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AN ANALYSIS OF DEPRESSION, ANXIETY AND STRESS LEVELS OF UNIVERSITY STUDENTS WHO DO SPORTS AND DO NOT

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Abstract:
The sport, which is known to have many physical benefits, is a question of whether there is a positive or negative contribution to the individual in psychological terms. It is important that we do not understand whether our work has an effect on mental health issues, such as physical activity, performance and health. The aim of this study is to find out whether there is a significant difference between the depression, anxiety and stress levels of university students who do or do not sports. For this purpose, Depression, Anxiety, Stress Scale developed by Lovibond and Lavibond in 1995 and personal information form created by researchers were used. Our study 400 volunteers from different departments studying at Ondokuz Mayıs University participated as volunteers. Of the 400 participants who participated in research, 292 did sports and 108 did not. Depression, anxiety and stress levels related to sport status were examined in order to understand the effects of physical activity. There was a significant difference in the levels of depression ($p = 0.001$) and anxiety levels ($p = 0.004$) of the individuals who did and did not perform sports, but no significant difference was found in the level of stress ($p = 0.068$). The results showed that depression and anxiety levels of individuals who did not exercise were higher than those who did sports, and there was no significant difference in stress level. These results indicated that sport was a helpful factor in reducing depression and anxiety levels and did not cause a significant difference in stress level.

Keywords: sports, depression, anxiety, stress

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1. Introduction

In today's changing and developing world, people live faster and more intensely. With the contribution of technology, people can do whatever they want. Although this seems to be advantageous at first glance, it can negatively affect the individual in the future. Thanks to technological possibilities, people are constantly occupied and can not use this time in a quality way even if they can not afford to spend their time in their social lives. This situation causes the individual to ignore his / her mental needs by preventing him / her from spending time to himself / herself. People should always devote time to themselves during the day otherwise, psychological problems will be inevitable. The individual who devotes time to himself will want to eliminate his psychological needs as well as physical needs. The individual who is in social life will be more physically active and the level of interaction with external factors will be higher. Everyone wants to be healthy but sometimes they can not do what they need to do and sometimes they do not realize they are in a bad situation. The desire to be healthy and to be healthy constitutes one of the most basic goals and goals of mankind (Zorba, 2006). In this direction, the individual should pay attention to the level of activity, diet and sleep patterns. By doing healthy eating and physical activity, one can gain a positive spiritual structure and an optimistic look at life as well as physical health. Because there is a mutual interaction between the body and the spiritual structure (Günes, 1998). In this context, doing sports will enable the individual to live more active and qualified lives by incorporating into life. Effects of regular physical activity;

- Exercise times are self-allocated time periods and increase tolerance to life,
- Feeling good and happiness,
- It is influential in the position of individuals within the society because of their effects on the protection of body weight,
- Due to the positive effects on the healthy muscles, bones and joints, the number of confident, confident individuals increases with the improvement of body flatness and awareness,
- Develop interpersonal communication skills,
- Develops the ability to think positively and cope with stress,
- Increase social cohesion and acceptance for individuals of all ages (İnternet, 2009).

If the individual is not doing sports and the level of activity is low, some physical problems will be inevitable. It is most likely to be psychologically affected by these physical problems. An individual with low physical activity and not doing sports chooses a weak life in terms of social interaction and invites psychological problems that depress the quality of life of the individual such as depression, anxiety and stress. These psychological disturbances will adversely affect the individual's productivity and happiness. When we look at the definition of depression; (Özturk, 1994), as a syndrome that includes statements such as slowing and stagnation, invalidity, smallness, weakness, reluctance, pessimism, feelings and thoughts and slowing down

physiological functions in a deeply sad emotional state. As it is understood from the definition, physical activity inadequacy is directly related to depression process.

Screening studies on the athletes can identify risk groups with high levels of loneliness and depression and low quality of life. In the result of the findings obtained from this way; it may be suggested that guidance should be provided to determine the problems encountered by the athletes and to provide guidance on how to get the most out of psychological support if necessary (Ünver et al., 2015). The choice of the individual to lead to inactive life leads to mental negative consequences, one of which is anxiety. Anxiety; Internal stress can be expressed in words such as anxiety. It is a common feeling that is experienced in all humans from time to time and is a biological protection system of the organism. When a potentially dangerous situation is detected, it allows the person to avoid dangerous situations, to take necessary precautions against them, to resist them, or to develop compliance behavior and thus to maintain the life in a healthy manner (Işık and Uzbay, 2008; Mayda et al., 2017; Bostanci, 2014).

