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Original Article

Investigating the Gap Between Perceived Importance and Competency of Managerial Dimensions from the Perspective of Health Care Management Graduates

Mohammad Kazem Rahimi[1], Tahereh Shafaghat[1], Zahra Dehghani Zadeh[2], Farzan Madadi Zadeh[3], Hasan Jafari[1*]

[1]Health Policy and Management Research Center, Department of Health Management & Economics, School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran
[2]School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran
[3]Center for Healthcare Data Modeling, Departments of Biostatistic and Epidemiology, School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

*Corresponding Author: Hasan Jafari, Email: Jafary_h@yahoo.com

Abstract

Background: Health Care Management (HCM) is a key field within the healthcare sector. The role of management and its associated functions is highly important in enhancing the quality of hospital care. Therefore, the aim of this study was to investigate the gap between perceived importance and competency of managerial dimensions from the perspective of HCM graduates at Shahid Sadoughi University of Medical Sciences in Yazd province.

Methods: This descriptive-analytical, cross-sectional study was conducted on 101 employed graduates of HCM at Shahid Sadoughi University of Medical Sciences. Data were collected using a standard questionnaire. The questionnaire consisted of two sections: demographic information and questions related to managerial competency dimensions, covering 11 dimensions and 61 items.

Results: Most respondents were aged 20–29 years, were male (59.4%), worked as administrative experts (31.7%), and had 10 years or less of work experience. The highest self-assessed competency scores were observed in ethics (3.93 ± 0.61) and customer orientation (3.83 ± 0.65). Gap analysis showed that all domains except ethics demonstrated statistically significant gaps between self-assessed competency and perceived importance (paired *t*-test, $P < 0.001$). The largest gap was observed in financial management (−0.57 ± 0.89). The smallest gaps were found in ethics (−0.20 ± 0.80; not statistically significant) and service delivery management (−0.21 ± 0.79).

Conclusion: Graduates require enhanced skills in the areas of knowledge management, information and communication management, and financial management. The implementation of modern teaching methods and holding specialized workshops can contribute to increasing these necessary skills among the graduates.

Keywords: Health care management, Competency, Graduates

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Introduction

Hospitals, as key healthcare organizations, are directly concerned with human health and life (1). These institutions are considered highly complex, bureaucratic, and multidisciplinary social structures responsible for providing diagnostic, therapeutic, and rehabilitative services to the general population (2). Effective management of these organizations can strengthen organizational culture, empower employees, improve performance, enhance the quality and safety of services, and ultimately increase the overall efficiency and effectiveness of hospitals. In short, effective management is a process that leads to the optimal use of hospital resources and personnel (1). All managers, regardless of their field of activity, perform four main functions: planning, organizing, leading, and controlling. To carry out these functions effectively and efficiently, managers require a set of managerial competencies, including specific knowledge, skills, behaviors, and attitudes. Among these, strategic skills—defined as the ability to set key objectives based on a comprehensive understanding of the internal and external environment of the organization—are of particular importance. Task-related skills, which include functional and operational competencies, enable managers to select the best possible approach to achieving goals given the available resources. Weaknesses in general management capacity at various

levels of the health system have been identified as key factors behind this failure to develop services and achieve health objectives (3). Poor managerial performance in hospital settings can lead to serious consequences, including delays in timely treatment, disease progression, increased inpatient mortality, rising costs, and wastage of human and financial resources (1).

Health Care Management (HCM) has been established as a key discipline aimed at training efficient and strategic human resources for the health system. The main goal of this field is to increase system efficiency and effectiveness, enhance the quantity and quality of services, and ensure optimal utilization of resources (4). By employing graduates specialized in this discipline in managerial positions, organizations can perform more successfully in achieving their objectives and preventing resource wastage. Therefore, the presence of educated managers in the field of HCM is vital for improving the overall performance of the health system. These professional managers are essential, particularly in hospital management, to achieve maximum efficiency with minimal cost, considering the expansion of health services in societies (1). Internship and practical training courses in medical sciences are extremely important because they immerse students in real environments and allow them to apply and test theoretical concepts in relation to environmental variables. In the field of HCM, practical education plays a crucial role in achieving educational goals and developing competent students (5). Graduates of this discipline often work in hospitals and other institutions affiliated with the Ministry of health, health and treatment networks, and the vice-chancelleries of medical universities. The general mission of this discipline is to train professional experts with a socially responsive approach who can meet the needs of the health system across different service areas, elevate service levels, and improve quality (6).

