

Examination of Exercise Dependency Levels and State of Loneliness in Students of Sports Sciences Faculty

Burcu Gvendi¹ & Engin Iık Abanoz²

¹ Sports Science Faculty, Istanbul University Cerrahpaa, Istanbul, Turkey

² School of Physical Education and Sports, Istanbul Geliim University, Istanbul, Turkey

Correspondence: Burcu Gvendi, Sports Science Faculty, Istanbul University Cerrahpaa, Istanbul, Turkey. E-mail: burcu.guvendi@istanbul.edu.tr

Received: June 18, 2019

Accepted: July 26, 2019

Online Published: July 31, 2019

doi:10.5430/ijhe.v8n4p231

URL: <https://doi.org/10.5430/ijhe.v8n4p231>

Abstract

The aim of this study is to investigate the dependence levels and loneliness status of students studying in sports sciences. The study group of the study consisted of 204 sports science students, 68 women and 136 men with an average age of 20.75 ± 2.47 . For the purpose of collecting data, "Exercise Dependency Scale" developed by Tekkurun-Demir, Hazar and Ciciolu (2018) and the "Loneliness Scale" Turkish adaptation of the scale was made by Demir (1989) were used. Descriptive statistics such as frequency and percentage and Mann Whitney U, Kruskal Wallis and Spearman Correlation analysis were used for data analysis. According to the findings of the study, it was observed that students were in the dependent group rarely experienced loneliness. A significant difference was found in the loneliness score of the students according to gender. Significant differences were found in the postponement of exercise dependence scale, individual and social needs and conflict sub-dimension according to students' were being licensed. According to the frequency of participation in the exercise, there was a significant difference between the postponement of individual and social needs of the exercise dependence scale and the development of the conflict, tolerance and passion. In the correlation analysis of the scales, no significant relationship was found between loneliness and exercise dependence. As a result, in our study, although it was seen that the loneliness levels of the students studying in sports sciences were low, it was concluded that male students were lonelier than female students. In addition, it can be said that students are included in the exercise dependent group, because of the fact that these students are kneaded with sports and due to their sports background, they can adjust the dose and duration of the exercise correctly, and thus they do not postpone their social and individual needs as a part of their lives.

Keywords: exercise, dependence, loneliness, student

1. Introduction

The activities that are done to be healthy are replaced by the gradually increasing level of exercises that make the body wear and tear and become indispensable in the degree of illness. One of the important concepts discussed when expressing the negative aspects of exercise is exercise dependence. Exercise dependence, which is a disease that affects adversely human health and can be described as the "dark side of exercise", has recently been the subject of researches frequently (Tekkurun-Demir ve Trkeli, 2019).

The increase in the number of participation in sports and recreational exercises and the feeling of spending long time in the exercises brought about by them led to the concept of exercise dependence. Vardar (2012) stated that exercise Dependency is a new concept and that it is evaluated within the general criteria of dependence. Similarly, Koru and Arsan (2009) emphasized that, like other Dependanciess, exercise dependence should be evaluated as a psychological and physiological problem such as alcohol, drugs and cigarettes. Vardar, Toksz and St (2012) stated that exercise dependence is passionate desire to do physical activity in leisure time and excessive exercise behavior cannot be controlled. According to Yldirim et al. (2017), exercise dependents pursue the goals behind the their exercise dependency is to provide body weight control, reduce body fat percentage, increase muscle mass and have a perfect postural appearance. It is thought that individuals exercising excessively shows excessive sensitivity in nutrient intake and behaviors such as restriction occur and thus the desire to do inevitable exercise arises in order to have a perfect physical appearance. According to Bavlı et al. (2015) Another reason is that exercise age and long durations of daily exercise may cause exercise dependence symptoms. It is possible to say that these symptoms may

be seen in low percentages in populations but may increase in cases where training intensity and frequency are not controlled. Cicioğlu, Tekkurşun-Demir, Bulğay and Çetin (2019) denoted that there is a strong relationship between exercise dependence and long and regular exposure to exercise and this effect is evident when the variables of sport age are examined. It is seen that regular and increasing trainings over the years can increase dependence after long years. Finally, Polat and Şimşek (2015) interpreted the basic reason why exercise behavior, which is a problem in exercise dependency, done with passion and cannot be abandoned as to lead to loss of function is the presence of mental and physical connection to this action.

