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Assessment and comparison of Emotional Intelligence of Nurses in General and Intensive Care Units

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ABSTRACT

Aims:. As a compilation of non cognitive skills and abilities, emotional intelligent could be helpful in controlling stress and increasing the individual's productivity at work. Intensive Care Units' employees experience higher stress levels as compared to General Units'. This study was conducted with the aim of comparing the emotional intelligence in general and Intensive Care Units.

Methods: This descriptive sectional analytic study was conducted on 212 participants of who were randomly selected from the individuals employed in the specialized and General Units of selected military hospitals of the city of Tehran, in 2011. In order to assess the emotional intelligence, Bradberi and Greaves (2005) Emotional Intelligence Questionnaire including 28 questions and 5 levels was used. The data obtained from this study was analysed using SPSS 17. software application's descriptive analysis and statistical test.

Risults: The average emotional intelligence score for nurses 79.4 (±7.3) was calculated. The average relative frequency of emotional intelligence scores were categorized in five levels; Excellent (10.4%), Good (38.2%), Required Assistance (42.5%), Requires Work (8.5%) and Warning (0.5%). The highest frequency of emotional intelligence among the nurses employed in General Units was observed in Good level (46.1%). The highest frequency of the level of emotional intelligence among the nurses employed in Intensive Care Units was observed in Requires Assistance level (47.2%). This difference between general and Intensive Care Units was statistically significant (p = 0.02).

Conclusion: The results obtained from this study revealed that the majority of the nurses require assistance in order to increase their emotional intelligence. Negligence towards the existing low levels of emotional intelligence among nurses of the Intensive Care Units, who are continuously encountered with various challenges, will have negative effects on the quality of their care giving and health. This fact needs to be addresses and considered by the managers of health care organizations.

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1. Introduction

Some of the sensual perceptions and excitements are among our most important

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psychological states which can define our lives and establish social relationships or the other way around. The role of special provocations in special situations is exaggeration and drawing attention towards special features of the environment. Provocations on the other hand, are adaptations to solve the problems we face in the environment. Provocation is the same thing that invites and regulates the elements of emotion, motivation, purposefulness and expression in a cohesive reaction to the incident [1].

Nursing as a complicated profession not only has its specific excitement levels but also requires continuous interactions with different people (colleagues, patients, their families etc.) in a high stress environment. In the case of improper knowledge about these excitements and ways of controlling them properly there could be irreparable damages occurring to the nurse and to the patient in the next level [2].

Different units of the hospital are also different in terms of existing stress factors based on the conditions and hospitalized patients. The Intensive Care Unit has been mentioned as a very high stress working environment by healthcare employees. These stressful conditions thus, can affect the employees and their mental health and potentially disturb their psychological function and stressors. Employees' comfort is another major concern for environments with Intensive care Conditions. A high frequency of psychological symptoms has recently been reported in several studies among the employees working in Intensive Care Units [3].

Nurses are exposed to conflict and stress at work. When conflict is faced with emotional intelligence, an opportunity for learning effective inter personal interactive skills is provided. Emotional Intelligence in fact creates ability to confront inter-personal conflicts. This will result in increasing proper team work in order to usefulness and better care giving for the patient [4].

Nursing on the other hand is a career that includes inter-personal relationships and therefore it is essential that nurses are aware of their excitements and benefit from there in order to make better decisions and showing intimacy towards others. This also helps them in becoming aware of other's attitudes and inter-personal skills. These are the characteristics of an individual with high emotional intelligence [5].

Emotional Intelligence is the ability to recognition and management of excitements in self and others which includes four domains; Self-awareness, Self-management, social awareness, and relationship management. In other words self-awareness and self management are known as personal skills and social awareness and relationship management are known as social skills [6]. Emotional Intelligence is an essential factor to success in life, psychological comfort and improvement in interpersonal relationships at work [7].

Nurses on the other hand require to possess high levels of emotional intelligence in order to be able to interpret the patient's emotions for knowing their motivation and concerns, establishing intimacy during care giving. They also require emotional intelligence for recognizing and managing their own emotions not only for providing high quality care giving but also for maintaining their own health [7].

Work related burnout is also one of the difficulties that decreases the quality of the service provided for the patients followed by medical services dissatisfaction. According to Delpasand's study (1390) Intensive Care Unit nurses who had a higher emotional intelligence were more successful regarding to patients and experience less burnout [8]. According to increased control emotions and emotional intelligence capabilities is very helpful in increasing adaptation, benefiting from effective confrontation strategies and finally achieving comfort [9].

Noorian et al. (2011) findings from a study on 150 nurse and physicians in Intensive Care Units showed that instructing emotional intelligence items reduced their personal and situational anxiety [10].