Another psychological problem that can be experienced in the inadequacy of physical activity is stress. Stress; A sign of danger for the health and well-being of our people, sliced from the word "estrica" in Latin, expresses the unequivocal physiological and psychological reaction to events that are perceived as a warning and thus treated inadequately (Erdoğan et al., 2009). According to another definition, stress; is a situation that occurs when the organism's physical and mental borders are threatened and forced. Stress has important effects on the physical and psychological well-being of people. Research has revealed that stressful substance use, suicide, depression, heart diseases and weakening of the immune system cause important psychological and physical disturbances (Greenbarg et al., 1990). When we deal with stress in this way, we see that psychological problems as well as physical consequences affect people's health. The physical activity will have positive psychological consequences over time. At the beginning of these is self-reliance. Physically vigorous and high performance will increase respect for the individual and prevent isolation from the outside world. Negative consequences will also arise if you do not do sport as well as positive results. Basically, physical deterioration will occur at the low level of activity. The person with low activity level with the advancing age will face various physical diseases. These physical illnesses will also lead to psychological deterioration. People can manifest themselves psychologically and physically. These two elements can not be distinguished from one another, the psychological and physiological state of well-being should be considered as a whole. We can only say that a person who has no psychological and physiological problems is healthy. The World Health Organization (WHO) defines health as "*health, not just from diseases and microorganisms, but from physical, spiritual and social well-being as a whole*" (Özer, 2006).

Exercise for a healthy life should be part of people's daily life and lifestyle. Exercise and physical activity help to achieve better physical and mental health, increase quality of life and prolong life (Şahin, 2002). Regular physical activity is important for the healthy growth and development of children and young people as

well as for the elimination of unwanted bad habits, for the protection of adults from various chronic diseases or for the treatment of these diseases or for the cure of these diseases and for the elderly to provide an active aging period, can make differences (Baltacı, 2008).

2. Material and Method

400 people participated voluntarily in Ondokuz Mayıs University (206 Yaşar Doğu Sport Science Faculity, 194 other departments). "Demographic Information Form" created by researchers in the study and "Depression, Anxiety, Stress Scale" developed by Lovibond and Lovibond in 1995 were used. The reliability and validity of the scale, in Turkey by Ahmet Akin Sakarya University Education Sciences Department and Bayram Ali Cetin was calculated in 2007. Akin and Çetin found that Cronbach Alpha internal consistency coefficient of Depression, Anxiety and Stress Scale was 0.89, while Cronbach Alpha internal consistency coefficient was 0.90 for anxiety subscale and 0.92 for stress depression subscale. The Cronbach Alpha internal consistency coefficient for the size was found to be 0.92 (Akın and Çetin, 2007). The "Depression Anxiety Stress Scale" developed by Lovibond and Lovibond (1995), consists of 42 items. Scale 0 has no rating, 1 me a little fit, 2 me usually fit and 3 me perfectly fit. Data collected via Depression Anxiety Stress Scale were analyzed by the statistical package program (SPSS.22) and the results were interpreted. Descriptive statistics including arithmetic mean, standard deviation, frequency and percentage distributions are presented in order to ensure that demographic information and opinions of other group questions are obtained first. First, the normality of the distributions (Kolmogorov-Smirnov) test was examined and Mann Whitney-U and Kruskal Wallis Test were applied according to the test result in order to determine the depression anxiety and stress levels of the students to some demographic variables. The results were evaluated at 95% confidence interval and significance at $p < 0.05$ level.

3. Results

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Depression	292	1.87	0.65	1.00	4.00
Anxiety	292	1.85	0.62	1.00	4.00
Stress	292	2.13	0.62	1.00	3.93
Do you do sports	292	1.00	0.00	1	1

Do you do sports?= Yes

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Depression	108	2.14	0.73	1.00	4.00
Anxiety	108	2.05	0.64	1.00	4.00
Stress	108	2.27	0.62	1.07	4.00
Do you do sports	108	2.00	0.00	2	2

Do you do sports?= No

Table 1: Comparison of depression levels of university students who do sports or not

	Do you do sports?	N	Mean	S.D	U	P
Depression	Yes	292	1.87	0.65	**12344.000**	**0.001**
	No	108	2.14	0.73		
	Total	400				

There was a significant difference between the groups in the depression subscale according to whether the students who participated in the study did sports or not. According to the obtained results, depression levels of students who do not play sports are significantly higher than those who play sports.