Graduates of this field play multiple roles within the health system, including expert, managerial and executive, advisory, educational, research, and entrepreneurial roles, contributing to wealth and innovation creation (6). The overall objective of establishing this field is to train committed specialists who, through scientific management based on organizational principles, can enhance the effectiveness and efficiency of the health system. At the micro level, graduates are expected to efficiently manage administrative and executive affairs of healthcare centers and conduct applied research to solve issues within the health system (7, 8). Despite the vital role these graduates are trained to fulfill, a critical disconnect often exists between the theoretical foundation provided in academia and the practical demands of the clinical setting. Given the importance of the above, and also because there is a lack of recent, localized data assessing the alignment between what these future leaders believe is important in a manager (perceived importance) and their self-assessed ability to perform those tasks (actual competency), this study aims to assess the gap between the perceived importance and actual competency levels across different managerial competency dimensions from the perspective of graduates in health services management employed at Shahid Sadeghi University of Medical Sciences. By precisely mapping this competency gap, this research will provide actionable insights for improving the educational output of the programs and ultimately strengthening the management capacity within the affiliated health organizations.

Methods

Study type

This research is descriptive-analytical type, implemented cross-sectionally in 2024.

Population and sample

The statistical population for this study comprised all individuals employed across various units of Shahid Sadoughi University of Medical Sciences who held a degree in Health Care Management (HCM), irrespective of their employment type (official, contractual, or other formal relationships). A census method was implemented, ensuring that all eligible individuals were included in the study. The total count of employed HCM graduates was 127. Contact information for these participants was obtained from the Human Resources Management department. It should be noted that the participants' residency status (native to Yazd or otherwise) was not considered a significant variable for the purposes of this research.

Data collection

Data were collected using the standard questionnaire for assessing the competency level of graduates in HCM. The validity and reliability of this questionnaire were verified for the first time by Khodayari-Zarnaq et al in 2017 in a study entitled 'Evaluation of Capabilities of Health Care Management Bachelor of Science Graduates' in Tabriz City. The questionnaire's content validity was confirmed by academic experts and subject specialists. Its Cronbach's alpha coefficient was reported as 0.86, demonstrating good internal consistency and reliability (4).

The instrument consisted of two parts: demographic information and items related to managerial competency dimensions, measured using a five-point Likert scale (from very low to very high). For assessing perceived skill levels, respondents selected from the following options: Very weak (1), weak (2), moderate (3), good (4), and very good (5). For assessing perceived importance, the options were: Very low importance (1), low importance (2), moderate importance (3), important (4), and very important (5). The questionnaire included 11 dimensions with a total of 61 items, as follows: Leadership and

strategic management (6 items), planning (5 items), financial management (6 items), change management (5 items), knowledge management (6 items), service delivery management (4 items), problem solving (4 items), human resource management (8 items), customer orientation (3 items), information and communication management (7 items), ethics (7 items). Each item was evaluated in two aspects: the level of skill and the perceived importance of that skill. Considering the dispersed location of the graduates across the different units, and the associated challenges of in-person data collection, an online survey method was adopted for administering the questionnaire.

For each of the 11 competency domains, mean scores for self-assessed competency and perceived importance were calculated. The competency gap was then computed as the difference between these two means using the formula: *Gap = Competency mean − Importance mean.* Negative gap values indicate that the respondents' self-assessed competency level is lower than the perceived importance of that domain. The statistical significance of the gaps within each domain was evaluated using paired sample *t*-tests at a significance level of 0.05.

