

The Impairment of Body Image of the Students of Ağrı İbrahim Çeçen University Faculty of Sports Sciences and the Effect of the Anxiety of Caught Corona Disease on their Nutrition Habits

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Abstract

The aim of this study was to investigate the effect of body image and Corona disease anxiety on athlete's eating disorders.

The method of this research is descriptive and correlational. The statistical population Ağrı İbrahim Çeçen University Faculty of Sports Sciences, which is equal to 340 people. To determine the sample size, Cochran's sample size estimation formula was used and the number of samples was equal to 181 people who were selected by simple random sampling method. Corona Disease Anxiety Scale (CDAS) by Alipour et al. (2019), Body Image Questionnaire by Cash et al. (1990) and Eating Disorders Questionnaire by Garner D, and Olmsted (1982) were used to collect data. SPSS software was used to analyze the data and regression coefficient was used to analyze the research hypotheses.

The results show that body image has a significant negative effect on eating disorders ($p < 0.05$, $Beta = -0.44$). Corona anxiety also had a significant positive effect on eating disorders ($p < 0.05$, $Beta = 0.56$).

Therefore, it can be concluded that with more attention to the body image, reflection on physical characteristics, satisfaction with different body parts and attitudes about weight, eating disorders decrease and with increasing Corona disease anxiety, eating disorders increase. Attitudes toward the body should be controlled and ways to get into Coronavirus anxiety should be limited.

Keywords: Body image, Corona disease anxiety, Eating disorders.

Introduction

Eating disorders are one of the major public health concerns and their prevalence is increasing (Hoek and Hoeken, 2003). Eating disorders are classified into two groups. The first group with anorexia nervosa in the form of fear of becoming obese, despite having the right weight, and having disorders

in the body image; and the second group with bulimia nervosa accompanied by constant anxiety about weight, frequent periods of overeating with large amounts and compensatory behaviors such as intentional vomiting, dietary restriction, fasting or strenuous exercise are characterized (Nemati and Rahmaninia, 2011).

We shall focus on anorexia and bulimia nervosa. The former is a disorder characterized by deliberate weight loss, induced and sustained by the patient while the latter is a syndrome characterized by repeated bouts of overeating and excessive preoccupation with the control of body weight, leading the patient to adopt extreme measures so as to mitigate the “fattening” effects of ingested food (Napolitano et al, 2019).

When there is a difference between the actual weight and mental shape of the body or the body image and the existing standards in society, people face a lot of social pressures to achieve the ideal weight, followed by body image dissatisfaction. Excessive attention to weight and body image, excessive anxiety about them and fear of obesity and being overweight are known as early symptoms of eating disorders (anorexia and bulimia nervosa) (Byrne et al, 2002).

Eating disorders are associated with a variety of factors, including age, gender, weight and psychological factors such as body image dissatisfaction, perfectionism, tendency to lose weight, excessive worry about body shape, dietary restrictions, and weight control behaviors (Chang et al, 2008).

Also, the prevalence of these disorders is higher in endurance athletes such as marathon runners, athletes with a weight category to be allowed to participate in competitions such as judo, wrestling and boxing, and sports that are done for the purpose of body beauty, such as gymnastics and ballet (Sundgot-Borgen and Torstveit).

Related to these two eating disorders is body image dissatisfaction, which can be defined as a negative subjective evaluation of one’s own body. The three, anorexia, bulimia nervosa, and body image dissatisfaction interact with each other (Goltz et al, 2013), and body image dissatisfaction has even been described as a strong predictor of anorexia and

bulimia nervosa (Neves et al,2017). In particular, if body image dissatisfaction improves, disordered eating behaviour decreases (Neves et al,2016).

The relationship between eating disorders and body image dissatisfaction has been studied in Western countries, especially among women athletes (Costarelli and Stamou, 2009 and Goltzet al, 2013), but there is little research about these issues in developing countries. In the most important study that has been done, Hafrun et al. (2019) concluded that there is a significant relationship between body image anxiety and eating disorders.

The tendency is to think that these eating disorders occur equally in the general population, but there is increasing recognition of their presence in specific populations, including athletes (Fries et al, 2017). Indeed, there exists a subclinical eating disorder categorized within anorexia nervosa—“anorexia athletica”. This can be defined as a state of reduced energy intake and reduced body mass despite a high level of physical performance (Coelho et al, 2014). Athletes embody the concept of physical perfection, and the requirements to meet the standards of weight, eating behavior, and performance are strict. Certain factors contribute to this sport-specific pressure, e.g., specific judging criteria, weight limits, and tight or revealing uniforms (di and Petrie, 2013).

Also, athletes are constantly under pressure to fit their sport’s stereotypical athletic body. These athletic stereotypes can lead to the risk of body image dissatisfaction among athletes who are struggling to meet the criteria for the ideal body. Moreover, the perfect body to obtain the best performance in a given sport does not always coincide with society’s standard of an aesthetic body. This could lead to the athlete’s even greater dissatisfaction (Rousselet et al, 2017).

