

## ARE THERE ANY SOCIAL PRESSURES AFFECTING THE BODY IMAGE OF UNIVERSITY STUDENTS?

### ÜNİVERSİTE ÖĞRENCİLERİNİN BEDEN İMAJI ÜZERİNE ETKİLİ SOSYAL BASKILAR VAR MI?

Fatma Selcen ÇİFTÇİ, Ersin USKUN

Suleyman Demirel University, Faculty of Medicine, Department of Public Health

**Cite this article as:** Selcen Çiftçi F, Uskun E. Are there any social pressures affecting the body image of university students?. Med J SDU 2019; 26(1): 80-89.

#### Öz

##### Amaç

Bu araştırmanın amacı üniversite öğrencilerinin beden görünümü ile ilişkili sosyal baskıların belirlenmesi ve bunların beden imajı üzerine etkisinin belirlenmesidir.

##### Materyal ve Metod

Araştırmanın örneği 867 üniversite öğrencisinden oluşmaktadır. Verilerin toplanmasında Demografik Veri Formu ve Beden İmajı Skalası ve istatistik analizlerde tanımlayıcı istatistikler, ki-kare testi, Spearman korelasyon testi ve çoklu regresyon analizleri kullanılmıştır.

##### Bulgular

Katılımcıların %74,7'sinin Vücut Kütle İndeksi normal aralıktaydı. Beden İmajı Skoru kadınlarda erkeklerden daha düşüktü. Öğrencilerin %23,0'ının bedeni normal iken bedeni ile ilişkili düşüncesi normal değildi. Beden imajının belirleyici değişkenleri cinsiyet, yaş, öğrencinin kendi düşüncesi ve isteği ve babasının öğrencinin beden kompozisyonu ile ilgili düşüncesi idi. Kadın olmak ve karşı cinsin önerisi diyete neden olan en önemli belirleyicilerdi. Kadın ve 20 yaşın üstündeki öğrenciler olumsuz beden imajına sahipti. Öğrencinin babasının öğrencinin normal olduğunu düşünmesi olumlu beden imajı ile ilişkiliydi.

##### Sonuç

Sosyal baskıların psikometrik özelliklerinin, klinik çalışmalarla da incelenmesi önerilir.

**Anahtar Kelimeler:** Beden imajı, üniversite öğrencileri, sosyal baskı.

##### Abstract

##### Objective

This study aimed to determine social influences related with body view of university students and their effects on body image.

##### Material and Methods

Samples of the research were composed of 867 university students. Demographic Data Form and Body-cathexis Scale were used to collect data. Descriptive analyses, chi-square test, Spearman's correlation test and multiple regression analyses were used for statistical analyses.

##### Results

74.7% of participants were within the normal The Body Mass Index (BMI) range. Body Image Score of girls were lower than boys. 23.0% of students had an opinion related with his/her body that was not normal while it was within the normal BMI range. Sex, age, own opinion and request and father's opinion relat-

İletişim kurulacak yazar/Corresponding author: ersinuskun@gmail.com

Müracaat tarihi/Application Date: 29.05.2017 - Kabul tarihi/Accepted Date: 09.08.2017

©Copyright 2018 by Med J SDU - Available online at <http://dergipark.gov.tr/sdutfd>

©Telif Hakkı 2018 SDÜ Tıp Fak Derg - Makaleye <http://dergipark.gov.tr/sdutfd> web sayfasından ulaşılabilir.

ed to student's body composition have been predictor variables for body image. Female and over 20 years old students had body image displeasure. Having a father with a normal opinion related with body image satisfaction. Female gender and desire of the opposite sex are the most prominent variables that induce diet.

### Conclusion

The psychometric properties of the social pressures are recommended to be examined also by clinical studies as well.

**Keywords:** Body image, university students, social pressure.

## Introduction

Individuals' bodily perceptions may be effected by society structure. These effects may be economic, cultural, social and changing traditional. In literature, many researches can be found to be focused on the relationship between pressure of social factors and body image (1). Parents, friends and media are examined sources of pressure (1, 2). The parental pressure is the most frequently investigated sources of pressure due to the first sources of socialization comes from the parents (3). Pressures can not be only direct behaviors includes supporting and strengthening of positive eating behavior and dieting or other initiatives that provides weight reduction but also non-direct (1, 4).

### Objective

This study aimed to determine social influences related with body view of university students and their effects on body image and weight control behaviors.

