The Relationship between Job Stress and Nurses Performance in the Jordanian Hospitals: A Case Study in King Abdullah the Founder Hospital

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**Abstract:** This study assessed the relationship between five stressors (the family factors, the economic factors, job difficulty, Peers' competition and organizational climate) with nurses' performance (Creativity and innovation, the ability in problem solving and decision making). The population of the study was the nurses working at King Abdullah hospital at Irbid city in Jordan. A random sample of 120 nurses was selected, by using descriptive statistics and correlation coefficient, it was found that the family factor is not considered a stressor according to the sample point of view and there was no relationship between this factor and nurses' performance, while there was a significant positive relationship between the other 4 stressors and performance as follows: organizational climate had the most influence on performance followed by the economic factors, then Job difficulty and finally peers' competition. To reduce the negative outcomes of stress it was recommended to make fundamental improvements to the hospital organizational climate and increase leaders support.

**Keywords:** Distress, eustress, job stress, performance, stressors

**INTRODUCTION**

Job stress is a new old concept, introduced first by Selye at the beginning of the twenty century and recently became one of the most important contemporary issues in applied research, the factors that lead to stress, its' consequences and the necessary strategies to deal with distress outcomes. It is existed in the life of every individual, within the family relations, at work and in any career, in any organization, all over the world.

Workers are exposed to different situations that can lead to stress; Work place could be a distress generated environment, according to the (American Medical Association) 95 million Americans are using medicines to reduce the risks of continuous stress at work, in addition to 2 hundred billion dollars loose per year, resulted from productivity decline (Nasr, 2012).

Nursing job specifically have several kinds of stress, will not be found in other non health sectors, they are working in a unique environment; full of noise, pollution, susceptible to infections. It is a job seeks patience, high mental and physical capabilities (Ugur et al., 2007).

Nurses in their daily basis practices are exposed to life and death situations, workload, long working hours in different shifts, competition, insufficient knowledge and information sharing with peers, physicians (Milutinovic \( et \) al., 2012). The conflict between nurses and physicians could exaggerate the pace of stress and it's outcomes, the conflict between being involved emotionally with patients and their families (nursing attitude) and being neutral in their emotions and feelings (physicians attitude) (Tabak and Koprak, 2007). In addition to the moral distress caused by ethics contradiction between nurses beliefs of what it is right and wrong and the organizations' values and culture (Lazzarin \( et \) al., 2012).

The outcomes of job stress exceeds productivity and quality of employees performance, its' psychological influence inverts into a bad lifestyle habits like smoking, over eating, drinking alcohol and lead to serious chronic diseases like hypertension and heart diseases (Owolabi \( et \) al., 2012).

And could lead in nursing job to clinical errors, negligence in a way could be critical to the safety of patients. So It is significant to have more attention to nurses job stress, the main stressors and to develop the suitable strategies to manage its' bad impacts.

**Study objectives:** The study aims to obtain the following objectives:
To test the relationship between job stress resulting from the (family factors, economical factors, peers' competition, job difficulty and organizational climate) and the performance of nursing staff in King Abdullah Hospital.

To identify the most important factors that lead to stress for nursing staff working at the Hospital.

To determine the eustress factors among the examined stressors.

To make recommendations on the most important management strategies that can minimize the bad outcomes of stress.

**Study hypothesis:** There are one main hypotheses and 5 sub hypothesis as follows:

The main hypotheses:

Ho: There is no significant relationship between job stress caused by (family factors, economical factors, peers’ competition, job difficulty and organizational climate) and nurses’ performance (creativity and innovation, problem solving and decision making abilities) in King Abdullah Hospital:

H01: There is no significant relationship between family factors stress and nurses performance.

H02: There is no significant relationship between economic factors stress and nurses performance.

H03: There is no significant relationship between job difficulty stress and nurses' performance.

H04: There is no significant relationship between peers' competition stress and nurses' performance.

H05: There is no significant relationship between organizational climate stress and nurses' performance.

The population of the study consisted of nursing staff working at King Abdullah Hospital at Irbid city in Jordan; it is one of the leading and largest teaching Hospitals in the northern region of Jordan. From the three shifts (A, B and C) a random sample were selected and 120 questionnaire were distributed, 112 were retrieved, with a response rate of 93%, 108 questionnaires were statistically analyzed.