Loneliness, which is one of the important emotions experienced in life, is a frequent and quite common situation. Physical and psychological problems are more common in individuals with high loneliness levels (Akgül, 2016). Özçelik, İmamoğlu, Çekin and Gölünük Başpınar (2014) express that sport has a decreasing effect on loneliness levels on university students and providing appropriate environments for sporting activities and directing individuals to sporting activities will help them to cope with feelings of loneliness and meeting social needs. (Özçelik, İmamoğlu, Çekin ve Gölünük Başpınar, 2014). However, it can be said that exercise dependence occurs as a result of people spending most of their time on exercise activities in order to be able to exercise, to enjoy the exercise and to provide satisfaction. This situation may lead to postponement of social and individual needs, as well as isolating individuals from daily life and pushing them to loneliness. Peplau and Perlman (1982) described loneliness as an unpleasant feeling as a result of the difference between the desired and expected social relationships of the individual's existing social relationship. In the study of Duyan et al. (2008) described loneliness as an emotional state that may emerge at any stage of human life, but also to include social and economic dimensions and stated that loneliness is an important problem in various population groups (Duyan et al. 2008). According to Geçan (2007), loneliness is such a painful and frightening feeling that people make every effort not to confront it. Since we consider feelings of loneliness as situations that are not good to experience, we often try to overcome these feelings as soon as possible or tend to deny them. So much so that the need to be with others in order not to be alone causes many people to be with people they don't really choose. In another definition, loneliness is a situation in which a person suffers from a lack of social relations and is therefore disturbed (Gierveld, 1987). In this context, the aim of our study is to investigate the dependence levels and loneliness of the students studying in sports sciences.

2. Method

2.1 Research Group

The study group consisted of 204 students (68 females and 136 males) with a average age of 20.75 ± 2.47 , attending two different schools, namely Istanbul University, Cerrahpasa Faculty of Sports and Istanbul Gelisim University, School of Physical Education and Sports.

2.2 Data Collection Tools

In order to collect data, 'Exercise Dependency Scale' and 'Loneliness Scale' were used.

2.2.1 Exercise Dependency Scale

The reliability and validity of the scale were conducted by Tekkurşun-Demir, Hazar and Cicioğlu (2018). The scale consists of 17 items and 3 sub-dimensions. The first factor is; "Excessive Focus and Emotion Change", the second factor is: "Postponement and Conflict of Individual-Social Needs", the third factor is: "Development of Tolerance and Passion". Scoring of the scale; the rating is scored as "1= Strongly Disagree", "2= Partly Disagree", "3= Moderately Agree", "4= Agree", "5= Strongly Agree". Score ranges are "1-17 normal group, 18-34 low risk group, 35-51 risk group, 52-69 dependent group, 70-85 highly dependent group". (Tekkurşun-Demir, Hazar ve Cicioğlu, 2018).

2.2.2 Loneliness Scale

Turkish adaptation of the scale was made by Demir (1989). The each status contained by a statement in the scale experienced by a person to what extent is determined by a four-point Likert type rating. The four-point rating is as follows: 1= I have NEVER experienced this situation, 2 = I experience this condition RARELY, 3 = I experience this situation SOMETIMES, 4 = I experience this condition FREQUENTLY. The scale is answered by marking the choice which one thinks is best expressed. When scoring, positive expressions are scored in contrast to negative expressions (1= 4, 2= 3, 3= 2, 4= 1). These positive items were represented by items 1, 4, 5, 6, 9, 10, 15, 16, 19 and 20 on the scale. Since each item has a score between 1 and 4, the lowest score that can be obtained from the scale is 20 and the highest score is 80. While the low score indicates a lack of loneliness experienced, the increase in the score indicates that the intensity of loneliness experienced increases. (Hamamcı ve Duy, 2005).

2.3 Data Analysis

SPSS program was used as the statistical program in the research. Kolmogorov-Smirnov test was used to determine whether the data showed normal distribution and when obtained "p" values were examined, the data were found to be suitable for nonparametric distribution ($p < 0.05$). Descriptive statistics such as frequency and percentage were used for data analysis together with Mann Whitney U, Kruskal Wallis and Spearman Correlation analysis.

3. Results

The findings of the study conducted in order to examine whether the students studying in sports sciences differ according to some independent variables by examining their dependence levels and loneliness in exercise are as follows.