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The necessity of Emotional Intelligence is also been indicated in nursing education since it could affect students' learning ability, ethical decision making, evidence and knowledge used in the area of function. In the field of management it could also affect human force retention, patients' car giving quality and patient related consequences [11].

The above mentioned literature indicates the necessity and the usefulness of emotional intelligence. Several other investigations have also been done on the relation between emotional intelligence and stress levels [12], work related burnout [8], work related stress [13], life quality [14], job satisfaction [15], conflict management [16], patients' satisfaction [17] etc. All of the mentioned investigations prove high levels of emotional intelligence as an indicator and a positive element in control and improvement of the mentioned factors. The results from these studies shows that emotional intelligence and its benefits and its necessity in nursing career especially in Intensive Care Units requires more attention. Since emotional intelligence is been shown to be instructable and learnable thus the present study is compring the emotional intelligence levels between general and intensive care units in order to provide essential arrangements in accordance to the results.

2. Methods

The present investigation is a descriptive – sectional study conducted in the second 6 month of the year 1390. Statistical population included nurses of the General Units (Internal ward, Surgery, Children) and Intensive care Units (CCU, ICU, NICU, Emergency and Dialysis) in selected military hospitals of the city of Tehran. Sample recruitment was done randomly. The requirement of participation included: holding an associate diploma, bachelor's degree or master's degree in nursing and being employed in general or intensive care units of one of the mentioned hospital. The questionnaires were distributed and all of the potential participants were informed about the objects of the study, that participation is voluntary and that their information will be maintained confidential. In total 212 questionnaires were returned to the investigator. The instrument used in the present study was a two sectional questionnaire the first part included demographic information and the second part was the Bradberi and Greaves (2005) emotional intelligence questionnaire [6]. The mentioned questionnaire includes 28 items and is divided into 5 levels of general emotional intelligence, self-awareness, self-management, social awareness and relationship management. The scoring methods of the test is conducted with a 6 score scale from 1 to 6. The raw score of the test is calculated by summing the total score, the higher the score the higher the emotional intelligence. The reliability of this test has been reported to be 0.83 by Cronbach's Alpha. The validity of the scale is also been calculated using convergence correlation method with bad emotional intelligence and reported $r = 0.67$ ($P< 0.01$) [18].

Based on this questionnaire the highest emotional intelligence score 100 and the lowest score is less than 50. The scores are reported by the levels; Excellent, Good, Requires Assistance, Requires Work and Warning. Individuals who fit in the Excellent category have accomplished skills and abilities in emotional intelligence. Individuals who are categorised as Good in this scale have fair skills and are lower in some of them. They can have reach to excellent level by improving those skills. The less the individual is skilled in emotional intelligence capabilities including self-awareness, self-management, social awareness and relationship management, they will get a lower score accordingly and will need instruction and strengthening the relevant skills [6].

The importance of this categorization is with regards to this possibility that an individual might score Good in emotional intelligence but is weaker in some other abilities hence, the average score is caused by the high score balancing out the weaknesses.

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Table 1: Demographic characteristics of the nurses of the selected military hospitals in 2011 investigation (N = 212)

Demographic Characteristics		No.	Percentage	P Value
Age	20-24	25	8.11	
	25-29	24	3.11	
	29-34	66	1.31	
	35-36	49	1.23	
	Above 40	48	6.22	0.38
Gender	Male	111	4.52	
	Female	101	6.47	0.61
Education	Associate Diploma	24	3.11	
	Bachelor's	177	5.83	
	Master's	11	2.5	0.99
Marital Status	Married	25	8.11	
	Single	187	2.88	0.99
Unit	CCU	21	9.9	
	ICU	44	8.20	
	NICU	7	3.3	
	Emergency	42	8.19	
	Dialysis	9	2.4	0.02

The data obtained from this investigation was analysed by SPSS 17 software application at significance level of P = 0.05 using descriptive and inferential methods.

3. Results

The demographic analysis of the data revealed that 77.9% of the nurses in the present study were above the age of 30 and 31.1% were between the ages of 30 to 35. Also 47.2% had a working experience between 5 to 15 years. The majority of the nurses (52.4%) were males and 83.5% o the nurses held a bachelors degree. Also the majority of the nurses (88.2%) in this study were married (See Table 1).

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Table 2. Relative frequency of nurses' emotional intelligence at five levels

	Excellent	Good	Requires Assistance	Requires Work	Warning	Total
No.	22	81	90	18	1	212
Percentage	10.4%	38.2%	42.5%	8.5%	0.5%	100

Table 2 shows the relative frequency of the nurses in five levels based on which the highest relative frequency is related to the level Requires Assistance (42.5). This shows that the majority of the nurses participating in the present study need assistance and instruction regarding their emotional intelligence. The mean score of the emotional intelligence was calculated 79.4 which reveals that overall emotional intelligence of the nurses is average. The only variable that had a significant relationship to the emotional intelligence score was the curative unit.

