

Relationship Between Body Image, Psychological Symptom Level and Interpersonal Style: Alternative Models

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ABSTRACT

Relationship between body image, psychological symptom level and interpersonal style: alternative models

Objective: The purpose of this study was to evaluate the relationship between body image, psychological symptom levels and interpersonal styles in college students. Two models have been tested for this purpose. In one of the models, the mediating effect of interpersonal style on the relationship between body image and psychological symptom levels; in the other model, the mediating effect of psychological symptom levels on the relationship between body image and interpersonal style was tested.

Method: The study group consists of 250 undergraduate students at several schools of a public university in Eskisehir who have been on the first term of the academic year 2015-2016. Subjects' ages ranged 18-26 years. Body-Cathexis Scale, Personality Style Scale, and Brief Symptom Inventory were used as data collection tools in the study. The data were analyzed using structural equation modeling. The bootstrapping method was also used to test the significance of the indirect effects.

Results: Findings revealed that the relationship between body image and interpersonal style was fully mediated by psychological symptom level, whereas the relationship between body image and psychological symptom level was partially mediated by interpersonal style.

Conclusion: This study revealed that body image is an important factor in college youth mental health.

Keywords: Body image, interpersonal style, psychological symptom level, structural equation modeling

ÖZET

Beden imajı ile psikolojik belirti düzeyi ve kişilerarası tarz arasındaki ilişkiler: Alternatif modeller

Amaç: Bu çalışmanın amacı üniversite öğrencilerinin beden imajları ile psikolojik belirti düzeyleri ve kişilerarası tarzları arasındaki ilişkilerin değerlendirilmesidir. Bu amaç doğrultusunda iki model test edilmiştir. Modellerden birinde, beden imajı ile psikolojik belirti düzeyleri arasındaki ilişkide, kişilerarası tarzın aracı etkisi, diğerinde ise beden imajı ile kişilerarası tarz arasındaki ilişkide psikolojik belirti düzeylerinin aracı etkisi test edilmiştir.

Yöntem: Araştırmanın çalışma grubunu, 2015-2016 eğitim öğretim yılının ilk döneminde Eskişehir'de bir kamu üniversitesinin çeşitli fakültelerinde lisans öğrenimi gören 250 öğrenci oluşturmaktadır. Katılımcıların yaşları 18 ile 26 arasındadır. Araştırmada veri toplama aracı olarak, Beden Algısı Ölçeği, Kişilerarası Tarz Ölçeği ve Kısa Semptom Envanteri kullanılmıştır. Veriler yapısal eşitlik modellemesi kullanılarak analiz edilmiştir. Dolaylı etkilerin anlamlılığının test edilmesi için de Bootstrapping yöntemi kullanılmıştır.

Bulgular: Araştırmada, beden imajı ile kişilerarası tarz arasındaki ilişkide, psikolojik belirti düzeyinin tam aracılık etkisinin olduğu, beden imajı ile psikolojik belirti düzeyi arasındaki ilişkide ise kişilerarası tarzın kısmi aracılık etkisinin olduğu belirlenmiştir.

Sonuç: Bu çalışma, beden imajının, üniversite gençliği ruh sağlığında önemli bir faktör olduğunu ortaya koymaktadır.

Anahtar kelimeler: Beden imajı, kişilerarası tarz, psikolojik belirti düzeyi, yapısal eşitlik modellemesi



How to cite this article: Altınok A, Kara A. Relationship between body image, psychological symptom level and interpersonal style: alternative models. *Dusunen Adam The Journal of Psychiatry and Neurological Sciences* 2017;30:170-180. <https://doi.org/10.5350/DAJPN2017300301>

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Date of receipt / Geliş tarihi:
February 16, 2017 / 16 Şubat 2017

Date of the first revision letter / İlk düzeltme öneri tarihi:
March 14, 2017 / 14 Mart 2017

