Evaluating the Establishment of the National Program on Regarding of Medical Residents to the Principles of Professional Ethics at the **Universities of Medical Sciences Located in the Macro Educational Region Number One**

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ABSTRACT

BACKGROUND AND OBJECTIVE: Professional assistants are among the learners whose ability in terms of professional ethics and commitment influences their future performance after graduation so that, as an excellent physician, they can combine patient care with confidence and desirable medical skills. Considering that no comprehensive assessment of the national guideline on regarding of establishment of medical residents to the professional ethics has been published, so far this study aimed to evaluate the activities of medical universities to conduct this program. **METHODS:** This cross-sectional study was conducted to assess the activities of the major medical universities in region one, where had medical residents, during 2015-2018. Information on the formation of committees related to the evaluation of feedback, teaching the basics of professional ethics and how to respond to residents by asking managers of different levels of the university in the Medical Ethics Council, the Vice Chancellor for Education, medical School, department heads and departments Educational and medical centers with assistants.

FINDINGS: Four universities of medical sciences (80% of the target population) with 4 faculties, 8 educational hospitals and 8 educational departments were evaluated. The implementation and activities of committees to investigate the professional ethics of assistants in the educational departments and hospitals of different universities has not been exactly in accordance with national guidelines. The hospital committee and the medical school committee have been established in accordance with the national guideline only at one university. None of the universities in the region had a fourth-level university committee.

CONCLUSION: This study shows the establishment of a national program of commitment of medical assistants to the principles of professional ethics in the majority of macro medical universities in region one and the attention of different levels of universities, including senior administrators, faculties, educational centers and clinical departments in different dimensions of this program especially training for assistants to commitment to professional principles in these universities.

KEY WORDS: *Ethics, Medical Ethics, Residency.*

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Introduction

 ${f E}$ thics refers to the inner temperament of human beings, which is the source of individual behavior, and professional ethics is a branch of ethics that is defined according to the specific conditions of each profession (1). Professional ethics and commitment in the medical sciences is a concept that leads to build trust between the physician (and other health care providers) and the patient (health care recipient) (2). Professional ethics is not a new concept in medical sciences and has been mentioned in the history of medical sciences since the time of Hippocrates (3, 4). The American Accreditation Council for Graduate Medical Education (ACGME) considers six competencies in order to explain the key competencies that should be included in the curriculum and evaluation of medical students, and professional ethics and commitment is one of these essential competencies which should be considered in all medical graduates (5).

Professional assistants are among the learners whose ability in terms of professional ethics and commitment influences their future performance after graduation so that, as an excellent physician, they can combine patient care with confidence and desirable medical skills (6). In a study in Iran, professional ethics was evaluated among the specialized assistants of five medical universities in the country, and based on the results, training courses and continuous evaluation of doctoral and residency students in medical universities was emphasized (2). Evidence published abroad, following the evaluation of the views of clinical assistants on the concepts of professional ethics, showed that the level of residents' understanding of these concepts is very variable and requires planning (7).

Educational Deputy of the Ministry of Health, Treatment and Medical Education on 16th November 2015, based on the enactment of the 72nd meeting of the Ministry of Medical and Specialized Education, has announced the general framework for evaluating medical assistants in the field of adherence to the principles of professional ethics to medical universities of country. In this guideline, six areas conscientiousness and responsibility, honor and integrity, altruism, respect for others, justice, professional excellence and other valid ethical and professional standards and practices have been evaluated as areas of adherence to the principles of professional behavior. Also, at four university levels, committees have been defined to look at how assistants adhere to the principles of professional ethics, and on the other hand, to encourage exemplary assistants, has been emphasized (8). In the study of Isfahan University of Medical Sciences, two important specific objectives of this guideline are to provide feedback to residents and develop a performance improvement program with their participation and to establish and implement a process for periodic evaluation of residents in the field of adherence to professional principles using appropriate and uniform evaluation methods has been announced throughout the country in order to improve the overall performance of residents (9) and in a study by Tehran University of Medical Sciences, it was stated that in Iranian residency training, despite significant success in cognitive areas and clinical skills, not enough attention is still paid to communication skills and the institutionalization of professional ethics in assistants, and this makes the codified planning of medical universities in the country to promote professional ethics and commitment a necessity (10).

