

Assessment of Clinical Teachers' Professionalism in Iran: From Residents and Fellowships' Perspective

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Abstract- In the present study, professional conduct of clinical teachers in Tehran University of Medical Sciences in Iran was assessed by their residents (n=292) and fellowships (n=48) using a standard questioner called self-reported measurement equipment. This evaluation was a descriptive cross-sectional study. Professionalism was questioned in four domains including clinical teacher-patient, clinical teacher-student, inter-professional and clinical teacher-self relationships. Accordingly, mean scores of the teachers in cases of clinical teacher-patient; clinical teacher-student, inter-professional (teamwork) and clinical teacher-self relations were 61%, 62.2%, 60.6% and 57.6%, respectively. Generally, the teachers achieved 60.35% of the positive scores, and as a result, they were assessed intermediate in the professional behaviors. The residents and fellowships stated that they were not completely satisfied with their teacher's professional conduct and had hidden concerns. It shows that the clinical teachers in our project may not be ideal role models. As a result, developing a comprehensive professionalism and implementing regulations to ensure a successful professionalism are necessary. The precise evaluation of professional conduct in clinical faculty could encourage the maintenance of professional behaviors and potentially decrease negative role modeling and positively influence the hidden curriculums. Operational approaches to formulating regulations and appropriate measures for establishing professional ethics are of great importance.

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Introduction

Professional behavior of clinical teacher is much essential in medicine practice. Physicians are exposed to ethical issues and challenges on a daily basis. Patients, colleagues and public have a high expectation for professional behavior of physicians (1). American Board of Internal Medicine includes humanism, honesty, respect for others and accountability in the definition of medical professionalism and applies to patient interactions as well as interactions with peer staff (2).

Professionalism is a crucial characteristic for physicians and calls for a commitment to patients regarding confidentiality, honesty, humanism, excellence, appropriate relationship with patients and respects their right to autonomy (3). Buchanan *et al.*, (2012) mentioned that 'Great clinical teachers promote professional behavior (4). experience of learning through observation of and or interaction with a role model in clinical practice is more influential compared to formal learning. In order to integrate the professional values and behaviors into the curriculum, influence of

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formal, informal and hidden curriculums must be perceived and utilized (5). Hippocrates is an ancient Greek physician who lived during Greece's classical period and traditionally regarded as the father of medicine. The Hippocratic tradition is rooted in virtue ethics where the moral agent, is essential, rather than principles for problem solving (6,7). The history of medical ethics dates back to the 4th century prior to the Christ birth and the Hippocrates instructions. Believing the holiness of this occupation, the first medical oath was presented by Hippocrates. Through having a superficial look at the history of civilization in Islam and Iran and the ethical instructions of the famous persons, it has found that the medical ethics instructions have never been a separated issue from the other scientific, and religious instructions and medicine can be mentioned as an example. In the history of Islam and Iran, a physician must be an hakim at first to be able to cure patients appropriately. After the beginning of Islam in Iran, from the 14th-19th century, medicine advances on the maximum level was observed. This period is called "golden era of medicine in Iran." Famous Persian physicians like "Zakariya Razi," "Ebne Sina" and "Seyed Esmail Jorjani (known as Hakim Jorjani)" emerged in this era and had written some topics about medical ethics and professional responsibility of the physicians in their works in addition to scientific discussions (8).

Glicken and Merenstein (2007) hold between what medical students in educational environments are taught, the difference between what they learn, basic distinctions that are hidden curriculum which includes learning at the level of interaction between the individuals (9). Where appropriate, such as communication, informing the patient, confidentiality and integrity, reliability and willingness to accept some of the sources of error in one or two sources has been named as the characteristics of professionalism. Features such as integrity, accountability, commitment to continuous learning, self-directed learning, excellence and leadership in some of the sources listed to the human aspects have used (10). Coulehan also reported on the culture of modern hospitals and hidden curriculums and its role in promoting professionalism (11).

It has been proposed that one of the principal obstacles to transmitting beliefs and values of the profession to future practitioners is lack of professional behavior of some clinical teachers (12-14). Further, unprofessional behavior is thought to contribute to the presence of destructive learning environments that are

opposed the teaching and learning of professionalism (15). Unprofessional behavior in faculty members represents an important negative element in both informal and hidden curriculum (16,17).