Table 2: Comparison of anxiety levels of university students who do sports or not

	Do you do sports?	N	Mean	S.D.	U	P
Anxiety	Yes	292	1.85	0.62	**12808.000**	**0.004**
	No	108	2.05	0.64		
	Total	400				

Significant differences were found between the groups in the anxiety subscale according to whether the students participating in the study did sports or not. According to the results obtained, the anxiety levels of the students who do not play sports are significantly higher than the students who play sports.

Table 3: Comparison of stress levels of university students who do sports or not

	Do you do sports?	N	Mean	S.D.	U	P
Stress	Yes	292	2.13	0.62	**13820.500**	**0.068**
	No	108	2.27	0.62		
	Total	400				

There was no significant difference between the groups in the stress sub-dimension according to whether the students participating in the study did sports or not.

4. Discussion and Conclusion

In recent years, many studies have been carried out in different areas related to depression, anxiety and stress, and psychological support and drug treatment etc. have

been carried out treatment methods have emerged. It is important that there are ways in which these psychological disorders can be remedied, but more important than this is the removal of the factors leading to such psychological problems. If the occurrence of the problem is prevented, we will not have any problems and we will not have a need to find a solution. Sports, which has an important role in preventing physical problems and injuries (Yılmaz et al., 2016), can be a way to prevent the formation of psychological problems. Our work is important in terms of not psychologically improving or deteriorating the individual. As a result, it was found that depression levels of the individuals who play sports are lower than those who do not play sports. In a study supporting our findings, Akandere and Serdengeçti (2003), found that there was a significant difference between the depression levels of university students who did and did not play sports, and depression levels were lower than those who did not play sports (Akandere and Serdengeçti, 2003). In another study, Stepteoe and colleagues have shown that sport has reduced the symptoms of depression after exclusion of age and gender effects in their research on high school students (Steptoe et al., 1997).

Findings of our study revealed that the anxiety levels of sportsmen were lower than those who did not. In a study that supports findings we have found that regular exercise reduces cardiovascular events (infarction, hypertension), type 2 diabetes, colon and breast cancer, obesity, depression and anxiety, biliary diseases and osteoporotic fractures (Lippincott and Willkins, 2007). In a study that investigated the effect of physical activity on anxiety in terms of severity and duration, Richard et al. (2004) found no difference in anxiety level after exercise, but found differences in anxiety level after exercise for 30 minutes at 80% VO_2max. Aerobic exercise has been shown to be more effective in reducing anxiety than anaerobic exercise (Richard et al., 2004). Lamorche et al. (2009) formed a step aerobics class with 51 female learners. 29 women did this exercise in front of the mirror, and 22 did this exercise without the mirror. After exercise, anxiety levels were found to decrease in both groups. However, there was no significant difference between the groups in these values (Lemorhe et al., 2004).

When the results obtained from our study were examined, there was no significant difference in stress among university students who did and did not play sports. Contrary to the data we have obtained, lower levels of stress and depression were observed in the adolescents included in the intensive exercise program. It has been determined that the adolescents feel physically better after the exercise program (Özer, 2001). The circumstances that occur when the data are collected due to the momentary effect of stress can be influenced by environment and time of day. Therefore, different data may have emerged in our study from the literature. In another study, Iwasaki et al. (2001) found that individuals prefer to participate in active leisure activities, thereby minimizing the effects of stress and depression (Iwasaki et al., 2001). As a result of our study, we can say that doing sports in the given light does not cause a significant difference in stress level that depresses the level of depression and anxiety. However, when the literature is searched, it has been seen that doing sports also decreases the stress level.

It is an undeniable fact that physical activity contributes to the physiologically better condition of the individuals and to the more resistant to diseases. Studies conducted by Cohen and confirmed by many scientists showed that emotional quiescence, problem-free sleep and blood pressure reduction, as well as illnesses such as colds and flu are less common when a regular exercise program is run (Robert and Pasnau, 1985). Sports and physical activities; inversely proportional to the level of stress, anxiety, and depression; self-esteem, and self-perception (Berger and Owen, 1983).

The psychological effect of sports, which is also the main objective of our work, is promising in the direction of the obtained data.

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