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# Perceived hospital managerial competency in Tehran, Iran: is there a difference between public and private hospitals?

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## Background

Hospital managers should have enough managerial competencies to coordinate the complex environment. The underlying assumption is that there is a potential gap in management capacity between public and private hospitals in Iran. This study aims to evaluate competency level of hospital managers and to compare their competencies in public and private hospitals.

## Materials and methods

This study was descriptive-analytic, carried out in 2015. A survey using a self-administered questionnaire was conducted among 127 public and private hospitals managers in Tehran Province, Iran. Respondents were asked to rate their competencies in a five-key subscale that included people-related skills, health delivery, self-management, task-related skills, and strategic planning and management. Ratings were based on a five-point Likert scale ranging from very low to excellent competency level.

## Results

Self-assessment of competencies level showed that managers in all state hospitals evaluate their competency at a low level. Managers felt most competent in health-delivery skills (3.71), people-related skills (3.61), and strategic planning and management (3.57), relatively less competent in self-management (3.54) and task-related skills (3.49). While being the mean total competency levels were significantly higher among male managers, those who participated in the healthcare/hospital management training courses, and those whose primary formal qualification was management in healthcare/hospital management ( $P < 0.05$ ). Similarly, managers who had more experience in their current position were more likely to report higher competencies level ( $P < 0.05$ ). Managers in private hospitals perceived themselves to be significantly more competent than their public hospitals colleagues in most of the management facets ( $P < 0.001$ ).

## Conclusion and recommendations

There is a perceived lack of management capacity by managers of both public and private hospitals and the gap between public and private hospitals is small. There is widespread need for management training to be made available in Iran.

## Keywords:

hospital managers, Iran, managerial competencies, private hospital, public hospital

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## Introduction

Hospitals, as one of the most complex organizations in the healthcare systems, face challenges of both external and internal environments such as epidemiological transitions, application of new expensive technologies, demographic changes, and changes in economic conditions and health market [1]. The management of this system requires trained managers [2]. Managers react to these challenges by improving and modifying hospital management structures and upgrading managerial skills [3,4]. Managers, as the main decision-makers in dealing with organizational problems, are important and determine the role played in the success or the failure of the organization [5,6].

However, the efficiency of managers is associated with managerial skills that prepare them for different roles and responsibilities [7]. There is a dearth of empirical evidence on hospital managerial work and its influence on quality of care [8].

Irrespective of where and what to manage, managers are responsible for four general duties, namely planning, organizing, leading, and controlling [9]. They need to be highly competent to perform their leadership roles efficiently and effectively [10]. Studies have identified different competencies for healthcare managers [11–14]. Managerial competencies are ‘sets of attitudes, knowledge, skills, and behaviors that a person needs to be

effective in a varied range of managerial jobs in different types of organizations' [15]. Previous studies have shown that managers in both the public and the private sectors with the requisite competencies and skills will help to improve effectiveness, efficiency, efficient management, and responsiveness in the delivery of healthcare services in a sustainable manner [16,17].

Lack of skills and competencies of hospital managers to allocate resources are associated with poor healthcare quality and outcomes [18]. The improvement of skills and management performance has a significant relationship with lower mortality and better financial performance. Also, the presence of differences in hospital management competencies provides an excellent opportunity for improving the poor performance of hospitals [19]. In developing countries, hospital management is often overlooked. The first thing that comes to mind when one thinks of a hospital is a surgeon, paramedics, and nurses [16,20].

Generally, hospitals in underserved areas are known to have shortage of medical capacity, cumbersome system services with inconsistent levels of medical interventions in clinical quality, shortage of clinical staff, centralization of most hospitals in large cities, and human resource management problems [2,21]. One of the current challenges is the lack of effective training to produce competent managers [2].

