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# Stress Levels and Psychological Responsibility of the Health Employees and the Time of Participation in the Leisure Time Activities: a Relationship

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## Abstract

To investigate the relationship between the time of participation of health care workers in leisure time activities and occupational stress, psychological resilience and life satisfaction a total of 254 health workers were selected. The study was based on "Personal Information Form", "Psychological Endurance Scale", "Perceived Stress Scale" and "Life Satisfaction Scale". The data were analyzed using IBM SPSS 24.0 software. Pearson moment product correlation coefficient, independent sample t-test and ANOVA test were used to analyze the data obtained in the study. The relation between free time duration of health workers and perceived stress, psychological resilience and life satisfaction scales was examined; very poor correlation between perceived stress scale and free time period ( $r=-0.136$ ,  $p<0.05$ ), positive correlation between psychological resilience scale and free time period ( $r=0.046$ ,  $p<0.05$ ) and life satisfaction scale very low positive correlation ( $r=0.092$ ,  $p<0.05$ ) was found between positive and free time and correlations were statistically significant. Spite of a low-level relationship was found between these variables, as a result of the increase in the free time period, the level of perceived stress decreased and the psychological resilience and life satisfaction increased.

## Introduction:

Free time is a type of time that is earned by an individual to rest with others or by himself toward his intention and related to his customs and traditions without any connection from necessary obligations and stipulations (Karaküçük, 2008). Recreation is defined as all of the various activities in which an individual is involved in his/her free time (Torkildsen, 2005). When it is considered how the interests and desires of each living in the same society is this kind of different and various, recreation activities have a wide area. Recreation consists of various and enjoyable activities, which are chosen in free time, as a group or alone, with or without a vehicle, in outdoor or indoor places, in the city centre or out of the city, within an arrangement or out of that. The activities are taken part in a person's desire without any external obligation or reward except himself (Karaküçük, 2008). In economically and socially developed countries, it is recognized that individuals are more organized and stable in terms of spending their free time actively. Today leisure activities are

considered as socially positive and beneficial for the individual (Tel, 2007).

Nowadays, in working groups, especially health professionals, there are different nascent desires to spend their leisure time. Specifically, they participate in individual or mass leisure activities such as swimming, cookery, folk dances, and artistic teachings. Thus, it is predicted that stress levels of employees will decrease and their psychological endurance and life satisfaction will increase. Stress is a condition caused by unusual stimulus arising from environmental and personal reasons, and which generates psychological, emotional and motor responses (Phares, 1988). In other words, it is expressed as the pressure on an individual's ability to cope with his / her ideas, feelings or physical conditions (Cüceloglu, 1996). Based on the researches, it is seen that some factors arising from the heavy workload, (for example although medical personnel is supposed to look after 50 patient, he looks after 100 patients), poor administration of managers who are segregationist and have an enormous ego, mobbing fact, social environment, the inadequacy of private life and

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leisure time spending with families, a lesser amount of physical activities, daily political experiences and their consequences and above all economical problems causes a huge amount of stress. Negative conditions and the preferences about leisure time activities cause negative and positive effects on employees in the health sector like other workgroups. At this point, it is realized that employees working in different professional groups or the health sector are significantly unhappy, inadequate to solve their important problems and prone to violence and they have social role conflicts and poor communication in the family after all the major reasons of these problems depends on economical reasons. Psychological endurance is also expressed as the individual's ability to cope with negative situations (Block & Kremen, 1996). The levels of attachment, control, and opposition creating psychological endurance reduce the negative effects of stress. Individuals who have a high level of psychological endurance care about the importance of their attitudes. The concept of attachment constituting the phenomenon of psychological endurance has both an internal (referring to activities one owns) and an external (performing in the environment) dimension. Individuals realizing that situations in their lives proceed according to the framework of their control, form their own lives and eliminate negative external difficulties. They are aware of the responsibilities of their feelings and attitudes. They generally accept that the results of stress arise from their preferences. Their self-esteem levels are high because they believe that they can change events in their lives. Self-esteem increases the self-confidence of an individual. Self-confidence also increases the level of psychological endurance against stress (Sürücü & Bacanlı, 2010). Satisfaction defines individuals' wishes, needs, and expectations. The concept of life satisfaction is a situation that occurs in the comparison between an individual's possessions and potential possessions that they desire. Neugarten et al. (1961) used this term for the first time. The phenomenon of life satisfaction presents the result of the comparison of the expectations of the individual with the actual situations. In other words, satisfaction happens if an individual reaches all of his/her expectations. Life satisfaction has an important role in work and out of work. If an individual doesn't spend time the activities such as vacation, sleeping, etc. that is helpful for him to feel energetic, his/her performance in work will reduce. This situation damages the harmony between work and life. This situation damages the harmony between work and life. When harmony between work and life is established, more energy-filled, highly talented and more confident individuals are formed. The purpose of business life should be working to sustain your life, not to live for working. In this study, it was examined that if there is a correlation between the duration of participation of doctors and nurses' free time activities and stress in the

