Original Article

Need Assessment about Managerial Education in Managers and Chief Experts of Health Vice-Chancellery of Medical Sciences Universities in Iran

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Abstract

Introduction: Identifying training needs and implementing appropriate courses are the important steps to empower managers and expert specialists. This has the most important role in improving organizational performance. In this study, considering the importance of training programs' effectiveness, the training needs of managers and experts and their relation to individual and institutional factors was determined in the Health Departments of Universities of Health and Medical Sciences.

Materials and Methods: This retrospective study was conducted in spring 2010. Communities in this research were the staff of Universities' Health Departments in the field of Health Deputy. They were selected from 13 universities by random systematic and stratified methods. All available directors and experts were responsibly elected and interviewed as the census. The questionnaire included individual and organizational variables and 28 management topics that confirmed validity and reliability.

Results: In total 293 managers and expert specialists were studied, the average require education based on 26 (92.9 %) out of 28 subjects review, was respectively more than 3.5 (total score 5). Declaring level of training needs in a few cases had significant difference with type of universities, sex, age, work experience, educational level, MPH courses, headquarters units and the current location of the people. ($P<0.05$)

Conclusion: According to the very high level of announcing requirements, it is suggested to have short term and long term management training courses.

Keywords: Needs assessment; Health Facility Administrators; Allied Health Personnel; Education

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Introduction

Training and improvement of human resources are continuous and planned efforts which are performed to promote knowledge, skills, attitudes, and social behaviors to increase the employees' capabilities, and improve their performance and competence level [1].

Trainings of managers and individuals who have a critical and efficient role in the organization have high priority. These individuals usually have facilities and influence in the organization. Therefore if they believe in modernization and adaptation to environmental changes and developments, they can be effective as agents of the change in making others capable of accepting modernization and dynamism of the organization [2].

Accordingly, researchers and management experts emphasize that one should be relied on managerial trainings to boost the efficiency and performance of managers as well as the management improvement of organizations [3]. On the other hand, one should accept that merely holding training courses will not necessarily result in capabilities of managers and staff.

In the study of Yusefi et al, 75% of general practitioners were unsatisfied with the performance of training programs [4] and in the study of Kusha et al, 41.2% of physicians evaluated the usefulness of training programs as weak [5].

Hence, training programs will attain necessary achievements when they apply dynamic processes. Esfandiar considers steps of the dynamic training process as follows: identify training needs, determine training objectives, select training method, plan for holding training courses, and evaluate held courses [6].

Therefore, accurate studying and categorization of current and future manager's training needs are considered as the most basic and fundamental steps of an effective training process. Training need consists of a set of changes that must arise in individuals of an organization regarding knowledge, skills and behaviors so that they can do their duties and responsibilities related to their jobs desirably and according to work standards [7].

Training needs assessment can be applied by managers as a useful tool in various aspects of training programs such as design, implementation and evaluation [8]. Ruda and Kasi introduce need assessment as a systematic study of what it is and what it should be.

Hence, to improve these two performances one must commence with human resource development and need assessment is the first step in this development. Yarmohammadian et al, in their study have considered need assessment as the first and the most basic step in the planning of the health system and medical education and they consider the determination of training needs based upon accurate patterns and techniques resulting in increasing effectiveness and efficiency of planning within the system [10].

Objectives of training need assessment may be slightly different in different organizations.

Bullet considers the objectives of training need assessment as follows: provide information for planning, evaluate, make training centers and systems accountable and responsible, recognize basic weaknesses and problems of the organization, improve the staff and organization, and efficiently use resources and facilities [11].

Every organization should occasionally consider training needs assessment with regard to growth process, self-development and human resource capabilities so that it can do more effective interventions to increase capabilities and competencies of staff and managers, with determining needs. In the study of Shirmohammadi, all of studied managers declare that they need to be trained in subjects related to managerial functions [12].

Kjervik et al have reported in their study on reviewing training needs of 422 nurses to knowledge and managerial roles, that 358 (80%) of respondents totally believe that they need to be retrained. From them, 260 (75%) considered training as it is necessary to maintain current state [13]. In Pourjafari's study, need for training in management methods has been given the first priority, to declare a managers' need for training in four fields namely; working culture, management methods, equipment, materials and components [14].