Over 70% of hospital services in Iran are provided through both public and private sectors [22]. Hospitals in Iran are often managed by doctors or other clinical personnel who have had little preparation to enable them to perform this role efficiently. Generally, as top managers, they manage hospitals with low involvement from other level managers (e.g. heads of departments), thereby overlooking the value of teamwork and a multidisciplinary approach [2,23]. However, trained managers lack a sufficient understanding of the realities and complexities of health systems. Although the field of hospital management offers undergraduate, master's, and PhD degrees, it is far from the real needs; managers are not always appointed on the basis of their capacity and competence, particularly in the public sector [2]. Despite hospital managers being central to overcoming the challenges facing health delivery in Iran, there has been a paucity of studies that systematically analyze the competencies that are vital for effective management of hospitals in the context of Iran as a developing and transitional nation. Determining the level of current capacity and training required for management as a part of the management development process is the main focus of many countries to promote the implementation of policies and performance of health systems [24,25]. The basic premise is that there is a potential gap in the capacity of private and public hospital managers.

The aim of this study was to evaluate hospital managers' perceptions of their competencies in terms of their current role in hospital management. This study also compares the perceptions of hospital managers in public hospitals with those in private hospitals in terms of these

competencies. It is hoped that the information gathered will help in the design and delivery of relevant and appropriate programs aimed at improving leadership and management capacity in Iranian hospitals.

## Participants and methods

### Study design and participants

The study utilized a descriptive-analytic design, and was carried out between May and August, 2015. Data were obtained from a cross-sectional survey of hospital managers in private and public hospitals in Iran using a self-administered questionnaire. The survey was conducted among all chief executive officers of public and private hospitals in Tehran Province, Iran.

### Sample and data collection

This survey was conducted among all managers of public and private hospitals in Tehran, Iran ( $n = 144$ ). The sample comprised 69 public hospital managers and 75 private hospital managers. The survey instrument was a self-administered questionnaire that measures the competencies of hospital managers [13,26]. The questionnaire was divided into two sections.

#### *Section 1: demographics characteristics*

The questionnaire gathered data on participants' sex, age, years in current position, and primary formal qualification.

#### *Section 2: competencies*

This questionnaire included 39 items and five dimensions. These dimensions included people-related skills, health delivery, self-management, task-related skills, and strategic planning and management (Table 2). Responses were completed on a five-point scale ranging from 1 = very poor to 5 = excellent. The items on participation in the formal training of healthcare/hospital management (HCM) and intention to attend future HCM were measured using yes/no responses. The items used to assess competency were evaluated by a panel of academics and practitioners (content and face validity) and found valid. The reliability of subscales was estimated by assessing the internal consistency of the scales using Cronbach's  $\alpha$ . The reconstituted scales are presented in Table 2.

### Ethical considerations

After the managers read the informed consent, the researchers explained the purpose of the study and informed the participants about their rights, assuring them that the collected data will not be used for any purpose other than for the present study, and that the data will be handled anonymously. The questionnaires were distributed by the researchers to the hospitals and were completed within 3 weeks. The study was approved by the ethics committee of Tehran University of Medical Sciences, Tehran, Iran.

**Table 1. Characteristics of managers of hospitals in Tehran, Iran, 2015 according to hospital ownership**

Characteristics	Total [n (%)]	Public [61 (48%)] [n (%)]	Private [66 (52%)] [n (%)]	P (two tailed)*
Sex				
Male	108 (85)	52 (85.2)	56 (84.8)	0.575
Female	19 (15)	9 (14.8)	10 (15.2)	
Age				
<35	13 (10.2)	7 (11.5)	6 (9.1)	0.765
35–50	75 (59.1)	37 (60.7)	38 (57.6)	
>50	39 (30.7)	17 (27.8)	22 (33.3)	
Mean ± SD	47.49 ± 13.22			
Years in current position				
<5	34 (26.8)	15 (24.6)	19 (28.8)	0.655
5–10	53 (41.7)	28 (45.9)	25 (37.9)	
>10	40 (31.5)	18 (29.5)	22 (33.3)	
Mean ± SD	12.80 ± 8.16			
Primary formal qualification				
Healthcare/hospital management	55 (43.3)	22 (36.1)	33 (50)	0.235
General administration	20 (15.8)	12 (19.6)	8 (12.1)	
Nonhospital Management	52 (40.9)	27 (44.3)	25 (37.9)	
Formal training in HCM				
Yes	91 (71.7)	47 (77)	50 (75.8)	0.328
No	36 (28.3)	14 (23)	16 (24.2)	
Intend to attend future HCM				
Yes	87 (68.5)	41 (67.2)	46 (69.7)	0.849
No	40 (31.5)	20 (32.8)	20 (30.3)	