## Material and Method

### Place And Time Of The Study

The study was conducted at a university from the southwest Turkey in 2011.

### Population And Sample Selection

The sample consisted of 867 university students from three faculty (dentistry [n:191], art [n:344] and religion faculty [n:332]) at a university in the southwest Turkey. The average participant age was 21.2 years (SD = 2.0). 59.6% of participants were female. 74.7% of participants was within the normal Body Mass Index (BMI) range (18.5–24.9), 15.3% was within the overweight or obese range ( $\geq 25.0$ ) and 9.9% was within the underweight range ( $\leq 18.5$ ).

### Type of Study

This study is a cross-sectional study.

### The Variables

The dependent variables are Body-cathexis score

and the diet history in last one year. The independent variables are sex, age, BMI, education status of mother and father, income, student's own opinion related with his/her body composition/weight, student's own request related with his/her body composition/weight, mother's opinion related student's body composition/weight, mother's request related with student's body composition/weight, father's opinion related with student's body composition/weight, father's request related with student's body composition/weight, same sex friends' opinions related with student's body composition/weight, same sex friends' requests related with student's body composition/weight, opposite sex friends' opinions related with student's body composition/weight, opposite sex friends' requests related with student's body composition/weight.

### Data Collection

#### Data Collection Method And Tools

Two instruments, Demographic Data Form and Body-cathexis Scale were used to collect data. With the permission granted from the university, the instruments were applied to the participants, after the purpose of the study was explained to the students, and then those who volunteered to participate in the study were asked to fill out the instruments. Filling out the instruments were taken about 30 minutes.

**Demographic Data Form:** Developed by the researchers, the form contains items to collect information about demographic data such as age, sex, education status of parents, income and social influence status (own, parents' and friends' opinions and requests related with student's body composition).

**Body-cathexis Scale:** Developed by Secord and Jourard5 in 1953. Hovardaoğlu (6) tested the scale for validity and reliability and adapted to Turkish society in 1990. Cronbach alfa was 0.091 ( $p < 0.01$ ). The scale contains 40 items, each of which is related to an organ, a part of the body (such as arms, legs, or the face) or function (such as sexual activity level). For each item, scores range between 1 to 5 across the alternatives "Don't like it all", "Don't like it", "Undecided", "Like it", "Like it a lot". The total score ranges between

40 and 200, with a higher score indicating a higher level of body image satisfaction.

**Body Mass Index (BMI):** BMI was calculated as kg/m<sup>2</sup> and used to categorize actual BMI: underweight (BMI ≤ 18.5), normal (BMI 18.5–24.9), overweight/obese (BMI ≥ 25.0). Weight and height data were collected via both self-report.

#### **Data Collection Time**

The data collection occurred between September and December 2011.

#### **Limitation of The Study**

While the current study contributes some interesting findings to the literature on body image and weight control behaviors in non-Western populations, certain limitations should be noted.

In the current study, the results may not be generalized to populations due to the participants were university students and their ages were different from the children, young adolescents, or older adults. In addition, the current study, along with the items derived from previous studies, has been based on samples from a university in a middle city center. In addition, it should be kept in mind that the study findings were not from a clinical sample.

#### **The Generalizability of The Study**

As we mentioned in limitation section, the current results may not be generalized to other university students in Turkey. Moreover, most of the participants were in normal BMI range. In conclusion, the main structure of the social pressures may not be generalized to other people between abnormal range of BMI. Because of these limitations, an aspect for coming studies would be to investigate the accordance of the main structure of the social pressures for abnormal BMI range, and at various age ranges.

#### **Research Ethics**

This study has been conducted according to the ethical standards of the Declaration of Helsinki that promotes respect for all human beings and protects their health and rights. After informing the participants about the purpose of the trial (investigation, research, study), and where and how the obtained data would be used, written consents have been obtained. Permission for the study has been received from the Local Ethic Committee (April 29, 2011 and Number: 21/1).

#### **Evaluation of Data**

Statistical Package for the Social Sciences (SPSS Inc., Chicago, IL, USA, 2006) for Windows (version

15.0) was used to evaluate the data and to apply all the analyses. For all statistical analyses, statistical significance was accepted p value less than 0.05. Descriptive analyses, chi-square test, point biserial correlation, Phi correlation and multiple linear regression and binary logistic regression analyses were used for statistical analyses.

