Meriç ERASLAN¹

Bradley Lewis DUNN²

BEDEN EĞİTİMİ VE SPOR YÜKSEKOKULU ÖĞRENCİLERİNİN STRES DÜZEYLERİNİN ÇEŞİTLİ DEĞİŞKENLERE GÖRE İNCELENMESİ

ÖZET

Bu araştırmanın amacı beden eğitimi ve spor yüksekokulunda öğrenim gören üniversite öğrencilerinin algılanan stres düzeylerini cinsiyet, yaş ve lisanslı olarak spor yapma durumlarına göre incelemektir. Araştırmaya Gazi Üniversitesi Beden Eğitimi ve Spor Yüksekokulunda öğrenim görmekte olan toplam 306 üniversite öğrencisi katılmıştır. Araştırmaya katılan öğrencilere ilişkin verilerin toplanmasında iki bölümden oluşan anket kullanılmıştır. Anketin ilk bölümünde öğrencilerin demografik özelliklerini belirlemeyi amaçlayan üç soru bulunmaktadır. Anketin ikinci bölümünde ise öğrencilerin algıladıkları stres düzeylerini belirlemeyi amaçlayan, Cohen, Kamarck ve Mermelstein (1983) tarafından geliştirilmiş olan "Algılanan Stres Ölçeği" yer almaktadır. Araştırmada elde edilen verilerin istatistiksel analizlerinde SPSS 22.0 for Windows program<mark>ında Kruskal</mark> Wallis H testi Mann Whitney U testi ve frekans analizi kullanılmıştır. Araştırmanın sonunda beden eğitimi ve spor yüksekokulunda öğrenim gören üniversite öğrencilerinin yaş gruplarına ve cinsiyetlerine göre algıladıkları stres düzeylerinin istatistiksel olarak anlamlı farklılık göstermediği tespit edilmiştir (p>0.05). Lisanslı olarak spor yapan öğrencilerin algılanan stres düzeylerinin sedanter öğrencilerden daha düşük olduğu, buna karşılık söz konusu farklılığın istatistiksel olarak anlamlı olmadığı belirlenmiştir (p>0.05). Anahtar kelimeler: Üniversite öğrencileri, spor, algılanan stres düzeyi, cinsiyet

STRESS LEVEL EVALUATION OF PHYSICAL EDUCATION AND SPORTS ACADEMY STUDENTS BASED ON VARIOUS PARAMETERS

ABSTRACT

Purpose of this study is to evaluate perceived stress level of physical education and sports academy students based on their gender, age and license (whether they are licensed athletes). A total of 306 students from Gazi Üniversitesi Physical Education and Sports Academy participated in this study. A survey with two sections was used to collect data related to students. First section of the survey included three questions that aimed to detect demographic features of the students. Second section of the survey included "Perceived Stress Scale" developed by Cohen, Kamarck and Mermelstein (1983), which was designated to evaluate perceived stress level of the students. Kruskal Wallis H test on SPSS 22.0 for Windows, Kruskal Wallis H test and frequency analysis were used in the statistical analysis of the data acquired from this research. At the end of this research, it is understood that perceived stress level of physical education and sports Academy students statistically did not differ based on their age group and gender (p>0.05). It is understood that perceived stress level of licensed athletes were lower when compared to sedentary students however, it was also understood that this difference was statistically not significant (p>0.05).

Keywords: College students, sports, perceived stress scale, gender

¹ Mehmet Akif Ersoy University School of Physical Education and Sports, Turkey

² Sheffield Hallam University Sport and Exercise Science Department, England

INTRODUCTION

Reaction of humans developed against harmful stimulants is called "stress". In order to witness stress, there must be certain circumstances that might affect the balance of human organism. Among factors that trigger stress we can count physiologic (trauma, hot weather etc.), and cold psychological (emotional tension, family issues, internal and external conflicts etc.) or social (environmental factors, cultural variables etc.) factors (Balcioglu, 2005).

