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Stress and stress management in health institutions

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Abstract

The purpose of this research was to determine main stress factors that health workers face with and ways of coping with this stress. To this end, data were obtained by face to face questionnaire from 103 health care workers employed in Merzifon Asker Hastanesi. These data were analyzed with SPSS 16.0 package program. At the end of the study, 83 % of the participants stated that they have various stress factors. In the studied sample, disvaluation of work by others, inequitable distribution of tasks, common workplace gossip, relations with managers, injustice in performance evaluation as well as patient dissatisfaction and fear of complaints were found as leading stress factors. When methods for coping with stress were questioned, most common answers were; ‘I repress’, ‘I fret’, ‘I try to solve by myself, and 21will share with my close friends and my family’. It was found that stress factors and coping methods differ based on occupation, sex, and business life time. Considering that services in health sector should be carried out with the least error possible, it's obvious that personnel satisfaction has a key role. Therefore, there is an urgent need for effective studies about individual and corporate stress management are needed in our health corporation for the reduction of stress factors.

Keywords: health workers; occupational stress; stress factors; stress management.

1. Introduction

Stress which have significant effects on individuals, and affect their attitudes, behavior and interpersonal relationships, is a case formed by the combination of several factors. For the formation of stress, people need to be affected by the environment they live in. People's physical and emotional status, lifestyle, financial status determines the level of being affected by these changes. In today's society, stress-related diseases increase day by day, so the people and institutions are confronted with an important problem to be faced (Torun, 1997 and Rice, 1999).
Since they provide service to intensively stressed individuals and also the staff encounters with stressful situations very often, the field of health care is considered as a work environment a lot more stressful than the other work environments (Görgülü, 1990). While providing the service, health care staff, they see a lot of patients and patient relatives with many different levels of health problems. These situations threatening an individual’s health and causing stress due to uncertainty and obscurity affect the health care staff as well as the patient (Aslan et al.1998).

Health institutions in Turkey inherently have many problems for health care workers as well as managers. These problems appear to be the stress factor of health care workers. Among health institutions’ staff, especially nurses and doctors directly contact the patients, so the patients’ unpleasant behavior as a reaction to the negative circumstances they are in can easily cause stress for the staff (Laal and Aliramai, 2010).

Individuals under stress have difficulty in succeeding and also being happy. Stress management should be focused in order to protect people’s mental and physical health, life quality and efficiency in their daily lives. It is very important to recognize the stress which directly affects the health care institutions’ success and to have information about its symptoms and how to manage it in terms of minimizing the negative consequences it will cause.

Therefore, it is thought that it is necessary to make researches on determining the health staff’s strategies of coping with stress dependant on the work condition. This survey was conducted to determine the stress levels of health care workers in the work environment, factors affecting them and their strategies in coping with stress.

2. Materials and methods

In this descriptive study, it is aimed to identify the stress factors and the strategies in coping with stress of the health care providers in Amasya Merzifon Military Hospital. Population of the study consists of all medical staff working in the Merzifon military hospital (n = 106), no samples are chosen and all the population is evaluated in the study. Research data collected between February-March 2013, the population of the study includes 103 people since 3 people are on maternity leave. All the data were obtained by the data form created by the researchers. Besides the questions about the demographic features, 8 questions about the work life of the staff, 3 questions about the resources about the resource of stress, 10 questions about the change in their behavior under stress, 1 question about measuring the reactions to stress, totally 27 questions are included in the survey. The obtained data were analyzed by SPSS program. Data were evaluated by using number percentage calculations and chi-square importance test.

