Original Research

Emotional Intelligence and Self-Efficacy among deputy's administrative staff of Kerman University of Medical Sciences

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Abstract:

INTRODUCTION: Emotional intelligence (EI) and self-efficacy are important factors that lead to success in work, life, and education. Various studies assessed the relationship between EI and well-being, performance, and self-efficacy in educational levels, but this topic has been rarely assessed in the occupational and administrative environments. The present study aimed to examine the relationship between EI and self-efficacy among administrative staffs of Kerman University of Medical Sciences.

METHODS: The study employed a descriptive-correlational design and was conducted in six deputies supervised by the Kerman University of Medical Sciences in 2019, and 275 participants were selected using a census method. The research data were collected using the Goleman's EI framework with a reliability coefficient of $\alpha = 0.87$ and Sherer General Self-Efficacy Scale with a reliability coefficient of $\alpha = 0.78$. Data analysis was performed through Kolmogorov–Smirnov, analysis of variance, Tukey, and Pearson's correlation coefficient techniques at $P < 0.05$ significance level.

RESULTS: The mean score of EI was 98.8 ± 11.1 and the mean score of self-efficacy was 60 ± 7.17. There was a significant positive relationship between the scores of EI and self-efficacy. In addition, the findings indicated a positive significant correlation between self-efficacy with self-awareness, self-regulation, and social skills.

CONCLUSION: The findings of the current study confirm that EI has positive relationships with administrative personnel's self-efficacy. Therefore, implications of the findings can help in the selection, training, counseling, and retention of administrative personnel to the improvement of medical sciences universities' occupational performance.

Keywords:

Emotional intelligence, hospital, self-efficacy, staff

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Introduction

Emotional intelligence (EI) refers to the possession of self-knowledge skills and a person's knowledge of his/her own identity, thoughts, emotions, feelings, and personal traits. EI is, in fact, a skill that changes human's abilities to evolve, develop, and have a positive feeling about life.[1,2] As a better predictor of social success and social adjustment, EI plays a more important role in the individual's academic and professional success than general intelligence.[3] Shojaee et al.[4] declare that EI is a skill that can be learned and acquired through practice and learning. Its quality and quantity can also be improved through education. The United States spends more than 50 billion dollars on the education of employees every year, and a considerable portion of this budget

is allocated to the emotional and social capabilities and skills of the employees.[5] University employees with a high level of EI use mechanisms which help them to adapt to environmental changes. Personnel with a low level of EI, on the other hand, lack this ability to adapt properly to changing conditions.[3,6] Lakshmi and Rao studied the role of EI on employee performance in India and their results showed that EI has a direct impact on job performance, and it has a role on certain variables, which creates awareness, helps employees to learn from others, shares knowledge, and creates trust and concerns for other.[7]

Self-efficacy is an individual's belief in the ability to succeed in a particular situation. It significantly contributes to goal achievements, duty fulfillment, and overcoming challenges.[8] Self-efficacy is the certainty an individual feel about doing certain activities; such concept overshadows an individual's effort and performance level. Regarding self-efficacy, promotion is critically important in the process of behavioral transformation; reiteration and narrowing it down to small steps can lead to self-sufficiency at each stage. Many human behaviors are triggered by self-influence mechanisms, among which self-efficacy is the most significant and inclusive.[9] Hospital personnel's self-efficacy and belief to fulfill their managerial performance is considered an indicator for the quality of nursing services; it also determines their needs to participate in continuing education programs and promote awareness.[8-11] Yalalova *et al*. reported that EI could forge self-efficacy, work effort, and career satisfaction and demonstrated that EI moderates the relations between both self-efficacy and work effort and self-efficacy and career satisfaction.[12] Increase nursing students' self-leadership is necessary to develop and test programs to ensure an improvement in EI and academic self-efficacy.[13]

In Iran, various studies have been performed with an aim to assess the relationship between EI and self-efficacy in different populations including teachers and students in educational environments,[14-18] but the relationship between EI and self-efficacy in Kerman province, especially for university medical science administrative personnel, has been less studied. Therefore, due to the importance of this issue, the present research was designed to examine the relationship between EI and self-efficacy among administrative staffs of Kerman University of Medical Sciences.

Methods

The present study is of a descriptive-correlational design and was conducted in six deputies supervised by the Kerman University of Medical Sciences in 2019. The statistical population of the study included personnel who work in the six administrative deputies including health (n = 86), treatment (n = 69), logistic (n = 29), food and medicine (n = 21), student cultural (n = 28), and educational (n = 42) using a census method. After obtaining the necessary permissions and receiving the code of ethics from the Research Deputy of Kerman University of Medical Science, questionnaires were handed out by research assistants and distributed to the participants. The participants filled in the questionnaires during their daily work hours. All participants signed informed consent. Information about the study purpose and procedure was given to the participants orally or in written form. Confidentiality was kept by putting no name or other personal information in the questionnaires. In total, 275 questionnaires were distributed; 177 questionnaires were returned of which 71 were excluded due to being incomplete and 98 were not returned, which yielded an overall response rate of 64.36% for inclusion in the analyses.