The concept of stress became an important part of today's modern life.

Stress, a term that is frequently used in daily life, is also a factor that affects all aspects of human life (Eskin et al. 2013). The concept of stress is discussed frequently especially under physical and psychological health related issues. However, in recent years, it is known that the concept of stress is evaluated in many fields including economy, politics, management and education. Today, we read news and information related to the definition, administration and elimination of stress in written and visual media. In addition, the concept of stress is used by almost everyone in their daily life and daily language (EryIlmaz, 2009).

Individuals with high level of stress and individuals who have continuous stress in their life generally suffer from sleeping disorders or always feel sleepy, hungry or lose their appetites, consume cigarettes and alcohol, suffer from problems such as dyslogia. Although stress is generally known to have negative effects, there are certain cases where it has positive effects. For instance, stress experienced before expected promotion, upcoming wedding or becoming a celebrity has certain positive effects. For that reason, we may also assume that stress has positive aspects and these aspects encourage people to be more motivated and inspired. In addition to these, in case positive effects of stress are experienced, negative effects are eliminated and feelings of fear, discomfort and concern are prevented (İştar, 2012). Stress not only negatively affects bodily functions of humans, also long-term exposure to stress causes certain variety of health issues and it even prevents normal functions and negatively affects life quality. (Eskin et al., 2013). In terms of developmental stage evaluation, adolescence is the stage with highest stress level. Events occurring in daily life may develop stress in adolescents. Death of parents, small changes in their life, economic concerns and such are certain causes of stress in adolescent lives (Eryılmaz, 2009). There are also significant number of studies related to adolescence and transition to adulthood. (Hsieh et al., 2014; Rahdar ve Galvan, 2014; Sung ve Chao, 2015; Baciu, 2014).

In addition to developmental stages, stress level also differ based on gender (Olff et al., 2007) and whether individual is actively involved in sports. Active involvement in sports not only prevents stress but it also contributes to many issues related to psychological health (Peluso and Andrade, 2005; Salar, Hekim, Tokgöz, 2012; Keskin, 2014). However, it is understood that especially number of researches that analyze stress level of college youth based on various parameters is limited in our country. In this study conducted under this context, the aim was to analyze perceived stress level of physical education and sports academy students based on their gender, age and license (whether they are licensed athletes).

METHOD

Research Model

"Scanning" model was used in this research. Likert scale was used in data collection. Scanning model combined with likert scale is frequently used in researches related to education. (Karadag, 2010). In addition to this, effects of demographic parameters of participants on certain variables are also evaluated in researches that use scanning model (Can, 2014). In this research, the aim was to evaluate stress level of physical education and sports academy students based on certain demographic parameters.

Universe and Sampling of the Research

Universe of this research consisted of students Gazi Universitesi Physical Education and Sports Academy students. Sampling group of the research consisted of 306 students of Gazi Universitesi Physical Education and Sports Academy. Sampling group participants were randomly selected among Gazi Universitesi Physical Education and Sports Academy students. Random selection method enables participancy of each individual within the universe (Can, 2014).

Data Collection Tool

Survey method was used as data collection tool in this research. This survey has two stages. First section of the survey included three questions that aimed to detect demographic features of the students. These questions aim to detect age, gender and licensed athlete status of participating

Second section of the survey students. included "Perceived Stress Scale" developed by Cohen, Kamarck and Mermelstein (1983), which was designated to evaluate perceived stress level of the students and which was adapted to Turkish language by Eskin et. Al (2013). PSS, which consists of 14 articles, is designed to measure perceived stress level of events in an individual's life. Participants rated each between "(0) – Never" article and "Frequently (4)" on a Likert scale consisting of 5 ratings.

7 among the articles, which contains positive indications, are reverse graded. While total score of PSS-14 changes between 0 to 56, high scores indicate higher level of perceived stress (Eskin et al., 2013).

