

A Comparative Study of Job Performance, Occupational Stress and General Health in Nurses of Psychiatric and Emergency Department

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Abstract

Background: One of the most sensitive and stressful, yet important, occupations is that of the nursing population; the study of their physical, mental and psychological health as the basis of primary health care services is of special importance. Of course, attention to their health and assessment of their problems causes to create motivations and effective interventions in maintaining human resources and their job performance. Therefore, the aim of this research was to compare job performance, occupational stress and general health among nurses in the psychiatric and emergency departments. **Methods:** The statistic population of this research is nurses from the Hospital Milad, Erfanian and Iranian in Tehran. 270 people were selected to distribute the questionnaire. In order to analyze the data, inferential statistics and independent t-test were used. The results were analyzed by SPSS software. **Results:** Based on testing hypotheses, according to the first hypothesis, the job performance varies among psychiatric department nurses and those of emergency one; according to the second hypothesis, the occupational stress is different between psychiatric department nurses and those of emergency one. Finally, according to the results of the third hypothesis test, the general health is different for psychiatric department nurses and those of emergency one. **Conclusion:** The results of this research indicate that there are differences between the three structures of occupational stress, job performance and mental health in the two emergency and psychiatric departments of hospitals Milad, Erfanian and Iranian.

Keywords: Job performance; Occupational stress; General health; Nurses

Introduction

Nursing is one sensitive and tense, yet important occupation; studying the status of physical and mental health of nurses as infrastructure of primary health care in the world is very important and certainly paying attention to their health and evaluating their difficulties causes to create motivations and effective interventions in maintaining human resources and their job performance as the most important part of the health system's capital. [1] The occupational safety and health organization believes that hospital staff suffers from life-threatening injuries and many diseases accompanying with hard work. In other words, compressed program, official business, working with complex and sometimes corrupt equipment, complex hierarchies of power and skill, expectations and desires, and mortality causes that hospital staff experiences a high level of stress. [2,3] Nursing is one of the occupations in which the occupational stress is commonplace. [4] Occupational stress is a condition that disorders a combination of factors that nurses face. These factors include physical, mental or social equilibrium. [5] Mental health causes the personal and social mental growth and health, prevention of mental disorders, appropriate treatment and rehabilitation. [6] Researches have shown that mental health problems are one of the major

problems that cost a lot. [7] One of the factors influencing health is stress. The stress is the body's response to the events that cause fear, excitement and feelings of danger or anger. [3] In the life of all people who have a job there is stress in different ways. There are many stress factors in the nursing profession whose psychological pressures are associated with undesirable effects on both the individual and the organization. Occupational stresses in this profession can lead to diseases and disorders that seriously endanger the health of nurses. [8] Researches have also shown that a permanent encounter with patients, having human health responsibilities, performing clinical processes, being exposed to patients who are dying, facing emergency situations, and switching are some stress factors of this profession; they can cause the reduction of health care quality, depression, fatigue, absence and delay in work. [3] Neuropsychiatric stresses have attracted the attention of physicians, psychologists, and

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scientists of behavioral and management sciences as the most important cause of mental, physical and behavioral diseases of humans.^[9] The importance of stress is not only due to its economic damage, but also its negative effects on the physical and mental health of individuals.^[10] Nowadays, it has become clear that the stress is associated with many physical and mental illnesses, or is involved in its creation and development.^[11] The other dimension that makes people interested in studying stress is the relationship between stress and performance. However, in general, the stress has created a negative image in people, but in order to perform optimally the tasks, the humans need a balanced level of stress, because without stress the people do not have the necessary effort to do things.^[12] The occupational stress of nursing is associated with a high level of physical and mental diseases for nurses and affects their mental well-being.^[13] Also, public health as one of the pillars of development of human society and a factor of maintaining the dynamism of individuals must be taken seriously. As a result, in this research, we tried to evaluate and compare the job performance, occupational stress and general health in psychiatric nurses and emergency wards of hospitals of Milad, Erfan and Iranian in Tehran.

Materials and Methods

Our research is conducted by a descriptive-survey method and is an applied one. The nurses of hospitals Milad, Erfanian, and Iranian in Tehran are the statistical population of this research conducted in 1995-96.

Two library and field methods have been used in combination for collecting data.

