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Faculty development strategies based on the development and innovation programs of medical education (qualitative research)

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ABSTRACT

BACKGROUND AND OBJECTIVE: The development and innovation program in medical education is a strategic program in order to fulfill the objectives of the developmental programs of the health system. Since the medical faculty members have an important role in promoting public health, this study aimed to identify strategies for growth and development of faculty members of medical universities at northern part of Iran based on the evolution and innovation program of medical education in the form of grounded theory.

METHODS: This qualitative study was conducted using Grounded Theory Approach during 2015-2016. The study population included 22 faculty members of medical universities at the northern part of Iran. Sampling was performed by targeted method on those who were responsible in university or college. They were asked about the strategies for faculty development based on the development and innovation program in medical education.

FINDINGS: The results of collected data were classified into two main themes: Health ministry strategies (institutionalization of accountable and justice-centered education), and academic strategies (supporting the medical education development centers) and 9 sub-themes.

CONCLUSION: Considering the results of the study, it is recommended to Education policy makers to design and provide a more accurate and systematic programs in order to achieve development and growth of their faculty members according to the evolution and innovation program in medical education; so, the effectiveness and efficiency of faculty members and consequently the higher education system will be improved.

KEY WORDS: development, faculty members, innovation, medical education, strategy.

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Introduction

In all societies, higher education guarantees the human resource development and ultimately results in the development and growth of society. On the other hand, providing satisfactory and high quality service in the health field are resulted from training the competent workforce, which is essentially linked to the mission of medical education institutions. At the threshold of the third millennium, the increasing transformations of biological and medical sciences have significantly increased the amount and quality of the teachable titles in such field; so it directly affects the education and training of the human resources capable in this area(1).

On the other hand, the higher education is the most significant and important part of the medical field, which has a very broad scope of influence on the other institutions and the economic, social, cultural and political communities(2). The quality of universities and higher education institutions is more than anything depended on the dynamics of the faculty members. In the meantime, teachers of medical universities are both responsible for teaching the future doctors and paramedics and also as a doctor are responsible for the health of individuals; so whether directly as a doctor or indirectly as a lecturer at the university classes, they play an important role in health promotion(3).

So paying attention to basic developmental needs of faculty members as one of the main actors at universities can be effective in higher education institutions. Due to the significant expansion of medical universities and higher education institutions in Iran, infrastructures have been defined suitable for qualitative and quantitative improvement of higher education in the health area. One of the most important and emphasized infrastructures in recent years is the comprehensive program of development of higher education, a strategic document in line with the goals of health reform program. The planning levels are based on the methodology of developing the comprehensive scientific Health plan, including the visions, viewpoints and values and 12 general policies. The policies set forth in this program include:

- Institutionalizing the accountable educational approach in health system
- Expanding justice in health system of higher education
- Development of new sciences with an emphasis on interdisciplinary areas and focuses on the new science and modern technologies
- Regional and global presence in the fields of education
- Health Network in Higher Education
- Organizing the hospitals and health centers
- Institutionalizing of professional ethics
- Gaining benefit from new technologies in higher education
- Updating human resource at higher education for health sectors
- Decentralization in the health system of higher education
- Creating knowledge-based wealth in the field of higher education
- Production and localization of valid scientific evidences to promote health system of higher education (4)

So, it is obvious that specific contribution of the Ministry of Health and Medical Education is to train and nurture human resources in the health system in line with qualitative and quantitative improvement of medical education. So the development of faculty members and improving their skills should be the main elements of the mission of universities. Higher quality of medical education will result in higher quality of health care services and healthier society; the role of faculty members is much highlighted in all these issues. So, improving and empowering the faculty members must become the first goal of education system (4). If university administrators have a clear understanding of their faculty development, they can play an effective role in this regard(5), because implementing a systematic educational program based on the needs of the health system could motivate the faculty to be influential factor (6).