Research data were collected using the Goleman's EI framework and Sherer General Self-Efficacy Scale (SGSES). The questions of Goleman's EI framework were related to the dimensions of EI, and the score of each dimension was separately calculated. The dimensions of EI included self-awareness, self-regulation, spontaneity, empathy, and social skills. Each participant received six different scores, 5 for each of the components and 1 as the total score. The SGSES is a 5-point Likert-type questionnaire, ranging from "disagree completely" (1 point) to "agree strongly" (5 points). The minimum and maximum scores obtained from this scale were 17 and 85, respectively.

In this study, the content validity of the questionnaires was approved by ten professors of Kerman University of Medical Sciences. The reliability of these questionnaires was assessed using the test–retest method with a 1-month interval and a 30-member group similar to the main sample. The reliability of the questionnaires was confirmed using Pearson's correlation coefficient (r = 0.8) and Cronbach's alpha coefficient (0.87) for Goleman's EI framework and Pearson's correlation coefficient (r = 0.8) and Cronbach's alpha coefficient (0.78) for SGSES.

Data analysis
To analyze data, descriptive tests, including frequency, percentage, mean, and standard deviation and analytical tests, including the Kolmogorov–Smirnov test, were conducted to indicate that the data were sampled from a population with a normal distribution. The correlation between demographic data and the mean scores of self-efficacy and EI was examined by the Pearson's correlation coefficient and analysis of variance (ANOVA) for repeated measuring using the SPSS software (version 19, SPSS Inc., Chicago, IL, USA). There was a statistically significant difference at the level of $P < 0.05$.

Results

In this study, all participants were male. A total of 106 personnel were included, of which 76 (71.7%) were married and 30 (28.3%) were single. The age of majority of the participants was 38 (35.8) years and their age ranged 31–40 years. In terms of educational level, 19 participants had diploma or under diploma (17.9%), 15 had associated degree (14.2%), and 34 had a bachelors' degree (32.1%). The participants' demographic characteristics are shown in Table 1.

The results from this research indicated that the mean EI score of the staff was 98.8 ± 11.1, ranging from 78 to 128, and the results show an above-average intelligence of the participants. The ANOVA results also revealed the positive and significant relationship of age with self-awareness, self-regulation, spontaneity, empathy, and social skills components of EI ($P \leq 0.05$). There was no statistically significant relationship between the other EI components and the demographic properties of the respondents as shown in Table 2.

The results from this research indicated that the mean self-efficacy score of the staff was 60 ± 7.17, ranging from 47 to 65 and the majority of the participants displayed average to above-average self-efficacy. The ANOVA results also

revealed the positive and significant relationship of education level with the components of self-efficacy ($P \leq 0.05$), which was supported by the results of Tukey's test, showing significant differences in self-efficacy scores between people with diploma, masters' degree, and PhD education level. There was no statistically significant relationship between self-efficacy variable and other demographic properties of the respondents as shown in Table 3.

Results of the Pearson's correlation coefficient showed a positive significant correlation between self-efficacy variable with the components of EI including self-awareness ($P = 0.021$, $r = 0.223$), self-regulation ($P = 0.021$, $r = 0.223$), and social skills ($P < 0.001$, $r = 0.478$). However, no statistically significant relationship was observed between the other EI components and self-efficacy variable including spontaneity and sympathy ($P > 0.05$). In addition, there was a statistically significant positive relationship between the scores of EI and scores of self-efficacy ($P = 0.001$, $r = 0.315$), as shown in Table 4.

Discussion

According to our findings, the mean EI score of administrative personnel was good and satisfactory.

Table 1: Demographic characteristics of the study participants (*n*=106)

Variable	*n* (%)
Age (years)	
20-30	34 (32.1)
31-40	38 (35.8)
41-50	23 (21.7)
>50	11 (10.4)
Gender	
Male	30 (28.3)
Female	76 (71.7)
Marital status	
Married	76 (71.7)
Single	30 (28.3)
Education level	
Diploma	19 (17.9)
Associate degree	15 (14.2)
Bachelors' degree	34 (32.1)
Masters' degree or PhD	38 (35.8)
Work experience (years)	
<10	41 (38.7)
10-20	34 (32.1)
>20	31 (29.2)
Type of employment	
Official	41 (38.7)
Treaty	14 (13.2)
Contractual	38 (35.8)
Corporate	10 (9.4)
Plan	3 (2.9)

Table 2: The scores of emotional intelligence of the university staff by demographic characteristics (*n*=106)

Variable	Scores of emotional intelligence (mean±SD)	P
Age (years)		
20-30	98.6±11.1	0.63
31-40	100.2±12.5	
41-50	95.8±9.7	
>50	102.4±6.6	
Gender		
Male	99.43±10.8	0.71
Female	98.54±11.3	
Marital status		
Married	97.4±11.6	0.28
Single	100±10.5	
Education		
Diploma or under diploma	99±4.2	0.3
Associate degree	98.8±12.6	
Bachelors' degree	93.2±10.8	
Masters' degree or PhD	98.2±12.3	
Work experience (years)		
<10	99±12.2	0.96
10-20	98.5±10.2	
>20	98.6±11.4	
Type of employment		
Official	99.2±10.2	0.43
Treaty	96±12.9	
Contractual	98.5±12.5	
Corporate	103.8±8.8	
Plan	92.3±7.1	

