Does Fear Of Covid-19 Affect Eating Disorder and Social Appearance Anxiety? A Descriptıve Research With Young Female University Students in Turkey

Covıd-19 Korkusu Yeme Bozukluğunu ve Sosyal Görünüş Kaygısını Etkiler mi? Türkiye'deki Genç Kız Üniversite Öğrencileri ile Tanımlayıcı Bir Araştırma

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DOES FEAR OF COVID-19 AFFECT EATING DISORDER AND SOCIAL APPEARANCE ANXIETY? A DESCRIPTIVE RESEARCH WITH YOUNG FEMALE UNIVERSITY STUDENTS IN TURKEY

ABSTRACT:

Aim: This research was conducted to determine the effect of fear of COVID-19 on eating disorder and social appearance anxiety in young female students.

Method: The sample of the descriptive type of research consists of 416 female students who are taught at two faculties of the public university located in eastern Turkey. The research data was collected using the demographics characteristics form, the fear of COVID-19 scale, eating disorder examination questionnaire, and social appearance anxiety scale.

Results: In the study, it was determined that the young females had a near-moderate level (18.51 ± 6.86) of COVID-19 fear. Besides, a significant positive relationship was found between COVID-19 fear and social appearance anxiety and eating disorder total, and sub-dimensions (weight concern, eating concern, shape concern, restraint, binge eating) mean scores (r=.388, r=.192, r=.200, r=.192, r=.172, r=.128, r=.289; p <.01). Regression analysis showed that COVID-19 fear in young females was 15% effective in explaining social appearance anxiety (p <001).

Conclusion and Suggestions: As a result of the findings obtained from the study, it is seen that there is a significant relationship between COVID-19 fear level and social appearance anxiety and eating disorder, and coronavirus fear has a significant effect on social appearance anxiety. It is thought that interventions for fear of COVID-19 in young females could affect eating disorders and social appearance anxiety.

Keywords: Anxiety; COVID-19; Eating disorder; Social appearance

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COVID-19 KORKUSU YEME BOZUKLUĞUNU VE SOSYAL GÖRÜNÜŞ KAYGISINI ETKILER MI? TÜRKIYE'DEKI GENÇ KIZ ÜNIVERSITE ÖĞRENCILERI ILE TANIMLAYICI BIR ARAŞTIRMA

ÖZ:

Amaç: Bu araştırma genç kızlarda COVID-19'a yönelik korkunun yeme bozukluğu ve sosyal görünüş kaygısına etkisini saptamak amacıyla yapıldı.

Yöntem: Tanımlayıcı tipte yapılan araştırmanın örneklemini, Türkiye'nin doğusunda bulunan bir kamu üniversitesinin iki fakültesinde öğrenimleri devam eden 416 kız öğrenci oluşturdu. Veriler kişisel tanıtım formu, COVID-19 korkusu ölçeği, yeme bozukluğu belirleme ölçeği ve sosyal görünüş kaygısı ölçeği kullanılarak ile toplandı.

Bulgular: Araştırmada genç kızların ortalamaya yakın düzeyde (18.51 ± 6.86) COVID-19 korkusu yaşadığı saptandı. Araştırmada COVİD-19 korkusuyla sosyal görünüş kaygısı, yeme bozukluğu toplam ve alt boyut (kilo kaygısı, yeme kaygısı, şekil kaygısı, kısıtlama, tıkınırcasına yeme) puan ortalamaları arasında pozitif yönde anlamlı ilişki saptandı (sırasıyla r = .388, r = .192, r = .200, r = .192, r = .172, r = .128, r = .289; p <.01, Table 2.). Yapılan regresyon analizi genç kızlardaki COVİD-19 korkusunun sosyal görünüş kaygısını açıklamada %15 oranında etkili olduğu gösterdi (p <.001).

Sonuç ve Önerileri: Araştırmadan elde edilen bulgular sonucunda COVID-19 korku düzeyi ile sosyal görünüş kaygısı ve yeme bozukluğu arasında önemli ilişki olduğu görülmektedir. Genç kızlarda COVID-19 korkusuna yönelik müdahalelerin yeme bozuklukları ve sosyal görünüş kaygıları üzerinde etkili olabileceği düşünülmektedir.

