Middle-East Journal of Scientific Research 12 (6): 899-905, 2012
ISSN 1990-9233

DOI: 10.5829/idosi.mejsr.2012.12.6.1803

Selection Criteria for the Position of Dean in Medical Schools: A Competency Approach

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Abstract: Medical schools have three major responsibilities including: (1) medical education, (2) preventive services and (3) medical care. To prevent the neglect about education in comparison with health and medical care, training and evaluation of deans are necessary. This study aimed to determine the administrative competencies for the position of dean in medical schools. This is a mix method research consisted of a literature review, in-depth interviews and three focus group discussions to find out the possible competencies. Then, the most important competencies by priority were assessed through a questionnaire completed by 336 (84%) out of 400 of present and previous educational administrators of Iranian medical universities. Results of this study indicated that competencies related to the knowledge management; leadership; fiscal management; innovation and quality management as the most important competencies for the position of dean in medical schools. These competencies should be provided through preparation programs and on-the-job retraining.

Key words: Higher Education · Administration · University · Medical Education

INTRODUCTION

Integration of medical education into health services in some countries can potentially cause achievement of higher productivity and effectiveness toward excellence in academic medical education and quality care in health service system [1]. However, in such a system, the educational administrators in various levels of medical schools should adjust the educational programs with the limitations and programs of health system as well as academic obligations. Therefore, although a good opportunity is provided for medical students to have better clinical experience but problems and expectations of the health sector would have negative impacts on academic activities [2].

That is, the focus of academic administrators' concerns (physicians in particular) would become the quality of care delivered to clients not the education itself. Thus, it seems to be necessary to consider a minimum of administration related competencies for the candidates of such positions to be able to conduct these complex educational organizations.

Traditionally, the deans of medical schools in many countries, especially in Middle East, are selected from well-known faculties. Most of the competencies considered for the position notice the personal attributes and educational degrees rather than administrative excellence and competence [2]. Nowadays, higher dependence of academic success to the capabilities and potentials of educational administrators has forced higher education institutes to employ qualified and competent people to meet their special needs. Bone and Bourner (1998) in a research about the development and improvement of administrators showed that half of the universities in England hold educational courses to empower them. That study showed that, at least seven universities send their administrators to pass those courses mandatory.

The most important subjects of these courses have been fiscal management, staff evaluation, recruitment, change management, order and quality. These are added by a supervision to help an administrator to run meetings more effectively, accompanied by some other briefing sessions [3].

Thomson and Harrison (2000) conducted a research through which they distributed a questionnaire with 62 items of important managerial and leadership activities in universities among top managers of

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university. 400 persons were involved to develop a model for university administration roles. This model could be used for personal development and as reliable criteria for selection and evaluation of university administrators.

The main administrative roles defined were as followed: university leadership, following the academic standards, monitoring the students' achievement and welfare, marketing, establishing courses and resources and fund raising. Categorization of proposed subjects included: 1) Management of activities, 2) Management of resources, 3) Management of labor and 4) Information management [4].

Pedler, Burgoyne and Boydell (2001) in a book about management, have emphasized the following as the abilities of successful managers: 1) having the basic information and knowledge of the profession; 2) having basic competencies and skills, such as awareness of events in the environment, analysis and problem solving, decision making ability, emotional flexibilty and interest toward purposeful responding; 3) meta-competencies such as creativity and mental agility [5].

Harris and Krause (2007) have expressed that physicians and basic science specialists start their job as faculty members after graduation when they have no readiness or qualification for that position. Worse than that would be the time when they are appointed in administrative positions. Since, each of these positions needs some specific knowledge and qualifications, then after a short while the organizational disturbances will arise [6].

Crawford (2005) has stated that, since the creation and expansion of knowledge is very fast, management and leadership of organizations should be adjusted as well. Managers should respond to the changes faster than before. Therefore, the only solution would be empowerment of managers with the basics of knowledge and information management [7].

Samuel and colleagues (2000) about the needed abilities of educational administrators in medical education have noted the following items: 1) monitoring and directing the teaching in campus and in clinical settings, 2) ability of management and leadership, 3) improvement of information systems, 4) continuous improvement of clinical services, 5) improvement of primary health care, 6) increasing the service efficiency and cost reduction [8].

Abraham and Shaw (2001) have had an intra-organizational approach to management and listed the necessary competencies such as communication skills, teamwork, quality improvement, risk taking, time management and flexibility [9].