Table 3 shows the relative frequency of the emotional intelligence in five levels separately. The table also compares the score obtained from the general and intensive units. As you can see in the table there was a significant difference between the emotional intelligence scores of the general and intensive care units ($p = 0.02$). The highest relative frequency of the nurses of the general units especially the internal ward was at the level "Good" (46.1%) however, the highest relative frequency of the

Table 3: Five levels of emotional intelligence separated by units

Variable: Unit:	Excellent	Good	Requires Assistance	Requires Work	Warning
CCU	3.14%	1.38%	1.38%	8.4%	8.4%
ICU	1.9%	6.38%	5.45%	8.6%	0
NICU	3.14%	0	7.85%	0	0
Emergency	1.7%	6.47%	9.42%	4.2%	0
Dialysis	0	1.11%	4.44%	4.44%	0
Surgery	3.14%	6.28%	1.57%	0	0
Children	3.12%	2.46%	2.29%	3.12%	0
Internal Ward	10%	10%	70%	10%	0

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emotional intelligence among the nurses of intensive care units was at the level "Requires Assistance" (47.2%).

4. Discussion

The present study assessed the level of emotional intelligence of the nurses employed in general and intensive care units who work under different environment conditions such as stressful situations, team work etc. in order to provide proper strategies for improvement in case of any issues.

The results from the present study revealed that emotional intelligence of the studied nurses is at the average level. This finding is in line with Delpasand's study [8]. HatamGooya [19] however, reports the emotional intelligence level of the nurses at a good level. One reason contributing to the mentioned difference could be the different instruments and scoring method used in the two studies. The findings of this study show that the nurses working in intensive care units have lower emotional intelligence levels as compared to general unit nurses. Noorian[10] has reported the emotional intelligence level of intensive care unit nurses to be high and Delpasand has reported the variable [8] to be average.

There was no significant relation between emotional intelligence, age, marital status and the working experience in medical services. This results are in line with Vatankhah [20], Haghani and HatamGooya [19]. The majority of participants are aged from 35 to 40 years in the present study. Golemen does not identify age as an effective variable on the emotional intelligence and associates the increase in emotional intelligence to education. On the other hand Bar indicates that the highest scores of emotional intelligence occurs in the age group 40–49 or in other words in the fifth decade of the life [21]. In Kalyocu's investigation the emotional intelligence of married individuals has been reported to be higher than single individuals and has shown to have a significant relation to age [22].

There are various results reported regarding the role of gender on the emotional intelligence levels in previous investigations. For example Hashemian [23], Molayi [24] and Kalyoncu [22] have reported higher emotional intelligence levels for females. Delpasand [8] shows that emotional intelligence is higher in males however, his investigation failed to show any significant relation between gender and emotional intelligence levels. The latter study is inline with Vatankhah[20], Nourbakhsh [25] Noorian [10] and Vito [26]. In spite of having a better knowledge towards their and others' excitements and feelings and have a higher intimacy, males on the other hand have higher flexibility and are more resistant in tolerating stressful pressures. Thus, although tiny, there are gender differences in some aspects in some of the components of this structure [21].

There was no significant relation between nurses' emotional intelligence and the level of education which is in line with Molayi's study conducted in Golestan University. Kalyncu's result however, reveals that higher education is associated with higher levels of emotional intelligence [22]. Benson conducted a study on assessing the emotional intelligence among nursing students and showed that senior students had a significantly higher emotional intelligence as compared to freshmen [27].

5. Conclusion

The results of the present study shoes that emotional intelligence of the nurses employed in intensive care units, being at the level "Requires Assistance", is significantly lower than the nurses employed in general units. This is meanwhile intensive care units require the nurses to have higher emotional intelligence levels dues to the stressor elements and special tensions dominating the environment. The results of the present study reveal that the reality is in contrary to what is expected in practice.

Individuals with higher emotional intelligence are more resistant towards stressor factors

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including work stress and have a better ability in analysing problems. For the same reasons these individuals can establish better relationships with colleagues and the work environment and manage their responsibilities better.

Having a low emotional intelligence especially in the nurses of the intensive care unit could have negative effects on the quality of the care giving and nurses' health. This point should be considered with more attention by medical organizations and instructional courses regarding improvement of the staff's emotional intelligence should be held during their services. Also, with regards to the results of this study further investigations in the form of validity with other variables existing in intensive care units including stress, work commitment etc. is suggested.

It should also be considered that since the subjects of this study are limited to military hospitals factors such as hospital's environment and even the population of the patients might have affected the results thus, conducting similar studies in other medical care environments is suggested.

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