Challenges and Solutions for The Promotion of Medical Sciences Faculty Members in Iran: A Systematic Review

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Abstract

Introduction: Faculty members play an important role in achieving the goals of higher education and take the responsibility of educating and disciplining students. This research aimed to investigate the challenges and concerns facing faculty member promotion regulations and provide appropriate solutions.

Method: This study was a systematic review conducted by searching PubMed, Scopus, Eric, Web of Science, Cochrane, SID, Magiran, and Irandoc journals and databases with Persian and English keywords in the period from 2015 to 2020. Titles, abstracts, and full texts were screened and the data were extracted over two authors.

Results: Thirteen articles were included. Challenges to promotion of faculty members were reviewed and grouped into five main categories: 1) the general regulations for the promotion of faculty members, 2) cultural, disciplinary, and social activities, 3) educational activities, 4) research-technology activities, and 5) scientific-executive activities.

Conclusion: Despite several amendments to regulations for the promotion of faculty members, this process always encounters challenges due to the complex nature of its related tasks. This article provides tips to policymakers on regulations of promotion for educational activities.

Background

As an educational center, a university needs to hire trained and committed personnel with special skills and knowledge to achieve its goals. One of the main components of any university is the faculty member who is responsible for educating and directing students (1), therefore, recruiting and employing capable faculty members, motivating them, and promoting their professional lives are important in enhancing the efficiency and effectiveness of higher education institutions (2). The regulations for the promotion of faculty members in medical universities play a substantial role in governing the activities of faculty members and directing policy-making for higher education. These regulations should aim at guiding their activities for sustainable and comprehensive development and meeting the basic needs of society (3).

In different countries, extensive studies have been conducted on faculty member promotion criteria, structure, and processes (3–7). However, these studies have mainly considered the evaluation and the promotion of faculty members without identifying challenges nor providing solutions. Accordingly, due to the ambiguities and complexities surrounding faculty member promotion, there is a need to conduct a comprehensive study to look into the various aspects of this issue in more detail. In this regard, some questions are raised and addressed in the present study. Therefore, the purpose of this research was to investigate the challenges and concerns in faculty member promotion regulations and provide appropriate solutions.

Method

This was a systematic review exploring challenges and solutions of faculty member's promotion in universities of medical sciences. The researchers assessed all the findings related to the criteria required for evaluating faculty member activities. The activities in question included cultural, disciplinary, and social activities, educational and research-technology activities, and scientific-executive activities. This study was performed based on the preferred reporting items for systematic reviews and meta-analyses (PRISMA) to ensure the high quality. This study was approved by the Research Ethics Committee of Kerman University of Medical Sciences.

Search Strategy

A preliminary list of keywords was compiled after an initial review of relevant studies and consultation with experts. A rapid search was carried out using the above mentioned keywords. Then, by reviewing the titles and abstracts of the articles retrieved in the rapid search, the list of keywords was finalized, and the SPIDER table was produced (see Table 1).

The searched databases encompassed; PubMed, Scopus, Eric, Web of Science, Cochrane, SID, Magiran, and Irandoc journals and databases, and the publication dates ranged from 2015 to 2020. Also, the websites of journals interested in medical sciences education, including the Journal of Medical Education, the Journal of Developmental Steps in Medical Education, Hakim Research Journal, Payesh Quarterly, Journal of Health Management and Teb va Tazkiye Quarterly, were also searched. Google Scholar was also involved for more comprehensiveness. A manual search was performed using backward and forward tracing techniques to further complete the search strategy. The references of the included articles were reviewed through backward tracing to access the most relevant articles published in previous years, while forward tracing was useful to retrieve articles included in the study. Experts were consulted to find out gray literature.

Table 1
SPIDER search strategy

SPIDER	Keyword	Synonyms			
Sample	Faculty member	Faculty	Professor		
Phenomenon of Interest	Tenure	Appointment	Maintenance	Recruitment	Promotion
Evaluation					

Inclusion criteria

Papers whose study purposes were in line with the research question and were published in Persian or English were included. Due to the limited number of studies on faculty member promotion, all the retrieved studies were reviewed after removal of irrelevant ones. Figure 1 shows the flowchart of different steps for selecting of the final studies.