There are 4 approaches to determine training needs: felt needs, stipulated needs, normative needs and comparative needs [15]. In most cases, employees know their training needs better than everyone. Therefore, making a decision to hold employees' training courses should be considered with regard to training needs and order of priorities.

This research has been conducted based upon importance and organizational position of responsible managers and experts of health deputy of Medical Sciences Universities who were responsible for implementation of health programs at the level of provinces and evaluate and plan implementing of health programs related to their own zone in the counties' health centers. And also it is done to determine the level of need for managerial trainings and its relationship with individual and organizational factors.

Materials & Methods

This study was conducted as a cross-sectional survey in spring 2010. Research society has been constituted by all responsible managers and experts of staff units of Health Deputy of Medical Sciences Universities.

According to the estimation of ($p = 0.7$, $d = 0.05$ and safety factor of 95%), the sample size was 322 and nearly 25 responsible managers and experts in the Health Department Headquarter of each university were appointed. In total 13 medical universities regarding typology was selected with stratified and systematic random methods (Iran, Kerman and Gilan University of Medical Sciences from type 1, Semnan, Mazandaran, Hormozgan, Hamedan, Yazd Universities of Medical Sciences from type 2 and Ilam, Southern Khorasan, Rafsanjan, Ghom and Gonabad Universities and schools of Medical Sciences

from type 3 and independent). Also, all responsible managers and experts attended during questioning were interviewed as a survey by physical attendance of questioner at research environment.

Data collection tools have been questionnaires made by researcher that have included two parts; demographic and organizational variables consisting of 10 questions regarding sex, age, work experience, education level, field of study, Passing MPH course, the unit headquarter of working place, the current position and work experience in current position and universities typology; and the 2nd part includes 28 managerial subjects that be usually confirmed and considered by all perfectionist organizations (which include 3 subjects, the management of health programs, payment methods, and insurance system that are especially related to health care system organizations).

The approach of felt needs [15] has been selected from among 4 usual approaches as the approach of need determination. Content validity was applied for the validity of data collection tools and preliminary questionnaire was provided by using multiple resources [10, 12, 18] and with imposing corrective comments of 12 individuals from faculty of management and information department of Tehran University of Medical Sciences and managers and senior experts of Ministry of Health and Medical Education were finalized and the its stability was calculated 91% by Chronbach's test. To declare need and to respond to questions, the five point Likert scale (very effective, effective, somewhat effective, not very effective, and not effective) has been considered that for rating were assigned number 1 to 5 respectively.

In determining the need for training for each of study subjects, average weight was based on 3/5kg and more [18].

Collected data were imported into Excel software and was analyzed by Spearman's and Kendal's test to determine correlation between rating variables and Kruskal Wallis's and Mann-Whitney's test to compare between the averages and chi-square for qualitative variables in SPSS-18 software in the importance of $p<0.05$.

Results

Totally, 293 responsible and accessible managers and experts out of 322 estimated samples, were practically studied that 175 (60%) were male.

Regarding age, the most of them were in the age range of 40-49 years and the majority of their work experience (52%) was between 10 and 19 years, where the average age and total work experience were 41± 6 and 16± 7 respectively.

Regarding level of education, 7 (2%) had diploma, 10 (3%) associate degree, 146 (50%) bachelor degree, 39 (13%) master degree, 87 (30%) professional doctorate and 4 (1%) PhD that 42 (14%) of responsible Managers and experts could be admitted in the MPH course as well.

Field of study of 244 (80%) of them were medical, paramedical and health, 28 (10%)

management, Accounting and associated orientation as well as 21 (7%) from other fields of study.

267 (91%) were employed in technical units and 26 (9%) were in administrative and financial units.

At the time of study, 134 (46%) were managers and the remaining 54% were responsible experts with average experience of 5±6 years.

From 293 individuals studied, 65 (22%) were employed in universities type 1, 115 (39%) at universities type 2, 113 (39%) at universities type 3 and independent ones.