Since in reviewing the evidence, no published report was found on the evaluation of the implementation of this program in the macro-regions of the country, so this study was performed in order to evaluate this program in the macro-level of a higher health education organization (including Babol, Mazandaran, Semnan, Golestan, Gilan and Shahroud universities of medical sciences).

Methods

This cross-sectional study was conducted in the National Center for Strategic Research in Medical Education with the code 961083 and the approval of the Educational Deputy of the Ministry of Health, Treatment and Medical Education, in the Macro Medical Universities of Region One in a higher education organization. Since five universities of medical sciences in Mazandaran, Babol, Golestan, Gilan and Semnan had specialized medical assistants, they were targeted. In order to collect data, a researchermade questionnaire was developed to evaluate the measures taken in each of the universities of medical sciences during 2015-2018 in the program of adherence of medical assistants to the principles of professional ethics in five areas. In this evaluation, managers of different levels of the university were interviewed in the Secretariat of the Medical Ethics Council, the Education Vice Chancellor and Graduate Management of the University, the Dean of the medical school, the heads of departments with specialized assistants and the Education Dean or Vice Chancellor of Treatment and Medical Education organizations. In the first axis, the executive infrastructures for the promotion of professional ethics at the university level were evaluated and the formation of the Medical Ethics Council was evaluated and in case of a positive answer, the person issuing the notification was evaluated by the members of the University Medical Ethics Council.

According to national guidelines, the University Medical Ethics Council is an assembly of legal members, including the president of the university, two vice presidents, the head of the forensic medicine organization, the head of the representative office of the Supreme Leader at the university, and one of the health network officials elected by President of the University and the full members, including two professors of medical ethics, one lawyer with knowledge of medical topics, two heads of hospitals, one head of research centers and five faculty members of the university (from different schools: medical , Pharmacy, dentistry, nursing and paramedical).

Another subject to be evaluated in the questionnaire was how to announce the instructions of the Educational Deputy of the Ministry of Health, Treatment and Medical Education in 2015 regarding the evaluation of medical assistants' adherence to the principles of professional ethics to the medical school and training groups with assistants and the number of sessions/ workshops held to familiarize residents and clinical faculty members with the principles and examples of professional ethics and the formation of four committees to examine how assistants adhere to the principles of professional ethics in the university was questioned. In the second questionnaire, the evaluation of the program was done in two educational groups with specialized assistants and by contacting the head of the group or the assistant director of the clinical educational department, their familiarity with the national instructions of evaluating the adherence of medical assistants to the principles of professional ethics, how to get acquainted with this instruction, whether or not to form a committee to review how assistants adhere to the principles of professional ethics in this group, how many assistants in the group during the last two years, in the annual evaluation score in the professional ethics department earned less than 21, have assistants been given feedback on their professional conduct score, does a particular faculty member complete a questionnaire evaluating the professional behavior of assistants, or do all faculty members in the group participate in the process, as well as the number of assistants who were encouraged or punished for adhering to professional conduct in the last two years was asked. In the third questionnaire, the program was evaluated in two educational and medical centers with specialized assistants, and in the fourth and fifth questionnaires, the medical school and the university were evaluated for the formation and activity of committees to review the residents' adherence to professional ethics. According to the guidelines of the country mentioned, the composition of the committee's review of how to adhere to professional principles at the