HCM, healthcare/hospital management.

\* $\chi^2$ -test.

### Statistical analysis

All data were analyzed using the statistical package for the social sciences, version 22 (IBM Corp., Armonk, New York, USA). Data were summarized using frequency, percentage, mean, and SD. For normalization of the Likert scale on 1–5 scales of the managerial competencies questionnaire, the mean of the scores was calculated for the total and for each dimension and was then divided by the numbers of items in each dimension. For overall managerial competency, the sum of raw scores of items was divided by 39.

An independent *t*-test, a  $\chi^2$ -test, and one-way analysis of variance were performed to compare the competency levels in subgroups of participants' characteristics. Also, independent *t*-tests were used to measure the significance of the difference between the means of self-assessment of levels of competency between two types of ownership (private and public sector). All analyses were carried out at a 95% level of certainty, allowing for a margin of error of 5%.

### Results

The characteristics of the sample are summarized in Table 1. Of the 144 questionnaires distributed, 127 were returned from the respondents, representing a response rate of 88.19%. Questionnaires were returned from 61 of 69 valid addresses of public hospitals managers and 66 of 75 valid addresses of private hospitals managers.

Most respondents in both sectors were men (85%). The mean age of the participants was 47.49 ± 13.22 years and the majority of the respondents in both sectors were older than 35 years of age (89.8%). Managers on average had 12.80 ± 8.16 years of working experience. The majority (73.2%) had been in their positions for more than 5 years.

**Table 2. Reliability of managerial competencies subscales and competencies mean scores of managers of hospitals in Tehran, Iran 2015**

Competencies	Number of items	Cronbach's $\alpha$	Mean total score
Health delivery	8	0.769	3.71
People-related skills	8	0.831	3.61
Strategic planning and management	6	0.841	3.57
Self-management	8	0.762	3.54
Task-related skills	9	0.825	3.49
Total	39	0.925	3.58

More managers in private hospitals had primary formal qualification in HCM than their counterparts in public hospitals (50 vs. 36.1%) and received formal training in healthcare management (77 vs. 75.8%). Almost 70% of managers of both sectors reported an intention to attend further training in healthcare management. These differences were not significant ( $P < 0.05$ ).

Cronbach's  $\alpha$  and the mean total scores for the managerial competency subscales are presented in Table 2. The Cronbach's  $\alpha$  for all the scales were greater than 0.70%. Hospital managers in Iran perceive themselves as reasonably competent in all aspects of their management skills (means >3). Self-assessment of levels of competency showed that managers felt most competent in their ability to deliver healthcare (3.71), people management (3.61), and strategic planning and management (3.57) and relatively less competent in self-management (3.54) and task-related skills (3.49).

The bivariate analyses using analysis of variance showed that managers who had a HCM background rated significantly higher competency level than their colleagues who had a general administration or a nonhospital management background ( $P < 0.01$ ). Also, a statistically

significant difference was found between managers' total competency scores and their managerial experience ( $P = 0.044$ ). There were no significant differences between competency level and age groups of respondents. The independent  $t$ -test showed that the competency levels were higher among male managers and a significant difference was found ( $P = 0.05$ ). The mean self-assessed competency levels were higher among managers who participated in the HCM training courses and there was a significant difference in competency levels among the two groups.

Managers who intend to participate in the HCM training courses in future had high competency levels versus counterparts who did not intend to participate in the HCM training courses. However, the differences between values were not statistically significant ( $P = 0.079$ ) (Table 3).