## **Results**

Socio-demographic characteristics of study group were shown in Table 1. Table 2 contains the descriptive statistics of social pressures on students' body view and shows distributions according to the real status of student body (according to BMI). According to BMI, 74.7% of students (n:648) was within the normal range (BMI 18.5–24.9 kg/m<sup>2</sup>) while 25.3% (n:219) was underweight (BMI < 18.5 kg/m<sup>2</sup>) or overweight (BMI ≥ 25.0 kg/m<sup>2</sup>). 23.0% of students has an opinion related his/her body was not normal while it was normal. Of the students having a normal BMI, 38.0% desired change in their weight (put on or lose weight). Of the students with a normal BMI; 28.9% of their mothers, 27.3% of their fathers, 19.0% of their same sex friends and 19.8% of their opposite sex friends thought that the students' body mass was not normal. Students with an abnormal BMI were significantly assessed as more abnormal by themselves, their mothers, fathers and by same and opposite sex friends (p < 0.001; for all comparisons). Suggestions of the students' mothers, fathers, same and opposite sex friends related to their weights did not differ with regard to BMI values (p > 0.05; for all comparisons). Students with an abnormal BMI were statistically and significantly higher on a diet than the students having a normal BMI in the last year (p < 0.01).

The mean Body-cathexis score was 155.0 (SD:24.0). Simple correlations between independent variables (socio-demographic characteristics and pressures on students' body view) and dependent variables (body-cathexis score and diet history in last one year) were shown in Table 3.

Multiple regression analysis has been used to further examine the relation between the independent variables and dependent variables. Significant variables in correlation analyses have been included in the multiple linear regression model and binary logistic regression model (Table 4). Sex (p < 0.001), age (p < 0.01), student's own opinion related with his/her body composition (p < 0.01), student's own request related with his/her body composition (p < 0.001) and father's opinion related with student's body composition (p < 0.05) have been independent predictor variables

for Body-cathexis score. BMI ( $p<0.05$ ), sex ( $p<0.01$ ), student's own request related with his/her body composition ( $p<0.001$ ), opposite sex friends' requests related student's body composition ( $p<0.01$ ) have been independent predictor variables for having a diet history in last one year.

## Discussion

Although there are numerous studies conducted on body image from various countries in the world, there are less non-clinical studies conducted in our country with a sampling reflecting this population. This study is noteworthy for representing university students that composed of a non-clinical sampling. Body image differs in respect to cultures (7). Turkey is a country located between east and west with orientalist pressures taking place in everyday life. Thoughts and behaviors related to the body could be expected to present similarities and differences with both eastern and western cultures in this society which is under pressures of both regions. Results from this study which aimed to assess body perception of university students and investigate demographic factors and social pressures affecting the body image should be evaluated from this perspective.

According to the results from this study, BMI of three

out of every four students is within the normal limits. In the studies carried out in Turkey with university students to evaluate BMI, 66.6% – 80.0% of the students were within the normal limits, which is consistent with our results (8- 10). In this study, about half of the students were not satisfied with their current weight and sought change related to body mass. In a study from the USA with adolescents, 61.0% of the participants were found to be dissatisfied with their bodies and wanted to be thinner (11). In another study conducted on adolescent students, 43.0% of the students were observed to try losing weight and 19.0% to maintain their current weight (12). In the studies performed in Turkey (9, 13, 14) rate of the individuals who were dissatisfied with their weight was between 56.0-76.4% and those who wanted change in their weight were between 29.8% and 89.0%. Results from our study and from the literature demonstrated that this age group was mostly dissatisfied with the body weight and their desire was to lose more weight. Our results supported that adolescent age group prioritized making difference in the body mass due to the negative body image.

In our study, despite their normal BMI values nearly one in five students (23.0%) thought that their body mass was abnormal. In a study by Eaton et al. (15) on college students, 46.0% of the students were found to

**Table 1** Socio-demographic characteristics of study group

Characteristics	n:867	%
Body Mass Index (BMI)( kg/m <sup>2</sup> )		
Normal (18.5–24.9)	648	74.7
Underweight or overweight/obese (<18.5 or ≥ 25.0)	219	25.3
Sex		
Male	350	40.4
Female	517	59.6
Age		
≤20	323	37.3
>20	544	62.7
Mother's education status (year)		
< 12	583	67.2
≥12	284	32.8
Father's education status		
< 12	336	38.8
≥12	531	61.2
Income (€/per month)		
<1000	501	57.8
≥1000	366	42.2