Statistical Analysis

In the analysis of collected data, SPSS 22.0 for Windows package program was used. Due to the fact that data pertaining to PSS did not have a homogeneous distribution, non-parametric tests were used for fundamental statistical analysis. Kruskal Wallis H test was used for comparison of age, and Mann Whitney U test was used for comparison of gender athlete license of participants. and Definitive statistics were used to determine point averages of participants related to sub-dimensions. In scale addition. frequency analysis was used in determining the percentage distribution of demographic parameters of participants.

FINDINGS

Variables	Sub-variables	F	%
Age	18-19	68	22.2
	20-21	119	38.9
	22-23	70	22.9
	24+	49	16.0
Gender	Female	150	49.0
	Male	156	51.0
Licensed	Yes	232	75.8
Athlete	No	74	24.2

Table1. Definitive statistics of demographic parameters of participants

Table 2. Katılımcıların algılanan stres ölçeği puanlarına ilişkin tanımlayıcı istatistikler

Alt boyutlar	N	Lowest	Highest	X	Ss
Poor self-sufficiency perception	306	5	20	11.24	2.864
Perception of stress / discomfort	306	5	20	11.24	2.864

When Table 2 was analyzed, it was understood that poor self-sufficiency perception and stress/discomfort level of participants were low.

Table 3. Comparis	son of perc	eived st	ress level	based or	n gende	er
Alt boyutlar	Cinsiyet	N	X	SS	Z	р
Poor self-sufficiency	Kadın	150	11.21	3.004	-	.696
perception	Erkek	156	11.28	2.732	.391	
Stres/rahatsızlık algısı	Kadın	150	16.48	3.359	-01	.963
	Erkek	156	16.56	2.986	.046	

When Table 3 was analyzed, it was understood that perceived stress level of participants did not statistically differ significantly (p>0,05).

Table 4. Comparison of perceived stress level based on age groups of participants

Sub Dimensions	Age Groups	N	x	Ss	X ²	р
Poor self-sufficiency	18-19	68	10.88	2.883	2.419	.49
perception	20-21	119	11.19	2.719		0
	22-23	70	11.36	3.055		
	24	49	11.69	2.917 🧹		
Perception of stress /	18-19	68	16.69	3.243	4.207	.24
discomfort	20-21	119	16.50	2.825		0
	22-23	70	15.99	3.215		
	24+	49	17.12	3.723		

When Table 4 was analyzed, it was understood that perceived stress level of participants did not statistically differ significantly (p>0,05).

Sub Dimensions	Licensed Athlete Status	Ν	X	Ss	Z	р
Poor self-sufficiency	Licensed Athlete	232	11.06	2.786	-1.781	.075
perception	No	74	11.81	3.046		
Perception of stress	Licensed Athlete	232	16.37	3.133	-1.507	.132
/ discomfort	No	74	17.00	3.256		

Table 5. Comparison of perceived stress level based on participants' license
--

When Table 5 was analyzed, it was understood that perceived level of stress did not statistically differ significantly (p>0,05).

DISCUSSION AND RESULTS

It was understood that perceived stress level of physical education and sports Academy of students did not differ significantly based on their gender. Researches on college students and individuals of other professions in literature up to date also displayed that stress level did not have significant difference based on gender (Alkaya, 2010; Koç, 2009; Yilmaz et al., 2014). In this context, it might be concluded that findings of this research is parallel to literature findings. However, there are different findings on various researches in literature display that significant difference in stress level based on gender. In a research conducted by Alpertonga (2014) on physical education and sports Academy students, female students had lower stress level when compared to male students. The result of this study which suggested that female students had lower stress level was based on the fact that female students more relaxed and peaceful in addition to their problems being more tolerable. Therefore, it is understood that various researches in literature display contradictory results in terms of relation between stress level and gender. For that reason, new researches are required to

determine the effects of gender on stress level of physical education and sports academy students. In addition to this, the difference of gender based stress level in college students is mainly due to the fact that underlying reasons of stress differ based on gender. In a research conducted by Batigun and Kayis (2014); it was understood that underlying reasons of stress differed for male and female students and female students had more reasons that triggered stress.