Data Analysis

First, the most related research titles were selected, next, the extracted articles were screened for their abstracts. In case of relevance, the full texts were investigated. The full texts of articles were reviewed and coded simultaneously by two researchers, then, they were entered into the MAXQDA 10.2 software. Coding has been done using the inductive approach to extract the findings. At this stage, by extracting the key concepts of each study and putting them together using the method proposed by Paterson and Canam, the relationship between concepts and codes was determined (8). As the studies were being reviewed, the list of codes was completed gradually. To ensure that all the codes were reviewed in the initial stage, the studies were re-reviewed and compared against the final list of codes. In this process, the key concepts of each study were compared with those of other studies.

Results

Initially, 1405 articles were identified, of them, 513 articles were excluded in the screening stage because of duplication, and 543 articles were removed by matching the titles and abstracts with the inclusion criteria. In the eligibility stage, 336 articles were sided by reviewing the full texts. Eventually, 13 articles were included in the study. Of these, 8 were published in Persian, and 5 were in English. The characteristics of the included articles are presented in Table 2.

Table 2
Characteristics of the included articles related to the faculty member promotion regulations

#	First author	Year Published	Journal	Material reviewed
1	Maryam Eslampanah	2008	Management Journal	Scientific-executive activities
2	Hossein Mohammadi Doostdar	2008	Politics, Science and Technology Quarterly	Research-technology activities Educational activities General content of the regulations
3	Roghayeh Gandomkar	2011	Iranian Journal of Education in Medical Sciences	Research-technology activities
4	Hamid Asayesh	2011	Iranian Journal of Education in Medical Sciences	Educational activities
5	Mohammadqaem Tajgardoon	2012	Iranian of Higher Education	General content of the regulations
6	Hossein Karimi-Moonaghi	2015	Journal of Educational Development in Medical Sciences	General content of the regulations
7	Samaneh Ebrahimpour	2017	Social Welfare Quarterly	Scientific-executive activities Educational activities
8	Batool Jamali Zavareh	2018	Iranian Higher Education	Research-technology activities Educational activities Cultural-educational content activities
9	Sarah A Bunton	2007	Academic Medicine	Educational activities General content of the regulations
10	Bernard J Costello	2013	Journal of dental education	Research-technology activities Educational activities
11	Smith SB	2016	Journal of Professional Nursing	Research-technology activities Educational activities
12	David Moher	2018	PLoS biology	Educational activities

#	First author	Year Published	Journal	Material reviewed
13	Susan M McHale	2019	Journal of Clinical and Translational Science	Research-technology activities Educational activities

Content analysis of the articles related to the regulations for the promotion of faculty members was carried out based on five perspectives: 1) the general content of the regulations for the promotion of faculty members; 2) cultural, disciplinary, and social activities, 3) educational activities, 4) research-technology activities, and 5) scientific-executive activities. The relevant codes were compiled according to Table 3.

Table 3
Codes relevant to the faculty member promotion regulations

Main category	Subcategory	Codes
The general content of the regulations for the promotion of faculty members	Challenges to the general content of the regulations for the promotion of faculty members	• Low emphasis on innovation and creativity and dominance of the quantitative attitude • Failure to pay attention to the differences between universities and disciplines • Weakness in modeling global experiences • The inefficiency of control structures of faculty's scientific recession • Administrative function instead of focusing on the comprehensive promotion of education, research, and scientific and cultural services • Difficulty in measuring abstract concepts • Failure to respond to the conditions of specific groups (women, general education groups)
	Solutions for the general content of the regulations for the promotion of faculty members	• Changing the University Board of Assessors periodically • Establishment of a consulting and facilitation unit for the preparation of the promotion's documents • Implementing symposiums to exchanging views between the supervisory boards of different universities • Close monitoring of the assessment committees over the performance of the selected faculty committees • Setting rules governing the executive process of reviewing promotion cases • Supervising the composition of distinguished board members (diversity of fields of study, presence of women in these boards, different academic degrees) • Developing appropriate laws to reduce conflicts of interest

Main category	Subcategory	Codes
The cultural, disciplinary, and social activities	Challenges to cultural, educational and social activities	• Lack of transparency in the indicators of cultural activity and ambiguity in scoring them • Narrowing cultural activities to participation in specific educational courses • Lack of reflection of priorities for changing organizational and social culture • Neglect of some cultural activities related to the Comprehensive Plan and Islamization of Universities Document • Neglect of the development and promotion of the humanities
	Solutions for cultural, disciplinary, and social activities	• Creating the necessary facilities for cultural activities • Setting criteria for awareness of faculty members' abilities, capabilities and interests • Providing facilities for scientific and professional servicing to the public • Playing a role in programs related to promoting security or environmental protection and convergence of education and research with moral and spiritual education at universities
Educational activities	Challenges to educational activities	• Confrontation of educational and research activities instead of reinforcing each other • Limiting educational activities to the number of required teaching units • Homogeneity and use of identical tools and forms of assessment • The inefficiency of teaching quality evaluation systems

