

The Effect of Emotional Intelligence on Job Satisfaction among Staff Nurses in Intensive Care Units

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ABSTRACT

Objective: The purpose of current study is to determine the impact of emotional intelligence training on job satisfaction among nurses working in Intensive Care Units. **Methodology:** The design of this randomized trial is a randomized clinical trial. To do this, from December 2003 to May 2012, 74 qualified individuals from selected nurses who were qualified in intensive care units were selected through available sampling. 34 of these individuals were in the experimental group and 34 in the control group were randomly assigned. The data had been collected using three questionnaires: demographic questionnaire, emotional intelligence and job satisfaction questionnaire that were prepared according to the Likert scale. Nurses had completed the questionnaire before and immediately after intervention in both groups. In current study, the individuals in the experimental group had emotional intelligence training for two months, eight sessions of 90 minutes and once a week. There was not any intervention in the control group. Data were analyzed by SPSS software version 22 by descriptive - inferential statistics. **Results:** The results of the research indicated that the mean scores of emotional intelligence like the job satisfaction scores of nurses working in the special sections of the test group in the post-test phase were increased. **Conclusion:** Emotional intelligence training sessions have been impacted in increasing emotional intelligence and nurses' job satisfaction and can be used as an important educational component for mental health of nurses.

1. Introduction

Organizations have many meanings and dimensions. Human resources are one of the most valuable dimensions of the organization that can be gained by organizational endeavors by making public effort, by creating synergies among manpower and other components of the organization and applying it correctly (Asefzadeh, 2011). Today, many mental disorders, shortage of satisfaction with life, low morale in the workplace and job dissatisfaction are among the most important organizational phenomena of the current period of time. Job satisfaction of human resources is one of the most important factors affecting the usability and efficiency of the organization and is caused by factors like salary and income, working conditions, working relationships, personal characteristics, social factors and the impact of cultural factors (Ranayi Ashkhini, 2001). Health organizations have a special place in the community for importance of the task of prevention, care and treatment. Job dissatisfaction in the hospital staff is so serious. It leads to emotional breakdowns, indifference and reduced quality of service provided to patients. Nursing is an important part of health care and nurses play a vital role in a country's care system (Moradi et al., 2013). The researches indicate that nursing care has a better quality in hospitals where nurses have high level of job satisfaction (Rezaei et al., 2013).

In addition to external factors, internal factors and personal abilities are important factors influencing the factors affecting nurses' job satisfaction. In this regard, in accordance with the subtle and emotional nature of nursing and the need to provide Quality of care, including personal abilities that must be considered in evaluating nurses' job satisfaction, is the concept of emotional intelligence (Salovey and Grewal, 2005).

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Emotional intelligence is a multidimensional construct which involves the interaction among emotion and cognition and leads to an adaptive function (Mayer et al., 2004).

So considering that the basic components of emotional intelligence are emotional perception in themselves and others, the use of emotions is expected to facilitate decision making, emotional comprehension and emotion management (Amir Kabiri et al., 2013)

Goleman has explained in 1988 that emotional intelligence affects the workplace experience. Individuals who have grown emotional intelligence will be able to communicate better and will be good companions in teamwork. Nowadays among nursing careers, nursing is one of the professions associated with stressful situations that focuses on the relaxation and recovery of patients. The expression of states like frustration, distress, discomfort, sadness and frustration in patients for the illnesses and their problems, long shifts and physical exhaustion are among these situations. But if nurses do not have the skills to control their emotions, they won't be able to keep their peace of mind when dealing with and communicating with the patient, particularly during various situations and crises. So the shortage of appropriate control and management of emotions will have side effects on the nurse and patient and will have irreparable consequences (Akhund Lotfali et al., 2011). Emotional intelligence is a set of abilities, qualities, and non-cognitive skills that have impacts on the ability of an individual to succeed in coping with environmental pressures and can be taught and learned (Salovey, 2004). By considering this fact that whether emotional intelligence can be increased, there are various opinions. But what is explicitly emphasized is that even if emotional intelligence cannot be changed, it may be possible for individuals to promote emotional skills and increase their information. So considering that nowadays emotional intelligence is an important component in mental health of individuals, this study aimed to investigate the effect of emotional intelligence training on job satisfaction of nurses working in intensive care units.