It was understood that perceived stress level of participants, physical education and sports academy students, did not statistically differ significantly based on age groups.

In a similar research conducted by Alpertonga (2014) on physical education and sports academy students, it was understood that age is a factor that increases or decreases perceived stress level of students. The reason why the results and findings of this study are not parallel to each other might be due to the fact that participants are undergoing college education. Because, it is known that college environment and college education positively contribute to the psychological state of students (Besser and Zeigler, 2012). As a result of this research, it was understood that perceived stress level of physical education and sports academy students who are licensed athletes were lower than sedentary students. However, it was also understood that the difference between groups were not significant. This might be due to the fact that sedentary students who are not licensed athletes also have sportsmen personality since they are studying in physical education and sports academy. As a result, regardless of the type of involvement in sports, it is known that this positively affects psychological and emotional aspects of personality (Salar, Hekim and Tokgöz, 2012). Many researches also support this theory (Jewett et al., 2014; McPhie and Rawana, 2015; Perron et al., 2012; Eime et al., 2013). In addition, it is known that "the importance of sports and positive effects of active involvement in sports on emotions and mind-set as well as its diminishing effects on anxiety" are factors that increase self-respect (Alpertonga, 2014) terms in of psychological evaluation.

As a result, it was understood that stress levels perceived of physical education and sports academy students did not differ significantly based on their gender, age and license (whether they are licensed athletes or not). It is also understood that findings on age and gender variables are parallel to findings of other researches in literature. However, it is also known that various researches have findings which suggest gender variable has an effect on stress level. For that reason, more researches with larger sample groups and that evaluate stress level of physical education and sports academy students based on gender are required to declare a more subtle conclusion. It was also understood that stress level of licensed athletes and sedentary students did not differ significantly. This might be due to the fact that sedentary students who are not licensed athletes also have sportsmen personality since they are studying in physical education and sports academy.

REFERENCES

- Alkaya SF., İş Stresi: Türkiye'deki Ruh Sağlığı ve Hastalıkları Hastanelerinde Çalışan Uzman Psikiyatrist Hekimlerin İş Stres Düzeylerinin Belirlenmesine Yönelik Bir Uygulama, Yayımlanmamış Yüksek Lisans Tezi, Celal Bayar Üniversitesi Sosyal Bilimler Enstitüsü, Manisa, 2009. [In Turkish with English Abstract]
- Alpertonga H., Beden Eğitimi ve Spor Yüksekokulu Öğrencilerinin Kaygı ve Stres Düzeylerinin Belirlenmesine Yönelik Bir Alan Araştırması: Trakya Üniversitesi, Yayımlanmamış Yüksek Lisans Tezi, Trakya Üniversitesi Sosyal Bilimler Enstitüsü, Edirne, 2014. [In Turkish with English Abstract]
- Baciu A., "An Anthropo-Medical Approch on Stress Among Teenagers and Young People in Romania" Global Journal of Anthropology Research. . pp. 1-7, 2014.
- Balcioglu I., "Concept of Stress and Its Historical Evolution" I.U. Cerrahpasa Medical Faculty, Continuous Medical Training Events Symposium Series. 47. Pp. 09-12-2005.
- Batigün AD, Kayis AA., "Stress Factors Among University Students: A Study on Interpersonal Relationship Style and Problem Solving Abilities" H. U. Journal of Education. 29(2). pp. 69-80, 2014.
- 6. Besser A, Zeigler-Hill V., "Positive Personality Features and Stress among First-year University Students: Implications for Psychological Distress, Functional Impairment, and Self-esteem" Self and Identity. pp. 1-21, 2012.
- Can A., Quantitive Data Analysis in Scientific Research Process Using SPSS, 2. Edition Pegem Academy. P. 26. Istanbul. 2014.
- Cohen S, Kamarck T, Mermelstein R., "A Global Measure of Perceived Stress" Journal of Health and Social Behavior. 24. pp. 385-396, 1983.
- Eime RM, Young, JA, Harvey JT, Charity MJ, Payne, WR., "A Systematic Review of The Psychological and Social Benefits of Participation in Sport For Children And Adolescents: Informing Development of a Conceptual Model of Health Through Sport" Int J Behav Nutr Phys Act. 10(98). pp. 1-21, 2013.
- Eryilmaz A. "Stress in Adolescents and How to Cope with it" Yuzuncu Yil Universitesi Education Faculty Magazine. 6(2). pp. 20-37,2009.
- Eskin M, Harlak H, Demirkıran F, Dereboy Ç., "Algılanan Stres Ölçeğinin Türkçeye Uyarlanması: Güvenirlik ve Geçerlik Analizi" New Symposium Journal. 51(3). pp. 132-140, 2013. [In Turkish with English Abstract]
- Hsieh H, Zimmerman MA, Xue Y, Bauermeister A, Caldwell CH, Wang Z, Hou Y., "Stress, Active Coping, And Problem Behaviors Among Chinese Adolescents" American Journal of Orthopsychiatry. 84(4). pp.364-376, 2014.
- Istar E., "Relation of Stress and Productivity" Akademik Bakis Magazine, 33. pp. 1-21, 2012.

