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The Evaluation of The Professionalism of Clinical Teachers from The Viewpoint of Residents of Educational Departments of Imam Khomeini Hospital of Mazandaran University of Medical Science

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Abstract

Background & Objective: Investigating residents' opinions is one of the ways to evaluate professionalism in the clinical setting in a variety of ways. Since Teachers are good role models for learners and on the other hand, students have a close relationship with the teachers because of their direct presence in the teaching position, therefore, their viewpoints about the characteristics of a teacher can dramatically influence the learning process. The purpose of this study was to investigate the residents' viewpoints on professionalism of clinical Teachers.

Materials and Methods: This study was a descriptive study. The statistical population was residents of Educational Departments of Imam Khomeini Sari Hospital in 1398 who were selected by census sampling method (n = 150). The research tool was a researcher-made questionnaire containing 30 questions. The validity of the questionnaire was evaluated using the opinions of 20 experts and calculation of CVR and Impact Score coefficients. The reliability of the tool was calculated as 0.87 using Cronbach's alpha. The data were analyzed by means and variance analysis.

Results: The results showed that the overall score of clinical Teachers professionalism score was 4.04. The component of responsibility with the average of 4.10 had the highest score and job excellence with an average of 3.88 had the lowest score. There was no significant difference between different educational groups.

Conclusion: The results showed that the professional status of clinical Teachers is in a relatively good condition. For ethics excellence, short-term ethics courses and Active teaching methods are proposed.

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Introduction

Medical universities are responsible for training physicians who can dedicate efforts to the improvement of the community's health through performing their professional duties and adhering to specific principles after graduation. In addition to the knowledge and skills required for the field, attention should be paid to the values, attitudes, ethical norms, social skills, and features that form human behaviors of a physician (better known as professional skills) in training medical forces (1). The ethical theme of these characteristics is that the patient's benefit is given priority over the physician's personal interests (2), which is known as professionalism and includes characteristics such as selflessness, trusteeship, making proper communication, respect, responsibility, excellence, and leadership (3). Medical professionalism is a set of views and behaviors in medical students and physicians which makes the person always prioritize the interests of the patient over their personal interests (4). Even though the intrinsic concept of professionalism is to prioritize

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patients' needs based on individual needs, professionalism includes three commitments, the highest standard levels and high quality in the practice of medicine, prioritizes patients' wellbeing and benefits, and responds to health needs of the community, reported by American Board of Internal Medicine (ABIM). In addition, the concept comprises six elements of altruism, responsibility, trusteeship, excellence, integrity and dignity, and respect for others (5, 6).

The clinical setting is extremely important in the education process of medical professions (7). The time spent with patients is full of visual, auditory, and tactile experiences. Therefore, serious measures should be taken to more improve this type of education (8). University professors have more ethical responsibilities due to teaching medical students. From one hand, they are responsible for the training of students as a teacher, and from the other hand, they are recognized as a patient therapist (9, 10). This issue should be highlighted since clinical professors play a vital role in the formation of professional and ethical characteristics of students. Overall, clinical professors are responsible for shaping student behavior, treating the patient specifically, ensuring the teaching of medical ethics, and cultivating ethical virtues in students (11-15). Studies show that students' values change when during the education period, and some negative values are formed instead of positive values (16). According to Bazrafcan et al. (2012), professors in various fields assessed their competencies in the areas of trust, sense of responsibility towards the patient, respect for others, cooperation with colleagues and excellent students, and in the areas of ingenuity in providing treatment and organizational and management skills as unacceptable (17).

A research in Jahrom University of Medical Sciences showed that more than half of the students considered their professors' behavior to be acceptable in the areas of compassion for the patient, respect for the colleague, trustworthiness, and unacceptable in the areas of compassion with the student, criticism, and initiative in patient care (18). Some studies have indicated unprofessional and unethical behaviors in clinical wards of training hospitals, which could adversely affect the formation of ethical behaviors (19). According to Farmahini Farahani et al., proper teaching of theoretical content and correct teaching of clinical skills received the highest score, whereas the areas of tolerance of others' opinions, criticism, and recognition of talents and abilities received the lowest score in this regard (20). Assessment of professionalism has been taken into account by experts in the field of professional ethics development as an important issue. Performed through various qualitative and quantitative methods, assessment of professionalism leads to the evaluation of students' opinions as a professional ethics evaluation technique in the clinical setting (17). Since teachers are good role models for teaching students how to treat others and accept their role (21), and with regard to the significant effect of students' views on the learning process due to having a close relationship with professors (22), the qualitative and quantitative status of students' professional ethics is realized by assessing their opinions as people who are in direct contact with the clinical setting and implementation of professional ethics.

