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Happiness and social appearance anxiety in overweight young girls

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Abstract. – OBJECTIVE: This research was conducted to determine the relationship between social appearance anxiety and happiness in overweight young girls.

SUBJECTS AND METHODS: This is a correlational descriptive study and the study sample included 343 overweight young female students from a university in eastern Turkey. A Personal Information Form, the Oxford Happiness Questionnaire-Short Form (OHQ-SF), and the Social Appearance Anxiety Scale (SAAS) were used for data collection. Descriptive statistics (percentage, mean, standard deviation), independent-samples *t*-test, analysis of variance, and correlation and regression analyses were used in data analysis.

RESULTS: The mean age of the participants was 21.55 ± 3.03 years. About a third of the participants (30.6%) was composed by year 3 university students, 60.6% had an income level equal to their expenditure level, and 50.7% was residing in the city center. The OHQ-SF mean total score of the participants was 17.03 ± 5.86, and the SAAS mean total score was 43.36 ± 17.07. There was a moderate negative correlation between the mean scores of the OHQ-SF and the SAAS (r: -.547, *p*<0.001). Social appearance anxiety explained 30% of happiness in young girls participating in the study (β: -.547, *p*<0.001).

CONCLUSIONS: Happiness in young girls was effective on social appearance anxiety. Health professionals may also evaluate the level of happiness in the care and counseling services they provide to young girls during extraordinary circumstances such as the COVID-19 pandemic.

Key Words:
Anxiety, Happiness, Students, Social.

Introduction

The number of individuals experiencing weight problems is globally increasing with the COVID-19 pandemic. Due to the pandemic, various factors have emerged, such as increased stress and anxiety, time spent at home, unhealthy eating habits, and difficulties in accessing treatment, all of which play a role in excessive weight gain[1-3]. According to 2019 the Turkey Statistical Institute data, 30.4% of the women and 39.7% of the men in Turkey are overweight and this rate is increasing day by day[4].

The increase in the number of overweight individuals not only increases the prevalence of physiological diseases, but also brings psycho-social problems. The rate individuals perceiving themselves as overweight or obese is very high[5]. Negative body image and social appearance anxiety, which are currently seen in individuals very frequently, remain as an important public health problem, especially in overweight individuals[6]. Studies[7,8] conducted on overweight individuals reveal the importance of the concept of body image for these individuals. Other studies[8-10] show that there is a direct correlation between body mass index and social appearance anxiety. In addition, overweight women have higher social appearance anxiety than overweight men[8,10].

High social appearance anxiety in overweight individuals causes unhappiness[11-14]. It is also known that the level of unhappiness is higher in women than in men[15-18]. Delgado et al[19] found that being overweight was significantly associated with social appearance anxiety and unhappiness in children. However, it is known that happiness is effective in supporting psychological resilience, reducing the perception of stressful events as threatening, and increasing the ability of the use of coping strategies[20-22]. It is thought that there is a need for studies on happiness, especially during the pandemic, which is an extraordinary circumstance. Thus, the aim of this study was to evaluate the relationship between social appearance anxiety and happiness in overweight young girls.

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Subjects and Methods

This is a correlational descriptive study. The research was carried out in the Health Sciences and Nursing Departments of a university in a province in eastern Turkey between January and April 2021 and female students in these departments of the university constituted the universe of the research N: 2590. According to the power analysis, sample size was calculated as at least 335 students with 5% error level and 95% ability to represent the universe. The Open Epi open-source statistical software was used to calculate the sample size. The research was completed with 343 female students. Before starting the research, ethical approval was obtained from the Scientific Research and Publication Ethics Committee of Inonu University in order to conduct the study (2020-1250). In addition, permissions were obtained from the Inonu University Faculty of Health Sciences and Nursing (20/01/2021-5721, 08/01/2021-2757). Data and consent were obtained using a Personal Information Form, the Oxford Happiness Questionnaire Short Form, and the Social Appearance Anxiety Scale.

The inclusion criteria were: being in an age range of 18-24 years; having a body mass index between 25 and 29.9 (kg/m^2); being female; and being a current student. Exclusion criteria were: having a systemic/chronic illness; having a past/ongoing mental disorder.

Personal Information Form

The form was developed by the authors based on the literature and it consisted of a total of 7 items regarding students' sociodemographic and characteristics, such as age and education and income levels[23].

Oxford Happiness Questionnaire-Short Form (OHQ-SF)

The Oxford Happiness Questionnaire-Short Form (OHQ-SF), which was developed by Hills and Argyle (2002) and adapted into Turkish by Dogan and Cotok (2011), also consists of 7 items[24,25]. The scale does not have a cut-off point, and higher scores indicate higher levels of happiness. The score range of the scale is 7-35. The internal consistency coefficient of the scale was previously reported as 0.74, and the Cronbach Alpha reliability coefficient was 0.67 in this study.