Table 1. Demographic characteristics of employed graduates in HCM at studied university

Variable	Category	Frequency	Percentage (%)
Gender	Male	60	59.4
	Female	41	40.6
Age (years)	20–29	47	46.5
	30–39	43	42.6
	≥40	11	10.9
Work experience (years)	Less than 10	74	73.3
	10–15	16	15.8
	>15	11	10.9
Organizational position	Manager	11	10.9
	Faculty member	5	4.9
	Quality improvement expert	30	29.7
	Administrative expert	32	31.7
	Secretary	12	11.9
	Other	11	10.9
Work location	Yazd City	73	72.3
	Other cities	28	27.7
Total		101	100

Data analysis

After data collection, data were entered into SPSS version 21. Descriptive statistics (mean and standard deviation) were calculated for all variables. For each competency domain, the gap score was computed as the difference between self-assessed competency and perceived importance. The significance of within-domain gaps was assessed using paired-sample t-tests at a 0.05 significance level. To examine associations between gap scores and demographic/work-related variables, independent-sample t-tests were applied for dichotomous variables and one-way ANOVA for variables with more than two categories (with non-parametric alternatives used when assumptions were violated).

Results

Of the 127 employed graduates, 101 participated in the study, yielding a 79.5% response rate. In this study, a total of 101 graduates were identified, of whom 59.4% were male. The majority of respondents were within the 20–29-year age group (46.5%). Approximately 31.7% of the graduates were employed as administrative experts, and most had 10 years or less of work experience (73.3%). In addition, the majority of the graduates were working in the city of Yazd (Table 1).

According to Table 2, graduates demonstrated the highest competency in ethics (3.93 ± 0.61) and customer orientation (3.83 ± 0.65), whereas the lowest competency was observed in knowledge management (3.55 ± 0.67) and financial management (3.41 ± 0.71). Graduates rated strategic leadership and management (4.27 ± 0.42) and problem solving (4.26 ± 0.49) as the most important domains. Gap analysis showed statistically significant differences in all domains except ethics (paired-sample t-test, $P < 0.001$). The largest gap was observed in financial management (−0.57 ± 0.89), while the smallest gaps were found in ethics (−0.20 ± 0.80; not statistically significant) and service delivery management (−0.21 ± 0.79)

Regarding demographic factors (Table 3), gender showed a significant association only with the financial management competency domain ($P = 0.005$), indicating different competency levels between men and women in this area. Age was significantly associated with all competency domains except planning, for which no significant relationship was observed ($P = 0.069$). Work experience was significantly related to strategic leadership and management ($P = 0.038$) and financial management ($P = 0.001$), while no significant associations were found with the remaining domains. Organizational position demonstrated significant relationships with several domains, including strategic leadership and management ($P < 0.001$), planning ($P = 0.001$), financial management ($P = 0.009$), service delivery management ($P = 0.015$), problem solving $P = 0.018$), human resource management ($P = 0.002$), and information and communication management ($P = 0.004$); however, its associations with change management, knowledge management, customer orientation, and ethics were not statistically significant.

Discussion

This study was conducted to investigate and evaluate the competencies of graduates in health care management in Yazd province. The research findings indicated that graduates achieved the highest level of competency in

Table 2. Level of competency and perceived importance of graduates' competencies in the studied domains

Domain	Competency of graduates (Mean ± SD)	Perceived importance of graduates' competencies (Mean ± SD)	Gap (Mean ± SD)	*P* value
Strategic leadership and management	3.72 ± 0.62	4.27 ± 0.42	-0.55 ± 0.75	0.001
Planning	3.77 ± 0.59	4.19 ± 0.45	-0.42 ± 0.74	0.001
Financial management	3.41 ± 0.71	3.98 ± 0.54	-0.57 ± 0.89	0.001
Change management	3.65 ± 0.66	4.04 ± 0.48	-0.39 ± 0.82	0.001
Knowledge management	3.55 ± 0.67	3.85 ± 0.55	-0.30 ± 0.87	0.001
Service delivery management	3.77 ± 0.57	3.98 ± 0.54	-0.21 ± 0.79	0.001
Problem solving	3.71 ± 0.72	4.26 ± 0.49	-0.55 ± 0.87	0.001
Human resources management	3.67 ± 0.69	4.03 ± 0.51	-0.36 ± 0.86	0.001
Customer orientation	3.83 ± 0.65	4.24 ± 0.53	-0.41 ± 0.84	0.001
Information and communication management	3.64 ± 0.63	3.99 ± 0.53	-0.35 ± 0.82	0.001
Ethics	3.93 ± 0.61	4.13 ± 0.51	-0.20 ± 0.8	0.10