Date of acceptance / Kabul tarihi:
April 14, 2017 / 14 Nisan 2017

INTRODUCTION

Interpersonal style is defined as the behavioral tendencies and personality patterns that the individual exhibits in his/her interpersonal relations (1). It refers to the basic behavioral tendency of the individual in interpersonal relations in general and a variety of situations rather than the behavior in a specific situation (2). In the literature, interpersonal style has been evaluated in different dimensions. For example; Sahin et al. (3) details interpersonal styles as contemptuous, open, self-centered, and respectful. Another study has classified it as angry style, avoiding style, sarcastic style, insensitive style, manipulative style and dominant style (4). Psychological symptoms are classified as; depression, negative self, anxiety, somatization, and hostility (5). Depression is the tendency to react too much emotionally (6). These emotional reactions include symptoms and behaviors such as loneliness, pessimism, suicidal tendency, negative emotions about the self, grief, unhappiness, loss of interest and indecisiveness (7). Negative self includes symptoms such as; feelings of guilt and shame as a result of worthless and unimportant self image, and feeling small and insufficient when compared self with others (7). Anxiety is defined as an emotion that includes one or more of the excitements of the individual, such as sadness, distress, fear, feeling of failure, incapability, and being judged (8). Somatization involves physiological symptoms of the body such as numbness, nausea, chest pain, fainting, shortness of breath, and abdominal pain. Hostility includes symptoms such as losing temper, anger, insecurity, injuring, beating or harming someone and nervousness (7). These subfields, which are defined as psychological symptoms, are considered as a major concept as psychological symptom in this study.

Predictors of psychological symptoms have been studied in many different disciplines and studies in the past. In this study, the evaluation of the relation between psychological symptoms and body image is one of the basic aims of the study. Body image is defined as the form the individual perceives the body. When body image is referred to, the affective dimension, as well as the cognitive, dimension to the

individual's body is meant. The cognitive dimension of body image comprises the experiences, the perceptions, and the thoughts of the individual about the body. The affective dimension of body image includes elements such as whether the individual is happy with the body, likes or dislikes, accepts, and is satisfied or not (9). Body image is classified as positive or negative (10). Positive body image is individual's positively defining and accepting self (11). Negative body image is a state of anxiety composed of negative emotions and thoughts against one's body (12).

The basic framework of this study is to reveal the relationship between body image and psychological manifestations and interpersonal style. Body image was used as an independent variable; psychological symptom level and interpersonal style as dependent variables. In the related literature, it is reported that there is a positive relationship between body image dissatisfaction and obedient and dependent interpersonal relationship styles (13), and negative relationship between body image satisfaction and social-evaluative anxiety and fear of romantic intimacy, in both male and female samples (14). In a longitudinal study, a negative relationship between body image dissatisfaction and social-evaluative anxiety is reported (15). It is noteworthy that the studies related to the relationship between body image and psychological symptoms have been performed mostly in female samples. This may be due to socio-cultural expectations regarding female body images (16,17). Studies in the female sample emphasize that dissatisfaction with body image significantly increases the likelihood of depressive symptoms (18-21). On the other hand, there are also studies showing that there is a positive relationship between body image dissatisfaction and increasing depressive symptoms in both male and female samples (22,23). In two studies conducted with 13-year-old children, positive associations between body image dissatisfaction and depressive symptoms have been found, similar to the findings of studies performed in the adult sample (24,25).

Body image is an interdisciplinary studied, important and contemporary issue. The individuals involved in these studies are in the emerging adulthood

period (26). There are some developmental tasks expected from the individuals in this period (27). For example; it is expected that individuals in this period should make an identity discovery in the field of love, profession, and world view. In addition, the individuals in this period tend to initiate romantic relations to avoid loneliness and isolation, and to acquire an identity (28). As a result, identity discovery in this period plays an important role in the progress of individuals in the field of emotional, social, psychological and cognitive development. On the other hand, in a study on the individuals in this period, college students were found to have quit the struggles for their goals as their tendency of shyness increased; another study on the same period has shown that university students experience more shyness with increasing social appearance concerns (29). As seen, there are some psychological factors that influence the process of identity discovery of the individuals in this period. One of these is body image. Body image is a dynamic and mental construct (30). This construct does not only refer to the external appearance of the individual, but also includes psychological experiences (31). Body image is influential on individuals' life functions, interpersonal relationships, self-perceptions, emotional patterns (30,31). Body image is also closely related to mental health (32-34).

