



# Qualitative Explanation of the Effect of Changes in the Educational System on the Development of Professionalism in Medical Residents

Farangis Shoghi Shafagh Aria<sup>1</sup>, Parvin Samadi<sup>2,\*</sup> and Shahram Yazdani<sup>3</sup>

<sup>1</sup>Al-Zahra University, Tehran, Iran

<sup>2</sup>Faculty of Education and Psychology, Al-Zahra University, Tehran, Iran

<sup>3</sup>Shahid Beheshti University of Medical Sciences, Tehran, Iran

\*Corresponding author: Faculty of Education and Psychology, Al-Zahra University, Tehran, Iran. Email: psamadi@alzahra.ac.ir

Received 2018 September 10; Revised 2019 January 05; Accepted 2019 January 26.

## Abstract

**Background:** The development of professionalism is one of the fundamental goals of educational systems, especially in medical sciences. Medical students, in addition to acquiring clinical knowledge and skills, should somehow benefit from moral values and professionalism in order to practice in a professional manner. The development of professional ethics is heavily influenced by the hidden curriculum affected by changes in the educational system. The health reform plan is launched in Iran in recent years.

**Objectives:** The current study aimed at qualitatively explaining the effects of changes to the educational system on the development of the professionalism in medical residents.

**Methods:** The current qualitative study was performed by the content analysis method. A total of 26 interviews were conducted with 12 prominent professors of medical education, 13 third-year internal medicine residents, as well as a focus group including 10 residents. The purposive sampling method with maximum diversity was used in the current study and continued until data saturation. Data were analyzed using the content analysis method. The Lincoln and Guba criteria were used to increase the credibility of the findings.

**Results:** The most important finding of the current study was the challenge of developing professionalism due to environmental changes. The main theme included the challenges of professionalism development in the existing educational system, changes related to the sociocultural environment of the community, changes related to health reform plan, and the shift from training to health services and promotion of faculty member.

**Conclusions:** Changes and interventions in the health care services sector, such as the health reform plan, greatly affect the development of professionalism in medical residents. The plans that affect the health system, a special attention should be paid to the education section and the educational documents should be prepared initially and implemented simultaneously.

**Keywords:** Education, Medicine, Hidden Curriculum, Residents

## 1. Background

Health reform plan with the goal of comprehensive health coverage was launched in Iran in 2014. The plan includes eight service packages to reduce the hospitalization cost for patients, support physicians to remain in deprived areas, presence of specialists attending educational hospitals, promotion of the quality of services and visits in educational hospitals, the promotion of normal delivery program, financial protection program for special patients, and launching an air ambulance service (1). The evolutionary plan has different dimensions and effects. Several studies were conducted on the effects of this plan, most of which focused on the effects of the plan on expenditure in health care centers. Although medical residents of the most important elements of implementing the plan, the

effects of this plan on this group are less addressed (2, 3). Nematbakhsh evaluated the impact of health reform plan on health research projects (4). Molavi et al. showed that professors and residents in Shahid Beheshti University of Medical Sciences were relatively satisfied with the implementation of the health reform plan and the most prominent source of dissatisfaction was the lack of hospital facilities (5). Professionalism is the important components of medical education, and to the best of authors' knowledge, no study evaluated the effects of the health reform plan on it.

Professionalism are defined as the behaviors, goals, or characteristics that address a profession or a professional person, and include the moral and legal parameters of the profession, the behavior and values of the members of the

profession, and the responsibilities of the profession toward patients, community, and others (6). Professionalism is the concepts for a belief system to achieve trust between physicians and the society (7). From the viewpoint of social expectations, professionalism are essential prerequisites for medical education (8). Medical professionals are expected to have a specific set of behaviors and attitudes toward patients and the community (9). Accordingly, physicians are expected to express professional features such as accurate clinical practice, humility, understanding of individual constraints, professional judgment, and maintaining a relationship based on trust (10).

Responsibility and commitment to professional ethics are two important components that the medical students and medical residents are expected to acquire in order to be a physician (11). However, in recent years, special attention is paid to the development of professionalism in medical students and residents. Adding educational materials for lecture-based teaching and even new educational methods, such as simulation to formal curricula, are of such attempts (8). Nevertheless, in the clinical environment, the role of hidden curriculum and components such as the role models significantly affect the development of professionalism (12). The factors shown by the studies do not always play a positive role in forming professionalism (13-15).

