

The Relationship between Emotional Intelligence and Decision-making Quality in Hospital Managers

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Abstract

Background and Objectives: Evidence increasingly highlights the impact of emotional intelligence in managers on the productivity and performance of their organizations. Given the importance of decision-making in the management process, this study explored the relationship between emotional intelligence and decision-making quality in hospital managers.

Methods: A cross-sectional questionnaire-based survey was conducted on 30 senior and junior hospital managers. The results were summarized using descriptive statistical methods. Pearson correlation coefficient and multivariate regression analysis were employed to examine the influence of emotional intelligence on quality of decision making.

Findings: A significant correlation between managers' emotional intelligence and their quality of decision-making was identified ($r = 0.40$, $P < 0.001$). In addition, multivariate regression analysis indicated that solution finding by the hospital managers is influenced by their emotional intelligence ($\beta = 0.72$, $P < 0.001$).

Conclusions: This study provided further evidence for the impact of emotional intelligence on quality of decision-making. Given that emotional intelligence is an acquirable skill, our results encourage hospital administrators to improve managers' emotional intelligence to achieve a higher organizational performance in health settings.

Keywords: Emotional Intelligence, Decision-making, Hospital, Management

Background and Objectives

Hospital is a complex organization in which individuals of different skills and expertise work together in order to provide healthcare services to the patients. Special conditions generally governing hospitals, including heterogeneity of tasks and expertise, high stress, and permanent involvement of employees in issues affecting their emotions such as illness and death, render effective management of the hospital a formidable task. This requires that hospital administrators have advanced management skills for effective direction of a health setting [2].

The importance of conceptual and cognitive skills that allow managers to understand the relationship between different parts of the organization, identify

the causes of problems and motivate the staff is well-established [3]. These skills which mostly rely on human rationality facilitate the use of mental capacity for analytical thinking, viewing the organization as a whole, analyzing conditions abstractly, and conceptualizing and formulating relevant ideas [4].

Nevertheless, the attention of investigators in the field management has recently been drawn to the impact of another dimension of human nature, that is human emotions [2]. Kerr *et al.* (2006) showed that emotions can be used to motivate, plan, and achieve success in work and personal life. In fact, mental processes and emotional processes can work together to yield a successful work life [5]. Emotional Intelligence (EI) involves both accurate understanding of one's own emotions and precise interpretation of the emotions in others [6]. EI is described as efficient processing of emotional sensation and use of that to conduct cognitive activities such as problem solving [2].

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Some studies have found the role of EI in the success of individuals in work and life more important than mind-related capabilities [7]. Hence, a growing awareness on the importance of emotions in managers' capabilities has emerged and academic studies increasingly emphasize the significance of EI besides cognitive intelligence in evaluating leaders' professional skills [8].

While management performance can be assessed in several different ways, at the ultimate level, correct decision-making skill is a significant indicator of managers' performance [9]; some experts believe that "A successful manager is a successful decision-maker" in practice [9, 10].

Considering the crucial role of decision-making in management, studies have revealed that emotions have strong effect on decision-making [10]. Positive emotions develop creativity (creative problem solving) and decision-making skills and facilitate the integration of information. Negative moods such as chronic anger, anxiety, and feeling of worthlessness, can result in problems in performing the tasks, and negatively impact the quality of decision-making [10]. Evidence shows that our emotions are often more powerful than our intellect [6].

In practice, leaders' decisions are not only influenced by logical thinking but also by feelings and emotions. Although wisdom and creative thinking can help an individual to reach the gate of the leadership, creative and effective management is contingent upon one's ability to coordinate thoughts and feelings [6]. In hospital management, where administrators require benefiting from a wide spectrum of managerial skills, the importance of EI and its relationship with other management skills and organizational variables should be greatly emphasized [12].

In the dearth of research on the relationship between EI and effective hospital management, this study was conducted to explore the impact of EI on decision-making process in hospital leadership.

Methods

Study Design and Data Collection

A cross-sectional survey was conducted on 30 senior and junior managers of different departments of Shahid Hasheminejad Subspecialty Center. The participants included four senior managers (13%), and 36 managers of intermediate departments (87%).

Data Collection Tool

EI data was collected using a Persian version of the stan-

dard questionnaire developed by Bar-On [13]. Data on quality of decision-making were measured using a questionnaire designed based on the theory of George P. Huber. According to this theory, the decision-making process involves three phases, including problem identification, proposing solutions and choosing solutions [14].

The questionnaire consisted of 14 questions, six of which related to problem identification, five related to proposing solution, and three related to solution selection. The answers were quantified using a five-point Likert-type scale, ranging from 1 = "Complete Disagreement" to 5 = "Complete Agreement".

Validity and Reliability

Validity of the questionnaires was examined by seeking experts' opinion. Three independent faculty members with hospital management expertise were invited to express their opinion about the questionnaires. After applying the proposed modifications, the questionnaires were confirmed by these experts.

An overall internal consistency reliability of 0.71 and 0.9 was estimated for the EI questionnaire and the questionnaire of decision-making respectively. In addition, the reliability of the dimensions of decision-making quality was estimated 0.76, 0.73, and 0.84 for problem identification, solution proposing, and solution selection, respectively.

Data Analysis

The data were summarized using descriptive statistical methods. Pearson's correlation coefficient and multivariate linear regression was used to examine the relationship between EI and decision-making quality.