Given the importance of adherence to professional ethics at the level of medical universities and clinical settings and considering the scarcity of research in this field, the current study aimed to evaluate the residents' views on the level of adherence to professionalism in professors of the clinical field.

Materials and Methods

This was descriptive, cross-sectional research performed on residents in departments of gynecology, internal medicine, orthopedics, neurosurgery, general surgery, anesthesiology, radiology, pathology, psychiatry, and emergency

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medicine at Imam Khomeini Hospital in Sari, Iran in 2019. In total, 170 residents were selected by complete enumeration based on the inclusion criteria, which included contact with patients and passing the residency course. On the other hand, the exclusion criteria were being transferred or guest at another university and unwillingness to participate in the research. Data were collected using a researcher-made questionnaire, the items, and dimensions of which were developed by reviewing related articles. The questionnaire included two sections of demographic characteristics (age, gender, the field of study, and year of education) and 30 items related to the professionalism of clinical professors (four items on altruism, five items on excellence, four items on responsibility and social accountability, five items on conscientiousness, six items on respect for others and six items on integrity and dignity). Each item is scored based on a five-point Likert scale from extremely high (five scores) to extremely low (one score). Content and face validity of the questionnaire was assessed by calculating the corresponding coefficients such as CVR (content validity ratio) and impact score. In order to determine the CVR of the tool, we first asked 20 experts in the field of medical education, clinical education, and higher education to assess the items based on a three-part range (necessary, useful but not necessary, not necessary). Afterwards, the CVR was estimated using the equation of $CVR=\frac{NE-\frac{N}{2}}{\frac{N}{2}}$, where NE is the number of experts who chose the "necessary" option and N was the total number of experts. According to Lawshe table and in order to determine the minimum value of the CVR, the items that received a CVR above 0.42 were considered significant ($P<0.05$) and kept in the questionnaire (23). Therefore, six items were removed from the questionnaire due to a CVR below 0.42. Using the impact of items, the draft of the questionnaire was distributed among 10 specialized residents and the face validity of the items was confirmed based on the impact score of above 1.5. the reliability of the tool was confirmed at a Cronbach's alpha of 0.87, and the questionnaires were distributed, completed, and received under the direct supervision of the vice-chancellor for education and in the presence of an educational expert, clinical experts of clinical education departments, and an expert of the hospital education development office.

First, research objectives were explained to the participants and they were ensured of the confidentiality terms regarding their personal information. After receiving consent from the participants, the questionnaires were distributed, filled, and collected. Data analysis was performed in IBM SPSS version 21 using the Kolmogorov-Smirnov test and the normal distribution curve, descriptive data (mean and median), analysis of variance, and Kruskal Wallis test (to compare the professionalism of clinical professors in various departments). It is noteworthy that a P-value of less than 0.05 was considered statistically significant. In addition, the current research was a research project approved by the vice-chancellor for research and technology of the university with the ethical code of IR.MAZUMS.REC.1398.1045 (October 16th, 2019).

Results

In total, 170 questionnaires were returned. In terms of gender, 48% of the subjects were male and the rest were female. Out of 170 completed questionnaires, 24.3% were from the internal medicine department, whereas 10.4%, 18.8%, 6.3%, 10.4%, 4.2%, 7.6%, 4.2%, 13.2%, and 0.7% were from the emergency medicine, the anesthesia, the orthopedic, the obstetrics and gynecology, the neurosurgery, the surgical, the pathology, the radiology, and the psychiatric departments, respectively. In addition, 23.1% of the questionnaires were filled by first-year residents while 29.4%, 35.7%, and 11.9% were filled by second, third, and four-year residents, respectively. The general score allocation of the professionalism

questionnaire and its six dimensions are presented in the table below based on the clinical education department.

According to the results, the overall mean professionalism score of clinical professors was 4.04, and responsibility and job excellence received the highest (4.10) and lowest (3.88) scores, respectively.

Median	SD	Mean	Max	Min	Variables
3/75	0/72	3/88	5	1/25	job excellence
4/0	0/69	4/04	5	1/6	conscientiousness
4/0	0/67	4/07	5	2/25	integrity and dignity
4/0	0/69	4/07	5	2/0	respecting others
4/0	0/77	4/10	5	1/0	Responsibility
4/0	0/73	4/01	5	1/75	Altruism
4/0	0/63	4/04	5	2/13	professionalism score