In a study around barriers to improve professionalism and clinical faculty members Todhunter *et al.*, (2010) have concluded that the only reliable and valid way to achieve this goal is a clear evaluation of professional behavior of clinical teachers in clinical faculties in a completely professional way according to their medical students and Todhunter considered hidden curriculums as the main professionalism basis (18).

The objective of this study was to determine residents and fellowships' perception about the professional conduct of their clinical teachers at Tehran University of Medical Sciences (TUMS) in Iran. To our knowledge, there are no related published reports and evidence that can reliably and systematically evaluate professionalism of faculty members who serve as clinical teachers in TUMS. The professional behavior was questioned in four domains including clinical teacher-patient, clinical teacher-student, inter-professional and clinical teacher-self relationships. The immediate objective of this study is to develop and pilot such evidence by providing the residents and fellowships for assessing professionalism of their clinical teachers. Accordingly, we also aimed to our knowledge propose some appropriate solutions.

Materials and Methods

Implementation of the research

This descriptive study was a cross-sectional designed for a population of residents and fellowships who have been studying at TUMS. Imam Khomeini Hospital Complex is one of the largest and best equipped educational hospitals in Iran. This complex was considered as a magnet in various research areas. Moreover, Dermatology Clinic of Razi and Farabi Eye Hospital were also included in the study (Table 1).

Table 1. Total distribution of the population (residents and fellows) regarding to the hospitals

Hospitals	Frequency	%
Imam Khomeini	189	55.6
Valiasr	104	30.6
Meraj	11	3.2
Razi	16	4.7
Total	340	100

Sampling and calculation of the sample size

The sampling method was classified as an accidental sampling. This means that regarding the number of training groups in the complex, clinical teacher and their residents and fellows were present in their respective fields. From every training group (course) in the ward, two to three clinical teachers were evaluated, and residents and fellowships, as well as the clinical teachers, were anonymous. Based on the staff list of every ward, two residents, and two fellows were selected randomly. The questionnaires were a self-reported measurement. In order to enhance the accuracy of the study, the residents and fellows were asked to evaluate their teachers who spent much of their time with and also the teachers who were more experienced in their ward.

It would predict that about 384 samples would require if a 100% response with standard deviation (SD) of 50, estimated accuracy of 5 and confidence coefficient of 95% existed. However, despite various actions for achieving a high response rate, due to inaccessibility to the residents and fellows and preventing the similarity of the individuals in completing the questioner (as a result of their periodic presence), only 300 questioners were completed and returned. From the Dermatology Clinic of Razi and

Farabi Eye Hospital, 40 completed questioners were returned. On the whole, 340 completed questioners were gathered.

Analysis of general descriptive information of total residents and fellows participating in the study

A total of 340 residents and fellows participated in the study, 292 residents and 48 fellows. Of the total study sample, males accounted for 61.2% and female for 37.9% of the sample. The age distribution of the total was ranged between 26-48 years with an average age of 33.7 years.

A total of 292 residents in different academic years participated in the study, of whom, gender distribution was 58.2% male (n=170) and 40.8% women (119 cases). Age distribution of the residents was at least 26 years and maximum 46 years and the mean age was 32.7 years. Distribution of the academic years of the residents was first-year residents 5.1% (n=15) and second-year residents 32.9% (n=96), third-year residents 33.9% (n=99) and fourth-year residents 28.1% (n=82). A total of 48 fellows participated in the study of whom 79.2% were male and 20.8% female. The age of fellows ranged 33-48 years with the mean of 40 years (Table 2).

