

## EMOTIONAL EATING AND SOCIAL PHYSIQUE ANXIETY IN WEIGHT-CLASS ATHLETES

SİKLET SPORCULARINDA DUYGUSAL YEME VE SOSYAL FİZİK KAYGI

Sema ARSLAN KABASAKAL<sup>1</sup> - Burcu GÜVENDİ<sup>2</sup> - Selman KAYA<sup>3</sup> - Burçak  
KESKİN<sup>4</sup>

### Abstract

This study aimed to determine the relationship between emotional eating levels and social physique anxiety levels of athletes in sports branches that require weight category. Study group consisted of athletes from wrestling, boxing, kickboxing, judo, taekwondo and wushu branches. In addition to “Participant Demographic Information Form”, “Emotional Eating Scale”, and “Social Physique Anxiety Inventory” were used as data collection tools. Descriptive statistics, Independent Sample T-Test, One way ANOVA, Post-Hoc tests and Pearson Correlation analysis were used in the evaluation of the obtained data. Participants were found to be low-level emotional eaters. While the level of emotional eating differed significantly by gender, no significant difference was found in the level of social physique anxiety. While there was a significant difference in emotional eating and social physique anxiety levels according to education status and nationality, there was no significant difference according to sports experience. Moreover, a positive and significant relationship was found between emotional eating and social physique anxiety total scores and sub-dimensions. As a result, national athletes are more prone to emotional eating and their social physique anxiety levels are like other athletes. In addition, as the emotional eating tendencies of the athletes increase, their social physique anxiety levels also increase.

**Keywords:** Emotional Eating, Social Physique Anxiety, Sport, Athletes, Weight require.

### Öz

Bu çalışmanın amacı sıklet sporcularının duygusal yeme düzeyleri ile sosyal fizik kaygı düzeyleri arasındaki ilişkiyi ortaya koymaktır. Çalışma grubunu güreş, boks, kick boks, judo, taekwondo ve wushu branşlarında yarışan yaş ortalaması 18,40±2,07 olan sporcular oluşturmuştur. Veri toplama aracı olarak Katılımcı Demografik Bilgi Formu'nun yanı sıra “Duygusal Yeme Ölçeği” ve “Sosyal Fizik Kaygı Envanteri” kullanılmıştır. Elde edilen verilerin değerlendirilmesinde tanımlayıcı istatistikler, Bağımsız Örneklem T Testi, Tek Yönlü ANOVA, çoklu grup karşılaştırma testleri ve Pearson Korelasyon analizi kullanılmıştır. Katılımcıların düşük seviyeli duygusal yiyiciler olduğu bulunmuştur. Duygusal yeme düzeyi cinsiyete göre anlamlı farklılık gösterirken, sosyal fizik kaygı düzeyinde anlamlı bir farklılık bulunamamıştır. Eğitim durumuna ve millilik durumuna göre ise duygusal yeme ve sosyal fizik kaygı seviyeleri anlamlı düzeyde farklılaşırken, spor yılına göre anlamlı bir farklılık tespit edilememiştir. Ayrıca duygusal yeme ile sosyal fizik kaygı toplam puanları ve alt boyutları arasında pozitif ve anlamlı bir ilişki bulunmuştur. Sonuç olarak milli sporcuların duygusal yemeğe daha yatkın olduğu ve sosyal fizik kaygı düzeylerinin diğer sporcularla benzer olduğu görülmüştür. Ayrıca sıklet sporcularının duygusal yeme eğilimleri arttıkça sosyal fizik kaygı düzeyleri de artmaktadır.

**Anahtar Kelimeler:** Duygusal Yeme, Sosyal Fizik Kaygı, Spor, Sporcular, Ağırlık kontrolü.

<sup>1</sup> Research Asst. Dr., Yalova University, Sport Science Faculty, Department of Sports Health Sciences, [sema.kabasakal@yalova.edu.tr](mailto:sema.kabasakal@yalova.edu.tr), Orcid: 0000-0002-4552-9640

<sup>2</sup> Assoc. Prof. Dr., Yalova University, Sport Science Faculty, Department of Sports Health Sciences, [burcu.guvendi@yalova.edu.tr](mailto:burcu.guvendi@yalova.edu.tr), Orcid: 0000-0002-6170-9107