Table 1. Demographic characteristics of participants

Demografik Özellikler		N	Min.	Max.	Avg. ±STDEV
Age		204	18,00	46,00	20,75 ±2,47
Demographic features		F	%		
Class	1st Grade	108	52,9		
	2nd Grade	73	35,8		
	3rd Grade	23	11,3		
Gender	Female	68	33,3		
	Male	136	66,7		
Age	18-19	54	26,5		
	20-21	96	47,1		
	22 and above	54	26,5		
Are you a licensed athlete?	Yes	74	36,3		
	No	130	63,7		
Do you exercise?	Yes	182	89,2		
	No	22	10,8		
How Many Days a Week Do You Exercise?	Never	22	10,8		
	2,00	23	11,3		
	3,00	45	22,1		
	4,00	46	22,5		
	5,00	33	16,2		
	6,00	20	9,8		
	7,00	15	7,4		

Table 1 shows that 136 of the participants were male and 68 were female, and the majority consisted of 1st and 2nd grade students. In addition, it was determined that the age of these students ranged between 18-46 years and 130 students were not active in sports even though 182 students exercised.

Table 2. Analysis of Exercise Dependence and Loneliness Scale Average Scores

Scales	N	Min.	Max.	Avg. ± St. Dev.
Loneliness	204	23,00	65,00	37,31 ±10,42 (1,86)
Dependence Total	204	26,00	78,00	55,73 ±10,42 (3,28)
Excessive Focus and Emotion Change	204	1,00	5,00	3,79 ±684
Postponement and Conflict of Individual-Social Needs	204	1,00	5,00	2,79 ±811
Development of Tolerance and Passion	204	1,00	5,00	3,08 ±919

When the mean values of the scale in Table 2 are examined, it is seen that the students are in the dependent group and rarely experience a sense of loneliness. It was determined that they agreed with "excessive focus and emotion change", and they experienced indecision in the dimension of "postponement and Conflict of individual and social needs" and "development of tolerance and passion".

Table 3. Exercise Dependency and Loneliness Scale by Gender "Mann Whitney U." Test Analysis Results

		Gender	N	Avg. Seq.Val.	Z	p
Loneliness Scale		Female	68	89,81	-2,173	,030
		Man	136	108,85		
Exercise Dependency Scale	Excessive Focus and Emotion Change	Female	68	102,22	-,048	,962
		Male	136	102,64		
	Postponement and Conflict of Individual-Social Needs	Female	68	104,76	-,387	,699
		Male	136	101,37		
	Development of Tolerance and Passion	Female	68	98,31	-,720	,472
		Male	136	104,60		

In Table 3, while there was no significant difference in sub-dimensions of exercise dependence scale according to gender ($p > 0.05$), significant difference was determined in total score of loneliness scale ($p < 0.05$). Accordingly, the loneliness average scores of males (108.85) were higher than the average loneliness points of females (89.81).

Table 4. Exercise Dependence and Loneliness Scale by Age Krusskal Wallis Test Analysis Results

		Age	N	Avg. Seq.Val.	X ²	p
Loneliness Scale		18-19	54	99,03	,269	,874
		20-21	96	104,19		
		22 and older	54	102,97		
Exercise Dependency Scale	Excessive Focus and Emotion Change	18-19	54	110,00	3,029	,220
		20-21	96	104,69		
		22 and older	54	91,11		
	Postponement and Conflict of Individual-Social Needs	18-19	54	111,73	1,986	,370
		20-21	96	97,64		
		22 and older	54	101,92		
	Development of Tolerance and Passion	18-19	54	108,35	,741	,690
		20-21	96	100,81		
		22 and older	54	99,65		

In Table 4, there was no significant difference in the sub-dimensions of the exercise dependence scale and the total score of the loneliness scale according to age ($p > 0.05$).

Table 5. Exercise Dependence and Loneliness Scale According to the Status of Licensed Athlete Mann Whitney U Test Analysis Results

		Licenced Athletics Status	N	Avg. Seq.Val.	Z	p
Loneliness Scale		Yes	74	102,06	-,080	,936
		No	130	102,75		
Exercise Dependency Scale	Excessive Focus and Emotion Change	Yes	74	99,68	-,517	,605
		No	130	104,11		
	Postponement and Conflict of Individual-Social Needs	Yes	74	122,99	-3,749	,000
		No	130	90,83		
	Development of Tolerance and Passion	Yes	74	108,24	-1,053	,292
		No	130	99,23		

In Table 5, while there was no significant difference in the total score of loneliness scale according to the license status of the students ($p > 0.05$), there was a significant difference in the postponement of individual and social needs of the exercise dependence scale and the conflict sub-dimension ($p < 0.05$). Accordingly, the postponement of individual and social needs and conflict average scores of the students sports as licensed (122.99) is significantly higher than the average scores of the students who do not sports as licensed (90.83).

