

## Stress Concept: A Survey of Stress Levels on Karabük State Hospital Employees'

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### Abstract

Purpose of this study is, based on the previous studies and researches, examination of stress concept in an experimental approach and obtaining the average stress levels of Karabük Public Hospital personnel. The personnel, who are observed with above the average stress level and increasing stress level, will be divided in groups and attend stress management program. As a result of the research, it is intended that, after the applied stress management training, the obtained data will be compared with a second measurement and created control group.

**Keywords:** Health Personnel, Stress, Stress Levels, Stress Management Program, Stress Management Training  
**JEL:** M12

### Introduction

The stress nowadays became a concept, used frequently and continuously by the people at every age from Seven to Seventy Seven. In housewives daily conversations at "Ladies Tea Party", workplaces, on media like radio, television, newspapers and magazines the subject is always stress. In book stores the books written on stress are sold like hot cakes, courses and trainings are provided at universities and big companies (Şahin, 1998). Explanation and revelation of a concept, which has wide usage, will prevent the wrong and biased applications. When the stress concept is checked in literature, it can be observed that, as a first time it was used by physicist. According to Physicist Young, the stress is a power or resistance to material. Material shows reaction to external power applied to itself in proportion to its own resistance. Elastic mass, due to stress reaction, tries to balance this external power and adopt by squirming. However, if the external power is greater than the resistance to the material, balance would not be possible and the material will undergo a change subsequently. In the event that, the external power is extremely big, qualitative changes can occur. After this definition, the stress concept is not limited to physics but spread through biology, physiology, endocrinology, medical, anthropology, sociology and psychology areas (Akman, 2004). When examining the literature, although Hippocrates actually did not use the word stress but one definition used by him has drawn attention. As it is known, he reported that, when patients are not cured, they get into "distress" and suffer pain and agony (Öztop, 2000).

In this context we consider that, the stress is a negative matter and devours our intellectual and physical sources. Actually, under severe stress conditions human being gets into total disability and serious medical problems are caused. However, there is also a positive manner of stress. A certain dose of stress (changeable for everyone) is positive feature of existence and is needed for an effective process. This type of stress in organism, leads to physical and mental changes, growth and maturation. In other words, the critical difference between positive and negative stress depends on how the person perceives stress creator event or how to overcome it. Stated in other words, "to overcome stress" means, always to learn to keep the effect of stress at positive level.

### Fight or Flight Reaction

As well as the stress creating factors are different for each of us, physiological reactions, shown by our bodies are astonishingly similar.

Rising of blood pressure, increase of heartbeats, sweating, increase of respiration and other physiological reactions can be assumed (Yerlikaya, 2009). In case of facing a threat or warning, hypothalamus, the most important structure of brain sends fast signals to other sections of our brain and some physiological reactions are activated in our body.

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Some of these reactions are: increased aspiration, increase occurs at heartbeats and blood circulation, muscles get prepared for motion and get tensed up, sweating increases and heating of our body is being prevented, all senses reach to optimum process level. Since so far mentioned physiological reactions are not noticed by an individual however, when analyzing the physical reactions noticed by individual, high pulse, increase of sweating, stomach spasm, respiratory disorder, tension on chin muscles, difficulty of concentration, extreme apprehension and emotional intensity can be considered (Şahin, 1998).

## **Chronical Stress Sources (Stressor) in Business Life**

In general, the stressors in business life can be determined easily. As it will be explained in details later on, the interpersonal relation between stressors can be assumed as too much or minimum level of incur responsibility, uncertainties and positive feedback rarity. These types of stressors create continuous problem for the administrators. When stressors are not noticed, efficient management would not be possible; as a result, they are converted into chronic stress sources.

### ***Uncertainties of Roles***

In order for most of the employees to execute their unmitigated performances, they should know the expectation of their employers and understand what is required from themselves (Kim Psikoloji, 2014). Generally these expectations and requests are uncertain. Expectations are changed dramatically every day. Jurisdictions are not clearly described. Under these conditions, showing a successful performance is difficult for most of employees and due to the uncertainties of roles they can live in a chronic stress.