3. Results

| Demographic features | n  | %  |
|----------------------|----|----|
| Gender               |    |    |
| Female               | 41 | 39.8|
| Male                 | 62 | 60.2|
| Age                  |    |    |
| 25-29 years old      | 6  | 5.8 |
| 30-34 years old      | 23 | 22.3|
| 35-39 years old      | 36 | 35.0|
| 40-44 years old      | 21 | 20.4|
| 45-49 years old      | 17 | 16.5|
| Level of education   |    |    |
| Elementary           | 5  | 4.9 |
| High school          | 19 | 18.4|
| Associate’s          | 23 | 22.3|
| Undergraduate        | 36 | 35.0|
| Post graduate        | 20 | 19.4|
| Profession           |    |    |
| Physician            | 16 | 15.5|
| Nurse                | 27 | 26.2|
| Health Technician    | 17 | 16.5|
| Allied Health Personnel | 10 | 9.7 |
| Administrative Services | 33 | 32.0|
| Unit                 |    |    |
| Chief physician      | 35 | 34.0|
| Chief Nurse          | 37 | 35.9|
| Administration       | 31 | 30.1|
| Shift                |    |    |
| Night                | 69 | 67.0|
| Day                  | 34 | 33.0|
Experience 0-9 years 19 18.4
10-19 years 59 57.3
20-29 years 25 24.3
Experience in this hospital 0-9 years 77 74.8
10-19 years 21 20.4
20-29 years 5 4.9

It’s found out that among the health care workers in the study, 60.2% of them are male, 35% of them are between 35-39 years old, and 35% of them have an undergraduate degree. 32% of respondents are administrative service staff, 35.9% work under a chief nurse, 67% of them work nights, 57.3% of them have an experience between 10-19 years, 74.8% of them have been working in the same hospital for 0-9 years.

Table 2. Sources of Stress of health care staff (n=103)

| Sources of Stress                               | Yes | No  | Total |
|-------------------------------------------------|-----|-----|-------|
| I do not have a source of stress                | 18  | 17  | 85    |
| The complicated structure of the workplace     | 20  | 19  | 83    |
| Relations with management                       | 31  | 30  | 82    |
| Relations with friends                          | 20  | 19  | 83    |
| Fear of patient dissatisfaction and complaints  | 25  | 24  | 78    |
| Economical insufficiency                        | 14  | 14  | 88    |
| The high risk of having accidents               | 15  | 15  | 88    |
| Injustice in performance evaluation             | 29  | 28  | 77    |
| The widespread use of gossip in the workplace   | 32  | 31  | 63    |
| Inequitable distribution of tasks                | 38  | 37  | 75    |
| Work ignored by others                          | 55  | 53  | 108   |

Among the health care professionals in the study, 83% was determined to have a source of stress. Major causes of stress are; by 53% the work ignored by others, by 37% inequitable distribution of tasks, by 31% the widespread use of gossip in the workplace, by 30% relations with management, and by 28% injustice in performance evaluation.

Table 3. Stress factors of health workers by occupational groups (n=103)

| Stress factors                               | Physician | Nurse | Health Technician | Allied Health personnel | Administrative services | Total | P Value |
|----------------------------------------------|-----------|-------|------------------|-------------------------|------------------------|-------|---------|
| Fear of patient dissatisfaction and complaints| Yes       | 5     | 20               | 64                      | 1                      | 4     | 4       | 28      | 100     | 0.000 |
|                                              | No        | 11    | 14               | 14                      | 16                     | 21    | 9       | 12      | 40      | 100   |
|                                              | Total     | 16    | 16               | 26                      | 17                     | 17    | 10      | 10      | 32      | 100   |
| Economical insufficiency                     | Yes       | 4     | 29               | 3                       | 21                     | 1     | 7       | 4        | 29      | 14    | 100   | 0.034 |
|                                              | No        | 12    | 13               | 24                      | 27                     | 16    | 18      | 6        | 31      | 89    | 100   |
|                                              | Total     | 16    | 16               | 27                      | 17                     | 17    | 10      | 10      | 33      | 103   | 100   |
| The high risk of having accidents            | Yes       | 3     | 20               | 8                       | 53                     | 3     | 20      | 1        | 7       | 0     | 15    | 100   | 0.024 |
|                                              | No        | 13    | 15               | 19                      | 22                     | 14    | 16      | 9        | 10      | 33    | 38    | 88    | 100   |
|                                              | Total     | 16    | 16               | 27                      | 26                     | 17    | 17      | 10       | 10      | 33    | 32    | 103   | 100   |
| Work ignored by others                       | Yes       | 4     | 7                | 24                      | 44                     | 5     | 9       | 7        | 13      | 15    | 27    | 55    | 100   | 0.000 |
|                                              | No        | 12    | 25               | 3                       | 6                      | 12    | 25      | 3        | 6       | 18    | 38    | 48    | 100   |
|                                              | Total     | 16    | 16               | 27                      | 26                     | 17    | 17      | 10       | 10      | 33    | 32    | 103   | 100   |