Yasini (2009) based on a study in Sydney University of Australia has mentioned the needed competencies of educational administrators as: 1) human-resource planning, 2) strategic thinking, 3) prospective and proactive approach of leadership, 4) flexibility in different occasions and ability to manage the changes, 5) self-management, 6) teamwork and team making, 7) problem solving and creative decision making, 8) honest, fair and moral behavior [10].

Mapp (2008) in a research about leadership skills of social colleges has tried to show the professional competencies of managers. He found that among all skills proposed by Henry Mintzberg, six items are very important which included leadership, communication skills, strategic planning, problem solving, budget management and staff management [11].

Slocum and Jackson (2002) with a social and international approach to the universities have proposed competencies such as communication, planning, teamwork, strategic intervention and implementation, holistic approach in thinking and self-management [12].

Lebadi (2007) in a research about administrative competencies in non medical universities in Iran has claimed that so many competencies are necessary. She emphasized the following items: 1) ability to assess the organizational changes and prediction of future, 2) knowing other active organizations with the same activity, 3) supporting the innovation and creativity, 4) ability to enhance the motivation of employees, 5) ability to lead the organization toward its strategic goals, 6) providing on-the-job training programs, 7) knowing the principles of leadership, 8) ability to improve the quality, 9) ability to manage changes, 10) systemic thinking style and 11) having moral behavior [13].

Lussier and Dubrin (2003) have proposed the managerial competencies under categories as technical, interpersonal, diagnostic, decision making and conceptual and political. They have added that having these competencies empowers managers to make networks and have higher capabilities [14-19].

This study has tried to reveal the basic competencies necessary for the deans of medical schools in Iranian universities of medical sciences with regard to the different aspects of their job. Results can help to provide a framework through which the selection and evaluation of administrators in this position becomes more scientific and reasonable.

MATERIALS AND METHODS

This is a descriptive study. Data were gathered through qualitative and quantitative approaches including in-depth interviews with ten experts (25-30 min each), three focus group discussions (FGDs) with eighteen knowledgeable faculties (six persons in each FGD) and a questionnaire which was made based on the final list of competencies. The questionnaire included 110 statements in 20 categories based on 5 items likert scale.

Firstly, the literature in higher education administration and medical education was reviewed to find the generic competencies of educational administrators in medical education. In the next step, in-depth interviews were conducted to find out if there are some other competencies necessary for such administrators. During the sessions of interview, the respondents were asked to tell, "What competencies are needed for the dean of a medical school in such a complex system?" All the stated items during interviews were recorded by a member of the research team and verified by each interviewee at the end. In the third step, three FGDs were conducted with eighteen experts (six persons during two hours in each session). The goal of this step was to identify the topic competencies and their related subcategories found during literature review and interviews. A research assistant recorded the discussions during all three sessions. He was responsible to verify each topic competency provided by FGD members as well. During the first session, items were presented to the FGD members in printed format. They had 15 minutes to read it and determine the topic competencies which would encompass a few other competencies. Then everyone could start with one main category and others could state their agreement or disagreement with it. In the second and third sessions, results of the previous session were presented to the new FGD members. In this session, members could add, accept, or change the determined topic competencies.

To reassure whether the provided items would make sense, the items were introduced to ten other experts to show their agreement or disagreement.

In the next part of the study, the level of importance of each item in the selection or maintenance of the deans was determined using a questionnaire with 20 categories and 110 subcategories through a five-item likert scale to show the level of importance based on the viewpoints of respondents from very much (=5), to very little (=1). Ten experts confirmed content validity of the questionnaire. In addition, reliability was determined through a pilot study. To do this, 20 faculties two times with one-month interval filled in the questionnaire. Alpha Cronbach (98.9) and the external consistency through a test-retest (99.3) determined internal consistency.

The verified questionnaire was sent to faculty members with a minimum of three years of administrative experience in positions including the university chancellor, deputy of education of university, deans, deputy of education in schools and chairpersons working in 43 universities of medical sciences in Iran. The questionnaires were sent by mail to 400 faculties introduced by heads of educational development centers (EDCs) of universities and returned back through the same way.

Data analysis for this step was done using the descriptive methods and the principal component of factor analysis to determine the most influential factors (Since the categorization of factors was done based on the literature and not based on the respondents' viewpoints, so, factor analysis was not performed completely and only principal component was used to show the importance of each factor). To assess the effects of demographic variables of respondents on the selection of the priority of competencies, ANOVA was used to determine the effect of faculty administrative positions, their majors and educational level. In addition, T-test was used to determine the effect of gender and regression analysis to determine the effect of age, management history and work history.

