challenges related to the managers and staff of the faculty, lack of planning and supervision, and lack of manpower and equipment. The main category of educational ethics challenge related to faculty members consists of four sub-categories, including ethical challenges related to the management of faculty member education, ethical challenges related to exams, inappropriate treatment of students by colleagues and staff faculty members, and preferring personal interests over education. The main category of educational ethical challenge related to students includes two sub-categories, including actions taken by the student to reduce the faculty member’s motivation, and non-observance of professional ethics by the student. These results were in the same line with those of Gharaei et al.’s research in Mashhad. In a qualitative study entitled “Educational problems from the perspective of students in Mashhad Dental School”, Gharaei referred to four main themes for the educational problems of Mashhad Dental School from the perspective of students: 1. Professionalism, 2. Educational facilities and equipment, 3. Educational management (including theoretical training, practical training), and 4. Evaluation.¹³ The difference between the present study and Gharaei’s study is that in addition to the students’ views, the views of the faculty members have also been investigated in the present study. Although the main categories of both studies are similar, many of the extracted codes of the two studies are different. These challenges reflect that the ethics course in dentistry does not work well and does not nurture what it ought to, which is consistent with the Bertolami’s article. Bertolami states that the behavior of students has not changed after the

ethics education course, and has identified three specific weaknesses in an ethics curriculum; it is stated that more education is a response to everything; ethics is boring. The content of the course is inadequate qualitatively because it does not provide an introspective basis for changing actual behavior, and the program is presented in the early semesters of dentistry without linking the theory and practice.¹⁴ Therefore, any of the above points might be the reasons for the failure of the ethics course in dentistry. Also, given that teaching ethics in dentistry has progressed from lecturing to interactive methods and group problem solving in the past decades,⁴ this course may not be interactive. Also, the results of other studies have shown that formal ethics education programs should be provided for faculty members of ethics faculty members to be more prepared to teach ethics courses.^{15, 16} There may be a need to teach faculty members who offer a course in dental ethics. Given the fact that the subject of the ethics course in dentistry is traditional, it is given in the form of lectures by the faculty member in most educational centers, and it is often offered in the third year of the course (in the pre-clinic course) before entering the clinical course, this theoretical course only introduces the ethical principles; also, considering the importance of clinical education in medical sciences, theoretical training of ethical principles should be integrated with clinical topics and its continuation is necessary even after graduation.³ In addition, the topics envisaged in this theoretical topics are based solely on medical (and not dental) ethics, and often ignore professional differences between medicine and dentistry. Although the general principles of medical ethics can be generalized to the subgroups of medical sciences, it does not meet all the professional needs of different groups.³ Constant efforts to update the content and use new training methods and its continuous evaluation and review should always be made by administrators because any shortcoming lead to legal and ethical risks for the future career of the dentists.³ It is suggested that related ethical challenges should be presented when a course is offered or students are in a department.¹⁷ Faculty members of all specialized disciplines can also discuss ethical issues in the form of group discussions.¹⁷

One of the main categories of this study is the ethical challenges of the faculty system, which is also mentioned in studies by Kiani and Khorshidian.^{3, 18} Kiani et al. investigated the ethical requirements in medicine and stated that non-observance of medical ethics was more affected by the faculty.¹⁸ Khorshidian et al. also examined ethics education in dentistry. They found that lack of proper curriculum and proper planning, lack of proper infrastructure, lack of problem-solving-based education, absence of reporting of faculty members’ and students’ performance, and lack of training at the patient’s bedside are among the ethical challenges by the faculty system in dentistry education.³ A number of these challenges are also expressed in the present study.

