



Factors Affecting the Choice of Professors as a Role Model from the Viewpoint of Medical Students

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ABSTRACT

The role of professors as a model can have a beneficial impact on the mental, psychological and educational conditions of medical students. This also plays an important role in improving professionalism and academic achievements among medical students. Therefore, the present study was aimed at evaluating the standpoint of students on factors influencing the selection of professors as a role model. This descriptive cross-sectional study was conducted on the students of different disciplines studying in Jahrom University of Medical Sciences in 2016. A randomized sampling method was conducted on 217 students. Their viewpoints were collected using a 30-question researcher-made questionnaire. The questionnaire consisted of three parts, each containing ten items. In addition, this questionnaire was distributed among 20 people (as a pilot survey), the alpha coefficient of which was equal to 0.88; and its measurement was based on Likert scale "from very low to very high". Data were analyzed using SPSS 18 and descriptive statistics. Most respondents were nursing students and the highest influence of professors as a role model was associated with their role as a research leader (future specialized courses) in the clinical choices and selection of future specialized fields. The factors influencing the selection of professors as a role model included their respectful attitude toward students, and the high level of their knowledge and skills. On the other hand, the most important factors that caused professors not to be regarded as a role model included their inappropriate relationship with the students and refusing to listen to them. Role model professors can have a beneficial impact on the future of students and scientific communities, as far as the science and education is concerned. Therefore, it is necessary for professors to pay particular attention to strengthening their role as a model at universities.

Keywords: Role Model, Medical Students, Effective Factors, Professors

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INTRODUCTION

Universities are one of the most important and constructive social institutions that should help promote creativity in the societies [1]. Education

is also the key to the flourishing of all the natural capacities inherent in each person's being [2]. Professors, students and educational environments are the main pillars of education in any university. It is obvious that disruption of each of these three pillars will lead to a decline in the quality of education [3, 4]. A role model is the one whose actions or achievements are imitated by others, especially by young people [5]. The word "role model" was authenticated by the sociologist, Robert Merton. He was the one who coined this phrase in his career [6, 7]. As with other processes, some processes and variables interact with each other in role models, the type and intensity of which bring about different changes for them [8]. Role models play an important role in how medical education works. Showing clinical skills on the patient's bedside is the most distinctive feature of the role model [9]. In medical education, in addition to increasing learning, the role model also affects students in choosing work and place of residence [10, 11]. Medical professors should emphasize the impact of the role model on education more; because in transferring views, the role model has a comprehensive impact on both the patient and the physician [12]. Studies have shown that the role model is a kind of learning method that medical students face in their classroom and in the clinical course throughout their studies. They also found that the role model could be an effective learning method. The faculty members should also understand that all their work and perspectives affect students [13]. In fact, the function and characteristics of a professor is considered a role model [for students], which provides the ground for attaining educational goals [14]. Students gain deep learning based on the continuous observation and ease of reading by professors in appropriate conditions [15]. Evaluation of role model professors in achieving educational goals on the one hand and education in medical sciences on the other hand, has a special importance due to the responsibility of graduates toward people's lives [16]. Mazloumi states that the most important indicators of student's preferred role model for a professor are respect for students, mastery of the subject, having a course plan, having an effective interpersonal relationship, development of specific teaching methods, having religious beliefs, and observance of moderation [17]. Some writers argue that role model professors need training and even a daily menu for training [18]. After reviewing 68 studies on the

characteristics of role model professors between 1904 and 2006, of which 61 were from the United States and Canada, Sutkin et al. reported that role model professors have excellent characteristics such as clinical education, effective teaching and transfer of materials in a simple way, as well as personal characteristics such as hope, support, effective communication and guiding students in activities as well as the expansion of educational programs of the faculty [19]. Even though a few studies have been conducted in Asian countries during these years [20], studies indicate the importance of role models for the development of high standards of medical professionalism. It is imperative that medical professors should develop strategies and initiatives that support the good culture of role models [21-23]. Therefore, the purpose of this study was to investigate the role of professors as a role model in the guidance of medical students.

MATERIALS AND METHODS

This descriptive cross-sectional study was conducted in Jahrom University of Medical Sciences in 2016. The target population of the study was the students of Jahrom University of Medical Sciences, and they were the research sample of all university students. Data were collected using a questionnaire. Part A of the questionnaire was comprised of demographic information of the students and part B was consisted of three parts: (A) Factors influencing the role of professors as a role model (10 items); (B) factors influencing the selection of professors as a role model (10 items); (c) Factors influencing the non-selection of professors as a role model (10 items). They were examined using the Likert scale "very high, high, to some extent, low, very low". Answers were rated as one to five in terms of item selection. Validity and reliability of the questionnaire were confirmed by the knowledgeable university professors and applied on 20 students in a pilot form. The Cronbach's alpha coefficient of this pilot study was determined as 0.88. The questionnaire was distributed among students of different disciplines and collected by the researcher. Participation in the study was free and study data were considered confidential. Data were analyzed using SPSS 18 and descriptive statistics (relative frequency, mean, standard deviation) at the significant level of 0.05.

