

*Full length Research paper*

# Management development criteria and its indicators among the middle managers of the hospitals affiliated to Tehran Medical Universities

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The aim of this study is to determine the importance of management development components from the viewpoint of middle managers of hospitals of Tehran University of Medical Sciences. Methodology was a cross-sectional-descriptive-analytical study which was conducted in hospitals affiliated to the University in 2009. Sample of 227 middle managers employed in 16 hospitals were randomly selected. Data were collected using a questionnaire including 42-questions, of which its reliability and validity was confirmed. Factor analysis was used for statistical analysis. The results showed that more than half (53.7%) of middle managers who were in age group below 40 years were, 69% female and 31% male and 62% had B.Sc degree. The average work experience of middle managers was 14.9 years. Results showed that design and innovation was the most important role among managerial roles (78.8%). Also human skill of the managerial skills (87.2%), psychological ability of the managerial abilities (85.1%), social trust of the personality characteristics (73.7%), integrity of the philosophic mentality (78.7%) and leadership (81.6%) of the managerial knowledge component had the most importance from the perspective of the middle managers. The findings show that innovation was the most important role among managerial roles (78.8%) and indicator of network was the weakness (40.9%).

**Key word(s):** Management development, teaching hospitals, and manager development component.

## INTRODUCTION

Management is one of the main criteria in productivity of the management system in a large or small organization, and plays an important strategic and crucial role. Therefore developing nations invest a large amount in developing abilities and skills of managers (Mirsepasi, 1992). In an ever changing environment, successful management without continuous personal development is impossible. The managers of organization are facing globalization in enterprises, rapid technological change, continuous re-organizational change and competition

based on capabilities. All these progresses challenge the skills and capabilities of managers in organizations, and considering these rapid changes, the capabilities of the managers should be reconstructed based on a new and organized plan (Viitala, 2005). With increasing global competition, organizations are searching for a sustain advantage over others, by means of having superior human resources (D'Netto, 2008). Therefore managerial development is necessary for organizational progress, which originated from development and change in work place environment. Each progress in an organization requires development in the managerial process of the organization so that without any development in management organization will not even begin (Ghafarian, 2000).

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Nowadays, management development is considered as one of the main characteristics of the creative and innovative organizations. And in fact neglecting management development somehow brings to an end the development process; this means the diminishment of the organization (Molaei, 2007). Organizations are trying to increase their managerial development program everyday to enhance their strategic and productive capabilities (D'Netto, 2008). Surely the organizational vitality of each manager is not eternal, therefore, trusts in the present capabilities of the managers, is in contrast with prospective and proper planning for survival of an organization. Therefore, the organizations interested in their progress must have a program for development of their managers in their work schedules, by offering a comprehensive plan for development and progress of their managers to direct their way towards transformation and success (Molaei, 2007).

There are different definitions for the concept of development and progress of management, which are explained briefly as follows:

- 1) Management development means focus on the development and enhancement of capabilities and capacities of the managers in order to empower them to cope with their responsibilities effectively (Alrashid and Farid, 2003).
- 2) Harrison defined the development of management as a planned process which grants the effective management in all levels of the organization, achieving the goals and increasing the strategic capacity of the organization by learning from experience and creating a learning environment (Molaei, 2007).
- 3) Development of a manager is a plan which increases his/her efficiency (in his/her present post) and prepares him/her for accepting more responsibility at the time of promotion (Stoner, 2000).
- 4) In the opinion of Sheroder, management development is a process for expanding a wide range of necessary capabilities for managers (Molaei, 2007).

Development and progress of management, firstly, require recognition of managerial capabilities and efficiencies as components of management development and progress. The meaning of managerial capacities and capabilities, characteristics, and behaviors result in efficiency of managers in the work place environment (Molaei, 2007). A review of literature in management development shows patterns and models for development of management, each of them offers different criteria as capabilities and efficiencies of management which are necessary for managerial development. The organizational experts introduce criteria for management development, which mainly include plans for development of managerial roles, managerial skills, managerial abilities, personal characteristics, philosophical mentality and managerial knowledge. By means

of assessing these dimensions and offering a managerial development plan, an organization can have a long step towards development and progress of their managers. Each of these items has characteristics as follows:

**The managerial roles component:** Is identified by seven indicators including role of activity management, management of human resources, management of information, management of quality, management of project, design, and networking.

**The managerial skills component:** Is identified by four indicators including technical, humanities, cognition, and decision making skills.