**Table 2** The distributions of social pressures on students' body view according student's BMI

Social pressures	Total		BMI (kg/m <sup>2</sup> )			
	n:867	%	Normal (18.5–24.9)		Other (<18.5 or ≥25.0)	
			n:648	%	n:219	%
Own opinion of student related his/her body composition						
Normal	582	67.1	499	77.0	83	37.9
Other (underweight or overweight/obese)	285	32.9	149	23.0	136	62.1***
Own request of student related his/her body composition						
Stay in same weight	495	57.1	402	62.0	93	42.5
Other (put on weight or loose weight)	372	42.9	246	38.0	126	57.5***
Mother's opinion related student's body composition						
Normal	546	63.0	461	71.1	85	38.8
Other (underweight or overweight/obese)	321	37.0	187	28.9	134	61.2***
Mother's request related student's body composition						
Stay in same weight	746	86.0	557	86.0	189	86.3
Other (put on weight or loose weight)	121	14.0	91	14.0	30	13.7(NS)
Father's opinion related student's body composition						
Normal	565	65.2	471	72.7	94	42.9
Other (underweight or overweight/obese)	302	34.8	177	27.3	125	57.1***
Father's request related student's body composition						
Stay in same weight	772	89.0	583	90.0	189	86.3
Other (put on weight or loose weight)	95	11.0	65	10.0	30	13.7(NS)
Same sex friends' opinions related student's body composition						
Normal	606	69.9	525	81.0	81	37.0
Other (underweight or overweight/obese)	261	30.1	123	19.0	138	63.0***
Same sex friends' requests related student's body composition						
Stay in same weight	741	85.5	556	85.8	185	84.5
Other (put on weight or loose weight)	126	14.5	92	14.2	34	15.5(NS)
Opposite sex friends' opinions related student's body composition						
Normal	623	71.9	520	80.2	103	47.0
Other (underweight or overweight/obese)	244	28.1	128	19.8	116	53.0***
Opposite sex friends' requests related student's body composition						
Stay in same weight	753	86.9	569	87.8	184	84.0
Other (put on weight or loose weight)	114	13.1	79	12.2	35	16.0(NS)
Diet history in last one year						
No	598	69.0	463	71.5	135	61.6
Yes	269	31.0	185	28.5	84	38.4**

(NS): not significant [ $p>0.05$ ], \*\* $p<0.01$ , \*\*\* $p<0.001$ , Chi- Square test

perceive themselves as abnormal, even though they actually have a normal weight. In their study, Welch et al. (16) reported inconsistency between children's actual and perceived body size. It has been reported that besides individuals' all old and new emotions, atti-

tudes and perceptions related to the body; perspective of others is also important for physical development of the body. Socio-cultural values are reflected to the body image and sometimes a person's body image may be incompatible with the actual physical struc-

Table 3

Correlations between independent variables (socio-demographic characteristics and pressures on students' body view) and dependent variables (body-cathexis score and diet history in last one year)