Entrance to the MPH course has a meaningful relationship (P=0.000) with typology of Universities of Medical Sciences (from type 1 to 3 and independent, 26%, 19% and 3% respectively).

Educational level and age of responsible managers and experts have a meaningful relationship with typology of Universities of Medical Sciences (With higher educational level and age of individuals studied at universities type 1, 2, 3 and independent), with Chi-2 test, P=0/003, P=0/014 and Spearman P=0/000 respectively.

Table 1 shows that the majority of inferior managers related to numbers 1, 18 and19, have not participated in managerial trainings and with regard to needs as stated in almost all cases (except numbers 20 and 22) need to be trained.

The highest amounts of need for training have been announced health management programs, operational planning, productivity, time management and reporting technique respectively.

The average difference between announced the need for training in rows of 7, 24 and 25 of table 1with Krusku-Wallis Test with types of universities has a meaningful relationship (higher level of needs in universities type 3 and independent one at the level of significance and statistics of p=0/034, p=0/004-6/76, p=0/000-11/12, 19/33 respectively,

In the rows 7, 9 and 15 with Mann-Whitney Test regarding individuals' gender (the higher announced need for training in men at the level of significance and statistics of p=0/027, p=0/003-5139, p=0/038-5800, 7885 respectively.

In the rows of 5, 17, 19, 23, 24, 36 with Spearman Test regarding educational level (at the level of significance of p=0/037, p=0/041-R= - 0/131, p=0/015 – R=0/123, p=0/011 – R=0/258, p=0/010 – R= -0/172, p=0/028, R= -0/157 respectively.

In the rows of 3 and 24 with Mann-Whitney Test, holding MPH course (at the level of significance and statistics p=0.045, p=0.016 – 1914, 2126 respectively.

In the rows 3, 4, 5, 6, 21 and 23 with Krusku-Wallis Test regarding unit headquarter of working place (at the level of significance and statistics of p=0.017, p0.021 – 13.75, p=0.007 – 13/22, p=0.024 – 15/93, p=0.021 – 12/97, p=0.004 – 13/28, 17/19 respectively.

Table 1. The frequency of the lack of managerial courses training and average requirement announcement on training at the level of responsible managers and experts employed by health department headquarter of Iran Universities of Medical Sciences.

Rows	The lack of training and the average requirement announcement for training	All untrained managers and experts		Average requirement announcement for training
		Frequency	Percentage	
1	Continuous quality improvement (FOCUS PDCA)	104	35/5	3.81
2	Kaizen (gradual improvement)	271	92/5	3.74
3	Documentation of processes	216	73/7	4.06
4	Standardization	232	79/2	4.14
5	5S	252	86	3.99
6	Reengineering (reconstruction of processes)	276	94/2	3.82
7	Productivity (efficiency and effectiveness)	223	76/1	4.21
8	Basic management	217	74/1	3.95
9	Intermediate management	244	83/3	3.92
10	Organizational Behavior	233	79/5	4.06
11	Health Management Programs	245	83/6	4.27
12	Physical Resources Management	274	93/5	3.85
13	Human Resource Management	253	86/3	4.04
14	Budgeting	255	87	3.89
15	Payment methods in the health system	275	93/9	3.70
16	Insurance system and the method of making money	281	95/9	3.50
17	Financial management	277	94/5	3.54
18	Strategic planning	122	41/6	3.98
19	Operational planning	88	30	4.26
20	BSC	288	98.2	3.24
21	Models of organizational excellence (EFQM)	273	93.2	3.60
22	National Productivity and Organizational Excellence Award of Iran	289	98.6	3.31
23	ISO 9001: 2000	261	89.1	3.58
24	Suggestions System	219	74.7	3.96
25	The plan of respecting client's dignity	198	67.6	3.72
26	Social Marketing	206	70.3	3.50
27	Reporting technique	195	66.6	4.21
28	Time Management	274	93.5	4.26