**The managerial ability component:** Is identified by three indicators including the intellectual, psychological, and scientific abilities.

**The personal characteristics component:** Is identified by four indicators including being emotional and sensitive, social trust, having the approach of thinking, and acting upon it.

**The philosophical mentality component:** Is identified with three indicators including integrity, deepening, and flexibility.

**The managerial knowledge component:** Is identified by four indicators planning, organizing, leadership, and control (Bozanjani, 2002).

The middle managers, as one of the biggest group in each organization, are responsible for work of the lower grade managers and managing the work of operational employees. This is the main responsibility of the middle managers to direct and lead activities, which by means of them the main policies of the organization is enacted. They also should harmonize the orders and demands of senior managers and the abilities of staff (Stoner, 2000).

Considering increasing need of organizations to have a managerial development plan, this research was conducted with the aim of identifying the importance of management development criteria and its indicators among the middle managers of the hospitals affiliated to Tehran Medical Universities.

## MATERIALS AND METHODS

This study was an analytical and descriptive cross-sectional study. The sample population was middle managers in hospitals affiliated to Tehran Medical University in Tehran. In this study we defined middle managers as heads of clinical departments, emergency clinics, nursing supervisors, managers of Para clinic units (laboratory, radiology, pharmacy) and hospital financial managers. Since the main purpose of the study was to determine the importance of components of development of middle managers and then to determine the most important constituent indices for each

component, we used the statistical models, "principal component analysis" to find these parameters (25 index), therefore 10 samples were assumed for each index and a total of 250 middle managers employed in hospitals affiliated to Tehran Medical University were selected. Sample was selected randomly from each hospital and total sample of each hospital was in proportion to the number of middle manager in each hospital. Data were collected using questionnaires including 42- questions. The questions were fully structured with 5 options in Likert scale, which include all the above mentioned components. In designing the questionnaire, questionnaires from previous studies were used (Farahai, 2002; Alrashid and Farid, 2003; Mangan and Christopher, 2005; Nasiripour and Raeissi, 2007; Molaei, 2007).

To validate the questionnaires, after designing the questionnaire, it was given to a number of professors and Ph.D students of management to comments on its content. After collecting comments from this group of expert, necessary changes were made. For assessing the flow and accuracy of questionnaires, the questionnaires were administered to 10 individuals from the sample group. After this small pilot study, the questions which were not clear were identified and its sentence structures were modified. To assess the reliability of questionnaires, the Cronbach alpha coefficient was used, which showed a coefficient of 0.97, which indicate high reliability of the questionnaire.

Statistical methods for analyzing data were descriptive and factor analysis method was used to find the percentage of explained variance for each item in the component of managerial roles. Also, one-way ANOVA and t-test used to compare the mean score of managerial role among. Commitment to respect the confidentiality of personal information of managers, explaining the purpose and importance of the study to the participants, obtaining their consent for participation in the study and permission from the management of hospitals for conducting research, were ethical considerations of the study.

## RESULTS

Out of 250 questionnaires, 227 were completed and collected (response rate of 91%). Findings about the demographic characteristics of middle managers in the study showed that more than half (53.7%) of middle managers belonged to the age group below 40 years and only 6.6% of them were over 50 years of age. The mean age of middle managers was 39.6 years nearly 70% of the middle managers were females and 31% were males. The educational level of 62% of managers was bachelor educational level with master or Ph.D level for 21%. Seventy three percent of managers were graduate from nursing and paramedical fields, eight percent were medical graduates and 11 percent were graduate from management and accounting. Sixteen percent of middle managers had a work experience less than 5 years and about 15% had more than 15 years of work experience. The average work experience of middle managers was 14.9 years. More than half of middle managers had less than 10 years of management experience and 18% had more than 11 years of management experience (Table 1).

The results of analysis of development and growth of management components and indicators of each component have been presented in Table 2. Based on this

table design and innovation index, justified 78% explained of the variance of components of managerial roles and from the viewpoint of middle managers has the most importance among the indices of these components. Index of networking with the lowest variance of 41% has the lowest importance. Among indices of managerial skills component, human skills justify about 87% could explain of the variance of this component and had the highest importance. Among indices of the components of management capabilities, the psycho-logical (spiritual-mental) capability component justifies about 85% of the variance of this index and had the highest importance between the components of management capability.