2. Materials and methods

The research methodology was categorized as 74 randomly selected nurses working in special departments of selected hospitals affiliated to Lorestan University of Medical Sciences, based on the objectives and nature of the subject. In current research, emotional intelligence training is considered as an independent variable and job satisfaction is dependent variable. Sampling method was available using random substitution based on paired and individual numbers. In the experimental group 37, control group was 37, so the numbers in the test group and the pair numbers were in the control group. Entry requirements consist of the willingness and informed consent of the patient to participate in the research, all nurses working in intensive care units with a bachelor's degree and with higher educational degrees, shortage of formal education of emotional intelligence education, and exclusion criteria included the patient's dissatisfaction with continuing Collaborating with the research for any reason and in each stage of the research, having abnormal stresses caused by life-threatening events like the death of the spouse, divorce, imprisonment and so on, for the absence from the workshop, incomplete response to Questionnaire questions.

2.1 Research tools

In current study, the Emotional Intelligence Questionnaire and its Minnesota Job Satisfaction Questionnaire were used to evaluate the individuals.

2.1.1 The Bar-On Emotional Questionnaire

It has 90 items that is set up with: "totally agreeable", "agree", "to some extent", "disagree" and "totally disagree" on a five-point Likert scale. ". The questionnaire has a total score, five compound factors, and 15 subscales. Positive items in terms of the totally agreeable option totally disagree, I get 5 to 1 point, so that I totally agree with the option 5, I agree 4, to some 3, I disagree 2, and totally disagree with the score of 1 Take up for negative things, the process is pictured. So that I totally agree with the option I score 1, I agree 2, to some extent 3, I disagree, and I totally disagree with the score of 5. Totally, the mean of emotional intelligence score of each person is between 90 and 450. Earning more points in this test reflects the superior success of the individual on the scale or the entire test, and vice versa. Bar-An (1997-1999) evaluated the validity of the fifteen scale of the questionnaire by calculating the Cronbach's alpha coefficient between 69% and 86% with the mean of 76%. After a while, he has reported it again by a retest, after a month of 85% and after four months of 75%.

2.1.2 The Minnesota Job Satisfaction Questionnaire (MSQ)

It is the most important tool for job satisfaction measurement, the Minnesota Job Satisfaction Questionnaire that was first developed by Berfield and Roth (1961) at the University of Minnesota with a 100-point design. Later, Weiss 5, Davis 6 in 1967, studied and corrected it, reducing it to 20 points. This questionnaire contains of 20 items. The purpose of this study was to assess the dimensions of job satisfaction in 6 dimensions of payment system (questions 1,2,3), type of job (questions 4,5,6,7), opportunities for improvement (questions 8,9,10), Organizational climate (questions 11, 12), leadership style (questions 13, 14, 15, 16) and physical conditions (questions 17, 18, 19, 20). The questionnaire is highly dissatisfied, dissatisfied, well-balanced, well-matched, and highly motivated in a 5-degree spectrum. Higher scores mean more job satisfaction. For gaining the total score of the questionnaire, the total points of all the items are combined. It will have a range of 20 to 100. A score of 20 to 40 poor job satisfaction, a score of 40 to 60 average job satisfaction, and a score of over 60, indicates that job satisfaction is very good.

2.1.3 The Content of Emotional Intelligence Training Sessions

Emotional Intelligence component training program consisted of 8 formal sessions. The process of each session consists of: 1- Checking the points and assignments of the previous session 2- Direct teaching using the lecture method 3. Group discussion 4. The intellectual challenge was the summing up of the session and the methods like: intellectual thinking, role playing, profit and loss review, etc. were used during the sessions. In providing training to the experimental group, several attempts were made to provide patients with a varieties of learning environment. Participants at the workshop were free to

express any issues that were relevant to the objectives of the meeting. During these sessions, it has been tried to provide a cheerful and humorous environment so humor, that is one of the most important elements in the resilience, is strengthened in participants and In this syntax, so they become able to consider problems from another angle. During the sessions, the host also maintained a supportive and welcoming role for the participants for providing a protective environment for participants. The program was held weekly by a meeting for 90 minutes. The control group was not trained.