- Jewett R, Sabiston CM, Brunet J, O'Loughlin EK, Scarapicchia T, O'Loughlin, J., "School Sport Participation During Adolescence And Mental Health in Early Adulthood" Journal of Adolescent Health, 55. pp. 640-644, 2014.
- 15. Karadag E. "Research Models used in Educational Sciences Doctorate Thesises: Quantity Level and Analytic Error Types" Education Management in Theory and Application, 16(1). Pp. 49-71, 2010.
- Keskin O., "Effects of Physical Education And Participation To Sports on Social Development in Children" Journal of International Multidisciplinary Academic Researches. 1(1). pp. 1-6, 2014.
- Koç ŞR., Sağlık Çalışanlarında İş Stresi (Acil Servis Örneği), Yayımlanmamış Yüksek Lisans Tezi, Beykent Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul, 2009. [In Turkish with English Abstract]
- McPhie ML, Rawana JS, "The Effect of Physical Activity on Depression in Adolescence And Emerging Adulthood: A Growth-Curve Analysis" Journal of Adolescence, 40. pp. 83-92, 2015.
- 19. Olff M, Langeland W, Draijer N, Gersons BP., "Gender Differences in Posttraumatic Stress Disorder" Psychological Bulletin, 133(2), pp. 183, 2007.
- 20. Peluso MAM, Andrade LHSGD., "Physical Activity And Mental Health: The Association Between Exercise And Mood" Clinics. 60(1), pp. 61-70, 2005.
- 21. Perron A, Brendgen M, Vitaro F, Côté SM, Tremblay R E, Boivin M., "Moderating Effects of Team Sports Participation on The Link Between Peer Victimization And Mental Health Problems" Mental Health and Physical Activity, 5. pp. 107-115, 2012.
- 22. Rahdar A, Galván A., The Cognitive And Neurobiological Effects of Daily Stress in Adolescents. NeuroImage. 92. pp. 267-273, 2014.
- 23. Salar B, Hekim M, Tokgöz M., "15-18 Yaş Grubu Takım ve Ferdi Spor Yapan Bireylerin Duygusal Durumlarının Karşılaştırılması" Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitüsü Dergisi. 4(6). pp. 123-135, 2012. [In Turkish with English Abstract]
- 24. Sung YT, Chao TY., "Construction of the Examination Stress Scale for Adolescent Students" Measurement and Evaluation in Counseling and Development. 48(1). pp. 44-58, 2015.
- 25. Yilmaz İA, Dursun S, Güzeler EG, Pektaş K., Determining on Anxiety Level of University Students: A Case Study. Electronic Journal of Vocational Colleges, December. pp. 16-26, 2014.