four levels is defined as follows: Committee on how to adhere to professional principles at the level of the department (level 1): the director of the department, the assistant director of the department, three faculty members of the group (selected by the council), the composition of the committee at the level of the educational center (Level 2): The head of the center or his representative, the deputy director of education of the center, two faculty members of the center (on the proposal of the head of the center and with the order of the head of the medical school), the director of the relevant department or the assistant director on his behalf Relevant section (guest member) and committee members at the medical school level (level 3): Dean of the medical school, Vice Chancellor of Specialized Education or Vice Chancellor of Medical School, Representative of the Vice Chancellor of Education, Student-Cultural Vice Chancellor or another Vice Chancellor of the Medical School (selected by the head of the medical school), the director of the relevant department, the deputy director of education of the relevant hospital, the head of the hospital or the head of the relevant department and one of the faculty members of the relevant department have been notified at proposal of the head of the department and at the invitation of the university dean (as invited members). Composition of the committee to review the adherence to the principles of professional ethics of residents at the level of the University of Medical Sciences (level 4): including the president of the university (head of the committee), vice chancellor (secretary of the committee), student-cultural vice chancellor, dean of the medical school, one of the members of the clinical faculty of the university have been appointed by the president of the university, the director of legal affairs of the university and one of the assistants on the proposal of the board of directors of the medical school and the approval of the president of the university was determined (8). Also, according to the definition of the Ministry of Health, Treatment and Medical Education, hospitals that operated in a specialized or subspecialized field of medicine are named as specialized hospitals (11).

Completion of questionnaires in each university after obtaining the permission of the Vice Chancellor of the relevant university by referring two trained questionnaires familiar with the professional ethics promotion package and the evaluation program of medical assistants (including a faculty member and a senior expert of the University Vice Chancellor) to each of the universities of medical sciences was researched and the relevant documents were directly observed. One university of medical sciences in the region refused to answer the questionnaire and information about four

universities was entered in SPSS software version 18 and the information was presented in the form of a descriptive report.

Results

Four universities of medical sciences with 4 medical schools, 8 educational centers and 8 educational departments of the field of medical assistants were evaluated. One university of medical sciences in the region was not ready to submit research documents and was not questioned due to the lack of a license from the vice chancellor of the relevant university (80% response rate of universities in the region). Findings showed that in all medical universities surveyed, the Medical Ethics Council started its activities with the issuance of a notification by the University President and the number of meetings of the Medical Ethics Council in each university during 2015-2018 was 3-4 sessions. All universities communicated the 2015 instructions of Educational Deputy of the Ministry of Health, Treatment and Medical Education regarding the evaluation of medical assistants' adherence to the

principles of professional ethics to the medical school and assistant departments, but the implementation of the instructions in different departments differs. In two universities of the region, national forms related to this instruction were not used for annual evaluation of the assistant or feedback to him. On the other hand, a successful experience was observed in the Department of Surgery of Guilan University of Medical Sciences, which used the facilities available in the electronic logbook system to evaluate the professional ethics of residents and feedback to them. In all universities during the years 2015-2018, meetings or workshops were held to acquaint residents with the principles and examples of professional ethics and viewing the documents of these programs showed that mainly these workshops were held at the beginning of the residency period. The number of workshops to familiarize faculty members in departments with specialized assistants regarding this instruction has been 0-1 workshops per year. In all the departments studied, all or most of the faculty members of the department participated in the process of assessing the residents' adherence to the principles of professional ethics (Table 1).

Table 1. Status of the implementation of the national program to evaluate the adherence of medical assistants to the principles of professional ethics in the affiliated departments of medical universities in the region

	Is the level one The status of the two assessed educational groups Number committee in the												
University row number	Date of visit	of training groups with assistants	training groups with assistants formed according to national guidelines?	A	В	C	D	E	F	G	Н	I	J
1	30 Jan 2019	13	Yes	13	38	Head of department or group assistant program manager	Through the correspondence of the Vice Chancellor of Education of Medical University or School, participation in the meeting/workshop and individual study of the instructions on the websites	4	4	Yes	All or most of the faculty members of the group participate in this process	0	5
2	19 Apr 2019	16	No	41	31	Head of department	Correspondence from the medical school or the hospital education development office	1	0	Yes	"	0	0
3	30 Nov er 2019	8	Yes	33	44	Head of department	Correspondence of Educational University Vice Chancellor	0	0	Yes	"	5	9
4	7 Dec 2019	16	Yes	45	37	Head of department	Correspondence of Educational Vice Chancellor of Medical University or School	1	0	Yes	"	0	0