Professionalism are a guiding code for physicians established by the profession and the community in which it serves, and its content changes with changing social expectations and needs (16). As professionals, physicians are committed to the health and well-being of patients and the community through ethical practices, personal standards, accountability to the profession and community, doctor's regulations, and maintain personal health. In recent decades, efforts are made to develop professionalism, especially in the medical profession, along with changes in the society and health systems. Extensive efforts were made to make the medical schools accountable to the community. One of the important steps in this way was the development of professionalism in medical students and graduates. Therefore, responding to social needs was also added to the concept of professionalism. In the recent revisions on the definition of professionalism by the Association of Faculties of Medicine of Canada (AFMC), the concept of global commitment was also added to the definition of professionalism (17).

According to the above mentioned reasons, special attention is paid to the evaluation of professionalism. The results of the research show that professionalism are multi-dimensional phenomena influenced by many factors and are affected by environmental changes, especially at the level of the educational system. Education of professional-

ism leads to better response to patient expectations, development of physician-patient relationships, improvement of clinical outcomes, and enhancement of organizational credibility (8). The formation of professionalism is a key indicator of the success of the curriculum. Role models, media, and parents are of the most important factors affecting the formation of professionalism (18). In this regard, the role of hidden curriculum is more effective than the others.

The hidden curriculum is a set of unwritten and informal lessons and unwanted values and perspectives that medical students learn along with formal aspects of education. Hidden curriculum can be defined as unforgettable and often indirect messages that an individual receives from an event or experience. The effects of these experiences are remembered many years after forgetting the source. The hidden curriculum is a set of stimuli that operates at the level of organizational culture. Hidden curriculum is a part of the training that all academic members participate. Hidden curriculum is a theoretical concept that describes learning and takes place apart from training course and taught lessons, and instead infers implicitly from policies, practices, resource allocation, evaluation, and organizational criteria (19). The hidden curriculum of "common understanding" highlights the customs, traditions, and acceptable aspects of medical education (20). The hidden curriculum effects can either support or resist the formal expectations of learning; for example, while the curriculum may explicitly require medical students to be attentive in their daily practices, they may train in a different manner at hospitals (21).

The health reform plan was implemented in recent years in Iran and had a major impact on different dimensions of the health system. Despite the important role of residents, the effect of this plan to this group was less addressed. Also, the effects of the plan on the educational sector, including professors as the role models of residents were less considered. Changes in the health system can affect professionalism of residents through changing the role models and hidden curricula.

## 2. Objectives

The current study aimed at qualitatively explaining the effects of changes in the educational system on the development of professionalism in medical residents.

## 3. Methods

The current qualitative study was conducted based on the content analysis approach. The study population consisted of the experienced professors of internal medicine

department including pediatrics, infectious diseases, and internal medicine with more than 10 years of clinical and educational experience, as well as the third-year internal medicine residents from different medical sciences universities of Iran including Iran, Shahid Beheshti, Mazandaran, Mashhad, Kerman, Kurdistan, Isfahan, and Urmia. Totally, 35 participants were enrolled in the study; 26 interviews were conducted with 12 prominent professors of medical education, 13 third-year internal medicine residents, and a focus group discussion with 10 residents was held separately. However, 17 interviewees were female and 18 male. Purposive sampling method was employed in the study. To achieve the experiences of the selected trainers and trainees, the semi-structured interview and qualitative content analysis were employed. For the initial interviews, a few initial questions were designed to discuss the effects of the educational environment, changes in the community values, and changes resulting from the health reform plan on the development of the professionalism in residents. The interview was started with this question: "What changes are made to the education of residents following the implementation of the health reform plan? How such changes affected the development of professionalism in residents? The interview continued with tracking questions, such as "How the involvement of professors outside the university affected the education of residents?" Initially, a list of eligible professors was provided and the objectives of the study were explained to the accessible ones that had enough experience and knowledge, showed interest to share their experiences with researchers, and then they were invited to participate in the interview. The participants should be accessible for an individual interview and possible supplementary interviews. In the process of data analysis, the findings were repeatedly studied along with the formation of themes. When no new theme was created and the characteristics of all themes were determined, the sampling process was stopped due to the repetition and saturation of the data. Two supplementary interviews were conducted at this stage. Repeating the previous data was an indication of the adequacy of sample size. The sample of the current study was selected heterogeneously based on the study objectives; for this purpose, it was attempted to take sample from different groups of internal medicine, gender, age, and work experience in a wide spectrum, as well as different cities.