RESULTS AND DISCUSSION

In the first section, the literature revealed different aspects of competencies from the scientific to the executive dimensions such as knowledge and information management, as well as economical management. Some references emphasized the basics of academic administration while others were focused on the innovations and technological progresses such as e-learning and virtual education [13]. In this way, many different items were distinguished which then after in-depth interviews and FGDs, they were summarized to 20 main categories and 110 subcategories after omitting the similarities and overlaps. In-depth interviews provided more comprehensive ideas. For instance, almost all the respondents stated that awareness of the governmental politics is crucial, half of the respondents suggested that respecting subcultures is important, almost all believed

that knowledge about the ranking of universities should be the focus of activities and a few faculty thought that awareness of ethical issues are necessary.

During FGDs, which were conducted, to determine the main categories of competencies, 20 categories were identified with consensus as 1) Knowledge and information management, 2) Leadership skills, 3) Budgeting and fiscal management, 4) Innovation and entrepreneurship, 5) Human resource management, 6) Quality management, 7) Educational planning, 8) Management of international relations, 9) Students services, 10) Educational administration in health fields, 11) Social and public relations, 12) Management of virtual education, 13) Knowledge about laws and regulations, 14) Change and crisis management, 15) Management of cultural affairs, 16) Management of physical resources, 17) Personal competencies, 18) Educational administration in clinical settings, 19) Medical ethics and 20) Management of political affairs.

For a final verification, the provided categories and subcategories were introduced to ten other experts and all of them confirmed the validity of the items. In this way, all the items were reconfirmed. The next question was: “How influential is each factor in the effectiveness of the deans of medical schools?” To determine the level of importance of each category and the related subcategories, a questionnaire was used. From about 400 questionnaires distributed, 352 questionnaires returned that among them 336 were completed and underwent the analysis. Demographic variables of the respondents were as followed. Respondents were 229 male and 107 female, 24 university chancellors, 30 deputy of education of universities, 40 deans, 45 deputy of education of schools, 75 chairpersons and 122 previous administrators.

In addition, 32.1% were master, 37.8% PhD and 30.1% specialist, or subspecialist in medicine or dentistry. 7.1% of respondents had a degree related to management, 24.7% in medicine, 5.4% in dentistry, 27.7% in basic science, 21.1% in nursing and midwifery, 11.9% in paramedical sciences and 2.1% selected "other fields".

Table 1, shows results of principal component, mean of the likert scale and standard deviation for categories based on the importance of competencies determined by respondents.

In addition, we analyzed the results based on the field of study, level of education and administrative level and results are illustrated in tables 3-5.

Results of ANOVA test showed that there was a significant relation between the administrative positions and viewpoints (P=0.014) and between field of study and viewpoints (P=0.004), but no significant relation between level of education and viewpoints (P=0.116). In addition, T-test showed a significant relation between the gender and viewpoints (P=0.000) and regression test showed a significant relation between age and viewpoints (P=0.000), between work history and viewpoints (P=0.000) and between management history and viewpoints (P=0.000). The most important subcategories in each main category (from Table 1) and the principal component of factor analysis respectively are as followed:

Table 1: Main categories based on the level of importance

Competencies	Principal Component	Mean of 5	Standard Deviation
Knowledge and information management	0.874	4.84	0.38
Leadership skills	0.862	4.80	0.45
Budgeting and fiscal management	0.834	4.80	0.39
Innovation and entrepreneurship	0.833	4.79	0.44
Human resource management	0.824	4.77	0.47
Quality management	0.822	4.76	0.46
Educational planning	0.815	4.73	0.55
Management of international relations	0.802	4.72	0.50
Students services	0.799	4.72	0.47
Educational administration in health fields	0.797	4.71	0.54
Social and public relations	0.789	4.71	0.57
Management of virtual education	0.763	4.68	0.49
Knowledge about laws and regulations	0.758	4.65	0.56
Change and crises management	0.747	4.63	0.58
Management of cultural affairs	0.744	4.59	0.55
Management of physical resources	0.726	4.52	0.62
Personal competencies	0.688	4.51	0.64
Educational administration in clinical settings	0.682	4.45	0.65
Medical ethics	0.682	4.38	0.41
Management of political affairs	0.494	3.97	0.79