P – value	radiology	pathology	general surgery	neurosurgery	Obstetrics and Gynecology	orthopedics	Anesthesia	emergency medicine	internal medicine		Variable
Less than 0.001*	15 (2)	14/5 (3/5)	14 (2)	19 (3)	17/5 (4)	13 (5)	16/5 (4)	20 (7)	14/5 (3)	Median (IQR)	job excellence Score 4 –20
Less than 0.001*	20 (4)	19/5 (3/75)	19 (3)	24 (2/25)	23 (2)	20 (3)	21 (4)	25 (4/5)	19 (4/25)	Median (IQR)	Conscientiousness Score 5 – 25
Less than 0.001*	16 (4)	5/16 (2/25)	14 (3)	18/5 (2/25)	17 (3)	16 (3/5)	18 (3)	20 (6)	16 (2)	Median (IQR)	integrity and dignity Score 4 – 20
Less than 0.001*	20 (3)	20 (3/5)	5/19 (2/25)	23 (1/57)	22 (3)	20 (7)	23 (5)	25 (3)	20 (5/5)	Median (IQR)	respecting others Score 5 – 25
Less than 0.001*	12 (2)	12 (2/5)	12 (1)	15 (2/25)	13 (2)	12 (2/5)	14 (3)	15 (1)	12 (2)	Median (IQR)	Responsibility Score 3 – 15
Less than 0.001*	16 (1/5)	16 (2/25)	14 (3/5)	19/5 (2)	18 (4)	16 (3/5)	16 (4)	20 (6)	15/5 (2)	Median (IQR)	Altruism **Score** 4 – 20
Less than 0.001**	97/94 (11/24)	99/66 (9)	92/22 (10/48)	116/2 (5/4)	(8/18) 110/28	97/77 (16/26)	107/25 (16/35)	116/61 (15/47)	97/35 (13/01)	Mean (SD)	Total score of the 25 – questionnaire 125

As observed in the table, the department of emergency medicine received the highest overall score of the questionnaire among the departments in all areas while the department of surgery achieved the lowest overall score of the questionnaire among the departments in all areas except for job excellence. In addition, there was a significant difference between the groups in all score allocations.

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Moreover, when different groups received an equal median of score allocation, the value of IQR would be the judgment criterion, which the lower its value, the higher the accuracy of score allocation.

Discussion

The present study aimed to evaluate professionalism in clinical professors from the viewpoint of residents of various fields. According to the results, the highest mean score was related to the responsibility dimension of professionalism. Generally, responsibility is the turning point of the education process. In a research in Iran, instructors' responsibility was recognized as the most important factor for clinical education from the perspective of students. In addition, the responsibility of professors was reported to be acceptable, which is in line with our findings (24). According to Jahromi et al., instructors had an acceptable level of responsibility from the viewpoint of students (18). Salehi et al. also reported that the highest score was related to professors' responsibility to students (25). According to Bazrafcan et al., instructors had excellent responsibility to patients and students, which was mentioned through self-report (17). Among the dimensions of professionalism, the lowest score was related to job excellence in the present research. In a study by Saberi et al., residents introduced the principles of job excellence and continuous promotion as the role of role models in professional training, and 80% of the participants considered this role of professors appropriate (26). In the research by Bazrafcan *et al.*, professors claimed that their ability in the field of criticism, attending meetings and gatherings related to their specialty, as well as active participation in the implementation of meetings and gatherings related to their specialty was excellent (17). It seems that the low score of job excellence of professors in the present study could be related to their different roles and tasks in clinical settings, which prevent them from promotion and professional excellence. As such, it is recommended that short-term and specialized professionalism courses be held to train instructors, which could improve their job excellence.

The studied population received a proper score for the variable of responsibility. In this regard, some of the examples of responsibility included timely attendance, performing the assigned tasks completely and in a timely manner, access to on-call time, and accurate and full recording of reports in patients' medical files. In this respect, our findings are congruent with the results obtained by a research at Gilan University of Medical Sciences. According to the aforementioned study, 58% of residents believed that responsibility is an important role of professors in professionalism education. In addition, they considered this variable to be suitable among instructors (26). In a research entitled designing a model of professional ethics in physicians, Ghazi et al. identified responsibility as one of the areas of professionalism (27). In a study by Yamani et al., the most frequently mentioned examples of responsibility were accepting mistakes, performing assigned tasks and responding to patients' needs, having precision during patient care processes, spending time to get to know the patient, and assess all aspects of their features, which were recognized as aspects of professional training in clinical education (16).

Instructors received suitable scores from the residents in terms of respecting others (e.g., patients and students). Similar results were obtained by studies in Shiraz (17) and Jahrom (18) universities of medical sciences. Meanwhile, a research reported students' complaints about lack of proper communication with patients and lack of respecting patient privacy. The most frequently mentioned negative feature of role models was the lack of respecting others, especially patients (28). Disrespecting students and patients can lead to low self-esteem and cause anxiety and depression, which can affect learning, clinical practice, and clinical

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practice (29). In the research by Farmahini, instructors received the highest score from students in the areas of observance of politeness and decency in dealing with the student, gaining trust and respect for the student (20).