workplace, psychological endurance, and life satisfaction.

## Materials and Methods:

In this study, a relational screening model was applied and it was studied to determine whether there is a relationship between the dependent and independent variables following the relational screening model and the degree of the relationship, if there is any.

The working group of the research was in Istanbul Siyami Ersek Thoracic and Cardiovascular Surgery Training and Research Hospital including 93 doctors and 161 nurses, and the total amount of 254 medical staff.

Table-1: General information about the subjects

Class	Sub Cl.	N	%	Sub Cl.	N	%	N	%
Gender	Female	185	72.8	Male	69	27.2	Total	254 100.0
Marital Status	Married	115	45.3	Single	138	54.3	Total	253 99.6
Profession	Doctor	93	63.4	Nurse	161	36.6	Total	254 100.0
Employment	1-5 yrs	131	51.6	6-10 Yrs.	33	13.0	>11 Yrs	89 35.0
	Total	253	99.6					

In this study, information's of doctors and nurses attending this research such as Gender, marital status, profession, medical speciality, employment year, transportation vehicle, the effect of free time on performance, duration of daily free time, negatively/positively usage of free time, the sufficiency of free time opportunities of the hospital, the person who the free time activities are spent with, how the free time is utilized, whether the free time is spent in the hospital is prepared by the researcher herself as including data of the effect of the free time activities.

Cohen et al. (1983) developed the Perceived Stress Scale. The Perceived Stress Scale consists of 14 items and is designed to measure in which level some individuals perceive some situations stressfully. The participants evaluated the items with a 5-point Likert-type scale ranging from "nevermore (0)" and "very often (4)". Adaptation of the Perceived Stress Scale into Turkish and the validity and reliability of these studies were conducted by Eskin et al. (2013). The Cronbach Alpha reliability index of the perceived stress scale was found to be as .78 (9). The higher result of the score shows that an individual's perceived stress level is high.

Isik (2016) developed the Psychological Endurance Scale (10). While developing the Psychological Resilience Scale, a systematic approach was followed. The application form of the Psychological Resilience Scale was evaluated by applied data on the participants and the factor structure of the Psychological Resilience Scale was evaluated with explanatory factor analysis. According to this analysis, items with factor load values are less than .30 were excluded from the scale. The final version of the scale after analysis consisted of 21 items and 3 sub-dimensions. The Cronbach's alpha reliability of the Psychological Endurance Scale was found as .89 for control, .81 for the challenge, and .75 for self-determination. If the total score, which is obtained

**ORIGINAL ARTICLE**

from the scale, is high, it indicates that the psychological endurance level is also high.

Diener *et al.* (1985) adapted to Turkish by Köker, he developed the satisfaction with life scale in 1991. The scale, which aims to measure life satisfaction at the global level, consists of items including whether the individual is satisfied with his or her life. It is a 7-point Likert type scale including items in total. The score consists of as 1 point indicating, "I strongly disagree" and 7 points indicating that "I agree". The Cronbach's alpha reliability of The Satisfaction with Life scale was found as .89. The total score of the scale is obtained by summing the score values of the options marked in The Satisfaction with Life Scale. The high total score in the scoring of the scale indicates that the life satisfaction level is high.

