

Examination of Emotional Eating Levels According to the Exercise Status of Students in the Faculty of Sports Sciences

Mine Turğut (Corresponding Author)

Faculty of Sport Sciences, Bartın University, Bartın, Turkey

E-mail: minetrgt@gmail.com

Taner Bozkus

Faculty of Sport Sciences, Bartın University, Bartın, Turkey

E-mail: tanerbozkus@yahoo.com

Yusuf Burak Yamaner

Health Sciences Institute, Uludağ University, Bursa, Turkey

E-mail: burak-yamaner@hotmail.com

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Abstract

This study aimed to examine the emotional eating levels of students studying at the faculty of sports sciences according to their exercise status.

The screening model was used in our research. After the detailed information about the scale form was given to the participants, a total of 125 students, 66 male, and 59 female participants, participated on a voluntary basis. In addition to the personal information form prepared by the researcher, the Emotional Eating Scale (EES) was used to collect the data. SPSS 22.0 package program was used in the analysis of the obtained data.

It was determined that 52.8% of the participants included in the study were male and 47.2% were female, 79.2% of these participants did exercise, and 20.8% did not. In the study, it was found that male participants had a higher sense of guilt when they consumed forbidden foods

than female participants; We can say that the desire to eat of those who did not exercise was more dominant than those who did not exercise.

As a result, it would not be wrong to say that exercise has positive effects on the emotional eating status of the participants. Moreover, it has been observed that individuals who exercise are more likely to control their eating status than those who do not exercise. In this context, it can be said that exercise has positive effects in terms of controlling the emotional eating status of individuals.

Keywords: Emotional eating, Exercise, Student

1. Introduction

While a person perceives everything that happens both in himself/herself and around him/her during his/her breathing, on the other hand, he/she interprets them through a mental filter. Emotions accompany the person in a specific or uncertain, intense, or infrequent manner throughout this process.

Emotions are one of the most important and powerful sources that guide our behaviors, and they also have a great impact on our relationship with food (Tanrıverdi, 2020). Emotional eating is defined as a tendency that occurs in response to certain emotional states. Often emotional states such as anxiety, anger, and depression reduce appetite, however, some individuals show emotional eating behavior when they experience similar emotional states, binge eating behaviors. Emotional eating may be associated with people who have binge-eating before, but people who are currently dieting may also exhibit emotional eating behavior (Maggard et al., 2005; Serin & Şanlıer, 2018).

Apparently, there are parts of the brain that are rewarded from eating high-fat or high-sugar foods (Arslan, İmamoğlu, & Yıldırım, 2020). In addition, more than a decade of psychological research has shown that any rewarded behavior is likely to be repeated. In a study conducted on the subject, it supports that emotional nutrition is effective on food selection, food eating speed and amount of consumption (MacCormack & Lindquist, 2018; Beyhan & Erkut, 2021). In this process, where many factors are triggering, it is important to examine the emotional eating situation.

Emotional eating has an absolutely important place in human life. If it is not controlled may predispose to the development of diseases like obesity, cardiovascular diseases, diabetes, etc. Regarding the subject, Muinüddin Çiştî in his book “Sufi Medicine” states, “It is not necessary to perceive diseases as absolute enemies; moreover, we can think of them as a body mechanism that cleanses, purifies and balances people in physical, emotional, mental and spiritual dimensions”. To put it more clearly; We can say that diseases are a signaling defense mechanism that comes into play to remove harmful substances that we take into our body from the body. It seems possible to say that exercise is a protective shield in this defense mechanism.

To improve human health, exercise is one of the most important actions that individuals of all ages can take during their life to be physically active (Piercy et al., 2018). So, regular

exercises at different intensities have a positive physical and psychological impact on human health (Janssen & LeBlanc, 2010; Soylu et al., 2021; Turgut & Soylu, 2021). On the other hand, related to the subject, Sarıkan (2021) stated in his study that healthy life is not only a state of physical well-being but also mental and cognitive well-being. It seems possible to say that people who have wrong eating behavior need exercise to have strong control mechanisms.

In some cases, eating behavior arising from people's emotions is the transition stage to adulthood, especially in university students, and it shows itself more clearly since it is the first step after childhood. For this reason, our study aimed to examine the emotional eating levels of the students studying at the faculty of sports sciences according to their exercise status.