<sup>3</sup> Asst. Assoc. Dr., Yalova University, Sport Science Faculty, Department of Movement Training Sciences, [selman.kaya@yalova.edu.tr](mailto:selman.kaya@yalova.edu.tr), Orcid: 0000-0002-2185-6436

<sup>4</sup> Prof. Dr., Yalova University, Sport Science Faculty, Department of Movement Training Sciences, [burcak.keskin@yalova.edu.tr](mailto:burcak.keskin@yalova.edu.tr), Orcid: 0000-0003-4313-7720

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## 1. INTRODUCTION

Nutrition is the ability to take and use the nutrients necessary for human growth, development, health and productivity. For humans to fulfil these criteria and live for a long time, how much of each of these elements should be taken daily is known. Therefore, nutrition is a behaviour that should be taken consciously to protect and improve health and increase the quality of life (Baysal, 2007). Nutrition is important in terms of psychological as well as biological needs. Individuals may consume more food than normal when they are angry or feel under pressure. This situation can be expressed as a psychological factor. Similarly, not eating at all in excited or extremely stressful situations is explained by the effect of emotional states on eating (Konttinen, 2012).

Emotional eating is defined as a tendency in eating behaviour that occurs in response to different emotional states. While emotional states such as anxiety, anger, depression, etc. normally make people feel less hungry, people with emotional eating behaviour may exhibit overeating behaviours in similar emotional states. While overeaters were associated with emotional eating in the past, recent studies suggest that dieters may also have emotional eating behaviour (Maggard et al., 2005). Macht (2008) reported that 30% of individuals increase their food consumption under stress and stress affects weight gain, while 48% of stressed individuals on average reduce their food consumption under stress. According to Stark (2001), emotional eating, in addition to being associated with overeating, may be related to the psychopathology underlying eating disorders seen with a chronic diet.

As in the past, physical appearance plays an important role in people's lives today (Mülazımoğlu et al., 2006). In many communities, features such as beauty and attractiveness are sometimes considered as the most important aspects of an individual. This situation is fuelled by mass media such as television and social media (Yaman et al., 2008). In advertisements, magazines and television programmes, where being physically strong or beautiful is described as a social value, physical appearance often comes before the thoughts, behaviours and achievements of the person. When socially accepted values are analysed, it is seen that thinness in women and athletic body structure in men are preferred (Cusumano & Thompson, 1997). When the literature is examined, it is seen that although social physique anxiety is more common in women than men, men's concerns about their physical appearance are similar to women (Göksel et al., 2018; Kalemoglu-Varol et al., 2014; Martin et al., 2006; Şimşir et al., 2019; Ürün & Öztürk, 2020). Since individuals tend to leave a positive impression on others, they worry about how others will perceive their physical appearance (Schlenker & Leary, 1982; Mülazımoğlu et al., 2006). Social physique anxiety is defined as the social anxiety experienced in relation to body image when the individual thinks or believes that his/her physical appearance is evaluated negatively by the social environment (Hart et al., 1989). It is argued that social physique anxiety, which is based on the theoretical foundations of self-presentation and affect management theories, which argue that people have a natural motivation to make a positive impression in the eyes of others, is also revealed when individuals feel inadequate in creating the perception they want in the eyes of others regarding their physical appearance (Hagger & Stevenson, 2010). Previous studies have reported that social physique anxiety is closely related to many psychological and behavioural factors such as body dissatisfaction, eating attitudes, avoidance of health-related behaviours and low self-esteem (Leary et al., 1994; Crawford & Eklund, 1994; Haase & Prapavessis, 1998; Kowalski et al., 2001).

While sports activities directly contribute to the development of athletes, this contribution can be both physical and mental (Karaman, 2023). Sports reveal different processes for those who participate in the competition and those who watch the competition