Table 3. The relationship between graduates' competencies and demographic variables

Competency dimension	Gender	Age	Work experience	Organizational position
Strategic leadership and management	0.162	0.016	0.038	< 0.001
Planning	0.727	0.069	0.280	0.001
Financial management	0.005	0.001	0.001	0.009
Change management	0.504	0.013	0.149	0.077
Knowledge management	0.311	0.016	0.079	0.126
Service delivery management	0.192	0.008	0.104	0.015
Problem solving	0.681	0.044	0.078	0.018
Human resource management	0.663	0.007	0.097	0.002
Customer orientation	0.231	0.006	0.227	0.060
Information and communication management	0.918	0.007	0.107	0.004
Ethics	0.792	0.038	0.309	0.086

the area of strategic leadership and management, and they also evaluated this dimension as the most important component. Also, most of the gaps (except ethics), from the graduates' perspective, were statistically significant, so that the largest gap was in financial management and the smallest one was in service delivery management. This result aligns with the findings of Khodayari Zarnagh in a study titled 'Investigating the competencies of undergraduate graduates in health and medical services management,' where strategic leadership and management was also identified as the most important dimension (4). In this study, graduates demonstrated the highest competency in the area of planning. The results of Pillay's study in South Africa confirm this finding, as the highest mean competency related to the planning dimension (3).

The competency of graduates in the areas of financial management and knowledge management was identified as the lowest level of competency in this research. This finding is consistent with the results of several domestic studies, including Khodayari (4), Azami & Salehinia (9), and Bigzadeh (10), as well as international studies such as Khadka (11) and Pillay (3,12), which reported the lowest competencies in these two areas. However, in a study aimed at examining the effect of financial management training on personal financial management and employee performance, financial management received the highest score (3). This difference may be due to the distinction between the importance of this area in the organizational dimension and the personal dimension. Moreover, graduates in this study evaluated financial management and knowledge management as among the least important dimensions, a view consistent with the findings of Khodayari Zarnagh's study (4).

In the area of service delivery management, graduates achieved a mean score of 3.82, indicating a good level of competency. This is while in Pillay's study, the lowest mean competency related to this same dimension (healthcare service delivery) (13). This discrepancy is likely attributable to the difference in the timing of the studies. Based on the findings of the current research, the dimensions of service delivery management and information and communication management were assigned the least importance from the graduates' perspective. Additionally, the results showed that graduates possess the highest competency in the areas of

problem solving and customer orientation. These results align with reports by Khodayari (4), Azami & Salehinia (9), and Bigzadeh (10) domestically, and Khadka (11) and Pillay (3, 12) internationally. Furthermore, the graduates in this study evaluated problem solving and customer orientation as the most important dimensions. The results also indicate that graduates considered themselves competent in the dimension of ethics. This finding corresponds with the results of studies by Khodayari (4), Azami & Salehinia (9), and Bigzadeh (10) in Iran, and Khadka (11). In contrast, Pillay's study reported the lowest mean competency related to ethical and legal issues (3); this difference may stem from variations in teaching methods and educational environments.

