

Original Article

Job Stress and related factors in Nurses in Ilam

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ABSTRACT

Background: Nowadays, in most countries of the world, especially in industrial societies and the societies in which the social and economical chaos have disrupted the normal life, social sources of stress have got common more than ever, in a way that stress is considered as the black plague in the current era. The aim of this study is to assess Job stress and related factors in nurses in Ilam.

Methods: This study is of the descriptive-analytical kind, which was performed in a temporary way. The sample was consisted of all nurses working in governmental hospitals of Ilam city. Sampling was performed through consensus, and the Cooper's job stress questionnaire was used for collecting data. SPSS software and one-way Analysis Of Variance (ANOVA) test were used to analyze the data.

Results: 56 percents of research units have experienced severe stress. Using the ANOVA test, a significant relationship was observed between the average years of employment and the kind of the hospital and the average level of stress ($p < 0.05$).

Conclusion: Our results show that in the begging years of employment and in nurses with low record of employment stress is severe, and after ten years of employment stress level declines. Conflict with other nurses and physicians, and also lacking enough skill for performing nursing services, are the main causes of prevalence of stress among nurses in governmental hospitals in Ilam.

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1. Introduction

In most of the present societies, human life, in terms of the life environment and lifestyle, has drastically changed in comparison with the past years. Nowadays, in most countries of the world, especially in industrial societies and the societies in which the social and economical chaos have disrupted the normal life, social sources of stress have got common more than ever (1). Till the beginnings of the 1908s, there was an increasing growth in noticing the stress-promoting factors and the causes of stress in work and life in the west. These changes were more intensified till 1990. Science and technology had a significant impact on the degree of these changes. For instance, after the advent of airplane and the discovery of electricity in 1900, radar and television in the 1930s, nuclear energy in the 1950s, space explorations in the 1960s and 1970s, and the information technology and the internet in the 1980s and 2000s, the degree of job stress and also the lifestyle were changed (2). The people living in the 20th century are witnessing more extensive changes in their daily life and environment compared to the past. The rate of these changes accelerates and also gets more complicated as the time goes on. Therefore, increasing number of

researches started to work on the field of stress, and some new scientific fields such as industrial psychiatry and working medicine were established (3).

In a study, Jones and Bright (2001) state that in spite of the presence of relatively suitable levels of welfare and health in the west, stress has increased during this decade and is still on increase (4). In order to be effective in eliminating the causes of job stress, it seems essential to be able to identify them. This would be of higher importance when we note the fact that different causes of stress make different effects, and consequently, need different methods and specific mechanisms to encounter (5).

Nursing is one of the jobs which impose the employee to stress (6). Among major sources of stress for nurses we can name factors such as: facing with mortality, conflict with colleagues, inadequate readiness for facing with the sick and their families, lack of enough support, high load of work, variability of treatment programs, facing with sufferings of the sick, taking care of the sick afflicted with infectious diseases (having contact with blood and infected excretions,...), lack of job guarantee, dissatisfaction with the managers' evaluations, lack of enough knowledge and skill for the job, and anxiety about making mistakes and its consequences. Other factors which have become stress-causing in the nursing occupation are: emergence of new roles for nurses, new principles of management, new rules and instructions in providing nursing services, and revolution in methods of education and training the nurses, which compels them to accept more responsibilities and improve their knowledge and skills to stay employed in their job (6, 7).

In addition, patients have their own special emotional needs, which in case of provision; will increase their chance of recovery. Nurses, in the same way, have specific emotional needs, the provision of which will help them work better. Therefore, the stress arisen from occupational and environmental stress-causing factors can have negative effects on nurses, and consequently, affect the cure and healing of the patients (8, 9). In addition, half of the nurses' awaking times are spent in hospitals and close to patients, so maybe half of the stresses of their lives originate from there. The stress-causing conditions of the nursing job, accompanied by the daily stress-causing factors, results in further ennui of nurses, which will consequently affect the caring of patients. After some researches, Results of several researches show that when the work is more quick and performed faster, the resulting stress and involvement will be higher (9, 10), and when more time is allotted to the work, the conflict and inconsistency between familial life and work will become more severe. These findings reveal the fact that much physical activity during work will make the person too tired after work, and consequently, negatively affect his/her behavior with others (colleagues and family members)(8, 11).