For this research, being clear the size of the population, the parameters are elaborated as follows:

N: size of statistical population; n: sample size; Z: the value of standard normal variable, which at 95% confidence level is equal to 1.96. P: The value of the attribute value in the population; q: the percentage of people who do not have that attribute in the population. ($q = 1-p$)

D: The value of licit error.

$$n = \frac{\frac{z^2 pq}{d^2}}{1 + \frac{1}{N} \left[\frac{z^2 pq}{d^2} - 1 \right]}$$

Therefore, in the above formula, the maximum acceptable error (d) is considered to be equal to 0.05, confidence coefficient equal to 0.95, $t = 1.96$, and the values of p and q are each equal to 0.5 and population size = N. The value of P is equal to 0.5. Because if $P = 0.5$, then n reaches its possible maximum, which will cause the sample to be large enough. On the other hand, the size of population in this research, which is nurses of hospitals Milad, Erfanian, and Iranian in Tehran, is 897 people. Using Cochran formula with an error percentage of 0.05, 270 samples are selected to be used for the distribution of the questionnaire.

A closed questionnaire was used to collect data. The questionnaire

was prepared based on the Likert spectrum. The factors related to the subject were identified using the opinion of the research committee experts and professors, and the questionnaire was prepared using the Likert grading scale. After determining its validity, the final questionnaire was prepared and the required information was collected.

In this research, the questionnaire has been validated by the conceptual validity. The researcher, referring to the views of experts and professors including the supervisor and counselor, verifies the validity of his measuring instrument, in assuring the variables of the research.

The calculated Cronbach's alpha coefficient in this research was calculated in a preliminary study by distributing 25 questionnaires being equal to 0.881. Therefore, the reliability of questionnaire has been evaluated as to be highly desirable.

In order to assess the research hypotheses, a standard questionnaire was used consisting of 3 structures and 11 dimensions and 100 questions. The questionnaire consists of questionnaires of job performance, occupational stress and general health in Table 1.^[14-16]

The statistical methods used in this research can be divided into two groups of inferential and descriptive methods. T-test was used to examine the significance of the difference in mean score of respondents' opinions based on gender. The data were analyzed using SPSS software.

Results

From between 270 respondents, 190 people (70%) were female and 80 people (30%) were male.

74 respondents are under the age of 30. 95 respondents are of 30 to 40 years old and have the highest frequency. The age range of 40-50 years old, with 74 people, constitutes 27% of the sample size, and 27 people of them are over the age range of 50 years old. 42 respondents have a record of less than 5 years of service. Persons with a record of 5-10 years old, with 84 people, had 31% of the sample size. 98 respondents were of a record of 10-15 years old and constituted highest percent of sample size. 46 people have more than 15 years of service experience.

In this research, Kolmogorov-Smirnov and Shapiro-Wilk techniques were used to determine the normal distribution of data. The assumption of the normality of the data was tested at a significant level of 5% using the Kolmogorov-Smirnov technique. As shown in Table 2, in all cases the significance value was obtained as to be greater than 0.05. Therefore, the distribution of research data is normal and parametric tests can be performed.

Table 3 contains descriptive statistics for all variables used in the research. In the first section, the most important central indices and dispersion of variables have been presented. The items of this table have been calculated using SPSS software.

Table 1: Research questionnaire.

Construct	Dimensions	Questions	Source
Job performance	Observing discipline in the work	Question 1 to 4	Saatchi et al. [14]
	Feeling of responsibility at work	Question 5 to 8	
	Cooperation	Question 9 to 12	
Occupational stress	Work improvement	Question 13 to 16	Hatami [15]
	Interpersonal relationships	Question 17 to 42	
	physical condition	Question 43 to 64	
General health	Occupational interests	Question 65 to 72	Goldberg & Hiller [16]
	Physical Symptoms Scale	Question 73 to 79	
	Scale of Anxiety Symptoms and Sleep Disorders	Question 80 to 86	
	scale of symptoms of depression	Question 87 to 93	
	scale of symptoms of depression	Question 94 to 100	

Table 2: Test results of normality of data.

Test	Kolmogorov-Smirnov		Shapiro-Wilk	
	Significance	Freedom of degree	Significance	Freedom of degree
Job Performance	0.051	270	0.991	270
Observing discipline in the work	0.109	270	0.977	270
Feeling of responsibility at work	0.119	270	0.957	270
Cooperation	0.104	270	0.983	270
Work improvement	0.099	270	0.975	270
Occupational stress	0.076	270	0.994	270
Interpersonal relationships	0.056	270	0.989	270
physical condition	0.068	270	0.992	270
Occupational interests	0.074	270	0.989	270
General health	0.063	270	0.993	270
Physical Symptoms Scale	0.069	270	0.981	270
Scale of Anxiety Symptoms and Sleep Disorders	0.081	270	0.983	270
Social performance Scale	0.076	270	0.978	270

Table 3: Descriptive statistics of research variables.