**The study tool, validity and reliability:** A questionnaire was designed for collecting data from the study sample, the first set of questions concerned with the demographic information. While the questions from (1-25) measured the independent variable (job stress) and the main stressors as follows: the questions from (1-5) family factors, from (6-10) economical factors, from (11-15) peers’ competition, from (16-20) measured the nursing job difficulties, while questions from (21-25) measured the organizational climate.

**THEORETICAL BACKGROUND AND LITERATURE REVIEW**

**Job stress:** Stress is something ordinary, unavoidable fact in anyone life, caused by many factors either at work, or with the family at home, or at the external environment (Jarinto, 2011). According to Wilton (2011) it affects both the human resources and the management at the same time.

The concept and its effects were first introduced with documentation and research by Selye in 1974 as one of the main factors that can influence individuals’ health and performance. Since then there was no specific definition of job stress, but most of the explanations has the meaning of (deviation) from the normal mental, psychological and physical state of the individual (Ali et al., 2011). It is connected with response: physical, behavioral, or psychological.

Ivancevich et al. (2008) defined job stress as the programmed response of the individual towards a group of threats called stressors, according to Brown and Harvey (2006) it is the interaction between the individual and the environment which as a result may affect his mental and physical conditions. It can be defined as the physical and mental deficit which was caused by a perceived danger (Rue and Byars, 2007). Bashir and Ramay (2010) added that it is the situation
caused as a result of several factors like lack of work information and feedback, continuous technological change, or when the individual is unable to cope with his job requirements, or to satisfy his needs.

**Job stressors:** These factors of making individuals stressed are called stressors. Either they have bad or good impact; it depends on how the person perceives this stressor and how much it affects his life (Sen, 2008). Ivancevich et al. (2008) and Kreitner and Kinicki (2010) presented four levels of stressors in the individual life:

- Individual level which consists of: role conflict, role ambiguity and role overload, boredom and routine under load jobs
- Group levels: lack of cohesiveness inside the same group and groups' conflict
- Organizational level: culture, organizational structure, technology, organizational change and the style of leadership
- Non work (Extra organizational) stressors: family, age, quality of life and economic factors

According to Rue and Byars (2007) working conditions with unpleasant organizational climate, the physical environment: light, temperature, noise and the rigidity of rules and regulations are job stressors.

Salami et al. (2010) considered instability in the organizations’ policies, rules and procedures due to continuous change, strategic alliances or acquisitions can be major stressors in any organization.

Role conflict according to Mansoor (2011) that is caused by multiplicity of roles and the contradictory requirements and duties between these roles, Rao and Borkar (2012) believed that employees uncertainty of their abilities; if they had sufficient qualifications to fulfill job requirements, lack of knowledge and skills opposite to task demands will end in internal conflict and job stress. Physical environment and how much it is convenience and fit employees' expectations. Buchanan and Huczynski (2004) and Jaramillo et al. (2011) provide insights on the interpersonal relations inside the organization, coworkers and conflict inside work groups that can range from hidden behaviors and disagreement up to the physical harm.

According to Wilton (2011) the job stress is synchronized with bad quality of life at work, low degree of autonomy and control over individual jobs, their decisions and the work processes.

Sometimes they are factors lied outside the organization connected with the family and social relation and their needs. Environmental factors like weather, noise, pollution, traffic, increased percentage of crimes in society (Gore and Bondre, 2012). Mondy et al. (2012) considered the decline in working hours, wages caused by the global financial crisis and the economical factors, as job stressors.

In nursing the stress increased usually for new graduates and for those who are working in ICU, emergency and mental health sections (Laal and Aliramiaie, 2010).

Ulrich et al. (2010) considered the commitment to be ethical in dealing with patients and their maintaining acceptable level of their privacy and confidentiality, satisfying patients’ needs in a proper way, one of the major stressors in the nurse’s daily duties.