Regarding demographic factors, the data analysis showed that the age demographic factor had a significant relationship with all competency except for the Planning dimension, which lacked a significant relationship with age. This finding contradicts the results of Salimi et al (14), who found no significant difference between demographic characteristics (age, education, tenure in responsibility) and the success of senior managers; the reason for this difference might be related to the difference in research environment and year of study. The review showed that organizational position has a significant relationship with competency in the dimensions of strategic leadership and management, planning, financial management, service delivery management, problem solving, human resource management, and information and communication management. This is in contrast to the statistical results of Khodayari Zarnagh's study, which indicated no significant relationship between organizational position and competency dimensions (4). In this study, no significant relationship was found between work experience and competency in the dimensions of planning, change management, knowledge management, service delivery management, problem solving, human resource management, customer orientation, information and communication management, and ethics. However, a significant relationship between work experience and competency was observed in the dimensions of Strategic leadership and management and financial management. Khodayari Zarnagh's study also showed that despite higher competency assessment by individuals with higher work experience, the statistical test did not show a significant relationship between different age groups (4). Conversely, the study by Kermani et al observed a significant relationship between performance and management experience (15).

The results indicate that the majority of graduates evaluated the alignment of university education with workplace needs as average. Only a small percentage assessed it as excellent and a small percentage as very poor. This finding is consistent with Khodayari Zarnagh's study, which showed that the majority of graduates rated alignment as average and a small percentage as excellent (4). A similar study by Bigzadeh et al aimed at identifying the problems of the undergraduate curriculum for health and medical services management, generally showed that the course contents and objectives of this educational program lacked the necessary effectiveness (10).

Study limitations include the relatively small sample size and the non-participation of some graduates. Moreover, multiple testing across 11 domains may have increased the risk of Type I error; thus, results should be interpreted cautiously.

Conclusion

Given the significant role of HCM graduates in healthcare centers and the intense competition among healthcare service providers, coupled with unsatisfactory organizational productivity, greater attention to courses that enhance the skills and knowledge of these students is crucial. This study demonstrated that graduates require further skill enhancement in the areas of knowledge management, information and communication management, and financial management. Therefore, the adoption of modern teaching methods and the organization of specialized workshops can lead to an increase in these skills and the overall competence of graduates. Furthermore, planners and decision-makers can utilize the findings of this study to review and formulate programs that are tailored to the needs of the country's health system, ensuring that graduates attain the necessary competencies and capabilities required to manage healthcare units.

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Authors' Contribution

Conceptualization & Design: Mohammad Kazem Rahimi, Hasan Jafari.
Data curation: Mohammad Kazem Rahimi, Tahereh Shafaqat, Hasan Jafari.
Formal analysis: Farzan Maddadi Zadeh.
Funding acquisition: Mohammad Kazem Rahimi.
Investigation: Mohammad Kazem Rahimi, Hasan Jafari, Zahra Dehghani Zadeh.
Methodology: Mohammad Kazem Rahimi, Tahereh Shafaqat, Hasan Jafari, Farzan Maddadi Zadeh.
Project administration: Mohammad Kazem Rahimi.
Software: Farzan Maddadizadeh.
Supervision: Mohammad Kazem Rahimi, Hasan Jafari.
Validation: Mohammad Kazem Rahimi, Tahereh Shafaqat, Hasan Jafari, Zahra Dehghani Zadeh, Farzan Maddadi Zadeh.
Writing – original draft: Mohammad Kazem Rahimi, Hasan Jafari, Zahra Dehghani Zadeh.
Writing – review & editing: Mohammad Kazem Rahimi, Tahereh Shafaqat, Hasan Jafari, Zahra Dehghani Zadeh, Farzan Maddadi Zadeh.

Competing Interests

The authors declare that there is no conflict of interest.

Ethical Approval

Respondents were informed about the objective of the research and the stages of its execution. They were also assured of the confidentiality of their information and had the right to withdraw from the study at any time. Respondents' personal information has been kept completely confidential. Due to the online distribution method of the questionnaires, and considering that respondents were given the option to voluntarily complete, the consent obtained was implicit (implied consent). The ethical code was obtained from the Ethics Committee of Shahid Sadoughi University of Medical Sciences, Yazd (IR.SSU.SPH.REC.1401.172).

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