Variables	Mean	Standard deviation	Variance	Skewness	Kurtosis
Job Performance	3.571	0.578	0.334	-0.226	0.010
Observing discipline in the work	3.625	0.621	0.387	-0.313	0.100
Feeling of responsibility at work	3.640	0.724	0.525	-0.718	0.752
Cooperation	3.414	0.697	0.487	-0.245	-0.160
Work improvement	3.605	0.770	0.593	-0.320	-0.329
Occupational stress	3.457	0.417	0.174	0.120	-0.359
Interpersonal relationships	3.530	0.570	0.326	-0.155	0.046
physical condition	3.412	0.474	0.225	0.167	-0.177
Occupational interests	3.341	0.478	0.229	-0.211	0.071
general health	3.428	0.464	0.216	-0.271	0.014
Physical Symptoms Scale	3.322	0.741	0.550	-0.158	-0.559
Scale of Anxiety Symptoms and Sleep Disorders	3.361	0.669	0.448	-0.367	-0.118
Social performance Scale	3.402	0.692	0.479	-0.484	0.068
Scale of symptoms of depression	3.625	0.568	0.323	-0.088	-0.396

Independent t-test was used for assessing job performance among psychiatric and emergency wards nurses. According to the results of this test and with regard to P value, it can be concluded that job performance among nurses in psychiatric and emergency departments of Hospitals Milad, Erfanian and Iranian are different [Table 4].

Independent t-test was used for assessing occupational stress among psychiatric and emergency wards nurses. According to the results of this test and with regard to significance level of P, it can be concluded that occupational stress among nurses in psychiatric and emergency departments of Hospitals Milad, Erfanian and Iranian are different [Table 5]. Independent t-test

was used for assessing general health among psychiatric and emergency wards nurses. According to the results of this test and with regard to significance level of P, it can be concluded that general health among nurses in psychiatric and emergency departments of Hospitals Milad, Erfanian and Iranian are different [Table 6]. To evaluate the effect of demographic characteristics of respondents on the research findings, the independent t-test and ANOVA were used.

Independent t-test was used to measure the significance of difference in the mean score of respondents' opinions based on gender. Significant value of P was less than 0.05, which shows the difference between men and women's viewpoint regarding

Table 4: Studying job performance among nurses of psychiatric and emergency departments.

	Department	Mean	Standard deviation	Significance value
Job performance	Psychiatric	3.532	0.579	0.011
	Emergency	3.011	0.576	

Table 5: Studying occupational stress among nurses of psychiatric and emergency departments.

	Department	Mean	Standard deviation	Significance value
Occupational stress	Psychiatric	3.462	0.396	0.009
	Emergency	3.001	0.339	

Table 6: Studying general health among nurses of psychiatric and emergency departments.

	Department	Mean	Standard deviation	Significance value
General health	Psychiatric	3.398	0.455	0.003
	Emergency	3.057	0.443	

Table 7: Gender-based attitude about three variables of job performance, occupational stress and general health.

	Gender	Mean	Standard deviation	Significance value
Job performance	Woman	3.455	0.580	0.014
	Man	3.002	0.584	
Occupational stress	Woman	3.452	0.409	0.018
	Man	3.168	0.439	
General health	Woman	3.445	0.461	0.003
	Man	3.087	0.473	

Table 8: Test results of variance analysis for work experience.

		Total squares	Freedom of degree	Mean square	F	Significance value
Job performance	Among groups	1.272	3	0.424	1.272	0.284
	Within groups	88.666	266	0.333		
	Total	89.938	269			
Occupational stress	Among groups	0.837	3	0.279	1.610	0.184
	Within groups	46.084	266	0.173		
	Total	46.921	269			
General health	Among groups	0.398	3	0.133	1.611	0.609
	Within groups	57.740	266	0.217		
	Total	58.138	269			

Table 9: Test results of variance analysis for age.

		Total squares	Freedom of degree	Mean square	F	Significance value
Job performance	Among groups	0.662	3	0.221	0.658	0.579
	Within groups	89.276	266	0.336		
	Total	89.938	269			
Occupational stress	Among groups	0.165	3	0.055	0.313	0.816
	Within groups	46.756	266	0.176		
	Total	46.921	269			
General health	Among groups	0.785	3	0.262	1.213	0.305
	Within groups	57.353	266	0.216		
	Total	58.138	269			

each of the three variables of job performance, occupational stress and general health in two psychiatric and emergency departments of Hospitals Milad, Erfanian and Iranian. That is, women and men have different attitudes toward these indices. Therefore, it can be concluded with certainty that the attitude of women and men about the three variables of job performance, occupational stress and general health in the emergency and psychiatric departments is different [Table 7].

The respondents in this study were divided into four groups in terms of their work experience. ANOVA has been used to compare the differences in the viewpoints of people based on their work experience.

Regarding the findings of Table 8 and the calculated significance value, the mean score of respondents' comments based on their work experience in the four groups had not any significant difference in none of dimensions of the research at error level of 5%. Thus, we can say with 95% of confidence, that regarding work experience the respondents' viewpoints are similar in terms 3 variables studied among nurses of two psychiatric and emergency departments of the hospitals Milad, Erfanian and Iranian.