RESULTS

Out of 260 distributed questionnaires, 217 questionnaires were returned, with a return rate of 83.46%. Of all participating students, 46.1% were female and 53.9% were male. The highest percentage of respondents, i.e. 46.1%, was associated with nursing students; 75% of the students were studying in their two to five semesters; 83.3% of them were single and the remaining (16.7%) were married.

Of the 10 factors influencing the selection of role model professors, 4 factors were important from the students' standpoint, and more than 50% of the students selected "very high", as shown in Table 1. Among these factors, being a good research leader for the students in their future clinical choices (54.5%) received the highest score by the students.

Table 1: Important factors influencing the selection of a professor as a role model from the standpoint of students of Jahrom University of Medical Sciences

Subjects	High and very high answers	Mean	Standard deviation
The impact on the selection of students' future jobs	48/5%	3/43	1/01
A good guide to directing students to future specialized disciplines	51/5%	3/45	0/98
Being a good research leader (future specialized disciplines) for students in their future clinical choices	54/5%	3/33	1/07
Transferring extensive academic experiences to students	45/3%	3/42	1/11
Selecting extracurricular activities	32/5%	3/03	1/04
Teaching the interaction between work and life	38/5%	3/12	1/13
Preparing students to take exams	49/5%	3/41	1/03
Having a role in motivating students to continue education	48/3%	3/46	1/07
Having a role in students' achievements	52/5%	3/43	1/08
Being a role model for students' progress in scientific, personal, and social fields.	51/6%	3/38	1/12

Of the 10 indicators that make it possible to select a professor as a role model, 10 factors were important from the students' standpoint; so that

more than 75 percent of the students rated it as "high", as shown in Table 2. In this regard, respectful attitude toward students, with a frequency of 93.5%, and high knowledge and skills, with a frequency of 92.5%, received the highest frequencies.

Table 2: Factors influencing the selection of a professor as a role model, from the standpoint of students of Jahrom University of Medical Sciences

Subjects	High and very high answers	Mean	Standard deviation
Academic degree	72/8%	4/23	0/77
High knowledge and skills	92/5%	4/37	0/74
Respectful relationship with students	93/5%	4/38	0/78
Encouraging the students to study the course by asking questions	75/5%	4/00	0/90
Ability to answer the students' questions	89/5%	4/28	0/79
Changing the tone of voice proportional to the classroom atmosphere	78/6%	4/08	0/86
Presenting the content clearly based on the students' level and knowledge	83/3%	4/17	0/90
Seriousness	65/6%	3/82	0/95
Mutual benefit of the relationship (mutual benefit of the relationship between the professor and the student)	87/1%	3/96	0/92
Ability to control the class	82/3%	4/13	0/88

Of the 10 indicators that made it difficult to select a professor as a role model, 10 factors were important from the students' standpoint; so that more than 90% of the students rated it as high, as shown in Table 3. In this regard, from the standpoint of students, inappropriate relationship with students (93.4%) and refusing to listen to students (89.7%) received the highest frequencies. Comparing the average scores of students in different fields (disciplines) about professors as being a role model, showed that students had the same opinion in all areas (Table 4).

According to other findings, 48.5% of the students stated that being a role model professor has an impact on the choice of the students' future jobs.

Moreover, 45.3% of students stated that the transfer of extensive academic experiences to students is one of the factors influencing the selection of a professor as a role model.

Table 3: Factors that make it difficult to select a professor as a role model from the standpoint of the students of Jahrom University of Medical Sciences

Subjects	High and very high answers	Mean	Standard deviation
Inappropriate relationship with students	93/4%	4/49	0/68
Refusing to listen to students	89/7%	4/41	0/71
Wasting time in the classroom	64/4%	4/08	0/85
Not paying attention to students' questions	88/7%	4/35	0/79
Inability to answer students' questions	83/6%	4/29	0/83
Not paying attention to students' understanding of the subject	88/6%	4/37	0/78
Use of ambiguous and incomprehensible statements	82/3%	4/31	0/76
Failure to use various objective and practical examples	79/3%	4/10	0/92
Not being a role model in the profession	79/1%	4/17	0/84
Disapproving others' criticism	83/4%	4/27	0/85