Among component of personality characteristics indices, social trust index constitute about 73% of the variance of this component and from the viewpoint of middle managers has the highest importance between the components of personality characteristics indices. Comprehensive thinking constitutes about 79% of the variance of the components of philosophical mentality and from the viewpoint of middle managers has the highest importance between the component indices. Among indices of the management knowledge component of leadership has the highest importance, which accounts for about 82% of the variance of this component.

## DISCUSSION

This study investigated the importance of components of management development from the viewpoint of middle managers of hospitals affiliated to Tehran University of Medical Sciences. In other words, the study question was status, importance and priority of the components and indicators of each component for presenting a comprehensive plan for development of the manager.

### Management roles component

The development of management is a complex dynamic process that people learn how to perform effectively in management roles (D'Netto, 2008). Identifying and analyzing roles that managers play in an organization is very important for organizing their behavioral pattern and for preparation of management development programs. By having a clear understanding of what the roles of managers are, it is possible to organize their tasks and activities. In this study, each of 7 indicators related to the management roles of middle managers was confirmed by the middle managers of hospitals affiliated to Tehran University of Medical Sciences and the mean score for each index showed that all of them are important from the viewpoint of managers. This means that if the middle managers do their best in playing their managerial roles,

**Table 1.** The demographic characteristics of middle managers in hospitals affiliated to Tehran University of Medical Sciences- Iran, 2010.

Socio-demographic indicator	Number	%	Socio-demographic indicator	Number	%
Age			Sex		
Under 40	123	53.7	Male	71	31.3
41-50	89	39.7	Female	156	68.7
50+	15	6.6			
Educational level			Management experience		
Diploma	14	6.2	< 5 years	63	27.7
Up Diploma	24	10	6-10	58	25.5
Bachelor degree	141	62.1	11-15	25	11
MPH	19	8.4	16-20	14	6.1
Ph.D	29	12.8	+20	3	1.3
Graduated from			Work experience		
Medical	71	7.4	5 Under	36	15.8
Nursing	141	62.1	6-10	30	13.2
Paramedical	26	11.4	11-15	62	27.3
Management and accounting	24	10.5	16-20	43	18.9
Other	19	8.3	21-25	32	14
Total	227	100	25+	34	14.9

**Table 2.** Mean, standard deviation and variance of development and growth of management components and indicators of each component of Middle managers in hospitals affiliated to Tehran University of Medical Sciences- Iran 2010.

Component	Mean	SD	Variance of explained %
<b>Component of managerial roles</b>			
Activity management	0.052	0.98	69.5
Management of human resources	0.081	0.95	77.9
Management of information	0.056	1.00	73.1
Design and innovation index	0.046	0.98	78.8
Networking	0.046	0.98	40.9
Management of quality	0.049	0.96	71.4
Management of project	0.044	0.99	70.7
<b>Managerial skills</b>			
Technical	3.42	0.94	64.3
Humanities	0.018	0.99	87.2
Cognition	0.000	1.00	80.4
Decision making	0.00	0.99	83.4
<b>Managerial abilities</b>			
Intellectual	0.011	0.99	83.4
Scientific	0.000	1.00	73.8
Psychological (spiritual-mental capability)	0.034	0.99	85.1
<b>Personal characteristics</b>			
Approach of thinking	3.20	0.76	69.8
Social trust	3.10	1.01	73.7

Table 2. Contd.

Emotional and sensitive	3.48	0.85	63.7
Acting	3.21	0.91	71.3
Philosophical mentality			
Integrity	3.13	0.77	78.7
Deepening	3.24	0.84	72.3
Flexibility	3.27	0.87	75.3
Managerial knowledge			
Planning	0.096	1.00	79.3
Organizing	0.025	0.99	72.1
Leadership control	0.020	0.98	81.6
Control	0.025	0.97	79.6

the effectiveness of their organizations will increase.

Among the seven studied managerial roles, the role of design and innovation had the highest importance and role of networking had the lowest importance from the point of view of the middle managers. One of the main roles of each manager in each system is their ability to design new ideas and deeply analyse the issues of organization. Based on Mizenburg theory, managers should design projects to improve performance of their organization and to monitor its implementation. Also, in response to the unexpected events, a manager should react and solve them (Rabinz, 2003). In a national study, decision-making and networking roles had the highest importance from the view point of the managers of administrative bodies (Taslami and Farahi, 2004). In another study the important roles of managers from the view point of administrative managers has been declared to be the roles of networking and communication (Bozanjani, 2002). Molai's study in the oil industry research showed that networking and design roles had the highest priority for the design of a management development program while the least importance was given to the roles of human resource management and project management (Molaei, 2007). In another study conducted in an industrial company, the role of human resource management and coordination had the highest priority and the role of mentoring had the least important (Bagherizadeh, 2004). Generally, results demonstrated that the middle managers, who are the connecting ring between senior managers and operational managers, pay more attention to factors within the organization and external factors has less importance to them in terms of management development program. Giving low priority to networking confirms this point.