Table 2. Frequency distribution of the population (residents and fellows) regarding to academic years

Academic years	Frequency	%
First year	15	4.4
Second year	96	28.2
Third year	99	29.1
Fourth year	82	24.1
Fellowships	48	14.1
Total	340	100

Providing the questioner and gathering information

Faculty professionalism evaluation form designed by Todhunter *et al.*, (18) was used in our study. A standard questioner (19) called Professionalism of Clinical Teaching Faculty Tool which was acquired from Beaton method (20), a questionnaire from McGill University. Provided that professionalism values are not culture-dependent and do not alter from culture to another culture, the questionnaire did not need any adaptation. At first, the questionnaires was translated into Persian language and then back translated. After verification of the translated questionnaire, its reliability and validity were obtained. The professional conduct of the clinical teachers was questioned in four domains including clinical teacher-patient, clinical teacher-student, inter-

professional and clinical teacher-self relationships in this questioner (Table 3). Residents and fellows were randomly selected to respond. Two weeks later, the same questionnaire was then again distributed among them to be responded. After that, the results were compared using a descriptive and inferential statistical method. The stability of the study was assessed by Cronbach's alpha. The Cronbach's alpha ≥ 0.88 was considered as the stability criterion. Reliability was evaluated by Pearson Correlation. Questioner reliability refers to first all the individuals get the same perception and second their perception be the same with the real meaning of the questions.

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Ethical considerations

In order to prevent any disturbances in offering medical services and also taking medical courses by the residents and fellows in different departments and wards, the residents, and fellows who respond to the questionnaire were presented in their pavilion during break time. Moreover, they completed the questionnaire with their own satisfaction, and no obligation existed. The confidentiality of the information obtained from the questionnaires was maintained.

Statistical analysis

The data was evaluated by a descriptive statistical analysis. The analysis was performed using SPSS version 18.0 (SPSS Inc., Chicago, IL, USA). The comparison of a continuous variable in two categorical groups was done by *t*-test, and the correlation between two continuous variables was evaluated by Pearson Correlation. The continuous variables were presented as mean±SD (standard deviation). *P*.value<0.05 was considered statistically significant.

Table 3. Faculty professionalism evaluation form

As a resident or fellowship evaluator, you are asked to complete the Faculty Professionalism Evaluation Form. It consists of 16 rating scale items and space for written comments. It should take you approximately 5-10 minutes to complete.				
Please rate the faculty member's level of professionalism during this rotation using the rating scales provided.				
INSTRUCTIONS				
All of your responses will be kept strictly confidential. Thanks for your participation				
	Below Expectations	Met Expectations	Exceeded Expectations	Unable to Evaluate
1. DOCTOR-PATIENT RELATIONSHIP				
•	Respects patients' dignity and autonomy Actively listens and shows interest in patients			
•	Takes time and effort to explain information to patients			
•	Shows empathy and compassion			
•	Respects patient confidentiality			
•	Treats patients regardless of financial status, ethnic background, religious preferences or sexual orientation			
2. DOCTOR-STUDENT RELATIONSHIP				
•	Shows respectful interaction with students			
•	Provides direction and constructive feedback			
•	Does not abuse power			
3. INTERPROFESSIONAL RELATIONSHIP				
•	Shows respectful interaction with other health professionals/doctors			
•	Works collaboratively with inter-professional team			
4. DOCTOR-SELF RELATIONSHIP				
•	Be aware of his limitations			
•	Admits errors or omissions			
•	Does not allow his personal life interfere with his career			
•	Avoids offensive language			
•	Maintains appropriate boundaries			

Results

Clinical teacher-patient relation

50% of the residents stated that the teachers' respecting dignity and independence of patients met expectations and 38% stated that it exceeded expectations. 44.9% indicated that time and energy which the teachers assigned to listen to patients attentively and enthusiastically are as expected .38% of them considered it more than expectations. 38% of the residents stated that the time and energy which the teachers devote to deliver required information to patients met expectations, 39.4% stated that they

exceeded expectations. 45.9% stated that the teacher's sympathy with patients met expectations, 32.2% claimed it exceeded expectations. 49% stated that teachers' respecting patient privacy met expectations, 41.8% stated it exceeded expectations. According to 38%, the teachers in behaving patients regardless of prejudice, gender, financial and ethnic issues met expectations, and according to 49.7%, it exceeded expectations (Table 4).

In the fellowship's viewpoint, on the other hand; 68.8% stated that the teachers in respecting dignity and independence of patients met expectations and 16.7% stated that it exceeded expectations. 62.5% indicated that time and energy which the teachers assigned to

listen to patients attentively and enthusiastically are as expected and 20.8% of them considered it below expectations. 52.1% stated that the time and energy which the teachers devote to deliver required information to patients met expectations and 35.4% stated that they are below expectations. 43.8% stated that the teacher's sympathy with patients met expectations, 31.3% claimed it is below expectations.