Main category	Subcategory	Codes
	Solutions for educational activities	• Attention to the breadth and variety of educational activities • Emphasis on the use of new educational technologies • Emphasis on education based on up-to-date and valid science • Utilizing a combination of quantitative and qualitative evaluation methods and using multiple resources • Matching a particular share of promotion indicators with the mission, requirements, special conditions, scientific resources and facilities of each university of medical sciences • Assessing the role of the individual in promoting the relevant department • Allocation of points for activities related to social accountability and community education
Research-technology activities	Challenges to research-technology activities	• Significant emphasis on research activities compared to other activities • High emphasis on science production in the form of ISI papers • Encouraging faculty members to produce papers regardless of the needs of the society • Paying attention to quantity instead of quality in papers • The complex situation of commercialization and knowledge production • Inequalities in the use of grants and research funds

Main category	Subcategory	Codes
	Solutions for research-technology activities	• Orientation towards meeting the research needs of the society • Looking at research activities from the perspective of a teacher and not just from the perspective of research as an entity separate from education • Encouraging the absorption of research funding from outside the university • Emphasis on following a specific research line • Evaluating the quality of the articles by an impartial expert team • Emphasis on convergence and interdisciplinary activity • Assigning scores to new ways of disseminating knowledge • Playing a role in advancing and creating change in the relevant scientific field • Introducing scientific fields to the society in the relevant scientific ground
Scientific-executive activities	Challenges to scientific-executive activities	• Ease in providing executive privileges and reducing their effectiveness in encouraging faculty members to accept executive responsibility • Ignoring the social status of faculty members • Ignoring the tension and stress caused by executive responsibilities • Ignoring the quality of one's performance in executive responsibility • Ignoring the lower chances of women in holding executive positions compared with men
	Solutions for scientific-executive activities	• Emphasis on the quality of executive responsibility • Playing a role in facilitating and promoting the functions and achieving the goals of the university

General content of the regulations for the promotion of faculty members

According to the most articles reviewed, regulations for promoting faculty members keep these members chained and restrict their creativity and interests. In other words, the regulations are more oriented

towards an administrative function rather than focusing on the comprehensive promotion of faculty members (9, 10, 11). This lowers motivation to produce more knowledge.

Another challenge to the regulations is that they render all universities, disciplines and individuals' capabilities to be similar. Despite differences in the requirements and needs of different disciplines and the variety in potential and actual capabilities in different areas of the country, the regulations assess all these disciplines, universities, and individuals based on the same structure (14, 15). Moreover, the mission, requirements, special circumstances, resources, and scientific facilities of each university have not been considered.

In addition, the difficulty in measuring abstract concepts, the narrow-angled attitude towards the promotion process, and the requirement for faculty members to score in all categories stand as some other shortcomings in this regard (12, 13, 16).

Failure to implement the promotion processes in a transparent and fair manner, lack of specialized staff in promotion committees in some universities, lengthy process and unnecessary administrative requirements of the promotion process, lack of knowledge on the faculty member's part about the promotion process and how their activities are evaluated, and the impact of conflict of interest or discrepancies of opinions on the outcome of promotion process are also some of the administrative challenges to promotion procedure (16). Recommendations to address these challenges include changing the University Board of Evaluators periodically, establishing an advisory and facilitation unit for the promotion of university academic staff, implementing symposiums and briefings, and executing exchanging programs between the boards of examiners from different universities, close supervision and mentoring of these boards on the performance of selected committees in the faculties, setting rules governing the executive process of reviewing promotion cases, endorsing appropriate rules to alleviate conflict of interest regarding the regulations and the establishment of a reporting system to monitor the promotion process and to track it by faculty members (18–16).

Cultural, disciplinary, and social activities

Cultural, disciplinary, and social activities of faculty members are crucial as these members act as role models for their students and society as a whole, especially religious values that affect our country's universities, particularly medical sciences. Few studies have examined these activities, and their results indicate challenges such as lack of transparency in guidelines and rules in evaluating cultural, disciplinary, and social activities, lack of knowledge in faculty members about these activities, negligence of some cultural measures related to the Comprehensive Plan and the Islamization of Universities Document, and overestimation of the development of humanities. Proposed solutions might include providing the necessary facilities for cultural activities, paying attention to the abilities and interests of faculty members, and the convergence of education and research with moral and spiritual education at universities, and fostering competencies and responsibilities related to social accountability of faculty members (13).