Such issues have been recognized as part of the professional duties of faculty members, pointed out as a necessity and an important principle in research (30, 31). Students observe professors' behavior towards patients and students during clinical training, and any kindness and respect from them can improve morals in these individuals. In fact, teachers are ethical role models for students, and their presence at the patient's bedside, how they deal with the patient and the patient's companions, and their overall behavior are educational models for students. Integrity and dignity were also assessed in the research, where instructors received a suitable score from the residents. In the research by Yamani et al., entitled "How Do Medical Students Learn Professionalism during Clinical Education?" participants recognized integrity and dignity as parts of professional education in clinical training. In this study, having integrity toward the patient is a relative matter and its meaning can be different depending on the cultural and social situation. Physicians can gain or lose the trust of patients by the way they treat these individuals. For instance, saying a white lie to ensure patients and their families, gaining the trust of patients and their families by explaining the necessary issues personally, communicating with patients and giving them the opportunity to express their personal matters, and gaining their trust by doing the best a physician can be among the examples of integrity and dignity (16). This is consistent with the results of the study at Gilan University of Medical Sciences. In the mentioned research, more than half of the residents considered integrity and dignity as parts of the professionalism education and recognized it to be suitable (26).

Among the six dimensions of professionalism, professors received a suitable score from the residents regarding altruism. In a research entitled "Designing a Professional Ethics Model for Doctors: The Delphi Model", Ghazi et al. identified altruism as an area of professionalism (27), which is consistent with the results obtained by Bazrafcan et al. In this study, professors were excellent in terms of empathy and compassion toward patients and collaboration with colleagues from the perspective of students (17). In their research, Badiyepeymaie Jahromi found that a high percentage of students evaluated the ability of their professors in the areas of compassion and empathy with the patient and collaboration with colleagues and students to be acceptable (18). Previous research has shown that professors who have had more empathy toward students have been able to make a greater impact on their interest in learning (32). This is congruent with the results of a research in the Gilan University of Medical Science, where half of the residents considered integrity and dignity as a part of the role of professors in professional education and regarded it to be suitable (26). According to the results of the present study, the emergency medicine department received the highest score in all fields, whereas the department of surgery received the lowest score in all areas, except for the job excellence dimension and there was a significant difference between various educational departments in this regard. In the research by Bazrafcan et al., no significant difference was observed between various departments in terms of instructors' self-assessment, meaning that the internal medicine, gynecology, pediatrics, surgery, psychiatry, and dermatology departments considered their professional ethics behaviors desirable. However, the small differences between different educational groups in this study were significant (17). A review of the literature revealed a lack of similar studies regarding the dimensions assessed in the present research. Nevertheless, our findings are in accordance with the generalities of studies by Badiyepeymaie Jahromi (18) and Bozahrejamhari et al. (33) regarding the acceptable professional ethics of

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professors. However, the results of a study at Tehran University of Medical Sciences showed that medical professors in general and medical ethics professors, in particular, have not been able to play a key role in the promotion and moral development of students (13). Such a discrepancy between the results of the research might be due to the size of universities, student overcrowding, patient overcrowding, and the various roles and responsibilities of clinical professors in medical universities, in a way that they limit the time for students, patients, and faculty cooperation.

Recommendations

In order to improve the level of knowledge, belief, and adherence of professors to the principles of professionalism, it is suggested that specialized courses in the field of teaching methods be held for professors of medical ethics. In addition, it is recommended that the most suitable medical ethics training techniques be presented in basic and clinical courses considering the available facilities in the university. Teaching medical ethics is not just the responsibility of professors working in this area and should involve all professors. Medical professors should consider themselves accountable in terms of the institutionalization of professional ethics in students in addition to teaching the basic concepts of medical ethics. Along with teaching medical skills, they should teach medical ethics so that current students and future physicians could take the right path in their career and educational planners could improve the weaknesses of professors and implement programs with an emphasis on the clinical field.

Research Limitations:

One of the major drawbacks of the present study was performing the research in Imam Khomeini Hospital in Sari, which complicated the generalization of the results. In addition, since only the opinions of residents were used in the present study, it is suggested that other groups such as peers, assistants, and interns, and even patients be evaluated in future studies.

Conclusion

According to the results of the present study, the professionalism of clinical professors was reported to be suitable. Among the dimensions of professionalism, the highest mean score was related to responsibility while the lowest score was related to job excellence. Among educational groups, the emergency medicine department received the highest score in all areas while the surgery department received the lowest scores in all areas except for job excellence. There was also a significant difference between the groups in terms of score allocation.

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Conflicts of Interest: The authors declare that there are no conflicts of interest.

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