According to the mentioned issues, it seems that nurses go on their jobs under considerable challenges and stresses, and there is no doubt that these factors can have negative effects on their work. Since nursing is one of the most stress-causing jobs, identification of stress-causing factors will be an effective step towards prevention, cure, and decrease of stress. This is the aim for which the present work was designed and accomplished.

2. Material and Methods

This study is of the descriptive-analytical kind, which was performed in a temporary way. In this project, consensus was used for data collection, in a way that thorough going to different sections of the hospitals in different work shifts, questionnaires was provided to and filled out by the participants. In order to investigate the relationship between stress and the demographic characteristics of the nurses, a form was prepared to record general characteristics of the nurses such as age, gender, level of education, marital status, previous record of employment, the amount of salary and extra pays, job position, name of the section and the hospital, and the work shift. In the next stage, the Cooper's questionnaire of stress in job environment and intense work conditions was prepared. This questionnaire, as a screening tool, is one of the most commonly used means for measuring the degree of stress in job environment. It is used extensively as a measure for job stress in most countries, and consists of 32 questions which examine the presence of signs of job stress. Four degrees are considered for each group.

The examinee chooses a choice which is closest to experience of him/her during the last month among the four choices. Each question has four possible answers: never, sometimes, often, and always. For each choice the lowest score is 0 and the highest score is 3. Total scores lower or equal to 39 is assigned with low stress, scores ranging from 40 to 62 show medium level of stress, and scores equal or higher than 63 represent high level of stress. Finally, the collected data were analyzed using SPSS software.

3. Results

The whole population studied by this project was consisted of 100 nurses selected and studied from two hospitals of Imam Khomeini and Mustafa Khomeini and Alleghany. According to the data presented in Table 1, %56 of the studied persons was female and %44 of them was male. As observed in the table, the male gender has the lowest percentage of low-stress persons and the female gender has the highest percentage of low-stress persons.

According to the above table, there is no significant difference between the stress levels of the two genders ($P=0.479$ and $T=0.7$).

According to Table 2, %36 of the studies persons are single %64 of them are married. As observed in the above table, no significant difference exists between the stress levels by marital status ($P=0.565$ and $T=0.57$). Another parameter which was investigated in this study was the level of education among the studied sample of nurses. According to Table 3, %89 of nurses hold the Bachelor's degree and %11 of them have Master degree. As observed in the above table, no significant difference exists between the stress levels by level of education ($P=0.857$ and $T=0.18$). According to Table 4, %37 of the studied persons have less than 5 years of employment record, %13 of them have 5-10 years, %36 of them have 10-20 years, and %14 of them have more than 20 years of employment record. As observed in the above table, there is a significant difference between the stress levels by previous record of employment ($P=0.026$). According to Table 5, %80 of the studied persons is working as nurse, 13 of them are working as head nurse, and %7 of them are working as supervisor. As observed in the above table, no significant difference exists between the stress levels by current job position ($P=0.0447$ and $F=0.812$).

Table 1. The average level of stress by age in the studied group.

Level of stress	Frequency	Average	Standard deviation	P Value
Age group				
Female	56	64.55	11.74	0.479
Male	44	62.84	12.24	

Table 2. The average level of stress by marital status in the studied group

Level of stress	Frequency	Average	Standard deviation	P Value
Marital status				
Single	36	64.72	9.67	0.565
Married	64	63.28	13.08	

Table 3. The average level of stress by level of education in the studied group

Level of stress	Frequency	Average	Standard deviation	P Value
Level of education				
Bachelor	89	63.87	12.24	0.857
Master	11	63.18	9.45	

Table 4. The average level of stress by previous record of employment in the studied group

Level of stress	Frequency	Average	Standard deviation	P value
Record of employment				
Less than 5 years	37	65.64	9.31	0.026
5-10 years	13	70.69	14.99	
10-20 years	36	61.22	11.84	
More than 20 years	14	59.14	3.84	
Total	100	63.80	11.93	

Table 5. The average level of stress by current job position in the studied group.

Level of stress	Frequency	Average	Standard deviation	F	P value
Position					
Nurse	80	64.46	11.09	0.812	0.447
Head nurse	13	62.38	12.70		
Supervisor	7	58.85	17.74		
Total	100	63.80	11.93		

Table 6. Determination of relationship between partial stress scores with the total score.