Educational activities

Due to the vital role of faculty members in universities, the educational activities in the promotion regulations are intrinsic. Despite the importance of education at universities, there are significant challenges to the education section of promotion regulations. In this regard, we can point out to the prominent role of the number of mandatory teaching credits. The quantity of teaching in the promotion process reflects only the faculty member's presence in the classroom, and the quality of education is seldom considered. Some solutions that can be proposed in this regard embrace; emphasis on employing new methods of training and assessment, using more appropriate instructional materials, and allocating more weight to educational activities compared to research activities, participation in educational faculty development programs, cooperation in the development or curriculum revision, emphasis on the production of educational materials, and activity in the field of educational management and leadership are greatly beneficial (13).

Also, two more challenges emerged in the results that were the easy attainment of good scores in educational activities when compared to research activities, and contrasting relationship of educational and research activities instead of their synergism (13). As a result of the present regulations, the publication of scientific papers has become a daily concern for faculty members. This has led to a decrease in the amount of time spent on educational activities and executive responsibilities (14).

Other challenges in educational activities include lack of objective evaluation of such activities, inefficiency of methods for evaluating the quality of those activities, and the role of students as the main criterion for evaluating educational activities (15, 18, 19). In order to mitigate these challenges, more attention ought to be paid to the quality of teaching evaluation by involving different sources and assigning more scores to the role of academic staff in promoting their educational department (13).

Research-technology activities

Despite the importance of research in improving the performance of universities, some challenges to research-technology activities which prevent the useful application of the potential results of faculty members' research efforts. These regulations in this category lead them to simply produce papers without considering the actual needs of society (13). Furthermore, focusing on the number of papers instead of quality has adversely reduced the number of faculty members pursuing other research activities such as writing and translating books (13). Increasing the sustainability and destination of research activities, emphasizing their role in creating change in the relevant scientific field, and developing indicators of research activity from the number of papers to more diverse indicators such originality and innovation, and fundraising for research proposals are some suggestions to reform regulations of research activities (14).

Scientific-executive activities

Challenges to scientific-executive activities were the easiness of acquiring privileges accordingly and this in turn negatively influences persuading faculty members to accept challenging executive responsibilities in the university, ignoring the social status of faculty members and also the stress caused by the abovementioned responsibilities, overlooking the quality of individual performance, and the limited

chance available to females to occupy managerial positions (10, 14). Applying strategies such as raising the quality of administrative work, facilitating the functions of the university to achieve its goals can contribute to solve the above challenges (15).

Discussion

This study aimed to highlight the challenges to the regulations for promotion procedure of faculty members and propose appropriate solutions accordingly. One of the critical things to maintain the quality and efficiency of higher education is the system of faculty member promotion. Based on the results of the reviewed studies, the current criteria of faculty member evaluation lack the ability to depict the quality of faculty members' efforts and render a comprehensive analysis of their performance (20, 21). Besides, faculty members have opposed the assessment techniques utilized by the evaluation boards as they generally depend on personal favoritism, slowness of the process, and some cases of injustice (22, 23). Judgment based on subjective assessment leads to injustice toward applicants (24, 25, 26). The promotion of faculty members should be based on an accurate and impartial evaluation to increase their motivation and job satisfaction (27, 28). In this regard, some studies have pointed out the need for developing different regulations according to the target group applying for promotion (29).

One of the solutions for the challenges related to the general contents of regulations is to tailor faculty development programs to the promotion regulations. These programs impact faculty members at individual and organizational abilities (30, 31), and lead to increase their awareness about the promotion process, and as a result, efforts to meet those criteria will be greater.

Following the value system governing universities of medical sciences in Iran, cultural and educational activities are mainly considered, and all stakeholders agree on the need to pay attention to these activities. However, challenges related to the abstractness of the concepts and the difficulty of measuring them in the form of academic activities have resulted in negative attitudes towards cultural material among university instructors. The results of some previous studies which show a negative attitude towards cultural activity related to faculty members (32) and the inevitable need to develop both appropriate qualitative and quantitative indicators to measure cultural, disciplinary, and social activities are consistent with the results of our research (33).