The educational ethical challenges related to faculty members were another important category of this study. A faculty member is the most important element in flourishing of students' talents and has a great impact on them. The relationship between the student and faculty member is of particular importance. The faculty member helps to grow and develop the students' talents by creating a proper environment. Rouhi et al. stated that the most important motivating factors for students are faculty members.¹⁹ One of the most important tasks of a faculty member is to convey the norms of society, to shape the behavior, beliefs and attitudes of students, and to cultivate moral virtues in them.^{20,21} Given that it is the faculty member's behavior that affects the student's ethical behavior and according to the hidden curriculum discussion;¹⁷ therefore, the faculty member's ethical misconduct has many negative effects on students. It is suggested that faculty members should be justified regarding the need to observe ethical issues. Many of the challenges extracted in this study are similar to the results of Khaghani's study. In Khaghanizadeh et al.'s study, the educational challenges of medical ethics related to faculty members include codes such as weak interaction with students, lack of feedback to students, neglect of students' interests, ignorance of patients, priority of personal interests, disrespect for patients, and knowledge weakness.²² Given that faculty members should teach the principles of professional ethics to students and assess them for the degree of observance of the principles of professional ethics, they should know and practice the principles of professional ethics themselves.²³ Therefore, it is suggested that training courses should be held for them in this regard. This case has also been mentioned in the study by Karampourian. The results of the study by Karampourian et al. in Hamedan show that dental faculty members do not have a good attitude towards some topics of professional ethics; therefore, retraining courses have been recommended in this regard.²⁴

Another important category of this research is the educational ethical challenges related to students. Many international studies have referred to cases of non-observance of professional ethics by students in the field of education. In a study conducted at King Saud University on the assessment of professionalism among dental students, 97 students (62%) exchanged information before the test.²⁵ A total of 142 students (91%) used personal relationships, bribes, or threats to obtain academic benefits, such as receiving exam papers before the test or passing an exam by applying pressure on the staff.²⁵ A total of 113 students (72%) cheated, using a mobile phone or forcing someone else to take the exam instead of them.²⁵ A total of 133 (85%) students posted incorrect information about faculty members, etc. on social networks.²⁵ In his article, Bertolami states that cheating is common

among students, as any dental instructor or supervisor can attest.¹⁴ In a survey of U.S. dental school heads by Beemsterboer, a total of 86% of the faculty members reported one or more cases of academic dishonesty.²⁶ In Taylor's study, dishonesty, lack of conscientiousness, and irresponsibility were among the non-professional cases of dental students,²⁷ which were included in the important category of the students' observance of professional ethics in the presents study.

In addition to the issues presented regarding the modification of the ethics course in dentistry and the need to train faculty members in this regard, it is suggested that ethical issues should be considered when promoting professional ethics among students when presenting the case, and ethical issues should be considered when providing feedback to students.¹⁷ Establishing a faculty ethics committee that assesses the ethics of managers, students, staff, and faculty members and holding seminars and sessions to appreciate the right ethical behaviors, not just punishing wrong behaviors,¹⁷ are among other solutions to observe ethics in dental education. According to the results of the Brazeau's study, which showed a relationship between students' burnout and expressing unsympathetic and unprofessional behavior, these behaviors can be prevented to some extent by providing welfare facilities.²⁸

Although international research also discussed unprofessional behaviors in cyberspace, none of the participants of the study mentioned them. There is a risk of losing the confidentiality of information while using social networks, sending pornographic photos, sending pictures related to the drunk students, and leaving comments about the characteristics of people such as those with disabilities, race, etc.²⁹ According to this stance, it is suggested that the status of observance of ethics in cyberspace should be examined by dental students. the codes of professional ethics for dentists in the European Union and the United Kingdom refer to the codes the dentists must follow in cyberspace;^{30,31} these codes can be used to educate students.

Given that the present research only investigated the experiences of faculty members and students regarding ethical challenges in the field of education, it is suggested that ethical challenges should be examined from the perspective of patients and staff of dental faculties in future research. Also, considering that this research was carried out in metropolitan area 5 and ethics is context-dependent, it is suggested that ethical challenges should be investigated in other metropolitan areas of the country as well and the results should be compared with those of the present research. It is also suggested that the solutions to overcome these challenges should be incorporated in a comprehensive guideline, so that it can be hoped to be implemented in all dental schools and dental clinics.

