

ERPA 2014

Stress and stress management in health institutions

Kısmet Boyacı^a, Funda Şensoy^{b*}, Kerime Derya Beydağ^b, Mithat Kıyak^b

^aMerzifon Military Hospital, Amasya, 05300, Turkey

^bAsist.Prof.Dr. Okan University School of Health Sciences, Istanbul,34959, Turkey

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 I will 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, its 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.

© 2014 Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

Peer-review under responsibility of the Organizing Committee of the ERPA Congress 2014.

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).

* Corresponding author: Tel.: +90-216-677-16-30; fax: +90-677-16-79.

E-mail address: funda.sensoy@okan.edu.tr

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 Aliramaı, 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

Table 1. Socio-demographic and occupational characteristics of health workers (n= 103)

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 years 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	
	n	%	n	%	n	%
I do not have a source of stress	18	17	85	83	103	100
The complicated structure of the workplace	20	19	83	81	103	100
Relations with management	31	30	72	70	103	100
Relations with friends	20	19	83	81	103	100
Fear of patient dissatisfaction and complaints	25	24	78	76	103	100
Economical insufficiency	14	14	89	86	103	100
The high risk of having accidents	15	15	88	85	103	100
Injustice in performance evaluation	29	28	74	72	103	100
The widespread use of gossip in the workplace	32	31	71	69	103	100
Inequitable distribution of tasks	38	37	65	63	103	100
Work ignored by others	55	53	48	47	103	100

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		Profession										P Value		
		Physician		Nurse		Health Technician		Allied Health personnel		Administrative services			Total	
		N	%	n	%	n	%	n	%	n	%	n	%	
Fear of patient dissatisfaction and complaints	Yes	5	20	16	64	1	4	1	4	2	8	25	100	0,000
	No	11	14	11	14	16	21	9	12	31	40	78	100	
	Total	16	16	27	26	17	17	10	10	33	32	103	100	
Economical insufficiency	Yes	4	29	3	21	1	7	4	29	2	14	14	100	0,034
	No	12	13	24	27	16	18	6	7	31	35	89	100	
	Total	16	16	27	26	17	17	10	10	33	32	103	100	
The high risk of having accidents	Yes	3	20	8	53	3	20	1	7	0	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						P value
		Male		Female		Total		
		n	%	N	%	n	%	
I do not have a source of stress	Yes	12	67	6	33	18	17	0,541
	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	0,124
	No	53	64	30	36	83	81	
	Total	62	60	41	40	103	100	
Relations with management	Yes	15	48	16	52	31	30	0,110
	No	47	65	25	35	72	70	
	Total	62	60	41	40	103	100	
Relations with friends	Yes	8	40	12	60	20	19	0,040
	No	54	65	29	35	83	81	
	Total	62	60	41	40	103	100	
Fear of patient dissatisfaction and complaints	Yes	7	28	18	72	25	24	0,000
	No	55	71	23	29	78	76	
	Total	62	60	41	40	103	100	
Economical insufficiency	Yes	9	64	5	36	14	14	0,740
	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	0,085
	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	0,519
	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	0,065
	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	0,439
	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	0,001
	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. Aydın 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 (Aydın 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

Ergun et al. , 2001). 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.

Referencess

- Aslan, S.H., Alparslan, Z.N., Aslan, R.O., ve ark.(1998) İşe Bağlı Gerginlik Ölçeğinin Sağlık Alanında Çalışanlarda Geçerlik ve Güvenirliği. *Düşünen Adam*, 11(2):4-8.
- Akbal Ergün Y., Özer Y., Batlaş Z.: Yoğun Bakımda Çalışan Hemşirelerin Stres Düzeyleri ve Stresin Hemşireler Üzerindeki Etkileri. *Yoğun Bakım Hemşireleri Dergisi*, 5:2, s. 70-79, 2001.
- Aydın R., Kutlu Y. Hemşirelerde İş Doyumu ve Kişilerarası Çatışma Eğilimi ile İlgili Değişkenler ve İş Doyumunun Çatışma Eğilimi ile Olan İlişisini Belirleme. *C.Ü.Hemşirelik Yüksek Okulu Dergisi*, 5:2, s. 37-46, Kocaeli, 2001.
- Douglas, M.K., Meleis, A.I., Eribes, C., Kim, S. (1996) The Work of Auxiliary Nurses in Mexico: Stressors, Satisfiers and Coping Strategies. *Int J. Nurs. Stud*, 33(5),495-505.
- Ergün, G. (2008). Sağlık İşletmelerinde Örgütsel Stresin İşgücü Performansı ile Etkileşiminin İncelenmesi. İzmir: Dokuz Eylül Üniversitesi Yüksek Lisans Tezi.
- Görgülü, S. (1990) Hemşirelik ve İş Ortamı Stresörleri. *Türk Hemşireler Dergisi*, 39(1):23-27.
- Gürbüz Y.(1998). “Birinci Basamak Sağlık Hizmetlerinde Çalışan Sağlık Personelinin İş Tatmin Düzeyleri ve Bunun Örgütsel Stres Kaynakları ile Karşılaştırılması. M. Ü.Sağlık Bilimleri Enstitüsü”, Yüksek Lisans Tezi, İstanbul.
- Laal, M. and Aliramaie, N., (2010) Nursing and Coping with Stress, *International Journal of Collaborative Research on Internal Medicine & Public Health*, Vol.2, No:5, pp. 168-181.
- Rice, P., *Stress and Health*, Brooks/Cole Publishing Company, New York, 1999,s.6.
- Tel, H., Karadağ, M., & Ark., V. (2003). Sağlık Çalışanlarının Çalışma Ortamındaki Stres Yaşantıları ile Başetme Durumlarının Belirlenmesi. *Hemşirelikte Araştırma Geliştirme Dergisi*, Sayı: 2 , 13-14.
- Torun, A. (1997). Stres ve Tükenmişlik, Endüstri ve Örgüt Psikolojisi. Ankara: Kal-Der Yayınları 2. Baskı.
- Türkçüer, İ., Erdur, B., Ergin, A., Serinken, M., Bukıran, A., Aydın v.d. (2007). “Acil Tıp Sisteminde Çalışan Hekimlerin İşyeri Stres Faktörleri: Denizli İli Araştırma Sonuçları” *Türkiye Acil Tıp Dergisi*, 7:2, s.68-72.
- Yıldız S.,Görak, G.(1997).“Hemşirelikte Çalışma Şekillerinin Anksiyete Düzeyine Etkisi”, Uluslararası Katılımlı 3. Hemşirelik Eğitimi Sempozyumu, İstanbul Üniversitesi Florence Nightingale Hemşirelik Yüksekokulu, 8-10 Eylül 1993, s.472-480
- Yüksel İ.(2003) Hemşirelerin İş Güçlüğü Faktörlerinin Belirlenmesi, İş Doyumu ve Örgütsel Bağlılık Üzerindeki Etkisinin Analizi. Fırat Üniversitesi, Sosyal Bilimler Dergisi, 13: 495-505.1, s. 261-272, Elazığ.