Among the health workers who participated in the research, it has been determined that there are significant differences in stress factors according to the professions (p <0.05). Fear of complaints is 64% for nurses (n = 25), 20% for physicians (n = 25), 8% for administrative services (n = 25). Economical insufficiency is 29% for doctors (n = 14), 29% for allied health staff (n = 14), 21% for nurses (n = 14). Business risk of accidents is more than 53% for nurses (n = 15), 20% for doctors and health technicians (n = 15), 7% for allied health staff (n = 15). The work
ignored by others is 44% (n = 55) for nurses, 27% for administrative services (n = 55), 13% for allied health personnel (n = 55).

Table 4: The stress factors of health care workers by gender (n=103)

| Stress factors                                      | Gender |       |       |       |       |       |
|-----------------------------------------------------|--------|-------|-------|-------|-------|-------|
|                                                     | Male   | Female| Total | Male  | Female| Total |
|                                                     | n      | %     | n     | %     | n     | %     |
| I do not have a source of stress                    |        |       |       |       |       |       |
| Yes                                                 | 12     | 67    | 6     | 33    | 18    | 17    |
| No                                                  | 50     | 59    | 35    | 41    | 85    | 83    |
| Total                                               | 62     | 60    | 41    | 40    | 103   | 100   |
| The complicated structure of the workplace          |        |       |       |       |       |       |
| Yes                                                 | 9      | 45    | 11    | 55    | 20    | 19    |
| No                                                  | 53     | 64    | 30    | 36    | 83    | 81    |
| Total                                               | 62     | 60    | 41    | 40    | 103   | 100   |
| Relations with management                            |        |       |       |       |       |       |
| Yes                                                 | 15     | 48    | 16    | 52    | 31    | 30    |
| No                                                  | 47     | 65    | 25    | 35    | 72    | 70    |
| Total                                               | 62     | 60    | 41    | 40    | 103   | 100   |
| Fear of patient dissatisfaction and complaints       |        |       |       |       |       |       |
| Yes                                                 | 7      | 28    | 18    | 72    | 25    | 24    |
| No                                                  | 55     | 71    | 23    | 29    | 78    | 76    |
| Total                                               | 62     | 60    | 41    | 40    | 103   | 100   |
| Economical insufficiency                             |        |       |       |       |       |       |
| Yes                                                 | 9      | 64    | 5     | 36    | 14    | 14    |
| No                                                  | 53     | 60    | 36    | 40    | 89    | 86    |
| Total                                               | 62     | 60    | 41    | 40    | 103   | 100   |
| The high risk of having accidents                    |        |       |       |       |       |       |
| Yes                                                 | 6      | 40    | 9     | 60    | 15    | 15    |
| No                                                  | 56     | 64    | 32    | 36    | 88    | 85    |
| Total                                               | 62     | 60    | 41    | 40    | 103   | 100   |
| Injustice in performance evaluation                 |        |       |       |       |       |       |
| Yes                                                 | 16     | 55    | 13    | 45    | 29    | 28    |
| No                                                  | 46     | 62    | 28    | 38    | 74    | 72    |
| Total                                               | 62     | 60    | 41    | 40    | 103   | 100   |
| The widespread use of gossip in the workplace       |        |       |       |       |       |       |
| Yes                                                 | 15     | 47    | 17    | 53    | 32    | 31    |
| No                                                  | 47     | 66    | 24    | 34    | 71    | 69    |
| Total                                               | 62     | 60    | 41    | 40    | 103   | 100   |
| Inequitable distribution of tasks                    |        |       |       |       |       |       |
| Yes                                                 | 21     | 55    | 17    | 45    | 38    | 37    |
| No                                                  | 41     | 63    | 24    | 37    | 65    | 63    |
| Total                                               | 62     | 60    | 41    | 40    | 103   | 100   |
| Work ignored by others                              |        |       |       |       |       |       |
| Yes                                                 | 25     | 45    | 30    | 55    | 55    | 53    |
| No                                                  | 37     | 77    | 11    | 23    | 48    | 47    |
| Total                                               | 62     | 60    | 41    | 40    | 103   | 100   |