Body image dissatisfaction is generally considered to be a phenomenon that is primarily experienced by women, but the focus is steadily shifting to include men (Galli and Reel, 2009). In a study of 576 German athletes, 59% of the men reported dissatisfaction with their body, and even in contact sports like rugby, 46% of elite players have a poor perception of their body image (Gibson et al, 2017). While there are differences in body dissatisfaction between athletes and non-athletes, the differences between elite and non-elite athletes

are unclear, and female artistic gymnasts' body dissatisfaction can change over a single season (Neves et al, 2017) Also, a recent study showed that lean-sport athletes had higher body shape concern scores than those of non-lean sports (Wells, 2015).

In addition to body image, recent research has examined the effects of the Corona virus pandemic on eating disorders. Rachel et al (2020) in their study have studied and confirmed the effect of COVID19 epidemic on the risk and symptoms of eating disorders.

Many people experience a tendency to fear and anxiety clinically during an outbreak of an infectious disease (Taylor, 2019). Having this infection is a psychological risk factor; to the extent that, among the people of the United States, China (Xiang et al, 2019) and more recently India, people with anxiety due to the Corona disease have committed suicide (Gupta, et al, 2020).

The coronavirus disease 2019 (COVID19) pandemic has deeply disrupted daily life across the globe, with profound effects on mental and physical health. Accordingly, research on the health effects of the COVID19 pandemic has been identified as an important priority (Holmes et al., 2020). Eating disorder (ED) behaviors are likely to be exacerbated by the pandemic through multiple pathways, particularly among vulnerable groups, including those with body image and eating concerns. Thus, the pandemic may precipitate the development of ED behaviors among some and exacerbate existing pathology among others. Here, we outline three pathways with particular relevance for research priorities and call for research examining how the COVID19 pandemic and related social disruptions may increase ED risk and symptoms (Rachel et al, 2020)

Hrabosky (2007) believes that studies on body image disorders and eating patterns should be continued in order to gain a complete and comprehensive understanding of these two issues in all groups of people. On the other hand, Corona disease anxiety is strongly affecting nutritional behaviors, and due to the lack of research on the effect of body image and Corona disease anxiety on athletes' eating disorders in developing societies, the present study seeks to answer the question of how body image and Corona disease anxiety affect the eating disorders of student-athletes?

Methodology

The method of this research is descriptive and correlational. The statistical population includes Ağrı İbrahim Çeçen University Faculty of Sports Sciences, which is equal to 340 people. To determine the sample size, Cochran's sample size estimation formula was used and the number of sample was equal to 181 people who were selected by simple random sampling method. Standard questionnaires were used to collect the data.

The Corona Disease Anxiety Scale (CDAS) has been prepared and validated by Alipour et al. (2019). The final version of this tool has 18 items and 2 components (factors). Items 1 to 9 measure psychological symptoms and items 10 to 18 measure physical symptoms. This measuring tool is rated in a 4-point Likert scale (never = 0, sometimes = 1, most times = 2 and always = 3). The reliability of this tool was obtained using Cronbach's alpha method for the first factor ($\alpha = 0.879$), the second factor ($\alpha = 0.861$) and for the whole questionnaire ($\alpha = 0.919$) (Alipour et al., 2019).

The Mental Body Image Questionnaire was developed and validated by Cash et al. (1990). The final version of this tool has 57 items and 3 components (factors) of the mental image of the body itself, satisfaction of different body parts and a person's attitude about weight. This tool is scored in a 5-point Likert scale (I completely disagree = 1, I completely agree = 5). The validity of the main sections of the questionnaire was reviewed and confirmed by Cash et al. (1990). Its reliability was also reported to be 0.81.

The Eating Disorders Questionnaire was designed and validated by Garner D, and Olmsted (1982), it is a 26-item questionnaire that measures the 4 components of mental preoccupation with food, diet and avoidance of fattening foods, the impact of social pressures on eating and lack of control over eating in the form of Likert scale. The validity of the questionnaire can be confirmed and the reliability coefficient is equal to 0.85.

SPSS software was used to analyze the data and regression coefficient was used to analyze the research hypotheses.

Results

Table 1: Average and Standard Deviation of Body Image, Coronadisease Anxiety and Eating Disorders

Standard Deviation	Mean	Variable
16.55	147.36	Body image
5.62	48.19	Corona disease anxiety
7.90	52.66	Eating disorders

According to the results of the above table, the average of body image is 147.36, Corona disease anxiety is 48.19 and the average of eating disorders is 52.66.

Table 2: Summary of Regression Model the Effect of Body Image on Eating Disorders

Adjusted R Square	R Square	R
0.186	0.195	0.441

According to the results of Table (5), the correlation coefficient between the body image and eating disorders is equal to 0.44. The R Square is equal to 0.19. In other words, it can be said that 0.19 of the changes in eating disorders are determined by the body image and 0.81 is determined by other variables.