Moral stress and the expected ethical behaviors from nurses and moral conflict between what they believe that is right and what they obliged by their organizations to do could have unsatisfactory results on their satisfaction and their intention to quit (DeTienne et al., 2012). The gap between supply and demand and the continuous shortage in nurses' numbers could be the major reason of increasing workload and requirements for this kind of job, in addition to the fact that nurses are managing physical, psychological and mental sides of the patients (Dave et al., 2011).

Working in health care weather in clinics or in hospitals is complex and diverse from one case to another, collaboration and synergy between health care staff is a basic requirement for success; lack of this kind of interaction is considered a stressor (Huang et al., 2012).

According to Duraisingam et al. (2009) nurses who are working at agencies specialized in treating drugs and alcohol addiction will rate high levels of work stress and also high levels of turnover. They had to be highly skilled, healthy, both mentally and physically and also satisfied to cope with the abnormal working conditions.

In general nurses always are affected physically and emotionally from work load and difficult, unusual work conditions, shortage in nurses numbers especially registered nurses in nearly all countries will make the situation worse (Dave et al., 2011).

**Stress consequences:** Stress has its' outcomes on the organization and the employees too; on the organizational side Casio (2013) considered job stress and its' consequences as major factors in increasing organizations' cost; as a result of absenteeism, work stoppage, turnovers, accidents and strikes. And it has a direct impact on the communication process inside the organization and the interaction with customers, in maintaining good and balanced relationships with peers and leaders (Jaramillo et al., 2011).

Ivancevich et al. (2008) and Kreitner and Kinicki (2010) distinguished between three kinds of consequences: behavioral which cover the individual behaviors and intentions, attitudes; their satisfaction, turnover, absenteeism and performance.

The cognitive consequences enclose irrational decisions, lack of concentration, disappointment which lead to frustration and depression and the physiological
level the individual could have hypertension and other diseases related to the heart and the immunity system. Sometimes job pressure could lead to excessive use of alcohol and other drugs, in a way that could affect the ability of workers to perform their jobs in an effective manner (Shirazi et al., 2011).

**Positive stress (eustress):** The consequences and outcomes is not always negative (distress), it can be positive too (eustress). It depends on the individuals' perception, interpretation, reaction to the stress and stressors and how they can manage their sensors to transfer the disadvantages into challenge to enhance their performance (Sen, 2008). According to Jarinto (2011) and Singh (2011) distress and eustress are existing together mixed in a way that will be difficult to be separated.

The term eustress was first introduced by Selye, who distinguished between harmful stress and beneficial one, eustress is a natural response to stressors when they are managed and directedrationally by leaders and have instead of failure positive impact (McGowan et al., 2006).

**Coping with stress strategies:** The first step is to conduct a stress audit to identify main sources of stress; structured interviews with employees can be used to collect the necessary information or a questionnaire. Observation of certain indicators like sick leave, absenteeism could be useful too (Rue and Byars, 2007).

Coping can take place when positive outcomes can be generated from stress, or when the individual avoid stress situations and their bad consequences, the intrinsic and extrinsic motivation and rewards, increasing job satisfaction levels also could be the solution (Hsin-Hui and Chien-Wei, 2010).

Gill et al. (2010) pointed out to the importance of empowerment and Transformational leadership style; early retirement programs and their effectiveness in lessen bad effect of stress.

Karimi and Alipour (2011) recommended that internal locus of control, sports and physical training, sleep, all these could be a successful treatment in reducing and coping with job stress. Laal and Aliramaie (2010) concentrated on training courses in stress management, psychological counseling. While Wilton (2011) proposed two types of management interventions the first is the preventive for all employees to avoid distress and its no preferable outcomes. The second was the therapeutic which are concerned with curing the harm that is actually influence certain employees.

Kreitner and Kinicki (2010) recommended 3 strategies: using mixture of control strategy in diagnosis and solving problems and escape strategy when people fail in facing their stressors. The third and final solution strategy is concerned with symptoms treatment.

Nursing job is a highly demanding one, physically and emotionally in dealing with ill persons, death, disability etc., so that to manage these situations of stress; nurses must be provided by physical resources, emotions, empathy and support from leaders and co workers (Tooren and Jonge, 2008).

**Literature review:**

**Job stress and nursing sector in Jordan:** In Jordan recently, shortage in nurses' number increased; because of the brain drain; the better work opportunities, the higher salaries in the gulf and other countries were main reasons for this deficiency.