The fear of patient dissatisfaction and getting complaints is by 72% for women (n = 25), 28% for males (n = 25). Relation with friends is by 60% for women (n = 20), 40% for men (n = 20). The work ignored by others is 55% for women (n = 55) and 45% for men (n = 55).

Table 5: The health care professionals’ methods of coping with stress (n:103)

| Methods of coping with stress                        | Yes   | No    | Total |
|-----------------------------------------------------|-------|-------|-------|
|                                                     | n %   | n %   | n     |
| I yell at people around me and take out my anger on them | 27    | 26    | 76    | 74    | 103   | 100   |
| I endure in silence, I burn myself out               | 43    | 42    | 60    | 58    | 103   | 100   |
| I stay silent for that moment, I vent my anger on my family or friends | 11    | 11    | 92    | 89    | 103   | 100   |
| I cry when I am under stress                         | 13    | 13    | 90    | 87    | 103   | 100   |
| I would suppress my feelings and ignore the event.  | 13    | 13    | 90    | 87    | 103   | 100   |
| I try to find a reason to be right, so I calm down. | 16    | 16    | 87    | 84    | 103   | 100   |
| I know that someone else is the cause of stress so I accuse him. | 8     | 8     | 95    | 92    | 103   | 100   |
| I direct myself to another thing and try not to occupy my mind with the problem. | 28    | 27    | 75    | 73    | 103   | 100   |
| I drink or smoke too much.                           | 4     | 4     | 99    | 96    | 103   | 100   |
I take a deep breath and try to relax. 8 8 95 92 103 100
I do exercise. 12 12 91 88 103 100
I get up an appetite and I eat. 12 12 91 88 103 100
I act as if nothing happened. 14 14 89 86 103 100
I try to solve it on my own. 37 36 66 64 103 100
I dream about positive things. 5 5 98 95 103 100
I communicate with the person I had a problem with a positive manner 13 13 90 87 103 100
I share it with my best friends or family and try to find a solution. 37 36 66 64 103 100
I take professional help (psychologists, psychiatrists, doctors, nurses) 6 6 97 94 103 100

The health care professionals expressed their methods of coping with stress as follows: 42% of them say “I endure in silence and burn myself out”, 36% say “I try to solve it on my own”, 36% say “I share it with my best friends or family and try to find a solution”, 27% say “I direct myself to another thing and try not to occupy my mind with the problem”, 26% say “I yell at people around me and take out my anger on them”.

4. Discussion and recommendations

It has been determined that among the staff of Merzifon Military Hospital, 83% have a source of stress. The most common stress factors are; work ignored by others, inequitable distribution of tasks, the widespread use of gossip in the workplace, relations with management, injustice in performance evaluation, fear of patient dissatisfaction and complaints (Table 2).