(Karaman and Karagözoğlu, 2021). In most combat sports, athletes are divided into weight classes for athletes to compete under equal conditions. The aim here is to ensure that athletes compete in the category suitable for their physical structure. Many athletes, regardless of their branch, reduce their body weight significantly in the days before the competition to participate in competitions with a lighter weight (Artioli et al., 2016; Reale et al., 2017a, 2017b). In a study on elite athletes, it was reported that disordered eating was more common in weightlifting (boxing, judo, taekwondo, weightlifting, wrestling) athletes, and 70% of weightlifting athletes fasted or showed abnormal eating behaviours to lose weight before the competition (Sundgot-Borgen & Torstveit, 2010; Giel et al., 2016). Moreover, athletes who are engaged in weight, aesthetic and gravity sports and compete in sports where it is advantageous to have a lean body have been reported to have a higher level of eating disorder diagnosis (Ersöz, 2021). Besides, family history, biological factors (such as genetics, and age), sociocultural factors (such as peer pressure, media influence, social pressure, and family history of eating disorders), negative body perception, concerns about weight and physical appearance, high stress are thought to be factors that increase the risk of eating disorders (Kendir & Karabudak, 2019). Eating disorders or social physique anxiety may manifest themselves in athletes for various reasons (the effort to control the physical appearance, positive effect on performance, aesthetic concerns and competing in a certain weight) (El Ghoch et al. 2013; Sundgot-Borgen & Torstvei, 2014). According to the results of a study conducted on weightlifters in Turkey, it was seen that national athletes had a higher tendency towards emotional eating than other athletes (Soylu,2021). The aim of this study is to determine whether emotional eating and social physique anxiety levels among athletes differ according to gender, education level, sports experience, and national athlete status, and to investigate the relationship between emotional eating and social physique anxiety. This research seeks to understand the prevalence of these two critical psychological factors among athletes and their interactions. By elucidating the effects of athletes' emotional states and social anxieties on their eating behaviors, the study aims to contribute to the development of psychological support and nutritional strategies for athletes. In this context, the hypotheses of the study were determined as follows:

H1: There is a difference between the emotional eating and social physique anxiety levels of athletes according to their gender.

H1: There is a difference between the emotional eating and social physique anxiety levels of athletes according to their educational status.

H1: There is a difference between the emotional eating and social physique anxiety levels of athletes according to their sports experience.

H1: There is a difference between the emotional eating and social physique anxiety levels of national athletes and other athletes.

## **2. METHOD**

### **2.1. Research Model**

In this study, a non-experimental causal comparison model, one of the research techniques, was used. This research model was used to determine the reasons for a situation and the variables affecting these reasons (Karasar, 2005). In accordance with the determined study model, in this study, the emotional eating and social physique anxiety levels of weight athletes were revealed, and the change levels were determined according to various parameters such as gender, nationality status, etc.

## 2.2. Participants

A total of 150 athletes from wrestling, boxing, kickboxing, judo, taekwondo and wushu branches were included in the study. While 58 (38.7%) of the participants were female and 92 (61.3%) were male; 54 (36%) were national athletes and 96 (64%) were non-national athletes. When the education level of the participants was analysed, 36 (24%) were primary school graduates, 87 (58%) were high school graduates and 27 (18%) were university graduates. Other demographic information of the participants was presented in Table 1.

**Table 1.** Demographic characteristics of the participants

Variables	N	Mean	SD
Age (years)		18.40	2.07
Height (cm)	150	161.63	11.62
Weight (kg)		57.97	14.07
Sports Experience (years)		5.03	3.59

## 2.3. Data Collection Tools

In addition to the Participant Demographic Information Form, the "Emotional Eating Scale" and the "Social Physique Anxiety Inventory" were used to collect data in the study.

*Participant Demographic Information Form:* The form was created to obtain information about the participants' age, weight, height, sports experience, national athlete and educational status.

*Emotional Eating Scale:* The scale, developed by Garaulet et al. (2012), was used to determine emotional eating behaviours. Turkish adaptation and validity and reliability study were conducted by Arslantaş et al. (2019). The scale consisted of 10 items and three sub-dimensions (Disinhibition, type of food, guilt). The response categories of the scale items had a 5-point Likert scale (0=Never, 1=Sometimes, 2=Often and 3=Always). The score that can be obtained by the scale was between 0-30 and there are no reverse items. The score of "30" indicated the highest level of emotional eating behaviour, while a score of "0" indicated that the participant did not have emotional eating behaviour. Garaulet et al. (2012) made a different score classification and the score between "0-5" was determined as "not emotional eater", the score between "6-10" as "low-level emotional eater", the score range of "11-20" as "emotional eater" and the score range of 21-30 as "very emotional eater". The total Cronbach Alpha internal consistency coefficient of the scale was 0.84, indicating that the scale was a valid and reliable measurement tool.