Table 6. Exercise Dependence and Loneliness Scale According to Exercise Frequency Kruskal Wallis Test Analysis

		How many days do you exercise?	N	Avg. Seq.Val.	X ²	p	U-test
Loneliness Scale		I do not do	22	131,93	7,668	,053	_____
		2-3 days	68	95,47			
		4-5 days	79	104,96			
		6-7 days	35	92,10			
Exercise Dependancy Scale	Excessive Focus and Emotion Change	I do not do	22	74,57	6,192	,103	_____
		2-3 days	68	101,52			
		4-5 days	79	109,29			
		6-7 days	35	106,63			
	Postponement and Conflict of Individual-Social Needs	I do not do	22	69,93	14,681	,002	4-5 days >I do not do 6-7 days >I do not do 6-7 days >2-3 days
		2-3 days	68	95,15			
		4-5 days	79	106,65			
		6-7 days	35	127,90			
Development of Tolerance and Passion	I do not do	22	68,98	9,101	,028	2-3 days >I do not do 4-5 days > I do not do	
	2-3 days	68	104,81				
	4-5 days	79	111,23				
	6-7 days	35	99,37				

In Table 6, while there was no significant difference in the total score of the loneliness scale according to the exercise frequency of the students ($p > 0.05$), there was a significant difference in the sub-dimension of the exercise dependence scale, the postponement of individual and social needs, and the development of conflict and tolerance and passion ($p < 0.05$).

Table 7. Results of Correlation Analysis of Scales

		Excessive Focus and Emotion Change	Postponement and Conflict of Individual-Social Needs	Development of Tolerance and Passion
Loneliness	r	-,089	,027	,053
	p	,203	,701	,452
	N	204	204	204

When the correlation analysis of the scales was examined in Table 7, no significant relationship was found between loneliness and exercise dependence ($p > 0.05$).

4. Discussion

This study was conducted to investigate the dependence levels and loneliness status of the students studying in sports sciences and to determine the levels of loneliness according to independent variables such as gender, age, licensed sports status and exercise frequency.

When the scale average values of the study were examined, it was observed that the students were in exercise dependent group rarely experienced loneliness. It was determined that they agreed with "excessive focus and emotion change", and they experienced indecision in the dimension of "postponement and Conflict of individual and social needs" and "development of tolerance and passion". Therefore, exercise can be considered as a part of the lives of students studying in sports sciences, and although they are experiencing emotional satisfaction such as happiness, excitement and enthusiasm in exercise, they do not bring it much to the dimension of passion and thus they can spend time in their social lives outside of exercise.

In the literature; Bavli et al. (2015) found that 20.4% of the dancers were asymptomatic, 69.4% were symptomatic, and 10.2% were exercise-dependent. Exercise dependancy scales show that the prevalence of exercise dependence symptoms in the community is low, albeit low. Although the factors that cause this are based on various variables, it is reported that psychological or physiological problems are associated with it (Bavli et al. 2015). Bavlı, Kozaoğlu and Doğanay (2011) stated that individuals who did not specialize in any branch, but were interested in activities such as jogging, jogging and weight lifting in the gym and 10 of these 140 participants had symptoms of exercise dependancy and 95 had symptomatic symptoms. In the study conducted by Cicioğlu, Tekkurşun-Demir, Bulğay and Çetin (2019), it was found that the exercise dependancy scores of the elite athletes were significantly higher than the

average scores of the students of the faculty of sports sciences. As a result, it was concluded that elite athletes are in “dependent group” and students of sports sciences are in “low risk group”. As a result, it has been shown that elite athletes exercise regularly and incrementally and that these exercises become dependency over time. Tekkurşun-Demir and Türkeli (2019) stated that the general exercise dependence levels of the students of the faculty of sports sciences were in the risk group.

In our study, no significant difference was observed in the sub-dimensions of the exercise dependence scale and the total score of the loneliness scale according to the age of the students studying in sports sciences. This can be attributed to the fact that all students have been involved in sports or exercise activities for a long time until they come to university and have a certain experience and sports culture. Similar to our study, Tekkurşun-Demir and Türkeli (2019) found that general exercise dependence levels of the students of the faculty of sports sciences did not differ according to age. Unlike our study; Cicioğlu, Tekkurşun-Demir, Bulğay and Çetin (2019) found a moderate positive correlation between the age of elite athletes and their levels of exercise dependence. This situation can be interpreted as the exercise dependence levels of elite athletes increase with age. Kozaklı (2006) concluded that loneliness level decreased with increasing age.

In the study, while there was no significant difference in the total score of loneliness scale according to the frequency of participation of the students, a significant difference was found in the sub-dimension of postponing the individual and social needs of the exercise dependence scale and the development of conflict and tolerance and passion.