	Body-cathexis score	Diet history in last one year (no:0, yes:1)
Body-cathexis Score	-	<b>-0.16<sup>a</sup>, ***</b>
BMI (normal:0, other:1)	-0.05 <sup>a</sup>	<b>0.09<sup>b</sup>, **</b>
Sex (male:0, female:1)	<b>-0.29<sup>a</sup>, ***</b>	<b>0.17<sup>b</sup>, ***</b>
Age ( $\leq 20$ :0, $>20$ :1)	<b>-0.10<sup>a</sup>, **</b>	0.02 <sup>b</sup>
Mother's education status (< 12 year:0, $\geq 12$ yıl:1)	0.03 <sup>a</sup>	0.06 <sup>b</sup>
Father's education status (< 12 year:0, $\geq 12$ yıl:1)	0.01 <sup>a</sup>	0.01 <sup>b</sup>
Income (<1000 €/per month:0, $\geq 1000$ €/per month:1)	-0.06 <sup>a</sup>	0.03 <sup>b</sup>
Own opinion of student related his/her body composition/weight (normal:1, other:0)	<b>0.24<sup>a</sup>, ***</b>	<b>-0.12<sup>b</sup>, ***</b>
Own request of student related his/her body composition/weight (stay in same weight:1, other:0)	<b>0.26<sup>a</sup>, ***</b>	<b>-0.30<sup>b</sup>, ***</b>
Mother's opinion related student's body composition/weight (stay in same weight:1, other:0)	<b>0.17<sup>a</sup>, ***</b>	<b>-0.08<sup>b</sup>, *</b>
Mother's request related student's body composition/weight (stay in same weight:1, other:0)	<b>0.12<sup>a</sup>, ***</b>	<b>-0.10<sup>b</sup>, **</b>
Father's opinion related student's body composition/weight (normal:1, other:0)	<b>0.20<sup>a</sup>, ***</b>	<b>-0.10<sup>b</sup>, **</b>
Father's request related student's body composition/weight (stay in same weight:1, other:0)	<b>0.14<sup>a</sup>, ***</b>	<b>-0.12<sup>b</sup>, ***</b>
Same sex friends' opinions related student's body composition/weight (normal:1, other:0)	<b>0.17<sup>a</sup>, ***</b>	-0.07 <sup>b</sup>
Same sex friends' requests related student's body composition/weight (stay in same weight:1, other:0)	0.08 <sup>a</sup>	<b>-0.13<sup>b</sup>, ***</b>
Opposite sex friends' opinions related student's body composition/weight (normal:1, other:0)	<b>0.12<sup>a</sup>, ***</b>	<b>-0.09<sup>b</sup>, **</b>
Opposite sex friends' requests related student's body composition/weight (stay in same weight:1, other:0)	0.03 <sup>a</sup>	<b>-0.19<sup>b</sup>, ***</b>

(NS): not significant [ $p > 0.05$ ], \*\* $p < 0.01$ , \*\*\* $p < 0.001$ , Chi- Square test

ture (17). In this study,  $\frac{1}{4}$  of individuals' parents and  $\frac{1}{5}$  of individuals' friends thought that the individual's body image was abnormal (despite a normal BMI). One/10 of individuals was advised to make changes in their body by their parents or friends. Moreover, this suggestion was made regardless whether BMI values were normal or abnormal.

Body image research, which began in the 1980s, has dramatically increased in-line with the growing awareness a negative body image has been one of the key factors contributing to eating disorders (18). A substantial number of these studies showed that

the type and degree of body image disturbance varies according to factors, such as gender, age, ethnicity, peers, family, personal experiences and socio cultural pressures (19, 20). These studies suggest that the risk is greatest amongst women within the Western cultural context (21) and perhaps less so for those in a non-Western context, though this outcome is due to lack of relevant studies rather than any research conclusion. False perceptions and social impacts associated with body image may lead to disorientation especially related with eating attitudes and dietary practices. In fact, a diet history was found in 3 out of every 10 students who have a normal BMI. It is

**Table 4** Results of multiple linear regression and binary logistic regression analyses

	Body-cathexis Score		Diet history (no:0. yes:1)	
	$\beta$	(95% CI) <sup>a</sup>	OR	(95% CI) <sup>b</sup>
Body-cathexis Score	c		0.9	(0.9-1.0)
BMI (normal:0, other:1)	c		<b>1.5*</b>	(1.0-2.2)
Sex (male:0, female:1)	<b>-12.0 ***</b>	(-8.9- -15.0)	<b>1.8**</b>	(1.3-2.5)
Age ( $\leq 20$ :0, $>20$ :1)	<b>-4.7 **</b>	(-1.7- -7.8)	c	
Income (<1000 €/per month:0, $\geq 1000$ €/per month:1)	3.4	(-0.5-7.4)	c	
Own opinion of student related his/her body composition (normal:1, other:0)	<b>6.4 **</b>	(2.4-10.3)	1.2	(0.8-1.8)
Own request of student related his/her body composition (stay in same weight:1, other:0)	<b>7.2 ***</b>	(3.9-10.7)	<b>0.3***</b>	(0.2-0.4)
Mother's opinion related student's body composition (stay in same weight:1, other:0)	0.7	(-1.5-8.5)	1.1	(0.6-1.5)
Mother's request related student's body composition (stay in same weight:1, other:0)	3.5	(-2.4-7.5)	0.9	(0.6-1.5)
Father's opinion related student's body composition (normal:1, other:0)	<b>4.2*</b>	(1.2-8.1)	1.0	(0.5-1.6)
Father's request related student's body composition (stay in same weight:1, other:0)	3.9	(-2.3-8.9)	1.0	(0.6-2.0)
Same sex friends' opinions related student's body composition (normal:1, other:0)	-0.1	(-4.0-4.5)	c	
Same sex friends' requests related student's body composition (stay in same weight:1, other:0)	c		1.0	(0.6-1.6)
Opposite sex friends' opinions related student's body composition (normal:1, other:0)	-5.0	(-9.7- -1.3)	1.3	(0.8-2.0)
Opposite sex friends' requests related student's body composition (stay in same weight:1, other:0)	c		<b>0.4**</b>	(0.2-0.7)
Constant	<b>131.9***</b>		<b>3.0*</b>	