The independent  $t$ -test showed significant differences between the sectors and all of the management competencies subscales (Table 4). Managers in the private hospitals significantly perceived themselves to be more competent than their public hospital colleagues

**Table 3. Mean differences in managerial total competency level according to participants' characteristics, Tehran, Iran 2015**

Characteristics	Mean	$P$ (two tailed)
Sex <sup>a</sup>		
Male	3.70	0.034*
Female	3.56	
Age <sup>b</sup>		
< 35	3.60	0.889
35–50	3.58	
> 50	3.60	
Years in current position <sup>b</sup>		
< 5	3.5	0.044*
5–10	3.58	
> 10	3.66	
Primary formal qualification <sup>b</sup>		
Healthcare/hospital management	3.69	0.008**
General administration	3.56	
Nonhospital management	3.49	
Formal training in HCM <sup>a</sup>		
Yes	3.63	0.003**
No	3.48	
Intend to attend future HCM <sup>a</sup>		
Yes	3.56	0.079
No	3.65	

HCM, healthcare/hospital management.

<sup>a</sup>Independent  $t$ -test.

<sup>b</sup>Analysis of variance.

\*Significant at  $P < 0.05$  level.

\*\*Significant at  $P < 0.01$ .

in all of the subscales, except for 'people-related skills,' where public hospital managers felt more competent, but this difference was not statistically significant.

## Discussion

This study aimed to assess the perceived competency levels of hospital managers in Tehran, Iran, and to determine whether there were significant differences in competency levels between managers in the different hospitals. The professional background of the managers shows that there is a noticeable change in the management of hospitals in Iran toward general managers with a background in healthcare.

Historically, all hospitals in Iran were managed by medical supervisors (doctors, nurses, and other clinical fields). The purpose of this change was, as a strategy, to promote sustainable and effective delivery of health services by strengthening management capacity [23].

A considerable proportion of hospital managers (33.3%) were older than 50 years of age. This indicates that most hospitals have an aged labor force in management. One of the advantages is the extensive experience of managers in administrative areas; however, this results in burnout and replacement of managers. Pillay's studies in South Africa showed that problems related to an aged labor force led to a shortage of professional managers in the field of health 10–15 years later, when many of the current directors retire [24,26]. In this respect, it is necessary for managers to identify susceptible individuals by using their present experience and substitution tables in the organization and use alternative teaching methods such as role playing to provide the grounds for training required managers and thus prevent future problems.

In the present study, as a group, all participants evaluated themselves as competent, such that for all aspects, the mean of competency was higher than 3, which is consistent with previous studies. Chadwell *et al.* [16] evaluated the competency of managers of Nepal hospitals and found it to be above average (mean >3). The competences of managers in Pillay's studies in South Africa have been reported to be similar to the present study [16,24,26–28]. In the study of Mousavi *et al.* [7], the mean competency of nursing managers in Iran was less than 3, which is lower than the present study. The reason for this difference could be related to the study

**Table 4. Relationship between sectors and competencies subscales among managers of hospitals, Tehran, Iran, 2015**

Competencies	Mean		$t$	$P$ (two tailed)
	Public	Private		
People-related skills	3.57	3.64	-1.058	0.292
Health delivery	3.63	3.79	-2.561	0.012*
Self-management	3.39	3.67	-3.883	0.001**
Task-related skills	3.35	3.62	-4.052	0.001**
Strategic planning and management	3.47	3.66	-3.012	0.003*
Total	3.48	3.68	-4.312	0.001**

\*Significant at  $P < 0.05$  level.

\*\*Significant at  $P < 0.05$ .

population. According to the study results of Craig, managerial skills are more important than clinical skills for nursing managers [29]. There was no significant difference between the mean of managers' competency and variables of age and intention to participate in HCM training courses. Similar results were also obtained in other studies [13,26].