Anahtar Kelimeler: Anksiyete; COVID-19; Sosyal Görünüş Kaygısı; Yeme Bozukluğu

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INTRODUCTION

Coronavirus, which first appeared in 2019 and was seen in China, spread as a global health crisis worldwide in a short period of three months and affected Turkey after March 11, 2020 (Ministry of Health of Turkey, 2020b; WHO, 2020e). The COVID-19 pandemic exposes individuals to loss, uncertainty, isolation, financial difficulties, insecurity, inability to access social support, and poses a risk to individuals in terms of mental health (Ministry of Health of Turkey, 2020b; Sarıcam et al., 2014). Additionally, with the increasing mortality and morbidity rates in the pandemic, an increase in psychological problems such as panic, stress, fear, and depression started to increase (Ahorsu et al., 2020; Akbas & Dursun, 2020; Craig et al., 2020; Ercan, 2020; Sarı & Dağ, 2009; Steinberg et al., 2016; Taylor et al., 2020).

The quarantine at home, carried out within the scope of COVID-19 measures, causes individuals to stay away from their daily routine and live a sedentary life (Kartal & Kayıksız, 2020). This situation leads to an increase in the desire to con-

sume food, a change in eating behavior, and eating disorders (Kartal & Kayıksız, 2020; Labrague et al., 2020). It was reported that individuals might feel the need to eat and have eating disorders even when they are not hungry to control their negative emotions, feel happy and safe in situations where uncertainty and threat perception is high (Serin & Sanlıer, 2018). However, the prevalence of eating disorders in our country increased in the last 25 years, and it was observed that most of the eating disorders occur before the age of 25 (Akdevelioglu & Yorusun, 2019; Cakıroglu et al., 2020). It is stated that the prevalence of eating disorders is high during the university years when ready-made food consumption, fast food, solid food, and night eating habits are common (Cakıroglu et al., 2020). It is known that young people who gain weight due to unhealthy eating experience weight anxiety, which will bring dissatisfaction with body perception (Oruclular, 2013). This anxiety about physical appearance in young people causes social appearance anxiety (Dogan, 2010). It is stated that this anxiety experienced in young people leads to negative social, professional, and primarily academic effects (Simsir et al., 2019). However, young people with positive body perception behave more autonomously, take more responsibility, and develop healthier family and professional relationships (Eksi et al., 2016). Considering that they did not start their profession and the vast majority of them did not establish their families, it is predicted that young university students play a crucial role in public health in the future.

Long mandatory school holidays and home isolation to counter the threat of the COVID-19 epidemic forced many young people (at least 3,408.815 young people in the Turkey to stay at home, causing problems such as boredom, spending more time on the internet, watching TV for longer, being less active, eating more, and increasing weight gain (Commission on Higher Education, 2020; Jiao et al., 2020). The fear of COVID-19 and the lack of activity caused by the epidemic negatively affect the youth, both mentally and physically (Wenjun et al., 2020). It is thought that social appearance anxiety and eating disorder may be important for young girls in this process. Despite the evidence suggesting fear experienced during the epidemic, no previous studies investigating the effect of fear on eating disorder and social appearance anxiety were found (Wenjun et al., 2020). For this reason, this study was conducted to determine the effect of fear of COVID-19 on eating disorder and social appearance anxiety in young females in the coronavirus pandemic.

MATERIALS AND METHODS

The descriptive-type research was carried out in two faculties of the university located in eastern Turkey. The research population was formed by young females in the two faculties of the specified university (N:2590). When the power analysis was done, the sample size was calculated to be at least 335, with a 5% error margin and

95% ability to represent the universe. The research was completed with a total of 416 young female participants. The publicly available statistical software OpenEpi was used to calculate the sample size.

Inclusion criteria

- Aged between18-25

- Open to communication and cooperation

- Continuing education as a student

- No psychiatric illness

- Not using any psychiatric medication

Data Collection Tools: The research data were collected through Google Forms prepared by the researchers. Data were collected using "Personal Information Form", "The Fear of COVID-19 Scale (FCV-19S)", "The Eating Disorder Examination Questionnaire (EDE-Q)" and "Social Appearance Anxiety Scale (SAAS)". In addition to descriptive statistical analyzes, correlation and regression analysis were used to analyze the data.

Personal Information Form: The form contains a total of 7 questions about the socio-demographic characteristics of young females, such as age, gender, economic status, and education.