2. Material and Method

In this study, it was aimed to examine the emotional eating levels of the students studying at the faculty of sports sciences at Bartın University according to their exercise status. The research the screening model was used in our research (Karasar, 2020).

2.1 Participants and Research Model

After giving detailed information about the scale form to the participants, a total of 125 students, 66 (52.8%) male and 59 (47.2%) females, participated in the study on a voluntary basis.

2.2 Data Collection

In our research, a Personal Information Form was first created by the researcher to determine socio-demographic information. The Emotional Eating Scale (EES), which was developed by (Garaulet et al., 2012) and adapted into Turkish by (Arslantaş et al., 2019) was used.

The Emotional Eating Scale, which was developed to evaluate emotional eating behaviors, consisted of 10 items and three subscales (disinhibition, type of food, guilt), questions with 4 options ("0" Never, "1" Sometimes, "2" Usually and "3" Always) were answered on a Likert-type scale. There was no reverse item on the scale. The lowest point that can be obtained from the scale was "0" and the highest was "30". High scores from the scale indicated a high level of emotional eating behavior.

2.3 Analysis of Data

Research data were analyzed with SPSS 22.0 package program. At the same time, the Kolmogorov-Smirnov test was used to determine whether the data showed normal distribution. As a result of the tests conducted, it was determined that the data showed a normal distribution. In addition to frequency and percentage tables, Independent Sample T analysis, which was one of the parametric tests, was applied to the obtained data.

3. Results

Table 1. Personal characteristics of the research group

	N	Age (year) (Mean±SD)	Height (cm) (Mean±SD)	Weight (kg) (Mean±SD)
Male	66	24.01±4.97	176.23±5.57	75.10±11.12
Female	59	21.39±2.07	164.90±5.47	56.42±6.52

When the personal characteristics of the research group were examined in Table 1, the mean age of the male participants was determined as 24.01±4.97 years, the mean height: 176.23±5.57 cm, and the mean body weight: 75.10±11.12 kg. Moreover, the mean age of the female participants was determined as 21.39±2.07 years, their mean height was 164.90±5.47 cm, and their mean body weight was 56.42±6.52 kg.

Table 2. Frequency table for demographic characteristics of the research group

Variables		N	%
Exercise status	Yes	99	79.2
	No	26	20.8
	Total	125	100.0
Department	Physical Education and Sports Teaching	60	48.0
	Coaching education	24	19.2
	Recreation	9	7.2
	Sports management	32	25.6
	Total	125	100.0

When Table 2 was examined, it was seen that 79.2% of the participants did exercise and 20.8% did not exercise. Moreover, it was understood that 48% of the participants studied physical education and sports teaching, 19.2% studied coaching education, 7.2% recreation, and 25.6% sports management.

Table 3. T-Test results of disinhibition subscale scores by gender variable

Gender	N	X	S	sd	t	p
Female	59	10.01	2.70	123	.507	0.613
Male	66	9.77	2.68			

Note. $p < 0.01$.

The participants' disinhibition did not differ according to the gender variable ($p > 0.01$). However, when the mean scores were examined, it can be said that the disinhibition of female participants was higher than male participants.

Table 4. T-Test results of guilt subscale scores by gender variable

Gender	N	X	S	sd	t	p
Female	59	4.25	1.53	123	2.34	0.002
Male	66	3.66	1.25			

Note. $p < 0.01$.

It was determined that there was a difference in the guilt subscale of the participants according to the gender variable ($p < 0.01$). Besides, it was seen that female participants' sense of guilt ($X = 4.25$) was higher than male participants ($X = 3.66$), and this difference was statistically significant.

Table 5. T-Test results of "type of food" subscale scores by gender variable

Gender	N	X	S	sd	t	p
Female	59	3.98	1.13	123	1.84	0.067
Male	66	3.54	1.46			

Note. $p < 0.01$.

There was no difference in the subscale of the participants' sense of guilt according to the gender variable ($p > 0.01$). In other words, it was understood that the type of food subscale scores of female participants ($X = 3.98$) were higher than male participants ($X = 3.54$), but this difference was not statistically significant.

Table 6. T-Test results of disinhibition subscale scores by exercise status variable

Do You Do Exercise?	N	X	S	sd	t	p
Yes	99	9.50	2.58	123	3.23	0.002
No	26	11.34	2.60			

Note. $p < 0.01$.