A: Total number of faculty members of the two groups, B: Number of assistants in the two groups, C: Position of the respondent to evaluate the groups, D: How to get acquainted with the country guidelines, E: Number of assistants who during the 2017, in the annual evaluation score in the professional ethics section, scored less than 21, F: Number of assistants who during 2018, in the annual evaluation score in the section of professional ethics, scored less than 21, G: Feedback to assistants during the years 2017-2018 regarding the score of their professional behavior, H: Status of participation of faculty members in completing the questionnaire to evaluate the professional behavior of residents, I: Number of assistants encouraged in 2017 and 2018 to comply with the standards of professional behavior, J: Number of assistants punished in 2017 and 2018 for non-compliance with professional behavior standards

In only one regional university was a secondlevel committee set up to look at how assistants adhere to the principles of professional ethics, in accordance with national guidelines, in hospitals with assistants, and in other universities, other infrastructure of hospital, school and university such as: educational department committees or disciplinary committee or clinical ethics committee of hospitals to deal with related to the professional ethics of residents. In the two specialized hospitals in the area that were visited, the first and second level committees were merged (Table 2). None of the universities in the region had a fourth-level university committee to form quadruple committees to look into how assistants adhere to the principles of professional ethics. The third level committee was set up in only one medical school. The establishment and activity of the first level committees (educational group) and the second level (treatment-educational center) have also had differences in different universities. In some groups and treatment-educational centers, examples of professional ethics of residents in the same meetings have been evaluated, and did not have an independent committee with a defined structure of national guidelines for assessing assistants' adherence to professional principles.

Table 2. Status of implementation of the national program to evaluate the adherence of medical assistants to the principles of professional ethics in the educational and medical centers of medical universities in the region

University Date of Status of two educational and medical centers visited								
row number	visit	A	В	C	D			
1	30 Jan 2019	Clinical Education Deputy of Hospital	Through the correspondence of the educational deputy of the university or medical school	Yes	No			
2	19 Apr 2019	Clinical Education Deputy of Hospital or Head of Hospital Education	Correspondence between the Medical School and the Education Development Office of Hospital	No	No			
3	30 Nov 2019	Clinical Education Deputy of Hospital	Through the correspondence the Education Vice Chancellor	No	One hospital Yes			
4	7 Dec 2019	Clinical Education Deputy of Hospital	Through the correspondence the Education Vice Chancellor	No	One hospital Yes			

A: The position of the respondent to evaluate the educational and medical center, B: How to get acquainted with the national guidelines, C: Forming a committee to review the compliance of residents with the principles of professional ethics, according to national guidelines in these two hospitals, D: Single specialty of hospitals

Discussion

Findings of this study showed that in all universities of medical sciences, the Medical Ethics Council has started its activities with the notification of the university president and its meetings have been held at least once a year. The council has the task of formulating macro policies, goals and strategies related to medical ethics, institutionalizing medical ethics at all academic levels, providing strategies for the development of medical ethics in the fields of education, research and health services, and establishing a medical ethics network in the school and research centers and determine the general framework and oversee the activities of ethics committees in research, the hospital ethics committee of affiliated centers and oversee the observance of ethical considerations in the university. Mackenzie in 2017, while announcing the importance and necessity of awareness and sensitivity to ethical challenges in today's world of medical activities, has listed four main areas that should be emphasized as follows: bioethics, which in different dimensions of ethical standards and challenges throughout human life include research ethics,