The Fear of COVID-19 Scale (FCV-19S): The adaptation, validity, and reliability of FCV-19S, developed by Ahorsu et al. (2020), to Turkish were made by Satıcı et al. (2020). The applicable age range of the scale is comprehensive, and it can be used on university students and adults. All items of the scale consisting of one dimension and 7 questions are scored positively. The questions were scored between 1-5 (1- Strongly disagree, 5-Strongly agree) using a 5-point Likert type scaling. There is no reverse coded item on the scale. Scores between 7 and 35 can be achieved on the scale. A high score obtained from the scale means experiencing high levels of coronavirus fear. In the Turkish validity and reliability study of the scale, the Cronbach's alpha value was found as (α=.82). In this study, the Cronbach's alpha value was found as (α=.88).

The Eating Disorder Examination Questionnaire (EDE-Q): This scale is the self-report form of the eating disorders assessment interview (Fairburn & Cooper, 1993). The purpose of the scale is to measure and diagnose eating disorders. It con-

sists of 33 questions and five subscales of restriction items reflecting the severity of eating disorder psychopathology (items 1, 2, 3, 4, and 5), 6 items of binge eating in which specific behaviors related to eating disorders are evaluated, shape concerns (items 6, 8, 23, 10, 26, 27, 28, and 11), eating concerns (items 7, 9, 19, 21, and 20), and weight-related concerns (22, 24, 8, 25, and 12). The subscale and total score ranges between 0 and 6. A high score indicates the high level of the pathology. The Turkish validity and reliability study of the scale was performed by Yücel et al. (2011). The Cronbach's alpha value of the scale was found to be (α=.93) (Yucel et al., 2011). In this study, the Cronbach's alpha value was found as (α=.88).

Social Appearance Anxiety Scale (SAAS): It is a self-report style scale developed by Hart et al. (2008) to measure the emotional, cognitive, and behavioral anxieties experienced by the individual regarding his appearance. SAAS is a 5-point Likert type scale consisting of 16 items. The answers to the scale items are selected among the options of (1) Strongly Disagree, (2) Disagree, (3) Somewhat Agree, (4) Agree, (5) Strongly Agree. Only item 1 of the scale is reverse-coded. High scores from SAAS, which measures social appearance anxiety in one dimension, indicate that appearance anxiety is high. The Turkish adaptation of the scale was conducted by Dogan (2010) for its validity and reliability study. The Cronbach's alpha internal consistency coefficient for SAAS was found to be .93 (Dogan 2010). In this study, the Cronbach's alpha value was found as (α=.95).

Data Analysis: The research data were analyzed with SPSS 26.0 software for Windows (SPSS, Chicago, IL, USA). Besides descriptive analysis methods (number, percentage, mean, and standard deviation), advanced analysis methods (correlation and linear regression) were used in statistical analysis.

RESULTS

The distribution of some of the young females' demographic characteristics who participated in the study is given in Table 1. It was found that the mean age of young females is 20.12±1.56. 38.5% of the participants are studying at the midwifery department, 50.2% are at the 2nd grade, 55.3% of them have equal income and spending, 92.8% do not have chronic diseases, 52.6% spend the longest period of their lives in a district, 92.8% of them do not have a chronic disease and 91.3% do not use medication regularly, 62.5% of them were found to be in the normal weight range. (Table 1).

Table 1. The distribution of some of the characteristics of the participants (n=416)		
Characteristics	**n**	**%**
Department of education		
Midwifery	160	38.5
Nursing	137	32.9
Child Development	84	20.2
Audiology	11	2.6
Physical therapy and rehabilitation	24	5.8
Grade n (%)		
1st. year	121	29.1
2nd year	209	50.2
3rd year	47	11.3
4th year	39	9.4
Income status n (%)		
Income more than expenses	39	9.4
Income equal to expenses	230	55.3
Income less than expenses	147	35.3
The longest place in life		
Province	197	47.4
Town - Village	219	52.6
Presence of chronic illness		
Yes	30	7.2
No	386	92.8
Regular medication use		
Yes	36	8,7
No	380	91.3
BMI		
Underweight (< 18.5)	85	20.4
Normal (18.5–24.9)	260	62.5
Slightly fat (25–29.9)	56	13.5
First degree obese (30–34.9)	15	3.6
Age in years (M ± Sd) 20.12 ± 1.56		

BMI: Body mass index

Table 2 shows the relationship between FCV-19S level and SAAS, EDE-Q total score, and subscales in young females. A strong positive correlation was observed between FCV-19S level, and SAAS mean score, EDE-Q, WC, EC, SC, R, and BE (p<0.01). As the fear of COVID-19 increased in young females, the mean scores of SAAS, EDE-Q, WC, EC, SC, R, and BE increased.