$\beta$  : Standardized coefficient, OR: Odds ratio, CI: Confident Interval, a: Multiple linear regression model,

b: Binary logistic regression model, c: This variable was not taken to the regression model. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

well-known that body image plays an important role in eating attitude and a poor body perception cause negative eating behavior (22). A higher degree of displeasure with the body leads to more unhealthy and dangerous methods to make changes in the body mass in individuals with poor body perception and in adolescents (13). Malnutrition may cause many serious health problems in this course of life which correspondences to the late adolescence period in which growth and development are not yet fully completed. Besides these physiological effects, body displeasure may lead to various psychological disorders and unhealthy diet practices may increase the risk of devel-

oping eating disorders (13). Therefore, it is crucial to develop approaches that will ensure individuals to make normal assumptions for their body perceptions and to prohibit their thought of being overweight while they are actually normal.

Designed to measure how satisfied people are with the different parts and functions of their bodies, the body image scale implies a higher rate of satisfaction as the score increases (5). In the present study, the mean body cathexis score was found to be 155.0 (SD:24.0). In other studies from Turkey (23, 24), the mean scores were 84.9 (SD:19.9), 135.8(SD: 27.3)

and 147.9(SD:21.5). According to this comparison, our study group was more satisfied with their body image.

In univariate analyses the body catexis score was found to be correlated with many of independent variables except BMI, education status mother and father, and same and opposite sex friends' requests. Many literatures reported that body displeasure was predicted by BMI. The more BMI has increased, the more body image displeasure was found (13, 25). However, in contrast to the literature we did not find a correlation between body image and BMI. Again, in a study done in the same region with high school students no similar association was determined between body image and BMI (26). It has been reported that social, economical, cultural and traditional structures in the society affect the body perception and change in attitudes would result in change in the body image (17). Results of our study supported that body image is affected from other factors rather than the actual condition of the body.

In multiple regression model, having a normal opinion related with own body composition, having a request to stay in same weight and having a father with a normal opinion on body composition were positively, being female and older than 20 years old were negatively related with body image. It has been in literature that problems related to body image are experienced more intensively in women than in men (14, 25). Nowadays, being a size zero body has become the major factor in defining what is charming in women. Women have an assimilated body shape ideals through media. Media may have pictured ideas about appearance in the minds of women by stimulant messages, especially teenagers who search media for knowledge (27). These ideas have supported the opinion that thin women are successful and flawless (28). In addition, especially women are more likely to be guided for slimness by incoming pressures (29). Women who are under pressure to be slim may reply to negative emotional state by trying to be more slim and possibly developing unhealthy body and negative body image (30). Consequently, weight concerns might reflect the adoption of socially approved female role, and they are significantly associated with disordered eating attitudes (22). Efforts should be made to change the "image of the woman" in media, particularly regarding the usage of woman body as a tool in advertisement.

The current findings indicate that age (being over 20) is negatively associated with body image satisfaction in university students which are consistent with others

findings (31). This confirms that the negative linear association of body image satisfaction with both age and sex shows that as females reach puberty and begin to gain weight, they become increasingly dissatisfied with their body shape (28).

Family is the major factor for socialization, who through copying, feedback and direction affects the young people's body image (32). In our study, mother's opinion or request was correlated with body image satisfaction in univariate analyses but not in multiple analyses. However, fathers were the important source of opinion for body image satisfaction of the students in our study. Receiving positive comments regarding weight from father has increased the probability of exhibiting body image satisfaction by university student. Sensed pressure to be fit from parents was not related with body image displeasure which was reported in Pressell's study (33). Conversely, many researchers reported that parents' negative expressions concerning physical appearance of children have formed body image displeasure in accordance with our data defined (3). Behavior and attitude of father are known to be as important as that of mother in development of a child. Father's love appears to be as heavily implicated as mother's love in offsprings' psychological well-being and health, as well as in an array of psychological and behavioral problems (34). In our study, father's opinion is significantly related with body image and this result can explain that father is the most important and dominant parent in Turkish traditional family (35).