reorganization of medical care such as organizational ethics as well as ethics in hospital systems and health care, professional ethics or medical professionalism (12) and the formation of the Council of Medical Ethics in Universities is a solution to implement these four axes and establish a system of surveillance, needs assessment, pathology and promotion of medical professional values and ethics at different levels of education, research, health, treatment and services in the higher health education system in Iran is counted. This study showed that different educational groups with specialized assistants used different methods to adhere to the principles of professional ethics and their evaluation, and in all universities at least annually, educational programs are held to familiarize faculty members and assistants with the principles and examples of professional ethics. In different countries of the world, the training of specialized medical assistants about medical ethics and the evaluation of their adherence to the principles of professional ethics is emphasized (13-17). Traner et al. at Yale University in the United States have studied medical ethics training

for neurology assistants and proposed methods for evaluating the effectiveness of this training (13). Padela et al. assessed the readiness of emergency medical assistants to face ethical challenges in clinical work environments and stated that out of a total of 302 assistants surveyed, only 34% were a codified model of medical ethics in the residency training curriculum. The researchers stated that there are still gaps in the level of knowledge of specialized assistants about the standards of clinical ethics that need to be addressed (14). Martakis et al. in Germany, in order to teach medical ethics to pediatric assistants, have proposed trainings based on common cases through lectures, discussions, individual studies, and regular teaching sessions in educational and supervised groups. They also discussed the existence of an ethics department and organizational and group support in medical schools. In this study, teaching medical ethics to assistants in the first years of residency is emphasized (16).

Findings showed that in all the educational departments, all or most of the faculty members of the department participated in the process of assessing the residents' adherence to the principles of professional ethics. Pourleyli et al. at Qazvin University of Medical Sciences announce the highest rate of professional ethics learning in residents by observing the role of models and in order to improve the problems of today's learning environments, suggests increasing the number of model physicians in professionalism at any stage of medical education (18).

Ethics, behavior, skills and professional knowledge of faculty members help to better convey the message that comes from their knowledge and technicalprofessional skills to the audience, and in this way gain professional competencies and up-to-date in teachers and faculty members, requires continuous professional development in three areas of technical knowledge, specialized skills and individual characteristics (19). Since the Medical Ethics Council operates at all university levels, none of the universities in the region had a fourth-level university committee. According to the national guidelines, considering the presence of the majority of these members in the composition of the University Medical Ethics Council, it seems that this issue has been effective in not forming a fourth level committee at the level of medical universities in the region. The third level committee was set up in only one medical school. Only in one university in the region, a level two committee was formed to review the compliance of residents with the principles of professional ethics, in accordance with national guidelines for assessing the compliance of residents with the principles of professional ethics, and in other universities, other existing platforms such as group committees educational or disciplinary committee or clinical ethics committee of hospitals has been used to address issues related to the observance of professional ethics of residents. Since the composition of the committee dealing with the adherence to the principles of professional ethics of the assistants in the one specialized hospitals is very similar to that of the department committee located in that center, in this respect, the first and second level committees were mainly merged.

It seems that parts of the national instructions of 2015 of Educational Deputy of the Ministry of Health, Treatment and Medical Education due to interference with some other instructions, including the duties and powers of disciplinary committees that are responsible for dealing with various violations of students and the academic commitment committee of professional assistants to the principles of professional ethics needs to be reconsidered. Also, for future studies, it is suggested that a questionnaire be asked from the specialized assistants of the departments of different medical universities and to evaluate the compliance of the points of the questionnaire evaluating the professional behavior of the residents with their performance documents.

This study shows the establishment of a national program of adherence of medical assistants to the principles of professional ethics in the majority of macro medical universities in region one and the attention of different levels of universities, including senior administrators, faculties, educational centers and clinical departments in different dimensions of this program, especially training for assistants to adhere to professional principles in these universities.

Conflict of interest: There is no conflict of interest between the authors

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