Table 3: The Results of the Simple Regression Equation Effect of Body Image on Eating Disorders

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.471	5.976		2.756	0.007
	Body image	-0.201	0.042	-0.441	-4.743	0.000

According to the results of Table (4) and considering the significant level of test error for the confidence level of 0.95, it can be said that the body images has a significant negative effect on eating disorders. The beta coefficient also shows that body image predicts -0.44 changes in eating disorders.

According to the results of Table (5), the correlation coefficient between Corona disease anxiety and eating disorders is 0.56. The R Square is 0.31. In other words, it can be said that 0.31 of changes in eating disorders are determined by Corona disease anxiety and 0.69 are determined by other variables.

Table 4: Summary of Regression Model the Effect of Coronadisease Anxiety on Eating Disorders

Adjusted R Square	R Square	R
0.308	0.316	0.562

Table 5: The Results of the Simple Regression Equation Effect of Corona Disease Anxiety on Eating Disorders

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27.728	2.693		10.298	0.000
	Coronadisease anxiety	0.426	0.065	0.562	6.547	0.000

According to the results of Table (4) and considering the significant level of test error for the confidence level of 0.95, it can be said that Corona disease anxiety has a significant positive effect on eating disorders. The beta coefficient also shows that Corona disease anxiety predicts 0.56 of the changes in eating disorders.

Discussion

In previous studies, the effect of body image on eating disorders has been confirmed, and of course, the effect of Corona disease anxiety on eating disorders is a new topic that has been addressed in the present study. Therefore, the aim of this study is to investigate the effect of body image and Corona disease anxiety on eating disorders in student-athletes.

The results of the study show that the body image has a significant negative effect on eating disorders. In other words, it can be said that by paying more attention to the body image, reflection on physical characteristics, satisfaction with different body parts and attitudes about weight, eating disorders decrease.

The results of this study are consistent with the findings of Hafrun et al. (2019), Murray et al. (2013), Wade, T.D & Tiggemann (2013), Rote et al. (2013), Ekern (2012) and Ferrand et al. (2009). Results of the mentioned research shows a significant effect between the body image on the eating disorders in the studied samples.

Explaining this finding, it can be stated that due to the view of different cultures about student-athletes, there is more concern about body image in this group and it causes many problems such as dissatisfaction with physical appearance and even negative view of the physical body. Athletic students with this negative body image tend to approach the ideal body, so they try to use different methods and ways, including exercise and physical activity to achieve this ideal body. Therefore, they are more prepared to show symptoms of eating disorders such as weight loss, desire and relentless effort to lose weight, morbid fear of obesity and compensatory behaviors after overeating to prevent weight gain.

At the same time, due to the emphasis of societies on the thinness of athletes as a privilege and widespread advertising on the treatment of obesity and slimming in most media, the tendency to lean body has become more apparent in student-athletes. On the other hand, this issue arises when the ideal body is not the same or clear and is related to the race of each nation. The source of judgment and desire for weight loss lies in the European body shape and race, and it is not possible to expect a slim body for women in all ethnicities.

The results also show that Corona disease anxiety has a significant direct effect on eating disorders and with increasing Corona disease anxiety, eating disorders also increase. The results are consistent with the findings of Vuillier et al. (2021), Baenas et al. (2020), Fernandez-Aranda et al. (2020).

One of the dimensions that affects mental health is anxiety, so that today anxiety disorders are the most common in the category of mental disorders.

The prevalence of anxiety disorders during life stages ranges from 8 to 28% (Vitasari et al, 2011).

Explaining the above, it can be said that the fear of getting Corona disease among student-athletes increases the anxiety of this disease, and to escape the coronavirus, they choose and try different methods. Based on what has been observed in the last year, various diets have been prescribed by ordinary people and even doctors to combat Coronavirus; overeating, undereating, avoiding fatty foods, eating high-protein foods and ... each of these diets can have many negative consequences for people and cause eating disorders.

Conclusion

In the final conclusion of the research, it can be said that by increasing body image and increasing its components (more attention to the body image, reflection on physical characteristics, satisfaction with different body parts and attitudes about weight), eating disorders are reduced, and this indicates the inverse effect of the body image on eating disorders. It can also be concluded that with increasing Corona disease anxiety, eating disorders increase. Attitudes toward the body should be controlled and ways to get into Coronavirus anxiety should be limited.

Due to the trend of globalization and the spread of information technology, geographical borders have become less colored and non-Western nations, especially young people, are exposed to Western culture. There is no doubt that both media patterns of beauty and health technologies play a role in body dissatisfaction, unhealthy nutrition, weight control and eating disorders in student-athletes. Finally, it should be said that eating disorder is a phenomenon influenced by culture rather than a culture-dependent phenomenon and therefore special attention should be paid to the spread of problems related to eating and body image in developing societies.

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