Interviews were conducted by the first author where the interviewees were comfortable that was mostly the interviewee's place of work. The interviewer was a PhD student in curriculum development, which in addition to passing a course in qualitative research methodology, had experience in participation in qualitative research courses and collaborated in several qualitative studies. The inter-

view lasted 30 - 60 minutes, with an average of 45 minutes. After obtaining the written informed consent, all interviews were recorded and then, transcribed as soon as possible. To understand the content of the written interviews considering the research question, the text was first read several times and then the units of meaning were extracted. Then the codes were summarized and classified according to their similarity. The codes were categorized as sub-themes and then by the evaluation of the relationship between sub-themes, the main themes and the main concepts were extracted (22). In order to achieve the accuracy and validity of data, the four criteria proposed by Lincoln and Guba were used. To increase the validity, reliability, and credibility of data, the following measures were taken: allocation of sufficient time, immediate transcription of interviews, and the re-study of the entire data. The results of data analysis were presented to five faculty members to evaluate the credibility and verifiability of the results. The purposive sampling method with maximum variability was used in order to help the fitness of data and transferability of the findings. Also, the researcher tried to increase the credibility of the research by cooperation and interaction with the participants, collecting valid data, and obtaining information confirmation from the participants.

The study was a part of the results of a PhD dissertation in the Al-Zahra University (registration code: 679/96). The study permission was issued to medical universities, educational hospitals, and department managers and they were asked to give permission for interviewing the professors and residents. The research objectives were explained to all participants and they were interviewed after obtaining informed written consent. All participants were assured about the confidentiality of their data. All results were published anonymously considering confidentiality and privacy principles.

#### 4. Results

The most important finding of the present study was the challenge of the development of professionalism due to environmental changes. The main themes included the challenges of professionalism development in the existing system, changes related to the sociocultural environment of the community, and changes related to the health reform plan and the shift from education to health services and promotion of faculty member. [Table 1](#) presents the main themes with sub themes and codes.

**Table 1.** Main Theme, Subthemes, and Codes Related to the Effects of Educational System Changes on the Development of Professionalism in Residents

Main Theme	Subthemes	Codes
The challenge is the development of professionalism due to environmental changes	Challenges to develop professionalism in the existing educational system	Lack of legal supervision to prevent moral misconduct
		The value system of the immoral educational environment
		Lack of properly addressing ethical misconduct
		Non-compliance of residency education system with ethics
		Non-standard educational environment
		Current immoral beliefs in the educational system
		Feeling a lack of support in ethical issues by residency
		Punishment approach to medical error/concealment of error due to fear of the law
	Changes related to the sociocultural environment of the community	Changes in the values of the society and the dominance of financial issues over moral issues
		Influence of the educational value system by the society
		Changes in the moral value system of the society
		Priority of legal issues over ethics
		The value system of educational environment
		Aggression towards health care workers by the clients
	Changes related to health reform plan	Negative changes due to the launch of health reform plan
		Negative impact of health reform plan on the way of dealing with the patient
		Reduction in the level of scientific work load due to the launch of the health reform plan
		Chronic fatigue of residents due to the burden of the evolution plan
	Change the focus from education to health services and promotion of faculty member	Contradiction of the value system of promotion with medical professionalism
		Changes of the value system toward clients' dissatisfaction
		Changes of the educational environment to a servicing environment
		Focus of residency program on healthcare providing services
		Stressing the role of resident as therapist
Performing unprofessional behaviors in the educational environment by the professors		

**4.1. Challenges to Develop Professionalism in the Existing Educational System**

Participants of the current study believed that the existing educational system did not provide a suitable platform for the development of professionalism. Relationships in the educational system and role models are not effective in the development of professionalism of residents. A number of participants from both professors and residents hinted this important point, for instance:

Participant #2: “The hidden curriculum has the same effect on everyone, why; since it dictates similar behaviors. Well, when you enter an environment where no one respects the patient, it rarely happens that someone does. The majority, except some, do not respect. Such behaviors affect the residents, and they learn that the patient should

not be respected.”