54.2% stated that teachers' respecting patient privacy met expectations, 29.2% stated it exceeded expectations. According to 41.7%, the teachers in behaving patients regardless of prejudice, gender, financial and ethnic issues met expectations, and according to 41.7%, it exceeded expectations. On the whole, the clinical teacher's score was 59.91 ± 28.84 (Table 4).

Table 4. Comparison the mean scores percentage of the clinical teachers regarding to their residents and fellowships

Relationships	Residents	Fellowships	Total
	Mean±SD		
Participants	61.798±28.975	50.000±23.381	59.915±28.845
Teacher-student	62.557±30.537	60.283±25.431	62.312±29.924
Inter-professional	60.309±30.601	59.375±23.420	60.177±29.662
Teacher-self relation	56.485±30.028	58.250±27.539	56.190±29.959

Clinical teacher-student relation

Regarding respectful relationships between clinical teachers and their residents, 47.3% stated that their teacher behavior met expectations, 42.5% stated that it exceeded expectations. According to 47.6%, teachers in guiding and offering constructive feedback to them are as expected and 38.4% declared it exceeded expectations. 50.3% stated that in not abusing power in clinical teacher-student relations, their teacher's behavior met expectations and 34.2% stated that it exceeded expectations (Table 4).

In the fellowship's viewpoint, on the other hand, regarding respectful relationships between clinical teachers and their residents, 58.3% stated that their teacher behavior met expectations, 33.3% stated that it exceeded expectations. According to 62.5%, teachers in guiding and offering constructive feedback to them are as expected and 29.2% declared it exceeded expectations. 62.5% stated that in not abusing power in clinical teacher-student relations, their teacher's behavior met expectations and 25% stated that it exceeded expectations. On the whole, the clinical teachers score in this field was 62.31 ± 29.92 (Table 4).

Field of professional relationships (teamwork)

In 54.6% of resident's points of view, the teacher's manner about respecting their colleagues and other health team members while interacting with them met expectations, and according to 32.9%, it exceeded expectations. 54.1% of the residents stated that cooperation of the teachers with other health team members in offering caring services to patients met expectations and 33.2% stated it exceeded expectations

(Table 4).

In the fellowship's viewpoint, on the other hand, the teacher's manner about respecting their colleagues and other health team members while interacting with them met expectations according to 72.9% and according to 20.8% it exceeded expectations. Number of 72.9% stated that cooperation of the teachers with other health team members in offering caring services to patients met expectations and 25% stated it exceeded expectations. On the whole, the clinical teachers score in this field was 60.177 ± 29.66 (Table 4).

Clinical teacher self-relationship

According to 42.1% of the residents, awareness of the teachers of their own limitations met expectations and according to 24.7% it exceeded expectations. According to 50%, the behavior of the teachers regarding how much they accepted their faults and mistakes met expectations, and according to 27.4%, it exceeded expectations. 42.1% of the residents believed it met expectations that the teachers do not allow their personal issues affect their medical professionalism and 31.5% of the residents believed it exceeded expectations. 61% of the residents and thought the teachers avoid humiliating phrases beyond expectations, 28.4% thought it met expectations. The residents opinion about considering routine limits by their teachers were 42.1% as expected and 42.5% exceeded expectations.

In the fellowship's viewpoint, on the other hand, According to 41.7%, awareness of the teachers of their own limitations met expectations and according to 16.7% it exceeded expectations. However, the remaining

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16.7% declared it is below expectations. According to 66.7%, the behavior of the teachers regarding how much they accepted their faults and mistakes met expectations, and according to 16.7%, it exceeded expectations. 39.6% of the fellows believed it met expectations that the teachers do not allow their personal issues affect their medical professionalism and 33.3% of them believed it exceeded expectations. 68.8% thought the teachers are avoiding humiliating phrases beyond expectations, 22.9% thought it met expectations. The fellow's opinions about considering routine limits by their teachers were 31.3% as expected and interestingly 60.4% stated it exceeded expectations. On the whole, the clinical teachers score in this field was 56.19±29.95

(Table 4).