It was determined that the participants' disinhibition differed according to the variable of exercise status ($p < 0.01$). When this difference was examined, it can be said that the scores of disinhibition of those who did not exercise ($X = 11.34$) were higher than the scores of the participants who did exercise ($X = 9.50$). So, it was seen that the disinhibition of the participants who did not exercise was at the forefront.

Table 7. T-Test results of guilt subscale scores by exercise status variable

Do You Do Exercise?	N	X	S	sd	t	p
Yes	99	4.19	1.44	123	4.03	0.000
No	26	3.00	.84			

Note. $p < 0.01$.

It was determined that there was a difference in the guilt subscale scores of the participants according to the variable of exercise status ($p < 0.01$). When we examine the table, it can be said that the guilt scores of the participants who did not exercise ($X = 3.00$) were lower than those who did exercise ($X = 4.19$). Besides, we can say that participants who did not exercise feel less guilty.

Table 8. T-Test results of type of food subscale scores by exercise status variable

Do You Do Exercise	N	X	S	sd	t	p
Yes	99	3.38	1.02	123	7.11	0.000
No	26	5.15	1.46			

Note. $p < 0.01$.

It was determined that there was a difference in the type of food subscale scores of the

participants according to the variable of exercise status ($p < 0.01$). When we examine the table, it can be said that the type of food scores ($\bar{X} = 3.38$) of the participants who did not exercise was lower than the guilt scores ($\bar{X} = 5.15$) of the participants who exercise. So, we can say that participants who did not exercise wanted certain types of food more.

4. Discussion

According to the results of the research, it was observed that the exercise status of the students studying at the faculty of sports sciences controlled their emotional eating tendencies more than the students who did not exercise. At the same time, it was found that students who exercise have more guilt feelings when they consume prohibited food than those who did not exercise. It would not be wrong to say that exercise controls emotional eating behavior to some extent. In the studies carried out on the subject, it was stated that the desire to eat was not caused by hunger, but due to emotional eating, due to the intense emotional experience that occurs with the careful diet and physical performance, which were one of the determinants of physical performance, together with the physiological and psychological processes affected by different factors. (Devonport & Nicholls, 2021; Lane et al., 2016; Soylu, 2021) In another study conducted with university students, Emotional Appetite Questionnaire (EMAQ) was applied to students, and it was stated that there was a positive correlation between students' negative moods and Body Mass Index (BMI) (Nolan et al., 2010; Taş & Kabaran, 2020).

Berger (1992) reported that men's negative moods decreased after exercise. It was stated that females experience emotional experiences more intensely than males (Goleman, 1995). According to our research results, it can be said that female students' disinhibition was higher than that of male participants.

Dohle et al., (2014) in their research; showed that emotional eating, which was highly active, made them feel more urge to eat, especially when they were in negative emotions; however, it was emphasized that exercise was a promising intervention strategy in displaying controlled eating behavior on individuals with emotional eating behavior to cope with this distress. It was observed that the results of this research were in parallel with the results of our study. Another study argued that physical activity has a potential protective role in the emergence of factors associated with emotional eating (Costa et al., 2021; Kowalkowska et al., 2021).

Studies were showed that the most common age for eating disorders was 18-25 (Stice, 1999; Hoek & van Hoeken, 2003; Çakır, 2013). Considering the mean age of our research sample, the eating disorder might become prominent due to emotional eating. Again, in a study investigating the eating attitudes and behaviors of university students, the risk of emotional eating behavior and eating behavior disorder was found to be statistically significantly higher in females compared to males. This was associated with emotional eating behavior, anxiety, and problems in social relationships (Garber et al., 2019). In their study, Ergün et al. (2021), argued that after diagnosis of an eating disorder was diagnosed, treatment should be planned with a multidisciplinary team, and the awareness that exercise was important not only for weight loss but also for a healthy life should be developed.

5. Conclusion

In conclusion, we can say that individuals who exercise are more conscious of controlling their emotional eating status than those who do not exercise. In other words, if people exercise, they can control their emotional desire to eat. Based on the studies written in the literature on the subject, we can say that exercise was a helpful element in minimizing the negative consequences of emotional eating behavior. Especially young people's future anxiety, exam anxiety, etc. It was observed that they were more likely to show emotional eating tendencies during stress-inducing periods; It can be said that it was possible to control this situation with exercise. So; Since the physiological and psychological positive effects of exercise also affect eating behavior positively, it was necessary to direct young people to exercise. Thus, we can help raise healthier and psychologically better generations.

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