emotional intelligence and Job stressors of nurses in emergency and inpatient centers

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Abstract

The aim of the present study is to determine the relationship between job stressors and emotional intelligence of nurses and compare them in emergency and inpatient centers. Provided that correlational and survey method is used, our population consists of 900 nurses, 130 of them in emergency departments and 770 of them in inpatient centers, attending hospitals located in USA. The general sampling methods adopted for this research, on the one hand, consist of a stratified and simple random sampling based on which 270 nurses are selected in the inpatient center and on the other hand a compiling data sampling method is employed to draw 130 nurses in emergency department. Two questionnaires whose reliability and validity are successively tested by content and Cronbach’s methods are also used to collect the research data. To test the research hypothesis, Spearman’s correlation coefficient, T-test and analysis of variance (ANOVA) are used. The results of the study suggest that there is a meaningful relationship between stressors and emotional intelligence of nurses in emergency departments, though there is not such a relationship in the inpatient center.

Keywords: stress; emotional intelligence; nurses; emergency

Introduction

Job is one of the most important sources causing stress in human life. The importance of job stress is emphasized more in the occupations relating to the human life, although it can be found in any jobs (Heyrani 2008). For the sake of providing patients with peace and tranquility, occupations relating to the medical are influenced by job stressors, but the volume of this type of stress in nursing is more than other professions (Rahimi et al, 2004). Regarding the above-mentioned factors, identity and type of jobs may also affect the intensity of job stress. For example, in a hospital, type of hospital unit or department along with stressful workplace may also affect the
intensity and weakness of the job stress. Therefore, with regard to the particular structure of emergency department, one can conclude that the effect of job stress in these centers is different from those in inpatient centers (Lee and Shin, 2010). Golman considers emotional intelligence as a social skill being concerned with relating well to people, controlling excitement, keeping motivation, controlling oneself in a critical situation, regulating mental states and not letting confusion prejudices one’s approach (Golman 2004). Therefore, one can conclude that there is a relationship between job stress and emotional intelligence in such a way that individuals with higher emotional intelligence are less affected by job stressors. Considering job requirements and versatile roles of nursing, the ongoing research aims to show how the condition of job stressors (individual, patient care, physical context, interpersonal and managerial) in these two centers is and how they are related to the emotional intelligence of nurses.

The status and concept of stress
The world health organization has lately reported the growing procedure of mental stress in the workplace. Job stress has negative effect on the individual health and the whole society, since high job stress may cause reduction in the quality and productivity of the employees. It is also pointed out that job stress has direct relationship with physical illnesses such as cardiovascular diseases and mental illnesses such as insomnia, burn-out syndrome and depression. It is noteworthy to say that high job stress doubles the risk of depression (Leunga, 2009). Some of the studies have regarded nursing as a stressful profession that imposes costs for health, welfare and job dissatisfaction on people and causes high rate of absenteeism and turnover in organizations which may consequently affect the quality of patient care (Takakis and Ouzouni, 2008). Job stress is known as an interaction between work conditions and individual characteristics of a practitioner in such a way that workplace demands are more than that an individual can afford. Job stresses are the unpleasant emotional and physical reactions regarded as a consequence of the interaction between employee and his workplace so that more job demands are the capability and resources of the employee (Kawaguchi, 2007).

Stressors theories
Scholars have viewed stressors differently. Among of these theories is Wooten and Cameron theory. According to them, stressors fall into four parts:

- Time stressors
- Encounter stressors
- Situational stressors
- Waiting stressors

Heyrani (2008) has divided stressors into five parts: (Heyrani, 2008)

Interpersonal stressors: the quality of employee relations in the workplace has always had a meaningful relationship with job stress. In their studies researchers have suggested three types of interpersonal relationship: relationships with colleagues, relationships in the work groups and relationships with supervisors and leaders.
Surveillance stressors: Accordingly, characteristics relating to work duty such as diversity, freedom of action, job autonomy, mutual interactions, necessary skill and knowledge and job responsibility are regarded as job stressors.
Stressors of physical context: stressors of physical context consist of congestion and lack of equipments, noise, extreme heat and cold, chemical materials, air pollution, safety dangers, inadequate lighting and sound pollution (Bashghare, 2006).

Individual stressors: it is believed that individual expectations such as hopes and primary expectations, fear of the future, retirement, family problem, etc may cause job stress. These factors are generally divided into three parts: personality traits, sense of control and gender.
Managerial stressors: a set of factors underlying job stress in the workplace is concerned with methods and procedures of human resources management in the organization and it is believed that these factors fall into six parts: entering workplace, lack of training and enough knowledge, performance feedback, reward, uncertainty about future of job and career transitions (Neunan and Hubbard, 2009).