A strong positive relationship was found between the SAAS mean score and the

means of the EDE-Q total WC, EC, SC, R, and BE subscales score (p<0.01). As the level of social appearance anxiety increased in young girls, it was seen that eating disorder, weight concern, eating concern, shape concern, restraint, and binge eating levels increased significantly.

It was determined that there was a strong positive relationship between the mean EDE-Q total score and the mean scores of the WC, EC, SC, R, and BE subscales (p<0.01). As the eating disorder increased in young females, a significant increase was determined in the levels of weight concern, eating concern, shape concern, restraint, and binge eating.

Additionally, it was found out that there was a strong positive relationship between the WC mean score and the mean scores of the EC, SC, R, and BE subscales (p<0.01). As the weight concern increased in young females, the levels of eating concern, shape concern, restraint, and binge eating also increased significantly.

A strong positive relationship was found between the mean EC score and the mean scores of the SC, R, and BE subscales (p<0.01). There was a significant increase in shape concern, restraint, and binge eating levels as the eating concern increased in young females.

A strong positive relationship was indicated between the mean SC score and the mean score of the R and BE subscales (p<0.01). As shape concern increased in young females, the level of restraint and binge eating also increased significantly.

It was found out that there was a strong positive relationship between the R mean score and the mean BE score (p<0.01). As restraint increased in young females and binge eating levels also increased significantly.

Table 2. The correlation between FCV-19S level and SAAS, EDE-Q total score, and subscales in participants (n=416)

	FCV-19S	SAAS	EDE-Q	WC	EC	SC	R	BE
FCV-19S	1							
SAAS	0.388** 0.000	1						
EDEQ	0.192** 0.000	0.526** 0.000	1					
WC	0.200** 0.000	0.513** 0.000	0.927** 0.000	1				
EC	0.192** 0.000	0.479** 0.000	0.868** 0.000	0.758** 0.000	1			
SC	0.172** 0.000	0.523** 0.000	0.949** 0.000	0.876** 0.000	0.757** 0.000	1		

R	0.128** 0.009	0.341** 0.000	0.814** 0.000	0.656** 0.000	0.661** 0.000	0.659** 0.000	1	
BE	0.129** 0.009	0.209** 0.000	0.450** 0.000	0.428** 0.000	0.433** 0.000	0.422** 0.000	0.328** 0.000	1
M ± Sd	18.51 ± 6.86	35.06 ± 16.33	9.01 ± 7.46	1.97 ± 1.47	0.91 ± 1.21	2.06 ± 1.57	1.02 ± 1.43	18.51 ± 6.86

**Correlation is significant at the 0.01 level (2-tailed).FCV-19S, the Fear of COVID-19 Scale; SAAS, Social Appearance Anxiety Scale; EDE-Q, Eating Disorder Examination Questionnaire;; R, restraint; EC, eating concern; SC, shape concern; WC, weight concern. BE, binge eating

In female students participating in the study, the fear of COVID-19 has a statistical significance in explaining social appearance anxiety (15%) ($p < 0.001$, Table 3). Besides, COVID-19 fear in young females has statistical significance in explaining the eating disorder (3%), weight concern (4%), eating concern (3%), shape concern (3%), restraint (1%), binge eating (1%) ($p < 0.01$, Table 3).

Table 3. Multiple linear linear regression model of FCV-19S for SAAS, EDE - Q total score and subscales in participants(n=416)

Bağımlı değişken	Değişkenler	Beta [b]	F	d.f.(df1, df2)	p-value	R²	t
FCV-19S	SAAS	0.388	73.477	1 414	0.000	**0.151**	8.572
	EDE-Q	0.192	15.797	1 414	0.000	0.037	3.974
	WC	0.200	17.308	1 414	0.000	0.040	4.160
	EC	0.192	15.846	1 414	0.000	0.037	3.981
	SC	0.172	12.681	1 414	0.000	0.030	3.561
	R	0.016	6.884	1 414	0.009	0.016	2.624
	BE	0.129	6.944	1 414	0.009	0.017	2.635

FCV-19S, the Fear of COVID-19 Scale; SAAS, Social Appearance Anxiety Scale; EDE-Q, Eating Disorder Examination Questionnaire; BE, binge eating; R, restraint; EC, eating concern; SC, shape concern; WC, weight concern.