It should be mentioned that based on the territorial planning document of Ministry of Health and Medical Education in 2015, medical universities are divided into 10 districts; district 1 includes medical universities of Golestan, Mazandaran, Babol, Gilan, Semnan and Shahrood (3). The main objective of this study was to identify strategies for development of faculty members of medical universities in the Northern part of Iran, based on evolution and innovation program of medical education in the form of grounded theory. This study was conducted on Universities of district .

Methods

This qualitative study was conducted using Grounded Theory Approach during 2015-2016(7). The study population included 22 faculty members of medical universities at the northern part of Iran. Among faculty members, those who were aware of innovation program of medical education, and were willingness to participate in the study were selected. Sampling was performed by targeted method. A code

was specified for each sample from 1 to 22. The first samples were selected from faculty members of basic and clinical science departments, among those who had special responsibilities. Data analysis from each interview was a lead for the next sample selection, so that data obtained from the first four interviews made the researchers to conduct more interviews with a number of other faculty members. Then to complete the forming theory and saturation, some other faculty members were selected by Theoretical sampling method and interviewed (8). After coordination with faculty members, first researcher explained the purpose of the study for the participants and if they were agreed to participate in the study, the interview time was set. The semi-structured open interviews were used as the main method of data collection. Following approval, the interview was performed on the basis of faculty development strategies based on evolution and innovation program of medical higher education. The interviews were recorded and extracted as soon as possible after each interview exactly and verbatim; then, they were used as the original data. Interviews of participants were usually held in 1 session in a quiet room and private work place. The interviews were lasted between 20-60 minutes. The data analysis was performed using Strauss method at the same time with data collection and constant comparative analysis (7). For this purpose, implementation and initial coding for each interview was conducted before the next interview. Then, data and codes from each interview were compared with the previous interview. Coding was performed in three stages of open, selective and axial coding. Before coding, the researcher listened to each one several times, and the transcript was read several times (7).

Some other methods were used to ensure the credibility and trustworthiness of data(9). To verify the credibility of data and extracted codes, the participants helped to review. For this purpose, the transcripts of each interview and extracted codes were given to every participant to confirm the credibility of texts and extracted codes (member checking). The researchers also shared the classifications of data with some of the faculty who did not participate in research. Researchers have tried to record the study process for Audit-validity purpose (7).

Ethical considerations were regarded to carry out the research, which actually represents the respect for participants. In this regard, along with interview questions, a letter was also sent containing researcher's ethical obligation to maintain the provisions of interview and the profile of participants only with the consent of the interviewee. All interviews were recorded and examined to extract key points.

Results

The aim of this study was to identify strategies for development of faculty members of medical universities in the Northern part of Iran, based on evolution and innovation program of medical education. Based on the data obtained from interviews, this issue was defined in Health ministry strategies (institutionalization of accountability and justice-oriented training approach) and was estimated through codes such as educational justice, support for empowering programs in scientific, Supporting the creation of specialty and sub-specialty courses in universities, cultural and social fields, supplying faculty members required for universities, equity in medical education, Review the students accepting system in medical and dental courses, independency of universities to review curriculums based on the needs of each region. Also, some concepts were defined such as empowering the role of Education Development Centers (EDC) by the university administrations, increasing employment levels related to developmental centers, recruitment of manpower in medical education development centers by the academic strategy.

Eventually, the data were divided into 9 subthemes and two main themes: Health ministry strategies and academic strategies (Table 1).

Table 1: The main themes and subthemes derived from data analysis

Sub-themes	Main themes
-Reviewing medical curricula based on more responsive approach to the needs of society -Implementation of educational justice -Supporting the creation of specialty and sub-specialty courses in universities. -Supplying the required faculty members -Review the students accepting system in medical and dental courses -Equipping health centers	Health ministry strategies (institutionalization of accountability and justice-oriented training approaches)
-Supporting developmental centers as the mastermind of medical universities -More interaction between development centers and faculty members -Workshop -Creating profit perfect background for the development and prosperity of students with different academic abilities	Academic strategies (supporting the Medical Education Development Centers)

Discussion

From the viewpoint of faculty members, there are two overall strategies for development and prosperity of faculty members in line with the evolution programs of medical education.