### Managerial skills component

During the past two decades, the nature of managerial

work has changed considerably, because the technological environment, economic, organizational and administrative work has changed. Outcome of this process has resulted in change in the nature of managerial work and management skills needed for an effective management in an ever changing environment (Worrall and Cooper, 2001). Managers need to have a range of skills to be effective. Management of individuals' capabilities require skills such as self and others analysis, motivating team to perform tasks, decision making and assigning tasks. Most of these skills should be achieved through effective programs for management development (Martin, 2002). The importance of these skills varies based on different organizational levels. In this study, every four indicators related to the managerial skills was confirmed from the view point of the middle managers of hospitals of Tehran University of Medical Sciences, the mean scores for each indicators showed that all of them had an importance above average from the view point of middle managers. Among the indices of this component, the most important was human skills while technical skills had the lowest priority. In the study of Farahi the decision-making skill had the highest importance (Bozanjani, 2002). In another study the indicator of conceptual skills had the top priority among the indices of components of managerial skills (Molaei, 2007). In Bagherzadeh's study perception and decision making skills the highest importance (Bagherizadeh, 2004). The results of another study among managers of social security hospitals showed that among the managerial skills, human relation and understanding had the highest priority while the lowest priority is given to the technical skills (Nasiripour and Raeissi, 2007). The results of a study in Australia also suggested the importance of human skills, decision making, leadership and change in job status for the success of current job position and also the importance of better playing role in future from the view point of managers (D'Netto, 2008). In another study

in health sector, the most important skills of middle managers were identified as perception and human skills (Guo and Calderon, 2007). Results of a study in Canada showed that the most required managers skills of nurses was in areas such as human relations and conflict resolution skill (Nasiripour and Raeissi, 2007).

The results of this study confirmed the theory of management skills, which is based on it, at the level of middle managers the importance of human skills, conceptual and decision making skills is more than technical skills (Jasbi, 2000). Managers at this level of organization need skills to work with people, ability to solve problems and take appropriate decisions and to understand the overall organization, while use of specialized knowledge and technical skills are less important.

### Components of managerial ability

An important factor for human success is personal capabilities and abilities. The result of researches point out that a successful strategy for high performance must focus on the whole of human existence (Bozanjani, 2005). In fact, if you are looking for high performance managers, comprehensive training is needed to be provided for them, which should include basic dimensions of human being (body, mind and soul).

In this study, all three indicators related to the ability of management from the viewpoint of middle managers of hospitals affiliated to Tehran University of Medical Sciences was confirmed and the mean scores for all indicators showed that in managers point of view, their importance were above average. In other words, if the middle managers progress in each of this index, they can play their roles and responsibilities more efficiently and thus the organizational efficiency will increase. Among the indices of this component, mental-spiritual and mental - intellectual were most important while scientific abilities ranked lower in importance compared with other indices.

The rank of capabilities indices showed that middle level managers of hospital organization gave more importance to manager's abilities to face the challenges and problems happening in organization and to tolerate criticism of other employees and managers than scientific abilities. A study at the national level between top managers of governmental organizations confirmed the importance of mental-spiritual ability (Bozanjani, 2005). In Molai's study, mental-thinking and mental - spiritual abilities had the highest priority (Molaei, 2007). A study of managers in hospitals also showed the priority of mental abilities to physical abilities (Nasiripour and Raeissi, 2007), which all of them are in consistent with the results of this study. We can conclude that middle managers of hospitals for the most effective way of playing their roles and responsibilities for the organizational efficiency need

mental-psychological skills more than other skills. Person's mental-psychological abilities result in stability of individuals in difficult conditions and accompany a powerful source of motivation, focus, consistency and rapid recovery for the individuals (Mondy, 1993). Generally, development of general managerial abilities lead to the development of capabilities of managers in better managerial role playing and with better performance, organizational effectiveness can be achieved (Taslimi and Farahi, 2004).