### ***Responsibility***

To undertake the other people's responsibilities or to make a decision for the people that may affect their life significantly, would create tension which is a hidden but continuous source of stress (Şahin, 1998). If the objectives of employer corporation or organization do not correspond to working individual's objective, conflict stress is substantially possible.

### ***Intense Work Load***

Intense work load is well known life by the most of employees. In general, there are lots of work to be done in a short time in good number of work places. This type of work load is called quantitative work load, the qualitative work load is known as the personnel has no ability of specific features for the work to be performed but requested to perform that specific work. It is assumed that, workers are experiencing stress regardless of looking which work load is encountered.

### ***Interpersonal Conflicts***

Inconsistency of people's individuality with each others, uncomfortable relation with supervisors, colleagues or civil servants, arguments related to priorities at work, disagreement on the completion methods of works, office policies and tension even on the easiest relations are assumed with-

in these conflicts. No matter what the reason, the solution of the problems between interpersonal relations are the most difficult ones. Because, at work solving a problem related to supervisor may be difficult for that individual at that moment and the created stress, may lead the situation to an unexpected conditions.

### ***Participation***

The participation can be defined as, as an individual affecting the level of processes in the company (Şahin,1998). Sometimes an employee may avoid making a decision. However, in case we want to make a decision but have been kept out of decision mechanism, tension and stress can also be experienced.

### ***Place and Location Problems***

During work even though we are not aware, our table, chair and room are self-confidence provider factors in our work environment (Şahin, 1998). When we work away from these places where we feel relaxed and safe, we might feel stressed and nervous.

In this sense, the purpose of this research is to determine the stress level of healthcare personnel. Based on the theoretical stress knowledge, a stress study program will be planned and effects perceived by healthcare personnel will be investigated.

## **Methods**

### ***Sampling***

The sampling of this study was performed on 123 female and 79 male with total of 202 healthcare personnel of Karabük State Hospital.

### ***Data Collection Tools***

Demographic Data Form: The form prepared by researchers, provides information about this research; covers the questions related to age, sex, marital status, service unit, period of service and level of income.

Percept Stress Scale: Turkish adaptation study of scale, developed by Cohen, Kamarck and Mermelstein (1983) was executed by Yerlikaya and İnanç (2007). It measures the encountered stress level of people based on unpredicted, uncontrolled and excessive load evaluation (Yerlikaya, 2009). It is a Likert Type Scale constituted by 10 items. In its original form, the coefficient of consistence was found as .84; test repeated test reliability coefficient was found as .85 (Erci, 2006).

### ***Research Pattern***

The research uses experimental qualitative, pre- test - final test and control grouped pattern. Depending on the findings obtained through the first phase of the research a stress management study program will be developed, which will be applied to experimental group and final test points of experimental and control groups will be evaluated.

**Table 1.** *Distribution of participants in terms of demographic features*

Demographic Characteristics	N (202)	% 100
Age		
18-25	25	12,4
26-35	75	37,1
36-45	66	32,7
46-55	33	16,3
≥55	3	1,5
Gender		
Female	123	60,9
Male	79	39,1
Marital Status		
Married	143	70,8
Single	59	29,2
Profession		
Doctor	4	2
Administrative Staff	14	6,9
Administrator	4	2
Nurse	83	41,1
Auxiliary Healthcare	81	40,1
Personnel		
Others	16	7,9
Unit		
Emergency Room	11	5,4
Polyclinic	50	24,8
Service	63	31,2
Operating Room	10	5
Administrative Units	25	12,4
Others	43	21,3
Service Period		
≤1 year	27	13,4
1-5 year	18	8,9
6-10 year	45	22,3

11-15 year	39	39
16-20 year	26	12,9
≥21 year	47	23,3
Income Level		
500-1000 TL	33	16,3
1000-1500 TL	21	10,4
1500-2000 TL	71	35,1
2000-3000 TL	64	31,7
≥3000 TL	13	6,4
Total		
	202	

**Table 2.** Perceived stress level

PSL	N	X	S
Low	102		
High	100		
Total	202	31,35	7,1

**Table 3.** Analyse of perceived stress level in terms of demographic variables

	PSL	Gender	Number of Children	Service Period
Income Level				
Perceived Stress Level	-	.146*	.223**	.192**
	.212**			

\*p<0.05

\*\*p<0.01

### Data Collection Process

For the first phase of the research, in October 2012, data collection tools were applied to 202 personnel working at Karabük State Hospital. Information was submitted to the participants, verbal approval obtained and they were reported that, we may apply them for the second phase of the research. The applications were performed at each personnel's working environment; the data collection process for each participant took an average of 10 minutes.