Table 2: First categories selected based on the respondents' field of expertise

Field of Expertise	Category	Mean of 5
Management	innovation and entrepreneurship	4.90
Medicine	innovation and entrepreneurship	4.82
Dentistry	leadership skills	4.92
Basic Science	knowledge and information management	4.81
Nursing and Midwifery	knowledge and information management	4.92
Paramedical Sciences	personal qualifications	4.91
Other	management of change and crises	4.67

Table 3: First subcategories based on the level of education of respondents

Level Of education	Category	Mean of 5
Master of Science	educational administration in clinical settings	4.87
PhD	knowledge and information management	4.80
Specialty	innovation and entrepreneurship	4.84

Table 4: First subcategories based on the administrative level of respondents

Level of Administration	Category	Mean of 5
Chancellor	educational administration in health fields	5.00
Dept. of education of university	management of international relations	4.92
Dean	educational administration in clinical settings	4.85
Dept. of education of faculty	personal Qualifications	4.91
Chairperson	knowledge and Information management and leadership skills	4.86
Faculty	innovation and entrepreneurship	4.75

Table 5: The most important sub-competencies and principal components

Category	Most important Sub-Competency	PrincipalComponent
1	knowledge about the creation and management of learning organization	(0.955)
2	developing the culture of professional commitment in faculty and students	(0.919)
3	ability of fund raising	(0.929)
4	developing the entrepreneurship approach in the organization	(0.946)
5	knowledge about the principles of optimum use of human resources	(0.918)
6	effective utilization of continuing medical education to ensure the quality services by graduated	(0.949)
7	knowledge about the 5 year governmental plans and acting in accordance with it	(0.826)
8	knowledge about the university structure in national and international level	(0.962)
9	knowledge about welfares and needs of students	(0.926)
10	knowledge about the epidemiologic distribution of diseases in the region	(0.939)
11	knowledge about the community organizations affecting the university decisions	(0.947)
12	Ability to use the virtual networks	(0.979)
13	knowledge about the official regulations related to the faculty and staff	(0.937)
14	ability to change the management style and method just in case	(0.959)
15	knowledge about the cultural values of the community	(0.967)
16	ability to maintain, develop and effective utilization of intra-university educational spaces	(0.947)
17	knowledge about the educational administration	(0.907)
18	ability to design and monitor the education in clinical settings	(0.915)
19	developing and monitoring the professional approach in medical sciences (altruism, honest, responsibility)	(0.940)
20	ability to make a good connection with political organizations in region	(0.963)

CONCLUSION

Educational administration is a vital activity with both academic and social impacts. Therefore, the trial and error style of administration cannot be acceptable. Competency categories extracted through this study were compatible with many other studies such as Thompson and Harrison [4] for human resource management, Pedler *et al*., 2001 [5], for social and public relations, Harris and Krause [6] for educational administration in health fields, Crawford [7] for knowledge and information management, Samuel *et al*. [8] for educational administration in clinical settings, Mapp [11] for knowledge about laws and regulations, Hellriegel *et al*. [12] for educational planning and Lebadi [13] for leadership competencies.

This study showed that "knowledge and information management" and "Leadership skills" and "Budgeting and fiscal management" are the most important competencies for deans of medical schools. Because of the importance of the roles of dean in medical school and its impact on the academic and clinical success of students, it needs a serious attention by authorities of the ministry of health and/or higher education. It is suggested that the proposed competencies are included in primary training and on-the-job training of medical schools' deans as main priorities. It seems that authorities should expand the programs and courses about medical education and higher education administration and involve the related people to enhance their administrative potentials and ensure achievement to the predetermined outcomes.

The AMEE congresses and other specific medical education and academic administration seminars and workshops would be helpful in this regard. There have been 12 medical education congresses held in Iran so far and in each time some aspects of the issue has been the focus of the congress. In recent years that planners and designers of the congress have been attracted to the issue of administration. The other positive approach was that started in 2006 by the Supreme Court of Cultural Revolution to design the scientific map of the country (Iran) which was followed by an extended contribution of all universities to illustrate the road map of scientific activities in the country that has a powerful emphasis on administration and management in universities. Thus, in an optimistic view, we can be hopeful to overcome the defects in the administrative roles and activities during future years.

ACKNOWLEDGEMENT

We appreciate the authorities in the ministry of health and medical education and Azad University who provided us with facilities to communicate with all educational development centers of medical universities. We also appreciate the collaboration of educational development centers, which helped us to distribute our questionnaires and gather them.

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