When relevant literature is searched, it is seen that the studies on body image are mostly carried out in the clinical sample. Although there have been some studies on young adults, it seems that there is no study revealing the relationship between body image, psychological symptom level and interpersonal style. Another prominent feature of this study is that it is carried out on individuals who are young adults. Developing and maintaining healthy close relations is one of the psychosocial development tasks of individuals in this period. In general, the purpose of this study is to assess the relationship between body images and psychological symptom levels and interpersonal styles. For this purpose, there are two sub-objectives in this study; is there a mediating effect of interpersonal style on the relation between body image and the psychological symptoms? Is there a

mediating effect of the level of psychological symptoms on the relation between body image and interpersonal style?

METHOD

The study was carried out in a relational screening model and it was aimed to test the structural models evaluating the college students' body images' prediction of psychological symptom levels and interpersonal communication styles. The hypothetical models planned to be tested in the study are given in Figure 1 and Figure 2.

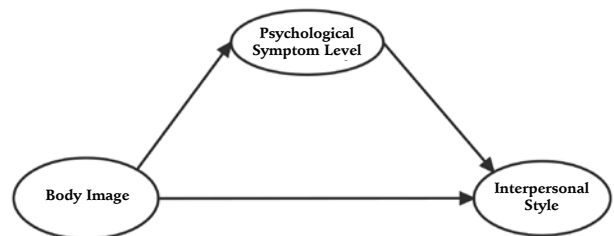


Figure 1: Model 1: Mediating role of psychological symptom level on the relation between body image and interpersonal style

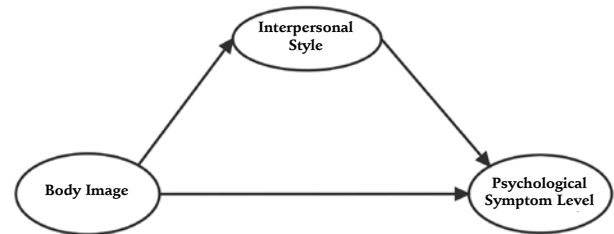


Figure 2: Model 2: Mediating role of interpersonal style on the relation between body image and psychological symptom level

Study Group

The sample of the study is composed of 250 college students in undergraduate education at various schools of Eskişehir Osmangazi University in the academic year of 2015-2016. Of the college students in the study group, 161 (64.4%) were female and 89 (35.6%) were male. The ages of the participants ranged from 18 to 26 (Mean=20.41, SD=1.33).

Measures

Brief Symptom Inventory: The scale has been developed by Derogotis (35) for general psychopathological evaluation. It is a short form derived from the work done with Symptom Check List 90-R. The scale consists of 53 items and 5 sub-dimensions: depression, anxiety, somatization, negative self and hostility. Each item is evaluated on a five-point Likert-type scale between 0-(Not at all) and 4-(Extremely). Higher scores indicates increasing psychological symptom levels. Adaptation study to Turkish was done by Sahin and Durak (5). The variance for the original form of the scale was 34% for the five-factor structure and 40% for the Turkish version. The internal consistency coefficient is between 0.71 and 0.85 for the original scale; between 0.63 and 0.86 for the Turkish version. Internal consistency coefficients for the current study were 0.88 for the anxiety subscale, 0.89 for the depression subscale, 0.88 for the negative self subscale, 0.84 for the somatization subscale, 0.78 for the hostility subscale, and 0.96 for the global scale.