DISCUSSION

The pandemic process with high levels of fear and stress negatively affected young people physically and mentally (Labrague et al., 2020; Wenjun et al., 2020).

According to the research results, it was determined that eating disorders (overeating) increased with the fear felt during the pandemic process. A study examining the eating behaviors of university students during the pandemic process found out that the stress that increased with the isolation process caused excessive eating (Flaudias et al., 2020). However, in a study, it was found that the risk of the eating disorder (binge eating) in women during the pandemic process was higher

than in men (Flaudias et al., 2020). Additionally, according to the research results, it is seen that young females are also concerned about shape and weight, along with the fear of coronavirus. Similarly, it was stated in a study that the inability of young people to leave the house during the pandemic process and the disruption of their daily physical activities caused anxiety about weight and body shape (Rodgers et al., 2020). Especially in this process, education continues online at universities in Turkey, as well as at universities in many countries of the world. It is thought that the inadequacy of physical activity that occurs as a result of studying in front of the computer for a long time during the education process will cause weight gain and deterioration of body shape. Moreover, it is thought that these young people, almost all of whom are known to use social media and the internet, are more exposed to events such as news, comments, and videos that lead to concern, which results in fear and anxiety about their body shape (Lee, J. M., 2013; Turkish Statistical Institute, 2019). However, it was reported that sleep patterns and sleep problems occur with the coronavirus pandemic, and this situation changes food meals and causes meal skips (Dilber & Dilber, 2020). The research findings concluded that a restrictive diet was observed in young females together with the fear of coronavirus. Based on this finding, a study showed that fear of coronavirus transmission increases the tendency to restrictive diets focused on increasing immunity (Rodgers et al., 2020). During the pandemic process in Turkey, there was a similar focus on specific food groups, and demand for foods that strengthen the immune system increased.

It was found in this study that social appearance anxiety increased as the fear of COVID-19 increased in young females. One of the factors that increase social appearance anxiety is the increased sense of loneliness (Kılıç M, 2015). Increasing isolation with the pandemic process brought loneliness along with it, causing a high rate of loneliness in young people (Labrague et al., 2020). Thus, in studies conducted during the pandemic process, it was shown that almost half of the youth between the ages of 18-24 experience high levels of loneliness (Bu et al., 2020; Labrague et al., 2021; Rauschenberg et al., 2020).

According to another study conducted during the pandemic, it was found that females have a higher risk of loneliness than males, and female students have a higher level of social loneliness than male students (Losada-Baltar et al., 2020; Salo et al., 2020; Labrague et al., 2020; Bu et al., 2020; Liu ve et al., 2020). It was reported that female students' higher social loneliness scores are due to higher participation in social activities, preferring more interpersonal commitment, and being more sensitive to interpersonal attachment than males (Barreto et al., 2021). The feeling of loneliness in young females who have become more vulnerable to social loneliness during the pandemic process also plays a triggering role in increasing social appearance anxiety. Moreover, in our study, it was found that eating disorder

attitudes increased with fear was also correlated with social appearance anxiety. A study found out that people with positive eating attitudes also have positive social appearance anxiety (Cakaroglu et al., 2020). It is known that university years, which is one of the most important turning points in human life, are also important in terms of social appearance. During the pandemic process, eating attitudes change, and young females who experience eating disorders might experience more social appearance anxiety by experiencing more weight gain and anxiety about their physical appearance. In this case, it is predicted that it will negatively affect young females' social and academic lives. It is said that mental state assessment and counseling are of great importance in order not to negatively affect the psychology of young people and to increase their academic success (Tesfalem et al., 2019).

CONCLUSION AND SUGGESTIONS

In this study results are regarded as important due to the lack of other studies examining coronavirus fear, social appearance anxiety, and eating disorder. As a result of the study's findings, it was concluded that there is a significant relationship between COVID-19 fear level and social appearance anxiety and eating disorder, and especially the fear of COVID-19 has a significant effect on social appearance anxiety. It is thought that healthcare professionals should support young females better psychologically to make them less affected by the pandemic. Due to the high density of Turkey's youth population, it is indicated that young female university students need to be further empowered by providing the necessary training and consultancy.

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Conflict of interest

The author declares no conflict of interest.

Authorship Contributions

Study design, Data collection, Data analysis, Drafting of the article and critical revisions of the article were made by Hacer Unver.

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