As the frequency of exercise increases, dependency increases. In the study conducted by Bavlı, Kozanoğlu and Doğanay (2011), the most important characteristics that differentiate the dependent group from the others are that the number of days allocated to exercise per week is high and the exercise age is high. Kagan (1987) stated that the dependency score of those who have more years of participation in the exercise is quite high. Polat and Şimşek (2015) concluded that exercise alone did not affect the formation of dependency, but the type of exercise, exercise duration, frequency and exercise age of the dependent group were significantly higher than the other groups. Unlike our study, Ekinci, Demirel, Demirel, Işık (2015) found a significant difference between participants' perception of loneliness according to their participation in recreational activities. This result is interpreted to suggest that recreational activities help the individual to socialize and this factor naturally helps the individual not feel lonely. Similar to our study, Özçelik, İmamoğlu, Çekin and Başpınar (2015) found no statistically significant difference between exercise frequency and loneliness levels between male and female students. In the study of Cicioğlu, Tekkurşun-Demir, Bulğay and Çetin (2019), it was found that the level of dependency increased with the increase of exercise level.

There was no significant difference in the loneliness score according to the license status of the students, while a significant difference was determined in the postponement of individual and social needs of the exercise dependence scale and the conflict sub-dimension. According to the findings, postponement of individual and social needs of students sports as licensed and conflict average scores were found significantly higher than the average scores of students who do not sport as licensed. The fact that university-level students who are actively engaged in sports mandatorily to do double training during the day, and those have to make more effort for successful performance, which may lead them to extra work and often to an isolated position from society. In the study conducted by Tekkurşun Demir and Türkeli,(2019) it was observed that the level of exercise dependence of the participants differed according to the status of regularly sports, and those who perform regularly sports in the sub-dimensions of “excessive focus and emotion change”, “postponement of individual-social needs and conflict çatışma,“ tolerance development and passion, the mean scores of those who do not regularly sports were significantly higher. In the study conducted by Vardar, Toksöz and Süt (2012), the rate of exercise dependence among the athletes participating in the study was found as 12% (14 people). While there was no significant difference in the sub-dimensions of exercise dependence scale according to gender, it was found that the loneliness mean average of males were significantly higher than the loneliness mean scores of females. Similar to our study, Duyan et al. (2008) concluded that males are more lonely than females. Unlike our study, Ekinci, Demirel, Harmandar Demirel and Işık (2015) found no significant difference in loneliness perceptions according to gender. Özçelik, İmamoğlu, Çekin and Başpınar (2015) investigated the effect of sports on loneliness levels and found no statistically significant difference between the loneliness levels of the students in terms of gender. In the study of Tekkurşun Demir and Türkeli,(2019) a significant difference was found in the level of exercise dependence according to the gender of the participants.

According to Tekkurşun Demir and Türkeli, it can be said that, male have more average than female in postponing individual-social needs and conflict, tolerance development and passion sub-dimensions, and in addition to postponing basic needs such as eating and drinking, male tend to postpone their social needs more than women, they cannot be able to desist from participating in longer exercise each time, and they are more impatient to exercise. In

our study, it was observed that there was no significant relationship between loneliness and exercise dependence sub-dimensions. In other words, it can be said that there is no relationship between being dependant to exercise and feeling loneliness. This may be due to the fact that the participants in the study are sports students and that the students know how to exercise at the right time and adequately. When the studies related to exercise dependancy in the literature are examined, Tekkurşun Demir and Türkeli (2019) found a significant relationship between exercise dependancy and mental endurance. Yardimci, Sadik, Kardas (2017) concluded that there is a high negative correlation between the levels of mental endurance and loneliness in sportsmen.

As Certel, Yakut and Gülsün (2016) pointed out, the problem of loneliness that we can talk about direct or indirect negative effects on almost all areas of life on an individual and social basis; It also threatens our students who are one of the most fundamental elements of the educational process in educational institutions where the future of our country is shaped.

Loneliness blows up the contribution of education to students because it will negatively affect students' psychological worlds, their point of view to life, their perspectives on life, their communication and socialization skills, and their performance in school. In our study, although it was seen that the loneliness levels of the students studying in sports sciences were low, it was concluded that male students were more alone than female students. . In addition, it can be said that students are included in the exercise dependent group, because of the fact that these students are kneaded with sports and due to their sports background, they can adjust the dose and duration of the exercise correctly, and thus they do not postpone their social and individual needs as a part of their lives. Based on these results, it can be compared by examining exercise dependence and loneliness levels of students studying in different departments in the following studies.

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