Body-Cathexis Scale: The scale has been developed by Secord and Jourard (36) to measure how satisfied people are with various parts and functions of the body. Adaptation study to Turkish has been done by Hovardaoglu (37). Turkish version is a 40-item, one-dimensional, 5-point scale (1=Very much satisfied, 2=Fairly satisfied, 3=Not sure, 4=Not much satisfied, 5=Not satisfied at all). Accordingly, the lowest total score is 40 and the highest total score is 200. Higher total scores indicate the decrease in one's satisfaction of the body parts or functions whereas lower total scores indicate the increase in satisfaction. The internal consistency coefficient of the Turkish version was 0.91 (37). The internal consistency coefficient was calculated as 0.92 in the current study.

Interpersonal Style Scale: Interpersonal style Style Scale was developed by Sahin et al. (3). The scale consists of 60 items and six dimensions including

dominant style, temperamental style, emotion avoiding style, manipulative style, avoiding style and sarcastic style. Each item is rated on a five-point Likert type scale as; "defines me 0%" to "defines me 100%". High scores represent negative communication style, while low scores represent positive communication style. Internal consistency α of the whole scale has been reported as 0.93. Internal consistency coefficients calculated for this study are; 0.92 for the dominant style subscale, 0.84 for the temperamental style subscale, 0.81 for the emotion avoiding style subscale, 0.80 for the manipulative style subscale, 0.84 for the avoiding style, 0.65 for the sarcastic style subscale, and 0.96 for the global scale. The higher score indicates the more negative interpersonal style. In this study, negative interpersonal styles are meant with the "interpersonal style" expression.

RESULTS

Descriptive Statistics

The mean and the standard deviation values for the variables and the correlation between the variables of the model to be tested in the study are given in Table 1.

According to the analysis results given in Table 1, it was determined that the correlation values of the variables varied between 0.01 and 0.81. Besides, it was determined that the skewness values of the variables varied between 0.03 and 1.01; and the kurtosis values varied between 0.01 and 0.74. These values show that there is no problem in terms of normal distribution assumption. Maximum Likelihood Estimation Method was used to test measurement model and structural models in the study.

Testing the Measurement Model

A two-step method was used to test the structural models determined within the study. In this method, the measurement model related to the structural model is tested first and then the structural model is tested. In this study, when the measurement model

Table 1: Correlation, mean and standard deviation values related to variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Anxiety	27.79	10.63	-														
2. Depression	29.96	10.77	0.77**	-													
3. Negative Self	25.75	9.99	0.80**	0.81**	-												
4. Somatization	18.22	7.33	0.74**	0.64**	0.63**	-											
5. Hostility	17.50	5.92	0.69**	0.69**	0.69**	0.60**	-										
6. Dominant	27.30	11.48	0.32**	0.24**	0.34**	0.26**	0.42**	-									
7. Angry	23.08	8.14	0.35**	0.28**	0.32**	0.25**	0.52**	0.57**	-								
8. Emotion Avoiding	22.77	8.00	0.29**	0.27**	0.33**	0.22**	0.34**	0.64**	0.40**	-							
9. Manipulative	24.17	7.37	0.30**	0.29**	0.39**	0.19**	0.39**	0.71**	0.52**	0.64**	-						
10. Avoiding	24.93	9.01	0.32**	0.36**	0.40**	0.28**	0.40**	0.64**	0.63**	0.61**	0.64**	-					
11. Sarcastic	11.85	4.36	0.24**	0.20**	0.26**	0.21**	0.34**	0.60**	0.57**	0.39**	0.48**	0.60**	-				
12. BDPAR1	36.23	5.74	-0.21**	-0.30**	-0.24**	-0.19**	-0.11	0.07	-0.16**	0.03	0.01	-0.22**	-0.09	-			
13. BDPAR2	36.66	5.57	-0.16**	-0.27**	-0.19**	-0.13*	-0.10	0.08	-0.16**	-0.02	0.02	-0.21**	-0.07	0.73**	-		
14. BDPAR3	36.80	5.75	-0.25**	-0.33**	-0.29**	-0.15*	-0.25**	-0.04	-0.30**	-0.06	-0.07	-0.31**	-0.15*	0.68**	0.67**	-	
15. BDPAR4	37.02	5.95	-0.23**	-0.30**	-0.28**	-0.16**	-0.20**	0.01	-0.24**	-0.05	-0.06	-0.29**	-0.13*	0.70**	0.67**	0.73**	-