Data were analyzed by SPSS software version 22. Descriptive statistics and inferential statistics were used to analyze the data. In the descriptive statistics section, frequency indices, percentages, mean and standard deviations were used and inferential statistics of covariance analysis were used. For determination of the equality of variances, the Ankle test was used.

3. Discussion and results

In this study, 74 nurses working in intensive care units were studied. 58.8% were equal to 43 women and 41.2% were the same as those of 31 men. 34 patients were in the experimental group and 34 in the control group.

Both experimental and control groups were evaluated for demographic variables like age, sex, marital status, number of children, education level, job and burn percentage. First of all, descriptive data and then inferential analysis of the research hypothesis are considered.

Table 1. Mean and standard deviation of pre-test scores, post-test of emotional intelligence training in two groups of intervention and control

Emotional Intelligence Training	Group	Pre- test			Post-test		
		Number	Mean	Standard deviation	Number	Mean	Standard deviation
realism	Intervention	37	18.40	2.92	37	19.27	2.79
	Control	37	17.67	2.70	37	17.67	2.70
Flexibility	Intervention	37	18.35	2.57	37	19.86	3.01
	Control	37	17.91	1.80	37	17.91	1.80
Stress Tolerance	Intervention	37	19.86	3.69	37	20.51	2.85
	Control	37	17.21	3.21	37	17.21	3.21
Impulse Control	Intervention	37	18.37	2.88	37	19.86	3.62
	Control	37	17.94	1.80	37	18.21	2.20
Optimism	Intervention	37	18.45	3.20	37	18.59	2.77
	Control	37	17.54	3.55	37	17.54	3.55
Happiness	Intervention	37	20.35	2.97	37	23.08	3.36
	Control	37	17.70	2.39	37	17.19	3.16
Emotional Self-awareness	Intervention	37	19.44	2.94	37	20.40	3.42
	Control	37	18.48	2.98	37	19.49	3.57
Self-expression	Intervention	37	17.37	2.96	37	19.05	3.34
	Control	37	18.34	2.79	37	18.56	2.23
self-regard	Intervention	37	19.64	2.84	37	20.97	2.52
	Control	37	18.48	2.52	37	18.91	3.04
Self-Flourishing	Intervention	37	18.89	2.99	37	19.89	4.20
	Control	37	18.51	2.39	37	18.67	3.48
Independence	Intervention	37	19.29	3.56	37	20.51	2.46
	Control	37	18.54	2.47	37	18.27	2.72
Sympathy	Intervention	37	20.27	3.16	37	21.75	2.33
	Control	37	19.16	3.20	37	19.27	3.57
Responsibility	Intervention	37	20.70	3.73	37	21.86	3.73
	Control	37	20.54	3.57	37	20.81	3.68
Interpersonal Relationships	Intervention	37	20.94	2.35	37	22.10	2.40
	Control	37	19.67	3.28	37	19.05	3.47
Problem Solving	Intervention	37	15.21	3.14	37	18.43	2.92
	Control	37	14.35	2.85	37	14.35	2.85
Emotional Intelligence	Intervention	37	287.59	31.89	37	313.69	37.13
	Control	37	287.50	31.86	37	287.47	31.84

The results of Table 1 indicate the mean and standard deviation of emotional intelligence and its subscales. In addition, the results indicated that the mean score of emotional intelligence in the intervention group in the pretest stage was equal to 59.287 that reached 313.69 in the post-test phase. In the control group, the mean score of emotional intelligence in the pre-test stage was 288.28 and in the post-test phase, 27.27%. In an over view of information

obtained, it will be concluded that there isn't any significant difference between the two groups in the pre-test stage in both the control and intervention groups, but after the intervention, the training of emotional intelligence in the intervention group, Average post-tests are at a higher level.

Table 2. The mean and standard deviation of pre-test and post-test scores of job satisfaction in two groups of intervention and control

Variables	Group	Pre-test			Post-test		
		Number	Mean	standard deviation	Number	Mean	standard deviation
Job satisfaction	Intervention	37	56.24	9.75	37	62.05	7.36
	Control	37	55.81	10.59	37	56.05	8.73

The results of Table 2 indicate that the mean of job satisfaction in the intervention group at the pretest stage was 56.24 that reached 62.05 at the post-test stage. While in the control group, the mean of job satisfaction at the pre-test stage was 55.18 and at the post-test stage was 56.05.