In this study, ethical challenges in the field of

dental education were identified, while it is necessary to identify ethical challenges in the field of dental services, which in Iran was conducted by Rashidi Maybodi and colleagues.³² Result of Rashidi Maybodi research showed that the most common challenges faced by the participants were compromising treatment due to cost issues and noticing sub-standard treatments performed by other dentists.³²

Finally, it is recommended that the observance of ethical codes in dentistry by dental faculty members and students should be examined in a quantitative research and ethical codes in dentistry should be compiled according to this research and the solutions for overcoming ethical challenges in future researches.

Research Limitations

In this study, purposeful sampling was used rather than maximum variation purposeful sampling method, which might have affected the results. A number of interviews were conducted by the students without the presence of the teacher and due to the inexperience of the student, the follow-up questions might not have been used well.

Conclusion

There are many ethical challenges in the field of dental education from the perspective of faculty members and students that must be addressed by faculty authorities, faculty members, students, and patients; they were classified into three main categories: ethical challenge in the educational system (consists of three subcategories), educational ethical challenge related to faculty members (consists of four subcategories), and educational ethical challenge related to students (includes two subcategories). It is suggested that solutions to address these challenges should be investigated in future research, and, if necessary, appropriate ethical codes should be developed in this regard.

Conflicts of Interest: None declared.

References

- Larijani B. [Physician and Ethical Considerations]. 2^{ed}. Tehran: Publication for Tomorrow. 2013.
- Arasteh H, Jahed H. Observing Ethics in Universities and Higher Education Centers: An alternative for improving behaviors. *Science Cultivation Journal*. 2011; 1(2): 31.
- Khourshidian A, Moumeni N, Ala Aldini M, Etemad Moghadam SH. Ethics education in dentistry. *Ethics in sciences and technology*. 2009; 3(3-4): 85-89.
- Berk NW. Teaching ethics in dental schools: trends, techniques, and targets. *J Dent Educ*. 2001 Aug; 65(8):744-50. PMID: 11518245
- Gharamaleki F. [Professional Ethics]. 3^{ed}. Tehran: Majnoon. 2003.
- High Council for Medical Science Planning. Curriculum of doctor of dental surgery. 2018.
- Selvakumar D, Joseph DB. The importance of including bio-medical ethics in the curriculum of health education institutes. *Education for Health*. 2004; 17(1): 93-96. doi: 10.1080/13576280310001656204. PMID: 15203478.
- American dental association. Principles of Ethics and Code of Professional Conduct. 2018.
- Khourshidian A, Larijani B, Akhoundi MS, Parsapour A, Ebadi A, Shojaei AA. Development of Dental Ethical Codes: A Proposal for National Implementation in Iran. 7th Annual Iranian Medical Ethics Congress the Evolution of Medical Ethics in the Second Step of the Revolution. 2019.
- Khorshidian A, Moumeni N, Alaeddini M, Etemad Moghadam S. Ethics Education in Dentistry. *Iran J Ethics Sci Technol*. 2008; 3(4): 85-9.
- Jabarifar SE, Hoseinpour K, Khalifesoltani FS, Shamir H, Nilchian F. Evaluation of under- and post-graduate Dental students of Isfahan Faculty of Dentistry in relation to communication skills and professional ethics. *J Isfahan Dent Sch*. 2012; 7(5): 770-6.
- Sofaer B. Enhancing humanistic skills: an experiential approach to learning about ethical issues in health care. *Journal of medical ethics*. 1995; 21(1): 31-34. doi: 10.1136/jme.21.1.31. PMID: 7776345.
- Gharaei Sh, Kargoza S, Amirchakhmaghi M, Gholami H. Students' Viewpoints of Mashhad Dental School about Educational Problems a Qualitative Study. *Educ Strategy Med Sci*. 2015; 8(2): 123-130.
- Bertolami CN. Why Our Ethics Curricula Don't Work. *J Dent Educ*. 2004; 66(4): 414-425. PMID: 15689605.
- Tabatabaiee SM, Kalantar hormozi AJ. [Foundation of medical ethics from perspectives of Islamic texts and Figures]. *Medical research*. 2012; 35(1): 1-6.
- Buyx AM, Maxwell B, Schöne-Seifert B. Challenges of educating for medical professionalism: who should step up to the line? *Med Educ*. 2008 Aug; 42(8): 758-64. doi: 10.1111/j.1365-2923.2008.03112.x. PMID: 18564097.
- Botto RW. Addressing the marketplace mentality and improving professionalism in dental education: response to Richard Masella's "Renewing professionalism in dental education". *J Dent Educ*. 2007 Feb; 71(2): 217-21. PMID: 17314382.
- Kiani M, Abasi M, Shaykh azadi A, Safar cherati A, Bazmi sh. [Ethical requirements in medical education]. *Quarterly Journal of Medical History*. 2012; 3(8): 11-36.
- Rouhi GH, Hosseini SA, Badeleh MT, Rahmani H. Educational motivation and its relationship with some factors among the students of Golestan university of medical sciences. *Strides in development of medical education*. 2008; 4(2): 77-83.