*p<0.05, **p<0.01, SD: Standard deviation, BDPAR1-4: 4 parcels derived from Body Image Scale

related to the structural model is tested, the observed variables for the implicit variables in the structural model are defined. For the psychological symptoms implicit variable, total scores obtained from the Brief Symptom Inventory subscales (depression, anxiety, hostility, negative self and somatization); for interpersonal style implicit variable, the total scores from the subscales of interpersonal Interpersonal style Style Scale (dominant, temperamental, emotion avoiding, manipulative, avoiding and sarcastic) were defined as the observed variables. Since the Body-Cathexis Scale did not contain subscales, the parceling method was used for body image implicit variable. The parceling method is assigning scale items to parcels, in line with the number of parcels determined according to the item-total correlation values. With this method, four parcels were produced for the implicit variable of body image. As the Body-Cathexis Scale was composed of 40 items, each parcel was assigned 10 items.

When the measurement model related to the hypothesis models specified in the research was tested, the goodness of fit values were determined as $\chi^2(87, N=250)=286.53, p<0.05; GFI=0.86; CFI=0.92; TLI=0.91; RMSEA=0.096$ (90% confidence interval for $RMSEA=0.084-0.010$), and it was determined that the collected data had a good fit with the measurement model. The standardized factor loadings for the observed variables of all implicit variables in the model ranged from 0.68 to 0.90, and all of them were statistically significant (Table 2).

In the course of testing the measurement model, correlations between implicit variables in the structural model were also evaluated and the results of the analysis are given in Table 3. Correlation values ranged from 0.15 to 0.47.

Testing Structural Models

When the first model (Figure 1) was tested, goodness of fit values were obtained as $\chi^2(87, N=250)=286.53, p<0.05; GFI=0.86; CFI=0.92; TLI=0.91; RMSEA=0.096$ (90% confidence interval for $RMSEA=0.084-0.010$). It can be stated that these

Table 2: Factor loadings, standard error and t values

Implicit Variable and Measurement	Non-Standardized Factor Loadings	SE	t	Standardized Factor Loadings
Body Image				
BDPAR4	1	-	-	0.84
BDPAR3	0.96	0.06	15.62*	0.83
BDPAR2	0.91	0.06	15.37*	0.83
BDPAR1	0.97	0.06	15.92*	0.85
Psychological Symptom Level				
Anxiety	1	-	-	0.90
Depression	1.00	0.05	20.41*	0.88
Negative Self	0.94	0.04	21.23*	0.90
Somatization	0.58	0.04	15.13*	0.76
Hostility	0.49	0.03	16.13*	0.78
Interpersonal Style				
Dominant	1	-	-	0.84
Angry	0.59	0.05	12.19*	0.70
Emotion Avoiding	0.60	0.05	12.78*	0.73
Manipulative	0.62	0.04	14.80*	0.81
Avoiding	0.77	0.05	15.28*	0.82
Sarcastic	0.31	0.03	11.77*	0.68

*p<0.001, SE: Standard error, BDPAR1-4: 4 parcels derived from Body Image Scale

Table 3: Correlations between the implicit variables of the model

Implicit Variable	1	2	3
1. Body Image	-		
2. Psychological Symptom Level	-0.33*	-	
3. Interpersonal Style	-0.15*	0.47*	-

*p<0.05

values indicate a good fit of the model with the data. The path coefficients and factor loadings for the tested model are given in Figure 3. Since it was determined that the path coefficient from body image to interpersonal style was not statistically significant ($\beta=0.01$, $p>0.05$) this path was removed from the model and the model was retested and the fit values of the model were obtained as $\chi^2(88, N=250)=286.55$, $p<0.05$; GFI=0.86; CFI=0.92; TLI=0.91; RMSEA=0.095 (90% confidence interval for RMSEA=0.083–0.010).