Table 4: Comparison of the average scores of students in different fields about professors as being a role model

Subject	Fields	Mean	SD	Sig
Important factors influencing the selection of professors as a role model from the standpoint of students	Nursing	3/26	0/93	0/45
	Anesthetics	3/47	0/81	
	Laboratory sciences	3/04	0/68	
	Medical emergency	3/52	0/80	
	Health medicine	3/27	0/39	
The factors that make it possible to select a professor as a role model from the standpoint of students	Operation room	3/12	0/65	0/55
	Nursing	4/09	0/71	
	Anesthetics	4/29	0/35	
	Laboratory sciences	4/11	0/51	
	Medical emergency	4/41	0/52	
Factors that make it difficult to select a professor as a role model	Health medicine	4/19	0/22	0/42
	Operation room	4/25	0/48	
	Nursing	4/26	0/62	
	Anesthetics	4/40	0/39	
	Laboratory sciences	4/25	0/47	
	Medical emergency	4/43	0/65	
	Health	4/33	0/11	
	Medicine	4/37	0/32	
	Operation room	4/10	0/51	

DISCUSSION AND CONCLUSION

The results of this research showed that a high level of knowledge and skills, respectful attitude toward students, ability to answer students' questions, academic mastery over the subject, professors' efforts in conveying academic material to the student, professors' expression ability are very important for students in choosing a professor as a role model. Moreover, the results of this study showed that professors' inappropriate relationship with students, refusing to listen to students, lack of attention to students' understanding of the presented content, and lack of attention to students' questions were of great importance. These factors can lead to the non-selection of a professor as a role model. Generally speaking, it is sometimes observed that even though professors have mastered the subject, they do not care about students' questions; and this influences their evaluation by the students; so that their assessment score is reduced. Therefore, a role model professor, in addition to scientific ability, should have the power of expression, pay attention to the comprehension of the content by the students and have appropriate and respectful attitude toward them. The study conducted by Gorbani *et al.*, showed that the most important characteristics of a good university professor from the standpoint of students were: academic mastery over the lessons, eloquent expression, the way of organizing and arranging the course, and the interest in teaching [24]. Mazloumi states that the most important indicators of an optimal and role model professor from the standpoint of students include respectful attitude toward students, mastery of the subject, having a plan for the course, an effective interpersonal relationship, development of specific teaching methods, religious beliefs, and observance of moderation [17]. In this study, most students selected factors such as being a good guide to direct students in their future specialized disciplines, and being a good research leader (future specialized courses) for students in their future clinical choices. The role of professors in students' academic progress, discipline and degree of interest of professors to teaching are of great importance for students in the evaluation of professors as a role model. This suggests that in addition to professors' teaching skills, directing students toward the academic future is another important variable which influences the choice of professors as a role model.

It seems that in teaching, not only professors' teaching method, but also guidance of students and professors' behaviors in the classroom can be very effective in increasing students' passion and motivation for learning and, consequently, promotion and quality of education. Studies have shown that lively, enthusiastic and motivated professors can lead to the highest levels of student learning [25]. Additionally, students regarded the maintenance of a neat and clean appearance by the professor, changing the tone of voice, and question and answer in the classroom as the important factors in selecting a professor as a role model. In this regard, a study conducted in the Jahrom University of Medical Sciences showed that nearly half of the students believe that the change in the tone and the appearance of the professor are the most important criteria for a good professor [26]. A large proportion of students also stated that the time spent solving the students' problems and answering their questions by the professors had a great influence on their being a role model. Therefore, a professor's efforts in devoting enough time to solve students learning and non-learning problems are not ignored by the students and this will have an important influence on his/her assessment. Moreover, in all domains, there was a significant difference between the standpoint of students regarding the evaluation of professors in the basic and clinical levels, as well as in the associate and undergraduate levels. These differences in the standpoints of students studying in different levels and faculties may be related to the differing levels of their expectations, judgments and perceptions of the university, professors and their academic motivation. It seems that not only the professors' method of teaching, but also their efforts in guiding the students toward the future, playing a role in students' progress, understanding the students and paying attention to their questions can increase students' enthusiasm and motivation for learning and education, and finally be effective in their achievement and quality of education.

The fact is that role model professors have a very important role in the university; because the role of professors in guiding students makes it easy for students to set a clear path in determining their goals in the life and education. For example, in the field of health, the presence of role model professors on the patient's bedside can provide critical and clinical points to students, so that they

will also improve the quality of their health care services in the future and play an important role in reducing illnesses. Consequently, we will face a better public health level, which is a very important matter for the health authorities. Therefore, university officials should pay particular attention to culture-building (culture promotion) in order to highlight professors' role as a role model.

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