*Social Physique Anxiety Inventory:* The scale developed by Hart et al. (1989) to measure the anxiety that individuals feel about their physical characteristics against the social environment. The scale consisted of 12 items and a 5-point Likert scale (completely wrong, usually wrong, sometimes wrong, sometimes right, usually right, completely right). The inventory score was scored between 12-60. Depending on the increase in the score, the anxiety about the person's appearance also increases. There were reverse items (1,2,5,8,11) in the inventory. Besides, it consisted of two sub-dimensions: comfort with physical appearance and expectation of negative evaluation. The Turkish translation and validity and reliability study was conducted by Ballı and Aşçı (2006). The total Cronbach Alpha internal consistency coefficient of the scale was determined as 0.80, which indicated that the scale was a reliable measurement tool.

## 2.4. Data Analysis

SPSS 26 package programme was used to evaluate the data (IBM and Armonk, 2019). The homogeneity of the data was determined by the Shapiro-Wilk test and Skewness and Kurtosis values. Since these values were in the range of (-2.0)-(+2.0), the data show a homogeneous distribution (George & Mallery, 2010; Gürbüz & Şahin, 2018). Descriptive statistics, Independent Sample T-Test, one-way ANOVA, multiple comparison tests and Pearson Correlation analysis were used in the evaluation of the data. Statistically, the significance value was accepted as  $p < 0.05$ . The effect of the mean score difference between the variables was evaluated with the Cohen's  $d$  and eta squared ( $\eta^2$ ) value. The Cohen's  $d$  was defined as small (.20- .49), medium (.50-.79), and large (>.80). The range of  $\eta^2$  value is accepted as ".01 - small effect power, .06 - medium effect power, .14 and above - large effect power" (Büyüköztürk, 2011). In the study, Cronbach Alpha reliability analysis was performed to determine the reliability of the scales. As a result of the analysis, the reliability of the Emotional Eating Scale was found to be 0.793 and the reliability of the Social Physique Anxiety Scale was found to be 0.835 using the total score of the scale in this study according to the authors' recommendation (Arslantaş et al. 2020).

## 2.5. Ethical Procedure

Ethics committee permission for the research was obtained from Yalova University Human Research Ethics Committee on 22.11.22 with the protocol number 2022/139. Participants were included in the study on a voluntary basis and they signed an informed consent form. During the current research, the "Higher Education Institutions Scientific Research and Publication Ethics Directive" was followed.

## 6. RESULTS

In this part of the study, tables in which it is determined whether the emotional eating and social physique anxiety levels of weight-class athletes differ according to gender, educational status, sports experience and nationality variables, as well as the relationship between emotional eating and social physique anxiety were examined.

When the total scores of emotional eating were analysed, it was determined that the participants were low-level emotional eaters. It was determined that the mean score of physical appearance comfort from social physique anxiety sub-dimensions was  $12.78 \pm 3.93$ ; the mean score of negative evaluation expectation was  $17.06 \pm 5.94$ ; and the mean total score of the inventory was  $29.84 \pm 8.43$  (Table 2).

**Table 2.** Mean scores of the scales

Inventory	Sub-dimension/ total	Mean	SD
<b>Emotional Eating Scale</b>	Disinhibition	4.97	3.38
	Type of food	2.41	1.31
	Guilt	1.98	1.36
	Total Score	9.37	4.88
<b>Social Physique Anxiety</b>	Physical Appearance Comfort	12.78	3.93
	Negative Evaluation Expectation	17.06	5.94
	Total Score	29.84	8.43

When Table 3 was analysed, a low, positive and significant relationship was found between the Disinhibition sub-dimensions of the emotional eating scale, physical appearance comfort ( $r=0.243$ ,  $p<0.05$ ) and expectation of negative evaluation ( $r=0.390$ ,  $p<0.001$ ) sub-dimensions of social physique anxiety, and the total score of social physique anxiety ( $r=0.388$ ,  $p<0.001$ ). A low, positive and significant relationship was found between the types of food sub-dimensions of the emotional eating scale, and the negative evaluation expectation sub-dimension of the social physique anxiety scale ( $r=0.300$ ,  $p<0.001$ ), and the total score of social physique anxiety ( $r=0.235$ ,  $p<0.05$ ). A very low-level positive correlation was found between guilt sub-dimensions of the emotional eating scale, and physical appearance comfort sub-dimensions of the social physique anxiety scale ( $r=0.190$ ,  $p<0.05$ ). Moreover, a statistically significant relationship was detected between the feeling of guilt and the negative evaluation expectation ( $r=0.398$ ,  $p<0.001$ ), and the total score of social physique anxiety at a low level and in a positive direction ( $r=0.370$ ,  $p<0.001$ ). While there was a low level positive significant relationship between the total score of the emotional eating scale and the social physique anxiety scale sub-dimensions of physical appearance comfort ( $r=0.235$ ,  $p<0.05$ ); there was a moderate level positive significant relationship between the total score of emotional eating and the negative evaluation expectation ( $r=0.461$ ,  $p<0.001$ ) and the total score of social physique anxiety ( $r=0.435$ ,  $p<0.001$ ).