Social Appearance Anxiety Scale (SAAS)

The Social Appearance Anxiety Scale (SAAS) is a 5-point Likert-type scale consisting of 16 items. It is a self-report scale developed by Hart et al[26] to measure individuals' emotional, cognitive, and behavioral concerns about their appearance. The first item of the scale is scored in reverse. High scores obtained from the SAAS, which measures unidimensional social appearance anxiety, indicate that appearance anxiety is high. The Turkish adaptation of the scale and its validity and reliability study were performed by Dogan[27]. The Cronbach's Alpha internal consistency coefficient of the SAAS was previously reported as 0.93, and the Cronbach's Alpha reliability coefficient was 0.96 in this study[27].

Statistical Analysis

The coding and evaluation of the data were carried out in the computer environment using the SPSS 22.0 package program (IBM Corp., Armonk, NY, USA). In the statistical evaluation, descriptive statistics (percentage, mean, standard deviation) and independent-samples *t*-test, analysis of variance, and correlation and regression analyses were used. The results were evaluated with a 95% confidence interval and a $p<0.05$ error level.

Results

The mean age of the participants was 21.55±3.03 years (Table I), and 34.4% of the participants were students of the Midwifery Department. Students of the Physiotherapy and Rehabilitation Department had the highest mean OHQ-SF score, and the difference between this department and the other departments was statistically significant ($p<0.05$). About a third of the participants (30.6%) was in the third year, 60.6% of them had an income equal to their expenditure level. There was no significant difference between the school year and economic levels of the participants and their OHQ-SF and SAAS mean scores ($p>0.05$; Table I). About half of the participants (50.7%) resided in the city center. The OHQ-SF mean score of the participants living in the city center was higher, and there was a statistically significant difference between the place of residence and the OHQ-SF mean score, but not with the SAAS mean score ($p<0.05$; Table I). In the study, it was determined that the OHQ-SF mean total score of the participants was 17.03 ± 5.86, and the SAAS mean total score was 43.36 ± 17.07 (Table II). A moderate negative correlation was observed be-

Table I. Comparison of oxford happiness questionnaire-short form and the social appearance anxiety scales mean total scores according to the socio-demographic characteristics of the participants (n = 343).

Variables	N (%)	OHQ-SF mean ± SD	SAAS mean ± SD
Department			
Midwifery	118 (34.4)	17.00 ± 5.80	42.86 ± 17.30
Nursing	89 (25.9)	15.73 ± 5.57	45.01 ± 17.45
Physiotherapy and rehabilitation	20 (5.8)	20.10 ± 6.57a	40.05 ± 12.96
Audiology	23 (6.7)	19.86 ± 5.76	36.39 ± 13.08
Child development	93 (27.1)	16.96 ± 5.70	44.87 ± 17.77
Test and *p*-value		t = 3.950 ***p* =.004**	t = 1.571 p = 0.182
School year			
First class	80 (23.3)	17.40 ± 5.88	42.06 ± 17.50
Second class	88 (25.7)	17.17 ± 5.61	44.93 ± 17.72
Third grade	105 (30.6)	16.47 ± 5.57	44.24 ± 15.60
Fourth grade	70 (20.4)	17.28 ± 6.58	41.57 ± 17.92
Test and *p*-value		F =.478 p =.698	F = .752 p = .522
Economic Level			
Income < Expense	96 (28.0)	24.56 ± 7.91	46.98 ± 14.24
Income = Expense	208 (60.6)	22.80 ± 7.35	42.34 ± 14.53
Income > Expense	39 (11.4)	24.65 ± 6.79	45.05 ± 14.72
Test and *p*-value		F = 1.784 p =.170	F = 2.248 p =.108
Place of residence			
Village-town	61 (17.8)	14.91 ± 5.45	43.29 ± 17.52
District	108 (31.5)	16.32 ± 5.39	45.11 ± 17.22
City center	174 (50.7)	18.21 ± 6.02[a]	42.31 ± 16.82
Test and *p*-value		F = 8.694 ***p* =.000**	F =0.897 p =.409
Age (mean ± SD) 21.55 ± 3.03			

[a]Post-hoc analysis, *p < 0.05, SD: Standard deviation, OHQ-SF: Oxford Happiness Questionnaire-Short, Form, SAAS: Social Appearance Anxiety Scale.

tween the OHQ-SF and the SAAS mean scores (r: -.547, p<0.001; Table III). Social appearance anxiety explained 30% of happiness in young girls participating in the study (Table IV).

Discussion

The level of happiness of the students of the Physiotherapy and Rehabilitation Department was higher than that of the students studying in the Midwifery, Nursing, Audiology, and Child Development Departments. Students' awareness and knowledge levels about physical exercise may be related to happiness. As a matter of fact, students with a high level of awareness are more likely to exercise, which positively affects the level of happiness. It has been reported in the literature that individuals who exercise are happier[28-30].