The respondents in the present study were divided into 4 groups according to age. ANOVA was used to compare the differences between people's views on the basis of age.

Regarding the findings of Table 8 and the calculated significance value, the mean score of respondents' comments based on their age in the four groups had not any significant difference in none of dimensions of the research at error level of 5%. Thus, regarding age, the respondents' viewpoints are similar on these 3 variables [Table 9].

Discussion

Nowadays, the efficient, satisfied and loyal manpower has become the most important asset of organizations, hence the urgent need to maintain high-performance employees with a high commitment to the organization is felt. The most important factor for improving the organization's performance is the improvement of the job performance of the employees; it is related to management skills in establishing the right communication.^[17] Therefore, considering the importance of job performance of employees in this research, this structure was investigated in two emergency and psychiatric departments of hospitals Milad, Erfanian and Iranian. Results showed that job performance was varied between the nurses of two psychiatric and emergency departments of hospitals Milad, Erfanian and Iranians. Contrary to the researches of this study, which examined job performance in the hospitals mentioned, many previous researches have examined the factors affecting the job performance in the healthcare sector and other organizations. Vosooghi Nayeri et al studied in their research the effect of occupational stress on general health and job performance of flight attendance personnel.^[18] The results of this research showed that there is a negative and significant relationship between workspace-related stress and job performance. This means that with increasing occupational stress, job performance decreases. Also, general health has a mediating role in relation to stress caused by work environment and job performance. Finally, job stress has an impact on employee performance. Explaining these findings, it can be said that stress affects a large part of the lives of employees in the work and organizational environment, and if it does it last long or the amount of stress is high, the person is gradually tired and the condition continues to decrease the physical and mental energy of the individuals and endangers general health, weakens the ability of the people and, consequently, reduces the employees' job performance.

Also, the results of this research are consistent with the finding of Jamal (2011), which in his research sought to investigate the relationship between occupational stress, job performance and organizational commitment in international companies, and concluded that there was a significant positive correlation between occupational stress and job performance.^[19]

Nowadays, stress resulting from work and life is at the forefront among the public, the health professionals and other people who are responsible for the well-being of individuals, including nurses. Occupational stress is one of the important factors in causing physical and psychological complications in staff and decreasing productivity in organizations.^[20] Since nurses' occupational stress is one of the important components of the health and treatment system and can have a great effect on the

quality of care of patients, in this research nurses' occupational stress was investigated in two different departments of hospitals Milad, Erfanian and Iranian. The test results of this hypothesis suggest that occupational stress is different among psychiatric ward nurses and those of emergency department of hospitals of Milad, Iranian and Erfanian. Occupational stress has also been studied in many previous researches. Aghili Nezhad et al investigated the subject of comparing the level of occupational stress among female nurses in different departments of hospitals affiliated to Iranian University of Medical Sciences. The results of this research showed that there was a significant difference in the level of stress among nurses in different departments. This stress was significantly higher by the nurses of the emergency department than by other departments; it is consistent with the present research. In fact, the findings of the research done by Aghili Nezhad et al can be evaluated considering the fact that the type of nurses' department plays a role in their stress level and this stress is higher in the emergency department, which is more frequent in terms of referring of patients.^[21]

Regarding the fact that the health is the fundamental right of every human being and is a social goal and all governments and organizations are obligated to provide health to individuals, the health of nurses, which is an important part of the health system of every country, should be taken into consideration due to several reasons, including their being exposed to more risk compared to other people.^[22] Considering the importance of nurses' health as the main members of the health system of the country, which are responsible for maintaining the health of themselves, family and society, and since nurses' health is directly related to their quality of care in patient care, this subject in the present research has been investigated in two emergency and psychiatric departments of hospitals of Milad, Iranian and Erfanian. The results indicate that general health is different among psychiatric department nurses and those of emergency one. Namazi et al also investigated the general health among nursing and architecture students. The results of the research showed that there was a significant difference between the mean score of general health in nursing students and that of architecture ones;^[23] also in the present research the general health between nurses of psychiatric ward and emergency one was different.

In this study, considering the increase in the average of each index of job performance, occupational stress and general health among psychiatric department nurses as compared to the emergency one, it was found that these indices in psychiatric nurses are significantly higher than the emergency department.

Conclusion

There are many stressors in nursing profession whose psychological stresses affect undesirably both the individual and the organization. Occupational stresses in this profession can lead to diseases and disorders that seriously threaten the health of nurses and affect their job performance. According to the results of the research, it was determined that job performance, occupational stress and general health are greater

in the psychiatric than the emergency department. This means that job performance, occupational stress and general health of nurses in psychiatric ward were more affected.

Conflict of Interest

The authors disclose that they have no conflicts of interest.

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