Many researchers in Jordan were interested in Nurses and their job stress; most of them were specialized in Nursing. Mrayyan (2009a) study which examined the main job stressors for 228 nurses working in ICU compared with stressors for 235 working in wards, the sample were selected from 13 Jordanian hospitals. It was found that job stress for nurses working in the ICU were higher than those working in wards and the main stressors were: conflict with physicians and lack of social support. According to Hamaideh and Ammouri (2011) the main job stressors to (nurses) in Jordan hospitals were work overload caused by the decrease in nurses numbers, difficult working condition, inefficient support either from physicians and peers. Hamaideh (2011) study concentrated on the burnout level among nurses working in mental health sections including ministry of health hospitals, military and the private sectors. it was found that burnout level were high due to several reasons related to the lack of psychological support from management, cowokers and also the difficulty of dealing with this kind of patients.

The study of Mrayyan and Hamaideh (2009b) examined the impact of nurses' shortage on the degree of clinical errors; in giving wrong treatment or medicine to the patients the study was conducted on registered nurses working in 13 hospitals in Jordan. The nurses show their approval on this situation and admit that these errors will result in moral distress that will affect their performance in general.

AbuAlrub and AL-Zaru (2008) study was conducted in four governmental hospitals in Jordan the results of the study revealed that job stress increased their intention to leave jobs. It was recommended to set clear strategies for recognizing nurses achievements, enhance motivation and reward high performance with continues feedback. Ibraheem et al. (2011) found that transformational leadership style have a positive influence on job satisfaction of the nurses working in private hospitals in the capital of Jordan (Amman) and reduce levels of distress results.

AbuAlrub (2007) examined the reasons of shortage in nurses' numbers in Jordan; to find out suitable adaptation policies to this problem, salaries, working
conditions and the shortage in nursing faculties, in addition to that nursing is not an attractive career for both males and females were the main reasons for the shortage.

In Saudi Arabia Al-Zahrani (2011) study was interested of one side of management practices (justice) and its positive and negative effects on nurses’ burnout in private hospitals. The researcher found that burnout is one of the bad effects of work stress and organizational justice is able to minimize burnout level in the studied hospitals.

Many other studies were interested in job stress in nursing sector, but in non Arabian countries:

Assessing the Australian perception of job stress Healy and McKay (2000) found that there is an inverse relationship between nurses’ job satisfaction and job stress, the study also revealed that modifying individuals' perception of stress and stressors can be a successful strategy in stress management.

In Brazil Stacciarini and Troccoli (2004) also assessed the relationship between stress, job satisfaction and constructive thinking and the nurses ability to cope with their environment, 461 nurses from public hospitals participated in the study, unlike the other studies, stress doesn’t affect Brazilian nurses job satisfaction, but it was associated with constructive thinking especially to those who are involved in administrative tasks.

Gelsema et al. (2006) study in Netherland, tried to prove the mutual effect of work conditions, job satisfaction and well being on registered nurses. The researchers recommended providing nurses more control on their jobs to increase their satisfaction and reduce stress negative outcomes.

Gibbons et al. (2008) concentrated on the nursing students in United Kingdom. It was concluded that the long number of hours spent in practical training dealing with patients represent eustress, or can be distress according to students’ perception of the situation and the degree of optimist they were.

Opie et al. (2010) clarified the difficulties and distress that nurses may experience in remote areas in Australia, physiologically and emotionally. And they presented several interventions to increase job satisfaction and decrease high levels of distress, such as increasing nurses umbers at these areas, provision of leasers and colleagues support and more resources.

Bahrami et al. (2011) results revealed that the most affected stressors were overload responsibility and role ambiguity to 190 nurses working at Kashan Hospitals in Iran.

Urbanetto et al. (2011) examined the work stress in an emergency hospital in Brazil. By using interviews and questionnaire, 388 nurses from different levels were participated in the study. It was found that years of experience have a positive relationship with job stress and similar to the other studies in the different context and countries the social support deficiency was main stressors in this hospital.