**Table 3.** Correlation Analysis Results of Emotional Eating Scale and Social Physique Anxiety Inventory

SCALE (n=150)	Social Physique Anxiety				
		Physical Appearance Comfort	Negative Evaluation Expectation	Total Score	
Emotional Eating Scale	Disinhibition	r	0.243	0.390	0.388
		p	0.003*	0.000*	0.000*
	Type of food	r	0.051	0.300	0.235
		p	0.539	0.000*	0.004*
	Guilt	r	0.190	0.398	0.370
		p	0.020*	0.000*	0.000*
	Total Score	r	0.235	0.461	0.435
		p	0.004*	0.000*	0.000*

\*Significant Difference  $p\leq 0.05$

According to gender, a significant difference was found in the total score of emotional eating ( $t(148)=-2.095$ ;  $p<0.05$ ; Cohen's  $d=0.36$ ), sub-dimensions of disinhibition ( $t(148)=-2.028$ ;  $p<0.05$ ; Cohen's  $d=0.34$ ), and sub-dimensions of guilt ( $t(148)=-1.974$ ;  $p<0.05$ ; Cohen's  $d=0.34$ ), while no significant difference was found in the type of food sub-dimension ( $p>0.05$ ). It is understood that male athletes have lower emotional eating scores than female athletes. When the level of social physique anxiety was analysed according to gender, no statistically significant difference was found in total scores and sub-dimensions ( $p>0.05$ ) (Table 4). The level of social physique anxiety does not differ according to gender.

**Table 4.** T-Test Results of the Emotional Eating Scale and Social Physique Anxiety Inventory according to Gender

Inventory	Sub-dimension/ total	Gender	N	Mean ± SD	t	sd	p
Emotional Eating Scale	Disinhibition	Male	58	4.28±3.38	-2.028	148	0.044*
		Female	92	5.41±3.32			
	Type of food	Male	58	2.34±1.22	-0.509	148	0.612
		Female	92	2.46±1.36			
	Guilt	Male	58	1.71±1.15	-1.974	148	0.05*
		Female	92	2.15±1.45			
Total Score	Male	58	8.33±4.39	-2.095	148	0.038*	
	Female	92	10.02±5.08				
Social Physique Anxiety	Physical Appearance Comfort	Male	58	12.45±4.39	-0.821	148	0.413
		Female	92	12.99±3.62			
	Negative Evaluation Expectation	Male	58	15.88±6.45	-1.950	148	0.053
		Female	92	17.80±5.51			
	Total Score	Male	58	28.33±9.04	-1.758	148	0.081
		Female	92	30.79±7.91			

Values are expressed as means ± standard deviations. \*Significant Difference  $p \leq 0.05$