Participant #4: “When you live in a society where violence and anger are high and patient comes yelling and perky, well, you cannot show kindness and humanity and finally are affected by such conditions and the atmosphere; for example, when you are referring for an administrative issue; how is the behavior of education department personnel? Are your needs provided? In the department, do the nurses and the paramedic behave with you in the right way, or they do not care about you at all and do not respect you, since they know you will leave there? They all affect you unconsciously.”

Participants believed that different sections had their own impact on residents based on hidden curriculum. For example:

Participant #3: “The impacts of various sections are different, and this shows the significant influence of organizational culture and role models; in other words, the behavior of the same residents changes when he leaves the hospital due to rotation.”

Participants believed that the existing educational system did not rely on professionalism and also did not care about the development of professionalism. For example:

Participant #7: “Not all the places you learn from them are a value based system, they should be completely value based; when you look at the wall, there should be writings in this regard; looking at interpersonal relationships, see the same; looking at the interorganizational relationship, see moral examples; looking at the organization-patient relationship, see signs of ethics.”

The lack of an effective rewards and punishment system also makes the people not to care about values, as well as professionalism.

Participant #4: “I said I will write the offender resident and send it to the Disciplinary Committee, but it lasted so long that the person graduated and nothing happened, that is, such dilemmas do not allow the professors to say that this resident is not allowed now to enter the department until his case is addressed in the committee. They say you are not allowed to make such decisions and suspend the resident due to cheating. When the student cheats, and he is caught; the examiner and faculty will punish him and you do not have the right to take the paper from his hand and you should only report it; we would manage it.”

Participant 5: “Finally, the behavior of a person in a community, a smaller society, a hospital, is almost like a house. We spend many hours of our lives here. Well, if the peers, seniors, or freshmen are ethics-oriented, everybody may behave in the right way, but if even they have moral problems, all such things eventually transmit to the others; and unfortunately smoking, and other offenses gradually become common among them; I do not know well, but it is very bad, we just have sorrow.”

#### 4.2. Changes Related to the Sociocultural Environment of the Community

Alongside the inefficacy of the educational system to promote professionalism, some changes also occur at the community level, which the development of professionalism in many occupations encounter. In fact, the reason is attributed to the coherence of the educational system. Participants said about the impact of such changes as follows:

A participant in the group discussion: “When our society is the one in which ethical behavior is humiliated, the expression of such behaviors in medical environment is much more highlighted, and incidentally, the same behaviors are applied. For example, an angry administrative em-

ployee that wants to express his repressed anger, here is the place! Because he can mistreat residents and interns and if we want to do somethings here, definitely we can do nothing! Maslow showed in his hierarchy of needs that when the basic needs are not resolved, when security and economic problems are not resolved, we cannot think about other stages.”

Participant #4: “The first meeting I held after being appointed to the deputy of education of the hospital, was on ethics. Heads of departments, one of our department heads, gave me a painting on an A4 paper, at the end of the meeting as said: “Look, I was painting all the time you were talking. This is yours. This words that you are putting on are useless. In this society, all people are like that; do not talk about ethics... I am influenced by the community, and my resident is also influenced by the community; that is it!”

#### 4.3. Changes Related to Health Reform Plan

Participants believed that the changes made by the implementation of the health reform plan to health services system had a significant impact on the development of professionalism in residents. They believed that a heavy workload would cause a resident not to be able to develop himself scientifically, morally, and professionally. For example:

Participant #1 said: “The health reform plan you have already talked about is like that we try to play the role of an attend in the hospital; in fact, that attend had worked so much, but we have a difference with them that they did not bear such a heavy workload imposed by the reform plan to the current residents. The reason for higher scientific knowledge of former attends that can better manage their patients compared to the current ones is that they had much more time to study, worked on their patients more comfortably, or had more active ward rounds, but we are now unfortunately involved in a set of minor issues of the current health system.”