3.1 Investigation of hypothesis

A: The Precondition of Equation of Variance

To test this hypothesis, Levin's test is used. The results of this test for the post-test scores of both the groups are as listed in Table 3.

Table 3. The results of Levine's test on the presumption of equality of variances in two groups in society

Variables	Coefficient F	Df 1	Df 2	Significance of P
Realism	1.378	1	72	0.244
Flexibility	0.019	1	72	0.892
Stress Tolerance	0.035	1	72	0.853
Impuls Control	1.298	1	72	0.239
Optimism	2.779	1	72	0.100
Happiness	0.097	1	72	0.756
Emotional self-awareness	0.311	1	72	0.579
Self-expression	1.987	1	72	0.163
Self-regard	0.133	1	72	0.716
Self-Flourishing	0.710	1	72	0.402
Independency	0.955	1	72	0.322
Sympathy	2.755	1	72	0.101
Accountability	0.429	1	72	0.515
Interpersonal Relationships	3.785	1	72	0.056
Problem Solving	3.016	1	72	0.087
Emotional Intelligence	1.844	1	72	0.179
Job satisfaction	2.636	1	72	0.109

B: Normality of Default

To test this hypothesis, the Kolmogorov-Smirnov test is used. The results of this test for the research hypotheses are as listed in Table 4.

Table 4. Results of Kolmogorov-Smirnov test on the presumption of normal distribution of scores in two groups

Variable		Kolmogorov-Smirnov test		
		Number	Statistics	P
Realism	Pre-test	37	1.033	0.236
	Post-test	37	1.196	0.115
Flexibility	Pre-test	37	0.890	0.407
	Post-test	37	0.944	0.335
Stress Tolerance	Pre-test	37	0.861	0.448
	Post-test	37	1.106	0.154
Impulse Control	Pre-test	37	1.133	0.154
	Post-test	37	1.221	0.102
Optimism	Pre-test	37	1.173	0.127
	Post-test	37	0.914	0.374
Happiness	Pre-test	37	1.073	0.200
	Post-test	37	1.094	0.167
Emotional self-awareness	Pre-test	37	0.883	0.417

	Post-test	37	0.831	0.494
Self-expression	Pre-test	37	0.995	0.275
	Post-test	37	1.137	0.151
Self-regard	Pre-test	37	1.124	0.158
	Post-test	37	1.033	0.236
Self-Flourishing	Pre-test	37	1.231	0.097
	Post-test	37	0.897	0.397
Independency	Pre-test	37	0.979	0.293
	Post-test	37	1.125	0.159
Sympathy	Pre-test	37	0.800	0.544
	Post-test	37	1.040	0.230
Accountability	Pre-test	37	1.271	0.079
	Post-test	37	1.073	0.199
Interpersonal Relationships	Pre-test	37	0.901	0.392
	Post-test	37	1.123	0.161
Problem Solving	Pre-test	37	1.309	0.065
	Post-test	37	0.965	0.309
Emotional Intelligence	Pre-test	37	1.283	0.074
	Post-test	37	1.294	0.070
Job satisfaction	Pre-test	37	0.963	0.312
	Post-test	37	1.147	0.144

Regarding the results of Table 4, it can be considered that for the significance level for all research components is larger than the error value of 0.05, the presumption of the normal distribution of pre-test and post-test scores in the variable of emotional intelligence and dimensions It is confirmed in the job satisfaction variable too.

C: Default assumption of regression line gradient for all houses

The results of Table 5 indicate that the interaction among the experimental conditions and the coincidence variable is not significant, which is, the regression line is identical for the experimental conditions.