**Emotional intelligence in the workplace and organization**

Emotional intelligence can play an important role in the workplace. Many studies have proved that the relationship between emotional intelligence, outputs, job satisfaction and employee’s performance is predictable. Further researches have also shown that the emotional intelligence of the managers have essential effect on the work outputs (Sy et al, 2006). Emotional intelligence is a skill by which one can govern one’s moods through self-awareness, improve it through self-management, perceive its effect through empathy and behave in a way that raise one’s and other’s morale through managing relationships (Golman, 2004). One of the first domains of research which has been the center of attraction in the literature relating to the notion of emotional intelligence is the relationship between success and performance. In an organizational environment, Clay and Copland (1993) examined and tested the emotional intelligence and the performance of actual groups in Bell laboratories. The findings of their studies suggest that emotional intelligence make a distinction between individuals with mid performance and those with high performance (Cartwright and Constantinos, 2008).

**Relationship between emotional intelligence and job stress**

It is noteworthy to say that emotional intelligence has a central role in aggressive behaviors and workplace stress. Mir et al (2000) have founded that there is a negative correlation between emotional intelligence and violence, and bullying and harassing. According to Martin et al (1998), teaching emotional intelligence may effectively result in solving the problem of bullying in the organizations (Cartwright and Constantinos, 2008). It is also maintained that emotional intelligence can help people govern their negative feelings appropriately and consequently reduces stress. According to the evidence presented by Slasky and Wright (2004), people with high emotional intelligence have considerably less stress and enjoy more healthy body and mind (Gill, 2010).
Nikola and Tesvis (2005) have considered the relationship between emotional intelligence, stress and organizational commitment among 235 mental health professionals in the institutions of Greece and found that people with high emotional intelligence have less job stress and achieve high score in the organizational commitment scale. In general, it seems that law and the use of emotions are the potential explanation employed to understand how employees show their reactions in the workplace and how they increase their flexibility in the stressful situations. However, temperament characteristics have a long history of research related to stress and have been taken into account in many measurements that have already been considered (KumarChoubey and Santosh, 2009).

The major goal of the present study is to investigate and determine the relationship between job stressors and emotional intelligence of the nurses in emergency and inpatient centers of the hospital.

**Methodology**

A correlation and survey method is adopted to conduct the present research and our population consists of 900 nurses, 130 of them in emergency departments and 770 of them in inpatient centers, attending hospitals located in USA. According to the Krejcie and Morgan’s table of sample size determination, for a population of 130 nurses in the emergency department and 770 nurses in the inpatient center, the required sample sizes are 97 and 255 nurses, respectively. However, oversampling of 130 nurses in the emergency department and 270 nurses in the inpatient center is recommended to account for lost questionnaires, though it can add cost to our survey. Our survey uses data collection methods such as compiling data sampling for emergency department and stratified random sampling and simple sampling for inpatient center. Two questionnaires are also employed to measure the rate of job stress with respect to the stressors and rate of emotional intelligence of nurses. The reliability and validity of the questionnaires are successively tested by content and Cronbach’s methods and consequently, the reliability and validity ratio for emotional intelligence questionnaire are determined as 0.64 and 0.63 and for stressors questionnaire as 0.91 and 0.92, respectively.

**Findings**

To test the research hypothesis, spearman’s rank correlation coefficient and ANOVA are used and the results are shown in Table 1.

### 1. Table 1 Correlation of stressors with emotional intelligence in the emergency department.

<table>
<thead>
<tr>
<th>managerial</th>
<th>individual</th>
<th>physical</th>
<th>patient care</th>
<th>interpersonal</th>
<th>Correlation coefficient</th>
<th>Emotional intelligence</th>
<th>Spearman’s test</th>
</tr>
</thead>
<tbody>
<tr>
<td>-0.147</td>
<td>-0.052</td>
<td>-0.170</td>
<td>-0.316*</td>
<td>-0.366**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.094</td>
<td>0.560</td>
<td>0.053</td>
<td>0.000</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant level
As can be seen in Table 1, findings from testing the first hypothesis suggest that there is an inverse meaningful relationship between interpersonal stressors and emotional intelligence in emergency department with R= -0.366 and there is also an inverse meaningful relationship between patient care stressors and emotional intelligence in the emergency department with R= -0.316. That is, the higher emotional intelligence is, the less interpersonal stress and patient care are and vice versa. It is also determined that there is no meaningful relationship between individual stressors and physical context and managerial factors and emotional intelligence in the emergency department with R= -0.052, -0.170 and 0.147, respectively.