There was a significant difference between the mean of perceived managers' competency on the basis of hospital management experience and academic field. This result is inconsistent with Pillay's studies [13,26,27]. However, the reason for this difference can be explained in terms of the average management experience of the selected sample. In Pillay's studies, almost 60% of the managers had less than 5 years of experience, whereas in this study, 73% of the managers had over 8 years of experience. This difference in the experience of managers can justify the results. Also, those managers who had studied hospital or general management or had more experience evaluated their competence higher than managers with clinical qualifications [24].

The current study showed that there is a significant relationship between the competence of managers and participating in HCM training courses. Supic *et al.* [25] showed that after the training program, all managerial skills had improved. Participating in HCM training courses can improve the abilities of managers both practically and intellectually. However, the concern still remains that although public hospital managers reported that they participate in more HCM training courses, they evaluated themselves significantly lower in terms of all competencies in comparison with managers of private hospitals. Therefore, inferring that formal and informal training courses held in the field of hospital management would be improper and the fact that it is generally unable to estimate the needs of hospital managers, particularly in the public sector, is logical. This may also partly explain why most hospital managers have reported that they intended to participate in management training courses. The reasons are supported by Pillay's studies in South Africa that management development programs may not improve the level of hospital management competence [13,24].

The difference in the mean of managers' competency between the two types of hospital ownership for all dimensions, except for people-related skills, was significant. Private hospital managers evaluated themselves higher in all competencies. These results are consistent with previous studies [13,24].

Private hospitals in Iran are decentralized and thus, their managers have more authority to make decisions on the human resources, financial, and equipment management, whereas public sector hospitals are centralized; in other words, these hospitals at the first level operate under the supervision of the Ministry of Health and Medical Education, but at the second level, under the supervision of medical sciences universities, and provide less authority to their managers. Although organizational reform continuum such as autonomous hospitals, budgetary hospitals, corporatized hospitals, and privatized

hospitals has been made among public hospitals [22], but the selection process of managers in the public hospitals is more of a political process performed on the basis of social links [2]. These results were confirmed in previous studies that showed that public hospital managers lack the capacity to appropriately lead and manage the health sector, and suggest that public hospital managers need more training management skills [26,30].

The fact that managers in all state hospitals evaluate their competency at a low level indicates low confidence in their abilities. It can also be stated that as they do not have much authority and right to decide or as they do not believe in themselves, they do not undertake duties that require management skills [22,26,28]. Another reason that could explain the results is the purpose and mission of private hospitals. The purpose of the private sector is to achieve benefits and focus on the efficiency, whereas the main purpose of public hospitals in providing health services is not profit, but primarily social benefits and solving community health problems [22,27,31].

#### **Strengths and limitations**

This is the first report to compare self-perceived competencies of managers among public and private hospitals in Iran; the large sample size and the high response rate also strengthen the power of this study. There are several limitations in this study that need to be addressed. It is important to note that the self-assessment of hospital managers was subjective. This could be because of the hospital managers' lack of knowledge on the topic and therefore lack of confidence in being able to rate the items, although this can provide an effective basis for benchmarking and cooperative learning [32]. Second, the competencies listed may also not have fully reflected the scope of hospital managers. Finally, our participants were from hospitals in Tehran, Iran. Therefore, it is not possible to generalize the findings for managers across all Iran's hospitals.

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#### **Conclusion and recommendations**

The results showed that there is a lack of management capacity within the public sector in Iran and that there is a small gap between public and private sectors. This study provides valuable information for those responsible for the training and education of health care managers. On the basis of this evidence, it can be stated that further development of managers, especially those in the public sector, is required. Managers who are currently working in the Iranian hospitals need to improve current as well as future managerial competencies by implementing new and innovative management development programs with a combination of formal academic programs, management courses, and close mentoring and coaching. Workshops should be held to educate managers of recent advances in management theories and practices to improve their knowledge and skill needed for management in hospitals. At the academic level, it is recommended that the curriculum and courses of HCM be revised.

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## Conflicts of interest

There are no conflicts of interest.

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