In the rows of 5, 11, 12, 17, 19 and 27 with Kruscul-Wallis regarding field of study (the higher announced needs for holder of Medical, Para-Medical and Health at the level of significance and statistics p=0/003, p=0/002 – 11/38, p=0/006 – 12/85, p=0/026 – 10/29,

p=0/029 – 7/3, p=0/006 – 7/10, 10/13 respectively. In the rows 2,3,9, 11, 14, 20, 21, 23, 26 with Mann-Whitney Test regarding the current responsibility of studied individuals (the higher announced need for training in managers at the level of significance and statistics of p=0/003, p=0/001 – 7389, p=0/011 – 4349, p=0/024 – 5950, p=0/043 – 7185, 4443 respectively,

In the rows of 1, 5, 8, 9, 11, 19, 20, 21, 22 with Kendall Test regarding work experience in current responsibility (respectively at the level of significance and statistics of p=0/015, p=0/002 – R= - 0/194, p=0/025 – R= - 0/152, p=0/007 – R= - 0/123, p=0/010 – R= - 0/140, p=0/047 – R= - 0/135, p=0/022 – R= - 0/146, p=0/000 – R= - 0/202, p=0/001 – R= - 0/162, R= -0157,

In the row 14 regarding age (p=0/042, R= - 0/099)

Discussion

Systematic and comprehensive needs assessment is the introduction and requisite of appropriate design of continuous training programs as well as cause for successful and satisfactory operation of this program [19].

Chavin and et al used needs assessment for providing and designing training programs of public health division managers of 4 districts of South America and concluded that needs assessment derived from that can be one of the most important tools to design and evaluate training programs for professional managers [20]. Needs could be identified individually, as a group or as a combination [21].

The results of this study that has considered training needs of responsible individual managers and experts regarding managerial issues, show that all studied individuals need to be trained in 26 subjects (92/9%) from 28 studied subjects, which are the same as Shirmohammadi's findings.

In the great research to study training needs of basic and intermediate managers of the Jihad Construction Organization has been declared that the need for human skills training is more than technical skills [22].

One of the reasons for announcing high needs for managerial training may be holding inadequate managerial training courses and the lack of training a large percentage of studied individuals regarding managerial issues that in this study was determined that only in 3 subjects, more than 50% of responsible managers and experts had a training experience and in other issues, the amount of training was very insignificant, from 1% to 33%.

Other reasons for the high training needs for managerial issues may be related to the field of study of studied individuals because 83% of them who graduated in medical, paramedical and health neither did not have any managerial courses nor had very brief ones in their education period.

In the study of Thomson and et al, continuous training needs of nurse's society of London, managerial issues has taken priority over need for health concept training and related rules [23].

Another reason for high announced needs for managerial training can be the

organizational position of studied individuals who required managerial-relevant knowledge and technologies due to trusteeship of health programs at the provincial level and evaluation of holding health programs at lower levels of the county.

Findings of current research regarding priority steps of training needs indicate that subjects such as the management of health programs, operational planning, time management, and reporting technique or writing codes are given priority. This seems to be rational with regard to organizational responsibility and educational level.

From above issues, holding time management training course may require less time than other issues, but studies reveals that many organizations neglect it.

Because in the study of Avizhegan and et al, time management has been considered as the highest need among executional and managerial activities [24] and in the needs assessment of the faculty of Internal Medicine Group in the USA, the most frequency for future training was related to the time management among the faculty members of the University of Massachusetts Medical School.

One of the findings of this research indicates that despite meaningful differences among academic degree, entrance to MPH course and studied academic individuals' age with universities classification, the difference in average announcement of the need for training was meaningful with classification of universities only in 3 subjects. This shows nearly equal needs for managerial training in various types of Universities of Medical Sciences and this fact seems to be natural regarding the same organizational responsibilities and positions of studied individuals.

Other findings of the current research are the few meaningful differences between need announcement for training and organizational and individual factors of studied people that nearly agree with findings of Tabibzadeh, Bashi and Ghafori's research [26-28] and this can indicate that selected managerial subjects are almost equally important for improvement and development of studied individuals' performance.

Conclusion

According to the records of holding managerial training courses as low quality and stated needs for managerial training, planning and implementing of intervention training plan for responsible managers and experts would be suggested as short and long terms.

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