In multiple analyses, our results demonstrated that opposite- or same-sex friend's opinion or request regarding their body compositions/weights were not related with student's body image satisfaction. By contrast with the findings of the previous literature reported that body displeasure was predicted by messages from peers (36). In our study, opposite-sex friends' requests were related with behaviors to lose weight. Messages from peers to lose weight predicted engagement in relevant behaviors. Frequency of engagement in weight loss behaviors was predicted by messages from adults and siblings (25). Consistent with research from many contexts (18, 37) females in our sample engaged more frequently in behaviors to lose weight than males. With regards to socio-cultural pressures on body attitudes and behaviors, females were found to report greater messages from the media to lose weight than males.

Consequently, it is recommended that the psychometric properties of the social pressures to be examined in clinical samples. Finally, another limitation relates to



the self-report and retrospective nature of this study. An additional limitation is that current BMI was stated, not the retrospective BMI at the time of social pressures. As a result of the above limitations, additional research is recommended, including studies that examine the consistency between parent, friends and student-report.

### Conclusion and Recommendations

On the whole, our study supplies many expressive additives to the comprehension of social pressures as a risk factor in the development of a body image displeasure. Especially female gender and age (over 20 years old) create a risk for body image displeasure, while father's opinion about a person's body being normal positively affect the body image of that person. Whereas female gender and desire of the opposite sex are the most prominent variables to induce diet. Eventually, new studies should be administered to approve the factor structure of the social pressures and to clarify this effect.