As seen in Table 5, while a significant difference was observed in the guilt sub-dimension of emotional eating ( $F(2, 147)=3.739$ ,  $p < 0.05$ ,  $\eta^2=0.05$ ), no significant difference was found in the total score of emotional eating and other sub-dimensions (For Physical Appearance Comfort:  $F(2, 147)=5.627$ ,  $p < 0.05$ ,  $\eta^2=0.07$ ; for Negative Evaluation Expectation:  $F(2, 147)=3.308$ ,  $p < 0.04$ ,  $\eta^2=0.05$ ; for total score:  $F(2, 147)=5.719$ ,  $p < 0.05$ ,  $\eta^2=0.07$ ). When post-hoc tests were analysed, a difference was found between the participants who graduated from primary school ( $\bar{X}=1.56$ ,  $SD=1.23$ ) and university ( $\bar{X}=2.48$ ,  $SD=1.67$ ) in the guilt sub-dimension ( $p=0.02$ ). A significant difference was found in social physique anxiety total score and sub-dimensions according to educational status ( $p < 0.05$ ) (Table 4). When the difference between the groups was analysed with Post-hoc tests, a significant difference was found between primary school ( $\bar{X}=11.81$ ,  $SD=4.21$ ) and high school graduates ( $\bar{X}=13.66$ ,  $SD=3.78$ ) ( $p=0.041$ ); high school ( $\bar{X}=13.66$ ,  $SD=3.78$ ) and university graduates ( $\bar{X}=11.26$ ,  $SD=3.29$ ) ( $p=0.014$ ) in the sub-dimension of comfort of physical appearance. Moreover, a significant difference was found between primary school graduates ( $\bar{X}=27.31$ ,  $SD=8.45$ ) and high school graduates ( $\bar{X}=31.76$ ,  $SD=8.10$ ) ( $p=0.018$ ), and between high school graduates ( $\bar{X}=31.76$ ,  $SD=8.10$ ) and university graduates ( $\bar{X}=27.03$ ,  $SD=8.01$ ) ( $p=0.026$ ) in the total score.

**Table 5.** ANOVA Results of Emotional Eating Scale and Social Physique Anxiety Inventory according to Educational Status

Inventory	Sub-dimensions	Educational Status	N	Mean ± SD	F	Sd	p
Emotional Eating Scale	Disinhibition	Primary School	36	4.44±3.28	1.955	2	0.145
		High school	87	4.85±3.19			
		University	27	6.07±3.96			
	Type of food	Primary School	36	2.39±1.23	0.310	2	0.734
		High school	87	2.37±1.32			
		University	27	2.59±1.39			
	Guilt	Primary School	36	1.56±1.23	3.739	2	0.026*
		High school	87	2.00±1.26			
		University	27	2.48±1.67			
Total Score	Primary School	36	8.39±4.72	2.620	2	0.076	
	High school	87	9.22±4.39				
	University	27	11.15±6.15				
Social Physique Anxiety	Physical Appearance Comfort	Primary School	36	11.81±4.21	5.627	2	0.004*
		High school	87	13.66±3.78			
		University	27	11.26±3.29			
	Negative Evaluation Expectation	Primary School	36	15.50±5.63	3.308	2	0.039*
		High school	87	18.10±5.75			
		University	27	15.78±6.45			
	Total Score	Primary School	36	27.31±8.45	5.719	2	0.004*
		High school	87	31.76±8.10			
		University	27	27.03±8.01			

Values are expressed as means ± standard deviations. \*Significant Difference  $p \leq 0.05$

No significant difference was found in emotional eating scale sub-dimensions and total score according to sports experience ( $p > 0.05$ ). Similarly, no statistically significant difference was found in the total score and sub-dimensions of social physique anxiety according to the sports experience ( $p > 0.05$ ) (Table 6).



**Table 6.** ANOVA Results of Emotional Eating Scale and Social Physique Anxiety Inventory according to Sport Experience

Inventory	Sub-dimensions	Sports Experience	N	Mean ± SD	F	Sd	p
Emotional Eating Scale	Disinhibition	0-3	53	4.81±3.81	0.805	2	0.449
		4-7	75	4.84±3.10			
		8 and more	22	5.82±3.20			
	Type of food	0-3	53	2.49±1.32	0.947	2	0.390
		4-7	75	2.28±1.35			
		8 and more	22	2.68±1.09			
	Guilt	0-3	53	1.68±1.25	2.092	2	0.127
		4-7	75	2.12±1.33			
		8 and more	22	2.23±1.63			
Total Score	0-3	53	8.98±5.17	1.047	2	0.353	
	4-7	75	9.24±4.59				
	8 and more	22	10.73±5.11				
Social Physique Anxiety	Physical Appearance Comfort	0-3	53	13.15±4.36	1.034	2	0.358
		4-7	75	12.83±3.90			
		8 and more	22	11.73±2.69			
	Negative Evaluation Expectation	0-3	53	17.02±6.18	2.750	2	0.067
		4-7	75	17.84±5.69			
		8 and more	22	14.50±5.72			
	Total Score	0-3	53	30.17±9.41	2.472	2	0.088
		4-7	75	30.67±7.77			
		8 and more	22	26.22±7.44			

Values are expressed as means ± standard deviations. \*Significant Difference  $p \leq 0.05$