SD=Standard deviation

Table 3: The scores of self-efficacy of university staff by demographic characteristics (*n*=106)

Variable	*n* (%)	Scores of self-efficacy (mean±SD)	*P*
Age (years)			
20-30	34 (32.1)	59.8±8.7	0.59
31-40	38 (35.8)	60.6±7.1	
41-50	23 (21.7)	58.5±5.1	
>50	11 (10.4)	62.4±6.2	
Gender			
Male	30 (28.3)	60.7±6.9	0.56
Female	76 (71.7)	59.7±7.3	
Marital status			
Married	76 (71.7)	60.3±7.5	0.84
Single	30 (28.3)	60.3±7.1	
Education			
Diploma or under diploma	19 (17.9)	50.7±2.1	0.004
Associate degree	15 (14.2)	60.2±6.5	
Bachelors' degree	34 (32.1)	57.6±8.8	
Masters' degree or PhD	38 (35.8)	58.4±6.6	
Work experience (years)			
<10	41 (38.7)	61.2±7.8	0.39
10-20	34 (32.1)	58.4±6.6	
>20	31 (29.2)	60.8±6.8	
Type of employment			
Official	41 (38.7)	61.2±6.4	0.45
Treaty	14 (13.2)	57.5±6.1	
Contractual	38 (35.8)	59.5±7.4	
Corporate	10 (9.4)	62.1±8.8	
Plan	3 (2.9)	59.3±14.4	

SD=Standard deviation

Table 4: The relationship between emotional intelligence and self-efficacy among the staff of Kerman University of Medical Sciences (*n*=106)

Domains of EI	Pearson's correlation coefficient	*P*
Self-efficacy		
Self-awareness	0.223	0.021
Self-regulation	0.223	0.021
Spontaneity	−0.02	0.836
Empathy	0.051	0.604
Social skills	0.478	0.001

EI=Emotional intelligence

Therefore, the results showed an above-average intelligence of participants; this finding complies with the researches by Barkhordari *et al*., Chew *et al*., and Kaya *et al*.[1,19,20] Given that EI is somewhat acquisitive and is affected by personnel teaching, this finding can also be attributed to factors such as university recruitment method of staff, types of university examinations and evaluation methods, and university fields. This result does not comply with researches by Hatam Siahkal Mahalle *et al*. and Rezaei.[21,22] Seemingly, the different occupational evaluation systems of universities comparatively contribute to the difference in the EI levels reported by different researchers.

The results showed the positive and significant relationship of age with self-awareness, self-regulation, spontaneity, empathy, and social skills components of EI. Research findings also mirrored the positive and statistically significant relationship of age with all EI components. This finding is in line with the findings reported by Chen and Herpertz *et al*.[23,24] People foster their awareness in the course of their lives and they can control their emotions and behaviors as they age.

The findings of the current study showed a difference among the personnel with diploma, bachelors, and master's or PhD degrees regarding the total mean score of self-efficacy. This finding is in line with the findings reported by the study of Alidosti *et al*., Hentrich *et al*., and Soudagar *et al*.[25-27] The personnel with diploma degrees showed the lowest self-efficacy compared to those with bachelor's and master or PhD degrees. In general, personnel with diploma degrees attend lowest multidimensional and complex tasks in comparison to those with bachelor's and master's or PhD degrees. It should also be mentioned that allocation of duties to the personnel with a diploma and bachelor's and master's or PhD degrees is highly differentiated.

The result of this study showed that there was a positive significant relationship between EI and self-efficacy; this finding is in line with those reported by a study of Anand, Valiani *et al*., and Rakhshani *et al*.[28-30] It is interesting and beneficial to executive managers that EI and self-efficacy are positively correlated as each of them can be developed and each has a positive influence over the other. In other words, the development of EI during workplace education programmers can lead to the development of self-efficacy.

The most important limitation of this study was the use of the correlation technique because the identified relationships could not be considered causal relationships. These relationships may be fueled by other variables. Another limitation of the present study was the use of self-report scales because the respondents could have refused to answer the questions honestly. These limitations were partially overcome by communicating to the participants properly and explaining that their participation is optional, their responses will be kept confidential, and they can fill it without writing their names on it.

Conclusion

In this study, it was recognized that there is a positive relationship between EI and self-efficacy. This finding gives us the first and foremost implication that the enhancement and development of each of these constructs can lead to the enhancement and development

of the other. Therefore, implications of the findings can help in the selection, training, counseling, and retention of administrative personnel to the improvement of medical sciences universities' occupational performance. Therefore, there is a need to consider them as important factors during the processes of personnel recruitment, Staff continuous education programs, and during workplace service. However, further studies are needed to provide a deeper analysis of components of EI and self-efficacy among personnel in specific context including administrative occupational environments using qualitative research methods.

Conflicts of interest

There are no conflicts of interest.

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