Yousaf et al. (2011) found that work stress caused by over load duties, resources scarcity were the reasons of the disrespectful attitudes and behavior of the Pakistanis general physicians working in public hospitals towards their patients

Vijay and Vazirani (2012) compared between the main stressors of nurses in 5 private and 5 public hospitals in India. Salary and other incentives, job security ranked the highest stressors in the private hospitals while in the public hospitals: unstable time scheduling, long working hours in addition to the formal relations with seniors were the major nurses' stressors.

In hotels sector Hsin-Hui and Chien-Wei (2010) found that the work characteristics and work load are the main stressors. They suggested that the best strategy to cope with job stress is to consider it as an opportunity rather than as a threat.

While in the banking sector Rizavi et al. (2011) proved in their study that job stress can be a main factor in increasing turnover rate in the banking sector of Pakistan. Ayupp and Nguok (2011) found that work climate and organizational structure were the main stressors in the Malaysian banking sector and have a negative effect on employees’ job satisfaction.

Ayupp and Nguok (2011) tried to find out the negative consequences of job stress on job satisfaction among the employees of a Malaysian bank. The results of the study show that the employees in spite of their high workload were satisfied. And the most stressors related to the nature of their tasks and demanding roles they have to occupy.

The study of Jamal (2011) confirmed that there is an inverse relationship between job stress and employees performance in both multinational Malaysian and Pakistanis corporation. And at the same time the role of organizational commitment in reducing the negative impact of job stress on employees performance.

At the same time Khan et al. (2011) assessed the relationship between the performance of sales persons and job stress with the mediating role of their experience and commitment. It was found that long years of experience and high level of commitment can decrease job stress which affects performance negatively.

STATISTICAL ANALYSIS AND RESULTS

Statistical Package for Social Sciences (SPSS) version 13 was used for statistical analysis.
Respondents' characteristics: Results of statistical analysis displayed in Table 1 showed that 68 (63%) of the respondents were females and 40 (37%) were males, 82 of them (75.9%) had bachelor's degree and 26 (24.1%) had a diploma. 63 (58.4%) of the sample were less than 30 years old and 40 (37%) were between 30 to <35 years old, while the remained 5 (4.6%) were over 40 years old. (9.3%) of the respondents had less than one year experience, (44.4%) of them had their experience between 1 to <5 years and 46.3% their experience exceed 5 years.

Descriptive statistics results: The arithmetic mean was used to explore the respondent's perception of their job stressors; the standard deviation was used as a dispersion measure of the answers from their mean.

Table 2 displays the overall means and standard deviations of the 25 questions concerning the five examined stressors (family factors, economic factors, peer's competition, job difficulty and organizational climate) and for the 15 questions related to the dependent variables (creativity and innovation and their ability in solving problems easily and to make rational decisions).

The results show that the examined stressors have unpleasant consequences on the nurses' performance.

Hypothesis testing: Pearson Correlation Coefficient, with 0.05 sig. level was used to test the study hypothesis:

H01: There is no significant relationship between family factors stress and nurses performance. It is obvious from Table 3 that there is no association between family factors and performance, so that this hypothesis is accepted. R = 0.01, which is consistent with the descriptive results; the respondents considered their families supporters, no distress outcomes could transfer from home to their work.

H02: There is no significant relationship between economic factors stress and nurses performance. The analysis revealed that there is a positive correlation between the economic factors and the nurses creativity and innovation R = (0.381) at...
Table 3: Correlations between the study variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Innovation and creativity</th>
<th>Problem solving and decision making</th>
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</thead>
<tbody>
<tr>
<td>Family factors</td>
<td>0.050</td>
<td>0.013</td>
</tr>
<tr>
<td>Peers' competition</td>
<td>0.144</td>
<td>0.263*</td>
</tr>
<tr>
<td>Job difficulty</td>
<td>0.327**</td>
<td>0.302**</td>
</tr>
<tr>
<td>Organizational climate</td>
<td>0.413**</td>
<td>0.390**</td>
</tr>
<tr>
<td>Economic factor</td>
<td>0.381**</td>
<td>0.290*</td>
</tr>
</tbody>
</table>

**Correlation is significant at 0.01 levels; *: Correlation is significant at 0.05 levels

0.01 sig. level and also with their abilities in problem solving and decision making $R = (0.29)$ at 0.05 sig. level. Accordingly the hypothesis is rejected and the economic factors as stressors are having troublesome results on nurses' performance.