In Table 7, a significant difference was found in the total score of emotional eating ( $t(148)=3.196$ ;  $p < 0.05$ ; Cohen's  $d=0.57$ ) and the sub-dimensions of disinhibition ( $t(148)=3.409$ ;  $p < 0.05$ ; Cohen's  $d=0.57$ ) and sub-dimension of guilt ( $t(148)=2.428$ ;  $p < 0.05$ ; Cohen's  $d=0.41$ ) according to national athlete status. No significant difference was found in the total score and sub-dimensions of social physique anxiety according to national athlete status ( $p > 0.05$ ). As a result, while the emotional eating levels of national athletes and the level of feeling guilty about what they eat are higher than those of non-national athletes, their social physique anxiety levels do not change.

**Table 7.** T-Test Results of Emotional Eating Scale and Social Physique Anxiety Inventory according to National Athlete Status

Inventory	Sub-dimensions	National Athlete Status		Mean ± SD	t	Sd	p-Value
		Yes	No				
Emotional Eating Scale	Disinhibition	Yes	54	6.19±3.68	3.409	148	0.001*
		No	96	4.29±3.01			
	Type of food	Yes	54	2.63±1.43	1.527	148	0.129
		No	96	2.29±1.22			
	Guilt	Yes	54	2.33±1.43	2.428	148	0.016*
		No	96	1.78±1.28			
Total Score	Yes	54	11.15±5.60	3.196	148	0.001*	
	No	96	8.36±4.12				
Social Physique Anxiety	Physical Appearance Comfort	Yes	54	12.63±3.10	-0.384	139.41	0.701
		No	96	12.86±4.33			
	Negative Evaluation Expectation	Yes	54	17.30±5.40	0.364	148	0.716
		No	96	16.93±6.25			
	Total Score	Yes	54	29.93±6.87	0.101	136.54	0.920
		No	96	29.79±9.22			

Values are expressed as means ± standard deviations. \*Significant Difference  $p \leq 0.05$

## 7. DISCUSSION

This study aimed to examine the relationship between emotional eating levels and social physique anxiety of weightlifting athletes. Although the participants tended to keep their weight under control due to being weight-class athletes, it was determined that the participants were low-level emotional eaters. When emotional eating levels were examined according to gender, it was revealed that females were more likely to be emotional eating than males. Besides, it was determined that female athletes had higher levels of disinhibition and guilt about what they ate than males. With the desire to be a size zero and to be fit, which is attributed to females by society and the media, it is an expected situation that females tend to eat more emotionally than males. Since the participants in the study were weight-class athletes, the urge to keep the weight constant due to weight controls were performed routinely and the competition situations according to the weight category may have led to this result. When the literature was examined, Taub and Benson (1992) found that females were more concerned about their weight than males and 75% of females struggled to lose weight. In another study, it was argued that athletes may approach weight gain with hatred due to the cultural pressure against weight gain (Davis, 1992). The obtained result was in parallel with the literature. As stated by Kendir and Karabudak (2019), eating disorders seen in athletes may be related to genetics, psychological, sociocultural, gender or sports branch. Identifying the risks of eating disorders, detecting them at an early stage, and trying to improve them are very important for both athlete health and performance. However, unlike this study, in the study conducted by Çifçi and Eminsoy (2024)

on university students, low level emotional eating was detected in 2.7% of the female students, while emotional eating was found in 63.4% of the male students participating in the study. These differences were not found to be statistically significant.

In the study, the mean score of the social physique anxiety level of the participants was found to be  $29.84 \pm 8.43$ , which indicated that the social physique anxiety of the participants was at a moderate level. Similarly, in the study of Ballı et al. (2006), the mean social physique anxiety score of the athlete population was found to be  $29,05 \pm 7,13$ . In this study, the level of social physique anxiety did not differ according to gender. According to this result, the fact that the athletes participating in the study were athletes suggests that body perceptions may be similar between genders. In a study conducted on dancers in the literature, it was determined that female dancers had higher social physique anxiety than male dancers (Çepikkurt & Coşkun, 2010). In another study conducted on Sports Sciences Faculty students, it was found that females had higher levels of social physique anxiety than males (Yaşartürk et al., 2014). A similar result was found in a study conducted on adults attending the gym (Şahin, 2018). The difference between the literature and the study result may be due to the difference in the participant population included in the study. We suggest that the body perception levels of athletes should also be examined in similar studies to be conducted on weight-class athletes. Besides, in parallel with this study, studies were showing that the level of social physique anxiety did not differ according to gender (Çetinkaya et al., 2019; Amil & Bozgeyikli, 2015).