In the study, it was determined that students living in the city center were happier than those living in villages, towns, or districts. It also showed that the physical, social, and cultural opportunities offered to the youth in the city center had a positive effect on the happiness level of the students. As a matter of fact, Hogan et al[31] stated that the happiness of young adults is usually directly related to the ease of access to social and cultural resources. Yaprak et al[32] conducted a study among university students, where was

Table II. The distribution of the lowest and highest scores and mean total scores from the oxford happiness questionnaire-short form and the social appearance anxiety scales (n = 343).

Scales	Possible range	Observed range
OHQ-SF	7-30	17.03 ± 5.86
SAAS	16-80	43.36 ± 17.07

OHQ-SF: Oxford Happiness Questionnaire-Short Form. SAAS: Social Appearance Anxiety Scale.

Table III. The relationship between happiness and social appearance anxiety (n = 343).

	SAAS
OHQ-SF	-.547** 0.000

**$p < 0.001$.

stated that young people living in big cities were happier. In another study[33], it was determined that children living in villages were happier than children living in city centers.

The young girls participating in the study had an above-moderate happiness level (Table II). However, the level of happiness of university students in Turkey reported in a previous study[32] was higher than that found in this study. It is thought that the pandemic period was effective in the lower level of happiness in this study. It was previously reported that the fear of COVID-19 has negatively affected happiness[34]. However, in a difficult period such as the pandemic, the level of happiness in young girls is thought to be of great importance. Furthermore, according to the results obtained by Yaprak et al[32], happiness was seen as one of the effective ways to provide psychological resilience. During the pandemic period, Peker and Cengiz[34] stated that psychologically resilient individuals should be able to cope with the stress of COVID-19 and their level of happiness will increase. In a study[35] examining stress, anxiety, and depression among university students during the pandemic period, it was determined that female students had a higher risk. In another study[36] conducted during the pandemic period, it was concluded that happiness can be a protective factor in maintaining the balance between work and life in university students. It is known that the feeling of happiness has a positive and significant relationship with the positive health outcome[37]. Considering both the academic success and physical and psychological well-being of female university students in our study, the importance of the concept of happiness is once again understood.

It was determined that the social appearance anxiety level of the participants in the study was above moderate. However, in another study[38] conducted in university students in Turkey, social appearance anxiety was at a lower level. In the same study, it was determined that students who did not perceive themselves as having an ideal body image experienced high social appearance anxiety. In our research findings, the high social appearance anxiety of young girls may be due to the pandemic. It is known that the prevalence of eating disorders has increased in this difficult period[1-3]. In a previous study[1] conducted in the general population, both increased restrictive and binge-eating behaviors were reported in individuals during the pandemic period, and it was concluded that individuals exercised less compared to the pre-pandemic period. In a study among young women in the COVID-19 pandemic, it was found that pandemic conditions increased the risk of emotional eating associated with obesity[2]. It was determined that any factor that greatly affects physical appearance, such as weight, increases effective social appearance anxiety. Salman et al[39] affirmed that even skin conditions such as acne prevent social relations and increase social anxiety levels in young people. In the study, there was a moderate negative correlation between happiness and social appearance anxiety. It was determined that happiness may be a protective factor in reducing social appearance anxiety among young people. As a matter of fact, it was observed that happiness affected social appearance anxiety by 30% in young girls.

Limitations

Conducting the study in a single center prevented the generalization of the results of the study to all overweight young girls.

Conclusions

It was found that there was a negative significant relationship between happiness and social appearance anxiety in overweight young girls.

Table IV. Results of the effect of happiness on social appearance anxiety (n=343).

Dependent variable	Variable	Beta[b]	F	d.f. (df1, df2)	*p*-value	R^2	*t*
Happiness	Social appearance anxiety	-.547	145.538	1.341	0.000	**0.300**	-12.064

OHQ-SF: Oxford Happiness Questionnaire-Short Form. SAAS: Social Appearance Anxiety Scale.

Social appearance anxiety was significantly predicted by happiness. Happiness may be an important factor in increasing the mental health and academic success of female university students in extraordinary life events such as pandemics. Determining the level of happiness in the health care and counseling services provided by health professionals to young girls would surely be beneficial.

Conflict of Interest
The Authors declare that they have no conflict of interests.

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Authors' Contribution
Study conception and design: H.U., N.K, and F.B.S. Data collection: N.K, and F.B.S. Data analysis and interpretation: H.U., N.K., and F.B.S. Drafting of the article: H.U. and N.K. Critical revision of the article: H.U.

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Ethics Approval
Written permission was obtained from the related faculties and ethical approval was obtained from Health Sciences Scientific Research and Publication Ethics Committee (2020/1250). Before starting the study, all the girls were informed on the study, and the voluntary ones were included in the study. This study was conducted in conformity with the Declaration of Helsinki.

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