Health ministry strategies (institutionalization of accountability and justice-oriented training approaches): In Iran since 1985 the Ministry of Health, Treatment and Medical Education was created; this ministry has been responsible for training the human resources in the health. With this major action, teaching and service integration was realized which was one of the main solutions to improve medical education programs, because the capability of a physician to better respond to the health needs of society depends on the perfect training during medical education period. Therefore, learning how to deal with the real needs of the community is one of the strategies for health promotion and it is the main component of evolution programs in medical education. So accountability-based training is one of the objectives of this program in which faculty members have a key role. Mullan et al. have emphasized that medical education based on accountability can be a proper training approach which considers the priority of health problems in the country in all the operational areas(10). Also Kristina et al. in their study defined the objectives of medical education as training the doctors who want and can serve the society, and can effectively deal with health problems in the first, second and third levels(11).

In this regard, a study conducted in 2013 in Kerman University of Medical Sciences on the analysis of status of medical education based on accountability; in this study the faculty members believed that innovative activities of faculty members in improving the quality of accountability-based education seems essential. Therefore, it is essential to forecast the proper mechanism in order to promote the quality of medical education programs(12).

Academic strategies: From the viewpoint of faculty members, active interaction between the faculty development centers of medical education and faculty members is the most important developmental strategy. (13)

In regulations of Job description in Education Development Centers issued by the Ministry of Health, Treatment and Medical Education, it is mentioned: educational centers as the mastermind of universities have an important role in promoting and maintaining the health of the entire society. Because according to the job description of EDCs, the centers with units such as growth and development of teachers, evaluation, community-based medicine, curriculum, student advisory committees, continuing medical education, etc. are responsible for improving education quality(14).

Enormous changes occurred in the past three decades in the growth of technology and medical science have revealed the need for change in medical education and led to the formation of Education Development Centers with the aim of improving the quality and quantity of educational services at the national and academic levels(13).

The first change to determine the scope of teaching and learning in Medical Sciences has begun at the University of Buffalo, in 1955, in America. WHO (World Health Organization) first launched 8 development centers, one of which based in Shiraz and began its activity since 1972. The main task of this center was to design and improve teaching methods, evaluation and medical education programming for the regional countries. According to WHO, Centers for Education Development should be the main center for collecting and categorizing information related to training approaches, the quality and quantity of human resources required in the health care systems.

Creating Education Development Centers in universities of medical sciences with the aim of improving the quality of education have been emphasized since 1989 as a necessity on the agenda of all the medical universities(15).

In many countries, EDCs have different names, but they all represent a mutual concept: "to maintain and improve the quality of teaching and learning"(16). Beckton said EDCs are small centers to improve the teaching-learning process in all universities(17). Another study mentioned that EDCs are departments responsible for improving the quality of teaching-learning quality. In fact, since improving the quality is one of the fundamental goals of higher education in the whole world, EDCs have a strategic for universities are of strategic importance for universities. For this purpose, EDCs were established at the University of Medical Sciences in our country, and these centers are in charge of the policy making for quality improvement in universities(18).

Changiz et al. in their study mentioned the need for creating EDCs to promote the training methods and appropriate educational approaches in workshops,

especially in the field of clinical training(19). These results are consistent with the study of Jouibari et al(20). and another study conducted in Isfahan which showed 52.35% of faculty members in practical courses claimed the need for more training about the practical teaching methods(21).

Conclusion

Based on the results based on the experiences of faculty members, Faculty development strategies based on development and innovation program in medical education include institutionalizing accountable approach to medical education and supporting the development centers of medical education in the universities. Because, providing satisfactory and high quality service in the health field is resulted from training competent workforce and essentially linked to the mission of medical education institutions.

So, the results of this research can help educational policy makers to promote health quality by careful and systemic planning based on the development and innovation program in medical education in order to promote the effectiveness and efficiency of faculty members and consequently the whole higher education system.

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