### Kaynaklar

- Smolak L, Levine M, Schermer F. Parental input and weight concerns among elementary school children. *International Journal of Eating Disorders* 1999;25(3):263–271.
- Tiggemann M, Slater A. Thin ideals in music television: A source of social comparison and body displeasure. *International Journal of Eating Disorders* 2004;35(1):48–58.
- McCabe M, Ricciardelli L. The structure of the Perceived Sociocultural Pressures on Body Image and Body Change Questionnaire. *International Journal of Behavioral Medicine* 2001;8(1):19–41.
- Ogden J, Steward J. The role of the mother–daughter relationship in explaining weight concern. *International Journal of Eating Disorders* 2000;28(1):78–83.
- Secord PF, Jourard SM. The appraisal of body-cathexis: body-cathexis and the self. *Journal of Consulting and Clinical Psychology* 1953;17(5):343–347.
- Hovardaoğlu S. Scale of Body Image. *Journal of 3P (Pharmacology, Psychiatry, Psychology)* 1993;1(suppl.2):26–27.
- Ricciardelli LA, McCabe MP, Williams RJ, Thompson K. The role of ethnicity and culture in body image and disordered eating among males. *Clinical Psychology Review* 2007;27(5):582–606.
- Yılmaz E, Özkan S. Investigation of Nutritional Habits in University Students. *Journal of Firat Health Science* 2007;21(2):87–104.
- Erten M (2006) Research of the nutritional knowledge and nutritional habits of the University students in the city of Adiyaman. Master of Science Thesis, Gazi University Educational Science Institute, Ankara, Turkey.
- Orak S, Akgün S, Orhan H. Investigation of nutritional habits of Suleyman Demirel University students. *Journal of Suleyman Demirel University Medical Faculty* 2006;13(2):5–11.
- Sharon HT, Sohailla D. A preliminary survey of dieting, body displeasure, and eating problems among high school cheerleaders. *The Journal of School Health* 2004;74(3):85–91.
- Lowry R, Galuska DA, Fulton JE, Wechsler H, Kann L. Weight management goals and practices among U. S. high school students: Associations with physical activity, diet, and smoking. *Journal of Adolescent Health* 2002;31(2):133–144.
- Demir BD. Eating habits of female students attending to high school and factors that affect their body image. Master of Science Thesis. Ankara: Hacettepe University Health Science Institute, 2006.
- Örsel S, Canpolat B, Akdemir A, Ozbay H. Comparison of Body-Image Self-Perception and BMI of Dieting Adolescents with Those of Non-Dieters. *Turkish Journal of Psychiatry* 2004;15(1):5–15.
- Eaton DK, Lowry R, Brener ND, Galuska DA, Crosby AE. Associations of body mass index and perceived weight with suicide ideation and suicide attempts among us high school students. *Archives of Pediatrics and Adolescent Medicine* 2005;159(6):513–519.
- Welch C, Gross SM, Bronner Y, Moore ND, Paige DM. Discrepancies on body image perception among fourth-grade public school from urban, suburban and rural maryland. *Journal of the American Dietetic Association* 2004;104(7):1080–1085.
- Aslan D. Nutritional problems related with body image problems. *STED* 2004;13(9):326–329.
- Grogan S. *Body image: Understanding body displeasure in men, women, and children.* (2nd ed.). London: Routledge, 2008.
- O'Dea J. Gender, ethnicity, culture and social class pressures on childhood obesity among Australian schoolchildren: Implications for treatment, prevention and community education. *Health & Social Care in the Community* 2008;16(3):282–290.
- Ricciardelli LA, McCabe MP. Sociocultural and individual pressures on muscle gain and weight loss strategies among adolescent boys and girls. *Psychology in the Schools* 2003;40(2):209–224.
- Pate JE, Pumariega AJ, Hester C, Garner DM. Cross-cultural patterns in eating disorders: A review. *Journal of the American Academy of Child and Adolescent Psychiatry* 1992;31(5):802–808.
- Ghaderi A. Review of risk factors for eating disorders: Implications for primary prevention and cognitive behavioral therapy. *Scandinavian Journal of Behavior Therapy* 2001;30(2):57–74.
- Sanlier N, Yabancı N and Alyakut O (2008) An evaluation of eating disorders among a group of Turkish university students. *Appetite* 51(3): 641–645.
- Akdevelioğlu Y, Gümüş H. Eating Disorders and Body Image Perception among University Students. *Pakistan Journal of Nutrition* 2010;9(12):1187–1191.
- Mellor D, McCabe M, Ricciardelli L, Yeow J, Daliza N, Mohd Hapidzal NF. Sociocultural pressures on body displeasure and body change behaviors among Malaysian adolescents. *Body Image* 2009;6(2):121–128.
- Uskun E, Şabaşlı A. The Relationship between Body Image and Eating Attitudes of Secondary School Students. *TAF Preventive Medicine Bulletin* 2013;12(5):519–528.
- Clark L, Tiggemann M. Appearance culture in nine-to 12-year-old girls: Media and peer pressures on body displeasure. *Social Development* 2006;15(4):628–643.
- Littleton H, Ollendick T. Negative body image and disordered eating behavior in children and adolescents: What places youth at risk and how can these problems be prevented? *Clinical Child and Family Psychology Review* 2003;6(1):51–66.
- Hesse Biber S. Eating patterns and disorders in a college population: Are college women's eating problems a new phenomenon? *Sex Role* 1989;20(1-2):71–89.
- Ball K, Lee C. Psychological stress, coping, and symptoms of disordered eating in a community sample of young Australian women. *International Journal of Eating Disorders* 2002;31(1):71–81.
- Jones JM, Bennett S, Olmsted MP, Lawson ML, Rodin G. Disordered eating attitudes and behaviors in teenaged girls: A school-based study. *Canadian Medical Association Journal* 2001;165(5):547–552.
- Perry CL, Mullis RM, Maile MC. Modifying the eating behavior

- of young children. *Journal of School Health* 1985;55(10):399-402.
33. Presnell K, Bearman S, Stice E. Risk factors for body displeasure in adolescent boys and girls: A prospective study. *International Journal of Eating Disorders* 2004;36(4):389-401.
  34. Rohner RP, Veneziano RA. The importance of father love: History and contemporary evidence. *Review of General Psychology* 2001;5(4):382-405.
  35. Çetin İ. Ata Tradition in Turkish Culture. *Millî Folklor* 2007;19(76):70-75.
  36. Jones DC, Vigfusdottir TH, Lee Y. Body image and the appearance culture among adolescent girls and boys: An examination of friend conversations, peer criticism, appearance magazines, and the internalization of appearance ideal. *Journal of Adolescent* 2004;19(3):323-339.
  37. Grabe S, Hyde JS. Ethnicity and body displeasure among women in the United States: A meta-analysis. *Psychological Bulletin* 2006;132(4):622-640.