The existence of many challenges to educational activities is an alert for policymakers of the higher education promotion system. As reported in some studies, one of the main concerns of faculty members is the lack of attention to the role of education (34, 22). To activate the full potential of faculty members, educational activities need to be evaluated and directed towards innovation, encouraging them to go beyond individual activities (35, 36).

Due to the value of research in solving public problems, it is necessary to direct the relevant activities of faculty members towards addressing the needs of society, creating change, advancing the scientific field, and engagement in the national policymaking process (34). Qualitative review of a limited number of

faculty members' papers would draw more attention to the quality of research instead of concentrating on increasing the number of papers (35).

Although the regulations have generally specified their approach as one that serves the society, in most cases, faculty members deviate from this goal and pursue more executive positions that are far detached from the real needs of society (37). Determining specific criteria in this respect would help faculty members see the provision of services to society as something beyond mere executive responsibilities and further focus on improving the quality of the university's performance in achieving its scientific, disciplinary, and cultural mission. This would assist universities to play a core role in policymaking, employ macro-programs, and also to be in service of their society (37). The regulations should also guide the evaluation of executive scientific activities so that faculty members can place their abilities and knowledge in the service of society in various ways.

Due to the limited studies on problems facing the process of faculty member promotion, one of the strengths in this study is the comprehensive review of all aspects and articles conducted on the promotion regulations. Conversely, one of the limitations entailed was the information paucity in some articles.

Conclusion

Reviewing the system of faculty member promotion will result in more dynamic education, promoting the scientific level at universities, and improving social life. Considering the socio-cultural conditions and the state of higher education in our country, benefiting from the findings of other studies, policymakers can design and formulate a system for promoting the academic status of faculty member to pave the way for a comprehensive education system that inherently involves educating students, conducting research, and improving science.

Declarations

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Figures

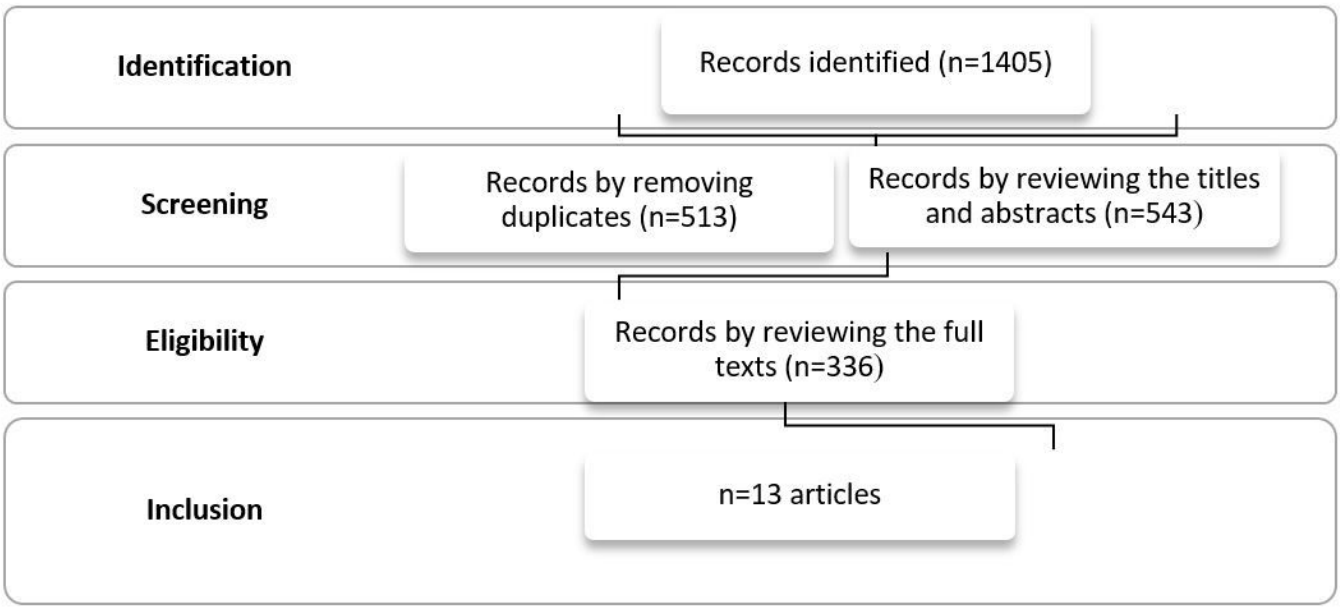

Figure 1

Flowchart of the selection steps