To investigate the existence of regression model among the job stressors and emotional intelligence in the emergency department, the ANOVA test is used to examine the variables. The results are presented in Table 2.

Table 2: Findings of one-way ANOVA among variables in the emergency department.

<table>
<thead>
<tr>
<th>model</th>
<th>Sum of the second powers</th>
<th>Degree of freedom</th>
<th>Mean of the second powers</th>
<th>F-test</th>
<th>Significant level</th>
</tr>
</thead>
<tbody>
<tr>
<td>regression</td>
<td>0.467</td>
<td>1</td>
<td>0.467</td>
<td>7.694</td>
<td>0.006</td>
</tr>
<tr>
<td>Error rates</td>
<td>7.774</td>
<td>128</td>
<td>0.061</td>
<td></td>
<td></td>
</tr>
<tr>
<td>total</td>
<td>8.241</td>
<td>129</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As presented in Table 2, regarding the significant level of 0.006 that is less than 0.005, the research hypothesis is confirmed i.e. there is an inverse meaningful relationship between stressors and emotional intelligence in the emergency departments. Therefore, the higher emotional intelligence is, the lesser job stressors are and vice versa.

As can be seen in Table 3, findings from testing second hypothesis using Spearman’s coefficient show that there is no meaningful relationship between interpersonal stressors, physical context, patient care, individual and managerial factors and emotional intelligence in the inpatient center with regard to the significant level of stressors higher than 0.05.

Conclusion

Regarding the first hypothesis, the findings of the research showed that there is an inverse meaningful relationship between stressors and emotional intelligence in the emergency department at the significant level of 0.006. Accordingly, there is also an inverse meaningful relationship between interpersonal stressors with correlational coefficient of -0.366 and stressors of caring with correlational coefficient of -0.316 and emotional intelligence. These findings generally suggest that the rate of the above-mentioned stressors will change if the emotional intelligence changes. In “Examining the Relationship Between Emotional Intelligence, Job Stress and Job Satisfaction Among the Employees”, Soltanian (2008) pointed out that there is a relationship between emotional intelligence and job stress i.e. people with high emotional intelligence possess more
ability to govern stressful situation, relieve stress and minimize its detrimental effects. Eventually, these people can improve their job performance due to the increased empathy and stress resistance. In “Examining the Relationship between Emotional Intelligence and Job Tolerance among the Managers and Employees of the Teaching Hospitals”, Naghizadeh et al, have suggested a significant relationship between emotional intelligence and job tolerance. Their studies also confirm that there is an inverse meaningful relationship between emotional intelligence and job tolerance. According to the findings, one can conclude that there is no meaningful relationship between stressors of physical context and emotional intelligence, individual stressors and emotional intelligence and managerial stressors and emotional intelligence in the emergency department.(Naghizadeh et al, 2010)

Additionally, regarding the second hypothesis, the findings of the research indicated that there is no significant relationship between stressors and emotional intelligence in the inpatient center. These findings also show that there is no meaningful relationship between all stressors (e.g. individual stressors, stressors of patient care, stressors of physical context, interpersonal stressors and managerial stressors) and emotional intelligence in the inpatient center.

Regarding the findings of the research, the following suggestions are presented:

- Having determined the inverse relationship between stressors and emotional intelligence, the present study suggests that all organizations, especially medical therapy organizations and units, should all make an effort to hold training courses in emotional intelligence and job stress to consequently improve and promote emotional intelligence and reduce stress job. These workshops aim to provide managers and employees with necessary trainings in the area of controlling environment and themselves, boosting self-esteem and teaching comparative skills, etc.

- As is shown in the research, the managerial factor is the most stressful variable in both emergency and inpatient centers. It is believed that appropriate managerial decisions and measures can reduce the stress caused by this agent. For example, various solutions should be offered to reduce the stress of dealing with a colleague or a doctor and appropriate attempts should be made to create an appropriate working environment.

- Regarding the inverse relationship between stressors and emotional intelligence in the emergency department and the fact that there is no relationship between stress and emotional intelligence in the inpatient center and also that nurses are more emotionally intelligent, it is recommended that the management of the hospitals uses nurses with higher emotional intelligence in the inpatient centers rather than in the emergency department.

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