In the study, it was found that the level of guilt of university graduates was higher than that of primary school graduates. Similar to this study, Mutlu et al. (2022) found in their study that restrictive eating scores increased as age and education level increased. This situation may be caused by the increase in the level of nutritional knowledge of individuals in parallel with the increase in the level of education and may be caused by the "calorie information of the foods eaten and the thought that these calories may cause weight gain". Studies show that the level of nutritional knowledge was associated with the level of education (Parmenter et al., 2000; Hendrie et al., 2008).

In the literature, some studies did not find a relationship between educational status and social physique anxiety level (Şahin, 2018). In this study, unlike the literature, it was revealed that the level of social physique anxiety differed according to the educational level of the participant. In the study, it was found that the social physique anxiety levels of weight-class athletes with high school education levels were higher than the participants with primary school and university levels. It was determined that as the education level of the participants increased, their social physique anxiety levels decreased. It is thought that this may be because the participants at the high school level are at the adolescent level.

Soylu (2021) found that national wrestlers had higher emotional eating levels than non-national wrestlers. In this study, it was determined that national athletes had more difficulty in preventing the desire to eat and felt more guilty about what they ate. The responsibilities that national athletes undertake with the expectation of success may cause these athletes to feel guilty about the food they eat. This is because weight-class athletes try to spend a lot of energy in a short time to lose the extra weight they have gained and this tires their bodies and minds both psychologically and physically. For this reason, it can be said that national weight-class athletes pay attention to what they eat to maintain their weight by thinking success-oriented. Besides, it can be thought that there was no significant difference between the social physique anxiety levels of the participants according to their nationality status and this situation may be because the participants were weight-class athletes.

In the study, it was determined that emotional eating levels and social physique anxiety levels of weight-class athletes did not change according to the sports experience. In the

literature review, there were no studies examining the level of emotional eating and social physique anxiety in weight-class athletes according to their sports experience.

Emotional eating was considered as a type of eating disorder (İnalkaç & Arslantaş, 2018; Sevinçer & Konuk, 2013). Studies have revealed that eating attitudes differ in university students depending on their eating disorder status (Tunç, 2019) and that the social physique anxiety levels of those with eating disorders are also high (Kartal and Aykut, 2019). Similarly, other studies revealed a positive relationship between eating disorders and social physique anxiety levels (Morales et al., 2015; Lanfranchi et al., 2015). In studies conducted on adolescents, a relationship was found between appearance and eating disorders (Griffiths & McCabe, 2000; Phares et al., 2004; Wiseman et al., 2004). There is also a positive significant relationship between social physique anxiety and emotional eating in individuals who go to gyms (Yalçın & Kurnaz, 2021). In parallel with these results, a significant positive correlation was found between the sub-dimensions of the emotional eating scale and social physique anxiety sub-dimensions in this study. This result revealed that as the frequency of athletes' emotional eating tendencies increased, the anxiety they felt about their physical appearance increased proportionally.

#### Limitations, Recommendations and Conclusion

As a result, weight-class sports include branches where weight loss occurs, and weight-class athletes have to constantly control their weight as required by their branches. In the study, these athletes were found to be low-level emotional eaters. In addition, as the emotional eating tendencies of weight-class athletes increase, their social physique anxiety levels also increase proportionally. In this study, the fact that the participants are actively involved in weight-class sports and are always in shape due to the nature of this sport ensures that the athletes do not experience social physique anxiety. Accordingly, weight-class athletes from different branches can be included in future studies, and perfectionism and psychological structures, which are thought to be related to the concept of emotional eating and social physique anxiety, and which have been linked to many disordered eating behaviors in studies conducted as stated by Öz (2024), can be addressed.

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### Declaration of Contribution Rates of Researchers

The first author wrote the material and method, results, discussion and conclusion sections and corrected all paper; the second and fourth authors performed the design, data collection and critical review processes; and the third author wrote the introduction."

**Conflict of Interest:** There was no personal or financial conflict of interest in the study.

The author/authors do not have a conflict statement regarding the research.