Statistical analysis (Kruskal-Wallis Test) calculating the difference in the scores given by the fellows according to different hospitals regarding the different domains demonstrated no significant difference. However, both residents and fellows in different hospitals demonstrated a marked difference in all the studied domains; clinical teacher-patient ($P<0.001$), clinical teacher-student ($P<0.01$), inter-professional ($P<0.05$) and self-relationship ($P<0.05$). On the other hand, the scores of the residents and fellows in different academic years showed a significant difference ($P<0.05$) only in the inter-professional domain and in the other domain consistency was observed (Table 5).

Table 5. Score's mean of the clinical teachers taken from the hospitals in the domains

Hospitals	Imam Khomeini	Valiasr	Meraj	Razi	Farabi
Relationships			Mean±SD		
Teacher-patient	64.611±28.745	52.283±28.641	52.777±23.935	76.250±27.740	61.111±24.957
Teacher-student	63.697±30.608	56.481±29.144	46.296±28.598	75.833±33.102	71.794±25.806
Inter-professional	61.723±30.507	52.777±28.007	47.222±26.352	76.250±32.922	67.307±34.436
Teacher-self-Relations	57.818±30.693	48.571±27.308	52.500±21.876	73.500±30.826	58.461±28.823

In calculating the mean percent of the scores taking from the hospitals, the teachers in Razi Hospital and Meraj Hospital (Cancer Institute) acquired the highest (76.25±32.922) and lowest scores (52.77±23.935), respectively (Table 6).

In each of the four areas, *Chi-square* test was conducted separately, and it concluded that in these areas in response to different questions, there was no significant difference.

Table 6. Score's mean of the clinical teachers taken from the residents and fellowships in the domains

Academic years	First year	Second year	Third year	Fourth year
The relationships			Mean±SD	
Teacher-patient	65.000±29.072	61.258±28.442	58.367±30.423	65.975±27.686
Teacher-student	68.888±32.651	64.210±29.371	58.075±29.960	64.814±32.058
Inter-professional	66.666±29.378	61.718±30.338	52.777±29.426	66.666±31.124
Teacher-self-relations	47.333±32.396	56.420±28.120	54.635±31.000	60.649±30.406

Discussion

The current study tried to evaluate the level of professionalism in clinical teachers in some educational hospitals of TUMS according to the perception of their residents and fellowships. The professional behavior was questioned in four domains including clinical teacher-patient, clinical teacher-student, inter-professional and clinical teacher-self relationships.

Totally, the mean positive score of the four domains was 60.35%, and our findings showed that although the

mean scores of the clinical teachers were virtually acceptable (met expectations and exceeded expectations), the teacher's professional conduct is not at the appropriate level as it should be and they do poorly. Since clinical teachers in TUMS did not get 40% of positive scores and this is a percentage which is significantly high to be lost. In our assumption, if the teachers in TUMS got averagely at least 90% of the positive score, as the remaining 10% would be as a result of perfectionism or personal manners, we would be able to conclude that they behave professionally.

Unfortunately, the acquired scores and the result negated this speculation and demonstrated that an ideal pattern does not exist to represent professionalism to the residents and fellowships and as a consequence, they lack a desirable role model capable of triggering and internalizing complete professionalism concepts in them.

Consistent with our study, professional conduct of clinical teachers in UKM medical center of Malaysia was evaluated by their medical students. In this study, personal and professional development (PPD) of future medical professionals is greatly emphasized. Majorities (67.5%) of the respondents indicated that professional conduct of teachers was excellent and frequent enough as they had expected. However, according to 70% of them, clinical teachers required training to apply PPD in their daily practices. It also demonstrated that role modeling was the preferred teaching-learning method for PPD as stated by 38% of the respondents (21).