Table 5. The assumption of the equality of slope of the regression line

Source of the changes	Dependent variable	Degree of freedom	The mean of squares	F	P
Group interaction and pre-test	Realism Post-test	1	8.12	1.43	0.236
	Flexibility Post-test	1	19.68	1.94	0.168
	Stress Tolerance Post-test	1	1.114	0.150	0.700
	Impulse Control Post-test	1	2.07	0.226	0.636
	Optimism Post-test	1	24.20	2.67	0.107
	Happiness Post-test	1	7.31	0.673	0.415
	Emotional self-awareness Post-test	1	38.02	3.77	0.056
	Self-expression Post-test	1	0.627	0.075	0.784
	Self-regard Post-test	1	10.99	1.68	0.199
	Self-Flourishing Post-test	1	3.23	5.08	0.053
	Independency Post-test	1	0.193	0.364	0.551
	Sympathy Post-test	1	1.84	1.74	0.199
	Accountability Post-test	1	0.0154	0.028	0.896
	Interpersonal Relationships Post-test	1	18.09	2.06	0.155
	Emotional Intelligence Post-test	1	100.49	0.705	0.404
	Job satisfaction Post-test	1	6.86	0.177	0.676

4. Conclusion:

The results of this study indicate that emotional intelligence training is effective on job satisfaction of nurses working in selected hospitals affiliated to Lorestan University of Medical Science. The findings indicated that emotional intelligence training could significantly change the job level satisfaction of nurses in the experimental group.

That is, higher emotional intelligence is associated with higher job satisfaction. Therefore, by improving and training the emotional intelligence of nurses, job satisfaction and efficiency of work can be increased.

This finding is consistent with the results of research by Rezaei et al. (2013). The results of these studies indicate that there is a positive and significant relationship between emotional intelligence and job satisfaction.

The findings of this research have shown that emotional intelligence and interpersonal communication, especially the use and control of emotion and intimacy, have contributed to nursing job satisfaction. Therefore, it is necessary to develop and organize programs to increase emotional intelligence and interpersonal communication in order to improve job satisfaction. In addition, this finding is consistent with the results of the research by Haghighatjoo et al. (2008), and Ghoniem et al. (2011). These researchers in the study of the relationship between emotional intelligence and job satisfaction of employees, while confirming the relationship between these components, have shown that the higher the emotional intelligence of the employees, the higher their job satisfaction. This finding is also consistent with the results of Adeyemo (2007), and Valentin and Flishman (2007).

The results of these studies showed that some personality traits are related to job satisfaction and marital satisfaction.

Job satisfaction and marital satisfaction were different in both sexes. There is a relationship between age, job satisfaction, and marital satisfaction, between years of service and education level with job satisfaction. But none of them is meaningful and there is no relationship to the rest of the variables. In explaining these findings, emotional intelligence as a new and innovative psychological variable affects many of the occupational characteristics of individuals and is considered as an important and predictive factor in many areas. Therefore, when training emotional intelligence, a person tries to self-identify and discover his emotional state. By knowing the excitement in himself and the other person, he can more effectively control his excitement.

On the other hand, with the proper control of the emotions to succeed in communicating, his self-esteem rises, all of which is a chain of satisfaction.

He also learns from these skills to understand the other, to place himself in the position and to see the conditions from his sight, he also becomes familiar with the principles of communicating, learns not only words, but also physical states. He learns non-verbal communication and learns how to communicate in difficult situations both to claim his rights and not to override another, He learns the conditions for establishing intimate relationships and, in keeping with his individuality, becomes acquainted with himself and others with responsibility. This is where the roots of the pursuit of affairs are discovered and ready to be accountable.

In such a situation, a positive sense of flourishing and meaning and purpose will be alive and these factors will lead to job satisfaction in the individual.

Therefore, emotional intelligence training can be used to increase nurses' job satisfaction.

4.1 Result

In summary, emotional intelligence training has a significant effect on job satisfaction of nurses working in special sectors.

Emotional intelligence and interpersonal communication, in particular, the use and control of emotion and intimacy, have contributed to nursing job satisfaction.

Therefore, it is necessary to develop and organize programs to increase emotional intelligence and interpersonal communication in order to improve job satisfaction.

Therefore, considering the effect of emotional training on emotional intelligence score and job satisfaction of nurses, it can be said that if a person is emotionally capable, he can better face the challenges of life.

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Moral Confirmation

To comply with ethical principles, nurses participating in the research were confident about the confidentiality of responses. The research sample companies were fully informed and voluntary. The purposes and method of work were completely explained to the patients.

Conflict in interests

There was no conflict of interest among the writers of the article.

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