Participants also believed that such changes resulted from lack of resources and facilities required for the implementation of the health reform plan.

A group discussion participant added: “When context is not proper and we just want to do some formalities to say yes we made the visits fees cheaper, or want to show that we are serving people, but this does not happen in reality; until then, I think we cannot practice conscientiously.”

#### 4.4. Change the Focus from Education to Health Services and Promotion of Faculty Member

The study participants believed that the priorities of the system shifted from education to health services and

promotion of faculty member. Therefore, the development of professionalism in residents is less than what expected. They believed that educational hospitals were more concerned about providing health care services than attending the training of residents. For example:

Participant #1: "The number of patients in public hospitals increased several times within recent years; therefore, higher workload was imposed on us. Resident in fact plays the therapist role; in other words, the educational role is influenced by the health services. In fact we are somehow serving the government with a very low salary and benefits."

Participant #1: "Our work is summarized in providing services; that's all! when a resident comes here he is always involved in providing healthcare services, while is trained anyway and may attend two morning report sessions. Very rarely I heard raising ethical issues in mornings."

The faculty members' promotion system has made some of the professors focus on publishing articles and upgrading themselves rather than concentrating on the training of residents. Participants believed that such an approach affected the development of professional ethics.

Participant #8: "It is said that avoid being involved in legal issues during residency program and just try to write some articles as a privilege for sub-specialty entrance exams; that's all! What kind of valuation criterion?; to visit a patient within five minutes and spend my time studying and preparing papers since it is the criterion for sub-specialty entrance exam, subspecialty certifying exam, the privilege for my future positions as associate professor, assistant professor to associate professor, and associate professor to professor? This is why I say that everything originates from the law. That is, even my professor, whom I am also influenced by, is also affected by such laws. If the law was right, my professor would tell me not to worry. But all of these things already form the basics of our valuation, which are definitely influencing. In my opinion, the law is the last word and this law affects my professor and I am also influenced by him."

## 5. Discussion

The current study aimed at qualitatively explaining the effects of changes in the educational system on the development of the professionalism in medical residents. The findings of the current study showed that the medical education system faces challenge in the formation of professionalism in medical residents. These challenges are related to the hidden curriculum and are influenced by changes in the educational system and changes resulting from the health reform plan. According to the results of

the current study, to form professionalism in medical residents, the medical education system faces challenges imposed from outside the system; therefore, it shifted the focus from education to health services.

The results of the study showed that educational environment changes were a factor affecting the formation of professionalism. Changes in the Iranian medical education system affect professionalism via two paths of inside (internal), and outside (external) the health system. Changes that in recent years occurred inside the health system were heavily influenced by health reform plan.

Some changes occurred outside the system such as low incomes, a reduction in health expenditure share of households, and the impact of the moral decline of society on the development of the professionalism in medical residents. The results of previous studies also indicated that the economic status of the community influenced the development of professionalism in medical students. For example, a study conducted in Bangladesh showed that the economic status of the country can affect the development of professionalism in doctors (23). Also, the results of a study on low-income countries showed that the situation of education in such countries worsened by low economic status and led to a decline in the development of professionalism in medical students. They also found that the sense of social justice had a significant impact on the development of professionalism in medical students (24). The results of the current study showed that feeling the loss of social justice has a negative impact on the development of professionalism in medical students. The origin of other changes in the educational system, which is the main goal of the current study, was the internal changes as well as health reform plan.

One of the challenges which the development of professionalism faced in different disciplines is the change in the educational system. In fact, changes in social systems, globalization, and their related issues are considered as challenges to develop the professionalism in graduates, especially the ones in the field of medicine. It is recommended that medical education programs and medical faculties prepare their graduates for such changes (25).

Results of a study by Karnieli-Miller et al. (26) showed that staff behavior is an important source to form professionalism in medical students, the point emphasized in the current study. The current study results indicated that medical students were not inspired only by their professors, but the behavior of all the health system staff influenced their professionalism. However, based on the results of Karnieli-Miller's et al.'s research, professors and residents are the cornerstones to form professionalism in the students. Despite the important role of professors, results of a study conducted by Joynt et al. (12) on medical stu-

dents in Hong Kong showed a large discrepancy between the knowledge of medical students taught by the formal curriculum and the perception caused by hidden curriculum in the same students. Their results also showed that clinical instructors did not have necessary preparations to teach professionalism to students. The results of the current study showed that the clinical education environment was not well prepared to develop professionalism in the residents.