Similarly, a professionalism survey of medical students concerning their ideals toward medical professionalism was performed in Taiwan. Three foundations for medical professionalism (clinical competence, communication skills, and ethical and legal understanding) were adapted (22). The 440 responding students expressed a high valuation for all dimensions of medical professionalism including medical knowledge and clinical skills, interpersonal skill with patients, teamwork, public health duty, and the protection of patients' rights; nevertheless, they placed relatively greater importance on medical knowledge and skills, interpersonal skills, and teamwork. First- and second-year students had a slightly higher valuation for all dimensions compared to fourth-year students. This may be due to the fact that curriculum reforms were not being fully performed when the senior students began their study (23).

Though it has known that a medical student's basic character is formed at the time of admission, enough evidence show that their professional character is formed in medical school, shaped by influential factors consisting of informal processes such as rounds, peer interactions, and role models (24). Evidence exist suggesting that learners seek enthusiastic and fascinating role models (25). Brainard and Brislen (26) reported on students' experiences from five American medical schools and stated several barriers to educate medical professionalism which included unprofessional conduct by medical educators and substandard professional behavior.

If these aspects remain undiscussed, the learners are

abandoned to inferred rules and standards of themselves as well as construct implication from what they observe (27). Medical practice increasingly occurs in the team context; it is in this practice that both faculty and learners, can reflect critically on their practice and beliefs and values what underlies it. This reflection is particularly relevant to role modeling as it offers a forum for raising awareness toward our behaviors in the professional context. Reflective practice institutions thereby add to physicians' lifelong learning and commitment to medical professionalism (28).

Because both formal and informal curriculums influence learners, neither can be ignored (29). Swick *et al.*, (30) stated that of 116 medical schools surveyed in the United States, 104 schools had made efforts to include professionalism curricula in the education and training of medical students. The Keck School of Medicine in University of Southern California (KSOM) developed a course entitled professionalism and the practice of medicine (PPM), as an essential component of a new curriculum implemented in 2001, to attend to the instruction and assessment of professionalism. The PPM course represents one aspect of that school's effort to institutionalize this type of active, 'daily' professionalism education. Through engagement with faculty mentors in learning communities in the first two years of medical school, those students learn to think critically and to reflect on what it means to become a physician to become part of the profession of medicine (31).

Professionalism instruction has traditionally taken place in the context of faculty role modeling. This role modeling, though a powerful method, is no longer adequate to ensure the inculcation of professional attributes and values in medical students. In an increasingly complex and diverse society, more explicit instructional techniques are required (32).

As it was mentioned earlier, role models are central to enculturation because the professional behavior is learned in the experience of practice. Teachers as professional role models are influential on educational motivation, moral attitude, behavior, and human proficiency. To succeed reaching an ideal and practical professionalism as a magnificent objective and in other words to become professional in our health system, it is necessary to consider the main objective that is an ideal pattern for professional behavior and attempt to achieve it. Our findings can demonstrate that framework and criterion of an ideal professional pattern in our medical education system have not described properly as it should be. In fact, professionalism is now a hidden

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curriculum in our health system and needed to be taken much more seriously.

In order to obtain effective education and implementation of professionalism, operational approaches to formulating regulations and appropriate measures for establishing professional ethics in TUMS are a necessity. Further, it was desirable to carry out a beneficial research to educate and reinforce professionalism in our medical education system. It is hoped that the development of this evaluation tool would add an important dimension to an integrated program on teaching and evaluation of professionalism throughout the educational continuum at TUMS. A strong conceptual framework, which serves as the basis for teaching and learning professionalism should be developed. In this regard, it hopes to make good role models for future medical practitioners. Our future suggestions are as follow: I-Clarifying the foundational definitions of "role models," and "role modeling." II-Identifying core attributes of good clinical practice and those that are specialty specific. III- Addressing faculty recruitment as role models. IV- Developing strategies whereby faculty can reflect on their own experiences. V- Assisting our faculty with adapting their teaching and modeling. VI- Assisting learners to develop strategies to realize between a strong and poor role model. VII- Developing safe spaces where negative role modeling can be reflected upon and translated into an effective learning experience. VIII-Determining regulations to perform professionalism, introducing and acknowledging professionalism models in medical students, residents, and fellowships as well as clinical teachers in TUMS. IX-Performing the same studies in other major educational hospitals of Iran and comparing their results, in order to achieve similar necessities to design and determinate comprehensive regulations for professionalism implementation in our medical, educational system.

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