The health care sector is a sector which can lead to stress in many ways. Aydin and Kutlu (2001) have stated in their study that health care workers have a moderate level of stress while doing their profession because of workload, communication problems with patients and their relatives, insufficiency of personnel and material (Aydin and Kutlu, 2001). Some differences are determined between the results of the study and the results obtained. It is thought that the reason why the stress level is higher in the institution that the research was conducted in is that the people receiving the health care military personnel. Differences were observed between stress factors. Volume of patients in the institution, lack of personnel and materials and excessive amount of workload was not determined as stress factors. Rather than that, in our research we found out the stress factors resulted from the institution's management style. In addition, it is thought that as a result of the health policies implemented in recent years, the importance given to the patients and to their rights created a huge pressure on the health care workers.

When health workers' professional stress factors are evaluated, we've seen some statistical differences (Table 3). For doctors, the highest stress factors can be categorized as economical insufficiency, fear of patient dissatisfaction and getting complaints, the high risk of work-related accidents, and work ignored by others. In the research Yildiz and Gorak (1997) conducted with nurses, it’s seen that the most disturbing issues for nurses while they are on duty are that the inadequate number of nurses, the great number of patients, exhaustion and lack of materials (Gorak, 1997). Yuksel (2003) has mentioned in his study that the factors causing difficulty for nurses are; professional job characteristics, lack of medical supplies and equipment, job uncertainty, conditions of the shifts, management style, employee rights, excessive workload (Yuksel, 2003).

Akbal-Ergun et al (2001) stated in their study that the distribution of the causes of work-related stress includes the insufficient number of nurses and damaged equipment by 80.9%, the incomplete and insufficient material to work with by 74.5%, not being approved, unclear responsibilities and promotions related problems by 72.3%, and taking care of patients in the terminal stage of their lives. (Akbal Ergun et al., 2001). In researches, lack of personnel, lack of medical supplies and equipment, and the large number of patients have been seen as the highest stress factors among nurses. Some differences between our results and the results of researches have been identified. The biggest reason for this is that recently the health policies created a little bit of stress on the health care workers while maintaining protection for patients. In the institution the research was conducted in, since it is seen that there is sufficient number of nurses and low number of patients and provision of secondary healthcare services and having no problems related to the supply shortage, they are not considered as a source of stress. However, the study by Akbal - Ergun et al (2001) supports the conclusion that the source of stress was the work ignored by others (Akbal
In our study it has been determined that among doctors financial problems cause stress the most. Turkcuer and colleagues (2007) stated in their research on physicians' work-related stress factors that the insufficient earnings, paperwork, patient transfer difficulties, dealing with psychiatric patients are among the causes of stress. (Turkcuer, 2007). These results support our study. In the studies, it's determined that gender is only effective in some stress factors (Table 4). Ergun (2008) mentioned in his research that women affected by stress factors arising from business structure in different levels which is significantly higher than men (Ergun, 2008). Gurbuz (1998) expressed that most women are exposed to stress more than men (Gurbuz, 1998). There are some differences between the results obtained in this study and these studies. In our research, in the organization the majority of the employees are males and also high ranking personnel so it is thought that this situation increases stress levels.

In our study, it is determined that the methods in coping with stress are “I endure in silence and burn myself out; I try to solve it on my own; I share it with my best friends or family and try to find a solution (Table 5). Tel et al. (2003) stated in his study that health care workers use self-confident approach and optimism and social support approaches which are categorized in problem-oriented approaches; submissive and helpless manners which can be categorized as emotion-oriented approaches in coping with stress (Tel et al 2003). Douglas et al (1996) indicated that 34% of health care workers use problem-solving approach in coping with job stress (Douglas and ark1996). With these studies, differences were noted. In studies conducted, it is said that the most efficient approaches to coping with problems is problem oriented approach. However, in our study it has been found that the most effective method of coping with stress is submissive approach. The reason for this inference is thought to be the type of the institution's management style which includes military hierarchy.

In accordance with these results, it is suggested that:

- Institutions should provide adequate in-service training, job description showing people what to do and a fair distribution of work among the employees,
- Institutions should ensure employees to participate in the decisions made.
- Regular trainings for health care workers should be organized to deal effectively with stress.

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