The data were analyzed using IBM SPSS 24.0 package software. To determine whether the data, which was obtained shows the normal distribution, the kurtosis-skewness coefficients of each measurement tool were examined and Q-Q plot and normality analyzes of the histogram graph were performed. To determine the relationship between the period of leisure time and perceived stress, psychological stress, and satisfaction with life, Pearson Product-Moment Correlation was used. In the study, statistical results were evaluated at a 95% confidence interval and  $p < 0.05$  significance level.

**Results:**

Table-2 showing the distribution of how leisure time activities according to doctors and nurses was observed that doctors and nurses spend their time mainly by resting and attending social activities.

**Table-2: Distribution of leisure activities for nurses and doctors**

		a	b	c	d	e	f	g
Nurse	N	133	24	68	22	16	19	6
Doctor	N	70	25	42	21	18	17	11
Total	N	203	49	110	43	34	36	17

a-Resting; b-Attending physical Activities; c-Attending Social Activities; d-Attending cultural activities; e-Attending art activities; f-Attending touristic activities; g-Others

**Table-3: Descriptive statistical results of perceived stress, psychological endurance and life satisfaction scales**

	Perceived Stress	Psychological Endurance	Satisfaction with Life
N	254	254	254
X	28.6496	55.2323	20.6457
S.S.	6.13028	8.34136	6.14390
Minimum	8.00	30.00	5.00
Maximum	48.00	80.00	34.00

There was negatively very poor correlation between perceived stress scale and duration of free time. A positively very poor correlation between psychological endurance scale and leisure time duration. Lastly, a negatively very weak correlation between satisfaction with life scale and

duration of leisure time. As a result of these determinations, it has been seen that the correlations are statistically significant (Table-4).

**Table-4: The relationship between free time and the perceived stress, psychological endurance and Satisfaction with life scales**

		Duration of Time	Scale
Perceived Stress	Pearson Correlation	-.136*	1
	Sig. (2-tailed)	.031	
	N	253	254
Psychological Endurance	Pearson Correlation	.046*	1
	Sig. (2-tailed)	.046	
	N	253	254
Satisfaction with life	Pearson Correlation	.092*	1
	Sig. (2-tailed)	.014	
	N	253	254

\* $p < 0.05$  (Significance level) \*\* $p < 0.01$  (Significance level)

**Table-5: Relationship between leisure time and perceived stress, psychological endurance and satisfaction with life scales for nurses and doctors**

Profession	Scale		Leisure Time	Scale
Nurse:	Perceived Stress	Pearson Correlation	-.206**	1
		Sig. (2-tailed)	.009	
		N	160	161
	Psychological Endurance	Pearson Correlation	.100**	1
		Sig. (2-tailed)	.009	
		N	160	161
Satisfaction with life	Pearson Correlation	.155*	1	
	Sig. (2-tailed)	.050		
	N	160	161	
Doctor:	Perceived Stress	Pearson Correlation	-.049*	1
		Sig. (2-tailed)	.038	
		N	93	93
	Psychological Endurance	Pearson Correlation	-.059*	1
		Sig. (2-tailed)	.047	
		N	93	93
Satisfaction with Life	Pearson Correlation	-.030*	1	
	Sig. (2-tailed)	.039		
	N	93	93	

\* $p < 0.05$  (Significance level) \*\* $p < 0.01$  (Significance level)

In this study, when the relationship between nurses' duration free time and perceived stress, psychological stress, and satisfaction with life scale is analyzed, it has been seen that there is negatively poor correlation between perceived stress scale and duration of leisure time ( $r = -0.206$ ,  $p < 0.01$ ), positively very poor correlation between psychological endurance scale and duration of free time ( $r = 0.100$ ,  $p < 0.01$ ) and positively very poor correlation between satisfaction with life and duration of free time ( $r = 0.155$ ,  $p < 0.05$ ) When the relationship between doctor's leisure time and perceived stress, psychological endurance, and life satisfaction scales were analyzed, it has been seen that there was negatively very poor correlation between perceived stress scale and free time duration ( $r = -0.049$ ,  $p < 0.05$ ),



positively very poor correlation between psychological endurance scale and duration free time ( $r = 0.059$ ,  $p < 0.05$ ), positively very poor correlation between satisfaction with life scale and duration of leisure time ( $r = -0.030$ ,  $p < 0.05$ ). It is noticed that these correlations are statically significant. (Table 5)