### Components of personality characteristics

All managers do not act in a similar way and like other members of society they have differences in personality, talents, motivations, special desires and behave differently according to their attitude, their knowledge and value system. Such differences originated from personality of each individual (Naderian and Amirhoseini, 2007). Because managers compared with other employees have a higher authority and decision-making power, their personality can affect their decisions and methods (Taheri, 2009).

In this study, all four indicators related to the personality characteristics was confirmed by middle managers of hospitals affiliated to Tehran University of Medical Sciences and the mean scores for all indicators showed that in middle managers view, their importance are above average. Among the indicators of personality characteristics, social trust and pragmatism gained higher priority and thinking and emotional - feeling indices has the next rank. In the Farahi study, the highest priority among the components, which were examined, were related to personality characteristics and among indicators of this component, pragmatism had more importance (Bozanjani, 2002). In another study, social trust and pragmatism had the lower priority (Molaei, 2007). The results of study on managers of social security hospitals administrators also indicated that being responsible, commitment to work and polite behavior have more impact on job performance (Nasiripour and Raeissi, 2007).

### Philosophical mentality component

Philosophical mind is a tool to help people in thinking and enables managers to commit the least error in decisions related to the organization and understand better the elegance and complexity of the organization and to establish better combination of factors of production and organization (Soltani, 1996). In this study, all three indicators related to the philosophical mentality was confirmed by the middle managers of hospitals affiliated to the Tehran University of Medical Sciences and the mean scores for all indicators showed that in the view

point of middle managers their importance are higher than average. Among the indices of philosophical mind, comprehensive thinking had the highest importance and flexibility and deepening had the next rank. Comprehensive thinking includes having general attitude towards organization, using generalization power and correlating the current problems with long-term goals. In one study at the country-level among managers of the administrative system, the scores of philosophical mentality was evaluated in low and middle level and this index was associated with organizational effectiveness (Bozanjani, 2002) the results of another study showed that comprehensiveness had the highest priority among all the indices of this component (Molaei, 2007), which is in consistent with the results of our study. It can be concluded that managers must have a good and desirable philosophical mind to have integrity, deep understanding and flexibility in the analysis of managerial problems.

### Component of knowledge management

In this study every four indicators related to knowledge management was confirmed and the mean scores for all indicators showed that in the view point of middle managers their importance is above average. Among the four domains of knowledge management, leadership had the highest importance and control, planning and organizing had the next importance. Leadership is one of the key task and important duties of managers and other aspect of management should be formed and implemented in the light of thinking, work and initiative of the leaders (Jasbi, 2000). The results of various studies about the distribution of functions at the level of the organization showed that the highest duty of middle managers is leadership (Rabinz, 2003). Brown study in England showed that strengthening leadership is one of the important goals of development programs and the most successful of management development programs was in this field (Brown, 2006). In another study in Finland, leadership and supervisory were identified as important requirements of managerial development (Viitala, 2005). Mola'i study showed that leadership indicator had the highest priority in development programs (Molaei, 2007), which is consistent with the results of this study. In the study of hospital managers, specialized knowledge in health and treatment management had higher priority and in the areas of general management, organizational behavior and planning were more important (Nasiripour and Raeissi, 2007).

### Conclusion

Managers of any organization for their administrative tasks

play their special managerial roles. For a better performance of managerial roles, development in managerial skills, abilities, knowledge, personality and philosophical mentality are required. Recognition of developmental needs of managers and prioritizing them are major bases for designing management development program, which managers and organizations should consider. Whatever the middle managers of hospitals can do to play their roles and do their duties better, there would be better organizational efficiency to achieve the purpose and satisfaction of customers. Playing better roles and responsibilities depend on increasing the skills, abilities, personality characteristics and the knowledge of management. Development of these aspects is based on direct learning, learning while working and social learning.

For promoting capabilities of middle managers of hospitals, designing a developmental program based on the results of this study and using participation in seminars, workshops and special courses in management, gaining work experience while interacting with experienced managers and developing rotational job method is recommended. Effective management development program should lead to increase in job satisfaction, reduce displacement in posts, reduce stress due to lack of skills and alleviate problems in finding qualified individuals to fill executive managerial posts. With increased capabilities, knowledge and managerial skills of managers, organization also will be benefitted of high productivity, reduced absenteeism and better customer services (D'Netto, 2008).

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