The statistical analysis of data has been performed by using "SPSS 15" packaged software.

### Findings

Demographic features of participants were indicated in Table 1. 60.9% of the participants are female (N= 123) and 39.1% male (N=79). The age of 12.4% of participants is between 18-25, 37.1% of participants between 26-35, 16% of participants between 46-55 and only 1% is 56 or over. 70.8% of the participants are married and with minimum 1 child.

When evaluating the participants by their service periods, 13.4 % are in their first working year. 8.9% rate 1-5 years, 22.3% rate 6-10 years, 19.3% rate 11-15 years and 12.9% rate having 16-20 years of service period. 23.3% of

the personnel have 21 year and over service period.

As the numbers can be seen from the Table 1, 2% of participants are doctors, 6.9% administrative personnel, 2% executives, 41.1% nurses, 40% auxiliary healthcare personnel (psychologist, physical therapy specialist, technician, and so on) and 7.9% are working at other categories. Since 64.4% of the research healthcare participants are working at emergency service, polyclinic, units and operating room, the remaining 33.7% are working at administrative department and other departments (cleaning, security, and so on).

When examining the income levels of participants, 37.6% earn monthly 2000TL and over, 45.5% earn between 1000-2000 TL, 16.3% earn 1000 TL and below.

The average stress level point of participants were found as 31.35 (S=7.1). Here under, 50.5% of the participants were reported having low stress level and 49.5% were reported having high stress level (Table 2).

The relations between perceived stress level points and some demographic variables are illustrated in Table 3. The stress level reported by the participants show increased dependence on their service period and income level. It was determined that, females (X= 32.18, S= 6.8) perceive more stress rate than males (X= 30.06, S= 7.4). On the other hand, the stress level shows positive correlation with number of children.

When examining the stress level in terms of occupations, administrators (X= 36.5, S= 9.1; N=4) and nurses (X= 32.25, S= 6.3; N=82) reported the highest stress level.

## Conclusion

In this study, perceived stress levels of Karabük State Hospital employees were measured and over average number of participants were compared in terms of various demographic variables. Research findings showed that, about half of the participants (49.5%) reported high stress level and the remaining samplings (50.5%) reported low stress level.

When analyzing the relations between perceived stress level points and demographic variables, it was discovered that, the stress levels of participants increase depending on the length of their working period and economical income level. At this point, the reason for the above mentioned fact is that, the personnel working for many years are the administrative personnel and the stress is most probably sourced from their high workloads.

With the similar perspective, the positive relationship between income level and perceived stress level, will not be a surprise considering the work load of doctors who are in the highest income level group.

It was confirmed that, females (X= 32.18, S= 6.8), perceive higher rate of stress than males (X= 30.06, S= 7.4). On the other hand, the stress level shows positive correlation with number of children.

When examining the stress level in terms of occupations, administrators (X= 36.5, S= 9.1; N=4) and nurses (X= 32.25, S= 6.3; N=82) reported the highest stress perceive level. Since the working conditions at state hospitals are hard and intensive, tight and close relation and empathy with the patients are unavoidable, it is the sector with late and difficult treatment periods; these conditions create

stressful and difficult process in individual's mental world and in consequence expectation of certain load in individual and social relationship would not be incorrect.

At this point, based upon the results of the research, a stress management training application is planned by the research team by benefiting the previous studies and stress management literature to the over average number of participants. By obtaining new measurement it is also planned to check whether the difference between trained and untrained participants is significant.

In the view of these findings, the examination of different variables with perceived stress level and approach from different angles to the variables investigated will be beneficial for both in terms of health sector and stress level perceived by individual literature.

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