In an Australian study on the design of a curriculum to improve the professionalism in medical students, the results showed that the development of a medical philosophy in students and the target of becoming an ethical doctor are the fundamental principles to form professionalism in medical students. The results of the current study showed that the valuation system, rather than strengthening the philosophical foundations of medicine and breeding ethical students, tends to go beyond the legal constraints and not to be caught up in the consequences of patient complaints. Several research results showed that the fear of being sued negatively affects the education of medical students. For example, results of a study in the United Kingdom showed that fear of complaints after treatment reduced the empathy of medical students and the skills they learned during education (27). Nevertheless, according to the results of a study performed on medical students in Detroit, it was recommended that medical errors and ways to deal with them should be taught to medical students to prepare them working with more self-confidence in the educational environment (28). It was also recommended that legal issues should be taught to medical students in order to prepare them to deal with situations in which doctors may face legal consequences (28). The results of the current study showed that the residents tried to deal with patients in a way not to be involved in legal consequences; however, no specific legal issues is provided so far to train legal issues and probably some of their fears are due to inappropriate legal principles. The fear of legal consequences, in addition to the frustrating sense of empathy between the patient and the physician make the residents think about his carrier with the fear of law and looking for ways to escape from it.

### 5.1. Conclusions

The current study aimed at qualitatively explaining the effects of changes caused by launching the health reform plan on the development of professionalism in medical residents. Based on the results of the research, the development of professionalism in the current educational system faces many challenges and changes at the level of society and the education-health care services system affect it. Changes outside the health system are changes directly

caused by health reform plan and changes occurred outside the health reform plan in the health system. Along with these changes, it seems that the educational system also has not the components required to develop professionalism in residents. The interviewed residents and professors believed that the educational system does not have the necessary conditions to promote professionalism.

Changes occurred at society level and the reduction of its financial resources, diminution of moral values, and highlighting the economic values, along with the poor support of residents as well as their bad economic conditions, ban the development of moral values in residents, along with the general community. In addition, the launch of the health reform plan led to an increase in workload and consequently, less attention is paid to the development of ethics. Changes, such as the faculty promotion system and paying more attention to the health services sector, which led residents to seek subsidiary goals such as publishing articles or meeting the therapeutic goals of hospital, diverted the attention from promotion of professionalism. With regard to the integration of the education, health, and health care service systems in Iran, it seems that the change in each one affects the rest. Unfortunately, the changes made in health services affected the education sector and persuaded the policy makers to pay more attention to this issue.

One of the limitations of the current study was the lack of access to all the medical schools nationwide. Certainly, a larger sample of medical schools nationwide can clarify the situation and the impact of changes. However, interviews at several universities, including the universities in the capital, and several large and small universities across the country gave almost a clear image of the current situation. It is recommended that the results of the present study be examined quantitatively.

### Supplementary Material

Supplementary material(s) is available [here](#) [To read supplementary materials, please refer to the journal website and open PDF/HTML].

### Acknowledgments

The authors wish to thank the professors and residents of medical schools for their helps to conduct the study.