Stress-causing factor	Average	Standard deviation	Results of the statistical test
Conflict with physician	5.88	2.92	P value= 0.004
Conflict with other nurses	5.37	2.76	P value= 0.026
Lack of enough skill for performing nursing services	3.06	1.53	P value= 0.022

According to the above table, there are significant relationships between the three above stress-causing factors and the average level of stress. As observed in Table 7, %26 of the studied persons receive salaries less than 300 thousand tomans, %34 of them receive between 300 and 500 thousand tomans, and %40 of them receive more than 500 thousand tomans in month.

Table 7. The average level of stress by the amount of salary and extra pays in the studied group

Level of stress Amount of salary (thousand Tomans)	Frequency	Average	Standard deviation	P value
Less than 300	26	66.57	13.79	0.16
300-500	34	64.82	12.21	
More than 500	40	61.12	10.82	
Total	100	63.80	11.93	

4. Discussions

In order to determine the difference in average degree of stress and demographic characteristics of the studied persons, using one-way analysis of variance test, it was revealed that there is no significant difference in the average stress level by the demographic characteristics. In a research performed by Tayebe Mehrabi, entitled "Determining the level of some job stress-causing factors among nurses", similar results to ours were reported, except the results about the marital status. According to the results of her study, those who are "single" experience more severe stress compared with "married" nurses (12).

According to the results of this study, the male gender has the lowest percentage of low-stress persons and the female gender has the highest percentage of low-stress persons. Both genders have the same percentage of persons with medium level of stress, and the female gender contains the highest percentage of persons with high stress levels. In fact, it can be assumed that the female gender suffers from more severe stress. Another parameter investigated in this study was the level of education in the studied sample of nurses. Results show that the lowest percentage of persons with low levels of stress and also the highest percentage of persons with high levels of stress belong to the group comprised of nurses with Master degree. In addition, results of this study show that there is no significant difference in the degree of stress by the level of education. The lowest percentage of persons with low levels of stress and also the highest percentage of persons with high levels of stress belong to the group comprised of nurses who receive less than 300 thousand tomans per month.

In order to determine the difference in average degree of stress by previous record of employment, using one-way analysis of variance test, it was revealed that there is a significant difference in average degree of stress by previous record of employment, in a way that in the beginning of the employment and before the first 5-10 years, the degree of stress increases with time, and after the tenth year of employment it takes a decreasing trend with time. According to the obtained results in this study, the lowest percentage of persons with low stress levels belong to nurses, and the highest percentage of persons with low stress levels belong to the group of supervisors. Likewise, the highest percentage of persons with high stress levels belong to nurses, and the lowest percentage of persons with high stress levels belong to the group of supervisors. However, there is no significant difference in the average level of stress by the current job position ($P= 0.447$). Besides, the lowest percentage of persons with low stress levels belong to those who have never had conflict with nurses, and the highest percentage of persons with high stress levels belong to those who have always had conflict with their colleague nurses. Also, the highest percentage of persons with high stress levels belong to nurses who have always had stress due to the lack of enough stress in providing nursing services. Conflict among colleagues showed a considerable effect on the prevalence of stress, in way that Raas believes that the relations among colleagues and their support of each other are among the factors which reduce the level of job stress. Anyway, stress in either positive or negative form, is part of everyone's occupational life. Some job stress-causing factors are so severe that require immediate response from the person (13). According to the obtained results, nurses who have always had conflict with physicians and other nurses suffer from %100 severe stress. Similarly, in a study on job stress among nurses, French and Kaplan have introduced the conflict among colleagues as the most important job stress-causing factor (14). In the same way, Tayebe Mehrabi showed by her study that among all of the stress-causing factors, the factor of conflict with physician shows the highest statistical correlation with the total job stress ($p<0.001$, $r= 0.753$). No significant difference was observed between the average degree of stress by the mean work shift of nurses ($P= 0.26$). In other word, we can consider the average stress levels the same in all work shifts. However, there seems to be some differences in the average stress level by the work shift (12). The one-way analysis of variance test shows that there is a significant relationship

between the average level of stress derived from the “lack of enough skill for providing the nursing services” and the average of “total stress“(P= 0.022), which is consistent with Tayebe Mehrabi’s results (12).

5. Conclusion

In summary, our findings show that in the begging years of employment and in nurses with low record of employment stress is severe, and after ten years of employment stress level declines. Conflict with other nurses and physicians, and also lacking enough skill for performing nursing services, are the main causes of prevalence of stress among nurses in governmental hospitals in Ilam.

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