**Ho$_1$:** There is no significant relationship between job difficulty stress and nurses' performance.

Table 3 manifest that the stress caused by the difficult nature of nursing job is positively associated with both nurses creativity and innovation and their ability in problem solving and decision making $R = (0.327)$ and (0.302) respectively and at 0.01 sig. level. This result illustrates that overload, in addition to physical, emotional and informational requirements of nursing job compose a distress factor to their performance.

**Ho$_2$:** There is no significant relationship between peers' competition stress and nurses' performance.

Like other stressors it is clear from the correlation values (0.144) and (0.302) that there is a positive association between the independent and dependent variables. The dysfunctional competition and the nature of contact with peers could lead to performance erosion, so that this hypothesis is rejected too.

**Ho$_3$:** There is no significant relationship between organizational climate stress and nurses' performance.

It is obvious that organizational climate was the most influential stressor on creativity and innovation and on the nurses ability in problem solving and making reasonable decisions $R = (0.413)$ and (0.390), respectively, at 0.01 sig. level, depending on these values this null hypothesis is rejected.

**DISCUSSION AND CONCLUSION**

The main purpose of the study was to find out the degree to which the (family factors, economic factors, difficulty of nursing job, competition with coworkers and organizational climate) are considered stressors and also to examine if those stressors are considered a distress or eustress to nurses performance at King Abdullah public Hospital.

The findings of this study are consistent with most of the other studies results.

The study of Vijay and Vazirani (2012) found also that low salaries and other incentives, long working hours and increased no of patients were the main stressors in Indian hospitals.

In spite of the organizational commitment and experience role as a moderators, The results of Jamal study (2011) and Khan et al. (2011) also confirmed the negative relationship between job stress and performance, while AbuAlrub and Al Zar (2008) study considered lack of recognition and estimation of high levels of achievements and performance one of the major stressors in the nursing sector in Jordan.

There were harmony between the findings of this study and Gelsema et al. (2006) study, Hamaideh and Ammouri (2011) study and Bahrami et al. (2011) which examined the nurses main stressors and considered workload one of the main stressors in nursing job and Hsin-Hui and Chien-Wei (2010) study, Ayupp and Nguok (2011) which considered (job Characteristics) the main stressor to workers in hotels and banking sectors (respectively).

This study also give insights of the importance of organizational climate, leadership encouragement and support, functional competition and cooperation between co-workers, in a way that go with Ibraheem et al. (2011) study conclusions that transformational Leadership style had a positive impact on nurses job satisfaction and Al-Zahrani (2011) study results; that justice and fair treatment can reduce the levels of stress and burnout of the employees working at private hospitals in Saudia Arabia and Urbanetto et al. (2011) study which was interested in work life quality and its' positive relationship with job stress and also the study of Hamaideh (2011) findings of the inverse relationship between job satisfaction and burnout caused by the unusual working conditions of nurses working at mental health sections in Jordan.

The findings of this study doesn't match Stacciarini and Troccoli (2004) results, stress doesn't affect Brazilian nurses job satisfaction it is considered (eustress (positive) and constructive rather than performance destructive.

So, in generally the study concluded that the family factor is not considered a stressor according to the sample point of view and there was no relationship between this factor and nurses' performance, while there was a significant positive relationship between the other 4 stressors and performance as follows: organizational climate had the most influence on performance followed by the economic factors, then Job difficulty and finally peers' competition.

**RECOMMENDATIONS**

As most of the previous studies and related literature recommended, the researchers propose number of recommendations to prevent annoying outcomes and to reduce stress consequences as follows:

- Improving the quality of work life at the studied hospital, setting SMART objectives, with proactive planning, open communication channels with peers
and with management, increase levels of empowerment and autonomy, rewarding creativity and innovation.

- Encouraging team work between coworkers and finally introduce training courses in emotional intelligence and stress control and management.

For future research it is recommended to examine factors that can be eustress in other organizations and through the perception of employees working in other careers rather than nursing.

REFERENCES