### Footnotes

**Conflict of Interests:** There is no conflict of interests.

**Ethical Approval:** It was a PhD dissertation approved by Al-Zahra University.

**Financial Disclosure:** There is no financial disclosure.

**Funding/Support:** There was no funding.

## References

- Shariati A, Jamshidbeigi Y, Baraz Pardnjati S, Haghhighizadeh MH, Ab-basi .M . [Assessment of nurses, patient satisfaction, patient attendants in educational hospitals in Ahvaz city health development plan in 2015]. *J Clin Nurs Midwifery*. 2017;**6**(1):9-18. Persian.
- Joshan S, Shah Hoseini R, Fetros MH. [Assessment of the technical efficiency of teaching hospitals of tehran using data envelopment analysis before and after health sector revolution]. *Teb va Tazkieh*. 2016;**25**(1):37-48. Persian.
- Zandian H, Tourani S, Moradi F, Zahirian MT. [Effect of health sector evolution plan on the prevalence and costs of caesarean section and natural childbirth]. *Payesh*. 2017;**16**(4):411-9. Persian.
- Nematbakhsh M. [Research in the health system development plan]. *Iran J Med Educ*. 2015;**15**(64-6). Persian.
- Molavi M, Shekarriz R, Ahmadi A, Abdi Z, Hanan K. [The viewpoints of the medical faculty members and residents about health sector evolution in hospital affiliated of Shahid Beheshti University of Medical Sciences]. *Comunnity Health*. 2016;**4**(4):306-16. Persian.
- King A, Herge EA, Hess M, Joseph A, Kaushal G, Shaffer K, et al. *Thomas Jefferson University Faculty Days*. 2015.
- Rafique M, Nuzhat A, Enani MA. Professionalism in medical education-perspectives of medical students and faculty. *MedEd-Publish*. 2017;**6**.
- Mueller PS. Incorporating professionalism into medical education: The Mayo Clinic experience. *Keio J Med*. 2009;**58**(3):133-43. doi: [10.2302/kjm.58.133](https://doi.org/10.2302/kjm.58.133). [PubMed: [19826207](https://pubmed.ncbi.nlm.nih.gov/19826207/)].
- Al-Eraky MM, Marei HF. Professionalism in medical education. *Adv Health Professions Educ*. 2015;**1**(1).
- Hilton S. Education and the changing face of medical professionalism: From priest to mountain guide? *Br J Gen Pract*. 2008;**58**(550):353-61. doi: [10.3399/bjgp08X280128](https://doi.org/10.3399/bjgp08X280128). [PubMed: [18482490](https://pubmed.ncbi.nlm.nih.gov/18482490/)]. [PubMed Central: [PMC2435662](https://pubmed.ncbi.nlm.nih.gov/PMC2435662/)].
- Lesser CS, Lucey CR, Egner B, Braddock C3, Linas SL, Levinson W. A behavioral and systems view of professionalism. *JAMA*. 2010;**304**(24):2732-7. doi: [10.1001/jama.2010.1864](https://doi.org/10.1001/jama.2010.1864). [PubMed: [21177508](https://pubmed.ncbi.nlm.nih.gov/21177508/)].
- Joynt GM, Wong WT, Ling L, Lee A. Medical students and professionalism-do the hidden curriculum and current role models fail our future doctors? *Med Teach*. 2018;**40**(4):395-9. doi: [10.1080/0142159X.2017.1408897](https://doi.org/10.1080/0142159X.2017.1408897). [PubMed: [29268632](https://pubmed.ncbi.nlm.nih.gov/29268632/)].
- DesRoches CM, Rao SR, Fromson JA, Birnbaum RJ, Iezzoni L, Vogeli C, et al. Physicians' perceptions, preparedness for reporting, and experiences related to impaired and incompetent colleagues. *JAMA*. 2010;**304**(2):187-93. doi: [10.1001/jama.2010.921](https://doi.org/10.1001/jama.2010.921). [PubMed: [20628132](https://pubmed.ncbi.nlm.nih.gov/20628132/)].
- Neumann M, Edelhauser F, Tauschel D, Fischer MR, Wirtz M, Woopen C, et al. Empathy decline and its reasons: A systematic review of studies with medical students and residents. *Acad Med*. 2011;**86**(8):996-1009. doi: [10.1097/ACM.0b013e318221e615](https://doi.org/10.1097/ACM.0b013e318221e615). [PubMed: [21670661](https://pubmed.ncbi.nlm.nih.gov/21670661/)].