### Discussion:

Athletic performance, mental and physical effects of sports for all ages are among the subjects that are up-to-date (Bardakci *et al.*, 2019; Çelik & Sahin, 2013; Kirkbir, 2017). However, increasing athletic performance with nutritional methods and ergogenic supplements is also crucial for professional athletes (Argan & Hüseyin, 2009; Maughan, 1999). For this purpose, the use of nutritional sports supplements is becoming widespread and many ergogenic support products are marketed to affect health and performance (Young & Stephens, 2009). Therefore, we aimed to determine the active kickboxing athletes' attitudes towards nutritional ergogenic in Turkey in the present study. There are limited studies in which we can discuss the results of this study since this is the first study on combat sports in this issue.

The following results were obtained from the study conducted on a total of 459 active kickboxers, including 127 international kickboxers in Turkey. The scores of women were statistically higher than male kickboxers in the Side Effects and Ethics and Natural Nutrition sub-dimensions, but no statistically significant difference was found in the Benefit sub-dimension between the male and female kickboxers. In a study conducted by Öztürk (2017), he did not report any statistically difference between male and female participants on nutritional attitudes. In the present study, there was a difference between men and women in the two sub-dimensions (Side Effects and Ethics and Natural Nutrition). The difference between the studies may stem from to the difference in the participant population and the content of the research method.

As a result of the analysis between the competition category and ATNSS' sub-dimensions of the kickboxers, it is discovered that there was a significant difference in the Benefit and Natural Nutrition sub-dimensions while no significant difference was found in the Side Effect and Ethics sub-dimension. It was determined that the scores of kickboxers in cadet category were significantly lower than kickboxers in junior category and the senior category in the Benefit sub-dimension. In the Natural Nutrition sub-dimension, the scores of the kickboxers in the junior category were significantly higher than the kickboxers in the senior category. The increasing knowledge and interest in ergogenic supplements and their benefits with age may be the reason why cadet kickboxers' scores in the Benefit sub-dimension are lower than older (juniors and seniors) ones (Argan & Hüseyin, 2009).

According to the analysis between family's income

status and ATNSS' sub-dimensions of the participants, Side Effect and Ethic sub-dimension scores of the athletes with family income level of 3000 TL or below are statistically lower compared to athletes with family income between 3001-7000 TL and athletes with family income level 7001 TL or above. In the natural nutrition sub-dimension, the scores of the athletes whose family income level was 3000 TL or below were significantly higher than the athletes whose family income level was 7001 TL or above. No significant difference was found in the Benefit sub-dimension. It is thought that this kind of difference may stem from the purchase of ergogenic products with money (Herma *et al.*, 2006), and this situation may affect the views of athletes on these issues in relation to their economic conditions

Considering the analysis between the education status of university and ATNSS' sub-dimensions of the participants, it is seen that the kickboxers studying at the Faculty of Sports Sciences / PESH had statistically higher benefit sub-dimension scores than the kickboxers haven't studied in these departments. The higher level of knowledge about ergogenic aids, sports nutrition and physiology may cause this difference since the students of the faculty of sports sciences have been studied in exercise physiology and exercise nutrition courses in the curriculum according to Turkish Higher Education Institutes (Açıkada & Ergen, 1991; YÖK, 2020). In addition, the positive effect of the courses studied on the use of nutritional supplements Parr *et al.* (1984), which supports our study results.

Examining the results of the analysis between ATNSS' sub-dimensions and the status of whether they are international or national athlete of the kickboxers, the scores of international athletes were seen significantly higher than national athletes in the Benefit sub-dimension. However, the scores of international athletes were significantly lower than national athletes in the sub-dimensions of Side effects and Ethics and Natural Nutrition. It may have led athletes to be more knowledgeable about the positive effects of ergogenic aids, as international athletes compete more in major tournaments.

Conclusively, the correct use of some ergogenic substances, athletic performance can be increased for reasons such as increasing sportive fitness, faster recovery after exercise, and easier adaptation of the body to training. Hence, based on the present study results as well, it is thought that informing the kickboxers about nutritional ergogenic supports in detail may be important in terms of increasing awareness and sporting performance.

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## ORIGINAL ARTICLE

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