Ethics

All members of the study group were informed about the objectives of the study and their verbal consent for participation in the survey was obtained. In addition, the participants were assured of the confidentiality of their responses.

Findings

Demographic Data

Table 1 shows the demographic characteristics of the study group. while 63% (19) of the respondents were female, 80% were married (24), 97% held a college degree (29), and 43% had work experience of 21-30 years (13).

Descriptive Statistical Analysis

The mean score of managers' EI was 3.99 ranging between 3.08 and 4.50. The mean score of decision-making process was 4.08, whilst the lowest score, 3.91, was related to problem identification and the highest score, 4.33, was related to solution selection (Table 2).

Analytical Statistics

Table 3 reports the correlations between EI and all the dimensions of decision-making quality. As seen, EI has a strong positive correlation with quality of the decision-making process. In addition, EI has strong positive correlations with all dimensions of the quality of decision-making process.

To explore the influence of EI (the dependent variable) on the quality of decision-making (the independent variable), multivariate analysis using regression model was carried out. A strong correlation between EI and solution proposing was identified ($\beta=0.72$ $P < 0.001$). No significant relationship between EI and other dimensions of decision-making quality, including problem identification and solution selection was observed (Table 3).

Discussion

This study explored the impact of EI on the quality of decision-making. According to our data, the surveyed hospital managers enjoy a relatively high EI. In addition, the respondents' self-assessment of their quality of decision-making was relatively high.

Our study confirmed the impact of EI on quality of decision-making in hospital managers. This result is consistent with the findings of previous studies identifying a significant effect for EI on managers' decision-making quality [15]. Studies have indicated that people with higher EI are more self-reliant and more capable of overcoming difficulties and controlling critical situations [17]. Our results encourage hospital administrators to plan for improving EI in hospital senior and intermediate managers' to improve decision-

Table 1 Demographic characteristics of the participants

Characteristics	Number	%
Gender (n = 30)		
Female	11	37
Male	19	63
Marital status (n = 30)		
Married	24	80
Single	6	20
Level of education (n = 30)		
Diploma	1	3
Associate Degree	1	3
BS	14	47
MS	6	20
PhD	8	27
Work experience (n = 30)		
1-10 years	10	4
11-20 years	7	23
21-30 years	13	43

making process in their health settings.

As emphasized by Salovey *et al.* (2000) many EI-related skills can be learned [16]. The acquirable nature of emotional intelligence provides the opportunity for administrators to foster EI in managers of different hospital departments which could lead to a more successful decisions-making process [16].

Our results also showed a significant correlation between EI and all the dimensions of quality of decision-making. This observation indicates that high EI can help managers with all three phases of decision making [18, 19], including problem identification, solution suggestion, and solution selection.

Study Limitations

This study followed a self-assessment survey, which subjects in to the typical limitations of self-assessment

Table 2 Descriptive statistics of emotional intelligence and decision-making process

Variables	Mean	SD	Percentage
Emotional Intelligence	3.99	0.76	79.8
Identifying Problem	3.91	0.84	78.2
Proposing Solution	4.15	0.85	83
Evaluating and Choosing Solution	4.33	0.68	86.6
Final Decision	4.13	0.83	82.6

Table 3 Relationship between emotional intelligence and phases of decision-making process

Variables		Correlation	β	t	P-value
Managers Emotional Intelligence	Identifying Problem	0.62	0.622	4.2	0.000
	Proposing Solution	0.723	0.723	5.53	0.000
	Evaluating & Solution Selection	0.862	0.466	2.79	0.009
	Final Decision	0.408	0.7	5.21	0.000

studies. One of these limitations is the possibility of exaggeration in abilities by the respondents. Indeed, in this survey, the EI as well as almost all dimensions of quality of decision-making gained a high score. While the performance of the surveyed hospital is consistent with such an assessment (unpublished data), this assessment may have also been exaggerated to some extent. In addition, our study surveyed only a single hospital. Several studies show that many organizational variables vary in hospitals of different type, size and specialty. Hence, achieving a better understanding of the impact of EI on decision-making quality in hospital managers call for more comprehensive surveys.

Considering that the major goal of a hospital is to provide healthcare services to patients, the ultimate impact of EI on decision-making process should be reflected on patient outcomes and overall hospital performance. Although the quality of decision-making is indirectly related to health organizational variables, studies that explore the relationship between EI and patient satisfaction and employee and patient safety can provide a clearer picture of the influence of managers' EI on the overall hospital performance.

Conclusions

This study provided further evidence for the impact of emotional intelligence on quality of decision-making. In addition, our results indicate that solution finding by managers is influenced by their emotional intelligence. While our survey was conducted using a limited sample size, the results encourage comprehensive studies to gain profound insight into the relationship between emotional intelligence and decision-making quality in hospital managers.

Abbreviations

(EI): Emotional Intelligence

Competing Interests

The authors declare that they have no competing interests.

Authors' Contributions

MM designed and coordinated the study, participated in developing emotional intelligent questionnaire and preparation of the manuscript. MB was involved in study design, developing emotional intelligent questionnaire, analyzing the data and preparing manuscript. EA and SK participated in analyzing the data and preparation manuscript. All authors have read and approved the final manuscript.

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