- Martimianakis MA, Michalec B, Lam J, Cartmill C, Taylor JS, Hafferty FW. Humanism, the hidden curriculum, and educational reform: A scoping review and thematic analysis. *Acad Med*. 2015;**90**(11 Suppl):S5-S13. doi: [10.1097/ACM.0000000000000894](https://doi.org/10.1097/ACM.0000000000000894). [PubMed: [26505101](https://pubmed.ncbi.nlm.nih.gov/26505101/)].
- Ponka D, Archibald D, Ngan J, Wong B, Johnston S. Attitudes towards sub-domains of professionalism in medical education: Defining social accountability in the globalizing world. *Can Med Educ J*. 2017;**8**(2):e37-47. [PubMed: [29114345](https://pubmed.ncbi.nlm.nih.gov/29114345/)]. [PubMed Central: [PMC5669292](https://pubmed.ncbi.nlm.nih.gov/PMC5669292/)].
- Frank JR, Snell L, Sherbino J. *The draft CanMEDS 2015 physician competency framework-series IV*. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2014.
- O'Flynn S, Power S, Horgan M, O'Tuathaigh CM. Attitudes towards professionalism in graduate and non-graduate entrants to medical school. *Educ Health (Abingdon)*. 2014;**27**(2):200-4. doi: [10.4103/1357-6283.143770](https://doi.org/10.4103/1357-6283.143770). [PubMed: [25420985](https://pubmed.ncbi.nlm.nih.gov/25420985/)].
- Stergiopoulos E, Fernando O, Martimianakis MA. "Being on both sides": Canadian medical students' experiences with disability, the hidden curriculum, and professional identity construction. *Acad Med*. 2018;**93**(10):1550-9. doi: [10.1097/ACM.0000000000002300](https://doi.org/10.1097/ACM.0000000000002300). [PubMed: [29794527](https://pubmed.ncbi.nlm.nih.gov/29794527/)].
- Chew-Graham CA, Rogers A, Yassin N. 'I wouldn't want it on my CV or their records': Medical students' experiences of help-seeking for mental health problems. *Med Educ*. 2003;**37**(10):873-80. doi: [10.1046/j.1365-2923.2003.01627.x](https://doi.org/10.1046/j.1365-2923.2003.01627.x). [PubMed: [12974841](https://pubmed.ncbi.nlm.nih.gov/12974841/)].
- Monrouxe LV, Rees CE. 12 Theoretical perspectives on identity: Researching identities in healthcare. *Res Med Educ*. 2015;**129**.
- Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;**3**(2):77-101. doi: [10.1191/1478088706qp0630a](https://doi.org/10.1191/1478088706qp0630a).
- Coleman AM. Medical ethics and medical professionalism in low and middle income (LAMIC) countries: Challenges and implications. *Bangladesh J Bioethics*. 2015;**6**(2):1-7. doi: [10.3329/bioethics.v6i2.25739](https://doi.org/10.3329/bioethics.v6i2.25739).
- Tikly L, Barrett AM. Social justice, capabilities and the quality of education in low income countries. *Int J Educ Dev*. 2011;**31**(1):3-14. doi: [10.1016/j.ijedudev.2010.06.001](https://doi.org/10.1016/j.ijedudev.2010.06.001).
- Pearson D, Walpole S, Barna S. Challenges to professionalism: Social accountability and global environmental change. *Med Teach*. 2015;**37**(9):825-30. doi: [10.3109/0142159X.2015.1044955](https://doi.org/10.3109/0142159X.2015.1044955). [PubMed: [26030377](https://pubmed.ncbi.nlm.nih.gov/26030377/)].
- Karnieli-Miller O, Vu TR, Holtman MC, Clyman SG, Inui TS. Medical students' professionalism narratives: A window on the informal and hidden curriculum. *Acad Med*. 2010;**85**(1):124-33. doi: [10.1097/ACM.0b013e318c42896](https://doi.org/10.1097/ACM.0b013e318c42896). [PubMed: [20042838](https://pubmed.ncbi.nlm.nih.gov/20042838/)].
- Smajdor A, Stockl A, Salter C. The limits of empathy: Problems in medical education and practice. *J Med Ethics*. 2011;**37**(6):380-3. doi: [10.1136/jme.2010.039628](https://doi.org/10.1136/jme.2010.039628). [PubMed: [21292696](https://pubmed.ncbi.nlm.nih.gov/21292696/)].
- Preston-Shoot M, McKimm J, Kong WM, Smith S. Readiness for legally literate medical practice? Student perceptions of their undergraduate medico-legal education. *J Med Ethics*. 2011;**37**(10):616-22. doi: [10.1136/jme.2010.041566](https://doi.org/10.1136/jme.2010.041566). [PubMed: [21586403](https://pubmed.ncbi.nlm.nih.gov/21586403/)].