- 20 Johnston C, Haughton P. Medical students' perceptions of their ethics teaching. *J Med Ethics*. 2007 Jul; 33(7): 418–422. doi: 10.1136/jme.2006.018010. PMID: 17601871. PMCID: PMC2598142.
- 21 Dibaei A, Saadati N, Ghadakzadeh S. Evaluation of student and graduate's opinions on the medical ethics course in medical school curriculum, Ahwaz jondishapour university of medical sciences, 2006-2007. *Medical ethics*. 2012; 3(7): 111-139.
- 22 Khaghanizade M, Malaki H, Abbasi M, Abbaspour A, Mohamadi E. Faculty-Related Challenges in Medical Ethics Education: A Qualitative Study. *Iranian Journal of Medical Education*. 2012; 11 (8) :903-916.
- 23 Zijlstra-Shaw S, Robinson PG, Roberts T. Assessing professionalism within dental education; the need for a definition. *Eur J Dent Educ*. 2012 Feb; 16(1): e128-36. doi: 10.1111/j.1600-0579.2011.00687.x. PMID: 22251336.
- 24 Karpourian A, Eimani B, Torkzaban P. The Attitude of Faculty Members Towards Professional Ethics at Hamadan University School of Dentistry. *J Res Dent Sci*. 2013; 10(1) :43-51.
- 25 Habib SR, Sattar K, Ahmad T, Barakah RM, Alshehri AM, Andejani AF, et al. An insightful evaluation of professionalism among dentistry students. *Saudi Dent J*. 2021 Nov; 33(7): 753-760. doi: 10.1016/j.sdentj.2020.03.012. PMID: 34803330. PMCID: PMC8589603.
- 26 Beemsterboer PL, Odom JG, Pate TD, Haden NK. Issues of academic integrity in U.S. dental schools. *J Dent Educ*. 2000; 64(12): 833-46. PMID: 11197944.
- 27 Taylor CL, Gray NJA. Professional behaviours demonstrated by undergraduate dental students using an incident reporting system. *Br Dent J*. 2015; 218: 591–596. doi: 10.1038/sj.bdj.2015.386. PMID: 25998353.
- 28 Brazeau CM, Schroeder R, Rovi S, Boyd L. Relationships between medical student burnout, empathy, and professionalism climate. *Acad Med*. 2010 Oct; 85(10 Suppl): S33-6. doi: 10.1097/ACM.0b013e3181ed4c47. PMID: 20881699.
- 29 Kenny P, Johnson IG. Social media use, attitudes, behaviours and perceptions of online professionalism amongst dental students. *Br Dent J*. 2016 Nov 18; 221(10): 651-655. doi: 10.1038/sj.bdj.2016.864. PMID: 27857111.
- 30 CED Code of Ethics. Code of ethics for dentists in European union. Adopted by the CED General Meeting on 26 May 2017.
- 31 General Dental Council. Guidance on using social media. 2016.
- 32 Rashidi Maybodi F, Haerian Ardakani A, Khabazzadeh Yazdi M. Ethical Challenges Faced by Senior Dental Students and General Dentists. *J Res Dent Maxillofac Sci*. 2021; 6(4): 23-29.