As the effect of psychological symptom level was removed from the model, the path coefficient from body image to interpersonal style became significant, but it was not significant when psychological symptom level was inserted in the model. Taking into consideration the Baron and Kenny criteria (38), this indicates that psychological symptom level has full mediating effect on the relation between body image

and interpersonal style.

When the second model (Figure 2) was tested in the study, the goodness of fit values were obtained as $\chi^2(87, N=250)=286.53$, $p<0.05$; GFI=0.86; CFI=0.92; TLI=0.91; RMSEA=0.096 (90% confidence interval for RMSEA=0.084–0.010). It can be stated that these values indicate a good fit of the model with the data. The path coefficients and factor loadings for the tested model are given in Figure 4. When the effect of interpersonal style on the model is removed, the path coefficient from body image to psychological symptom level was ($\beta=-0.33$, $p<0.05$); whereas it was ($\beta=-0.26$, $p<0.05$) when interpersonal style was inserted in the model. Therefore the path is still statistically significant, despite some decrease. Accordingly, taking into consideration Baron and Kenny (38) criteria, it can be stated that interpersonal style has partial mediating effect on the relationship between body image and psychological symptom level.

When these variances were evaluated, it was determined that body image explains 11% of psychological symptom level and 3% of interpersonal style; body image and interpersonal style together explain 29% of psychological symptom level. In addition, body image and psychological symptoms together explain 23% of interpersonal style.

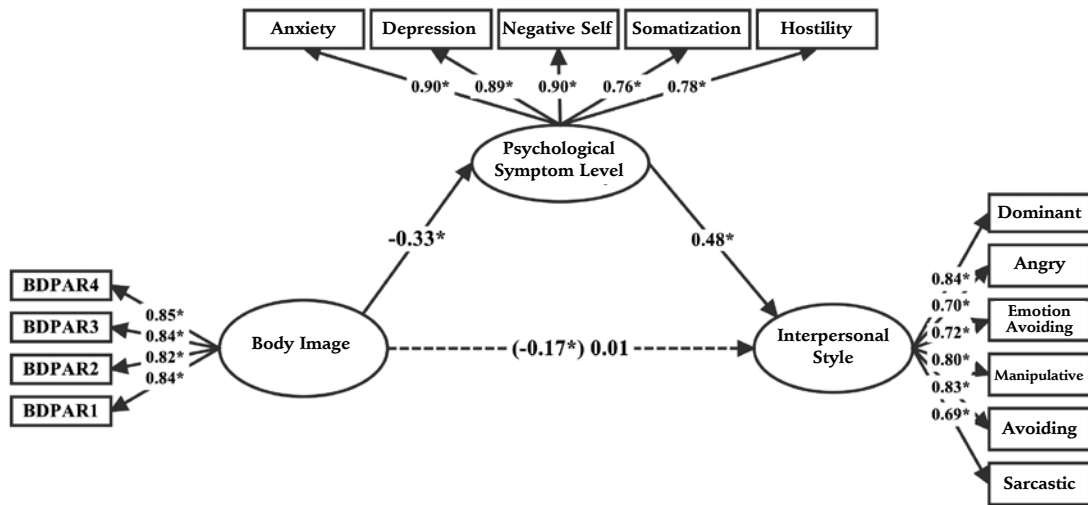


Figure 3: Standard path coefficients of Model 1 (* $p < 0.05$)

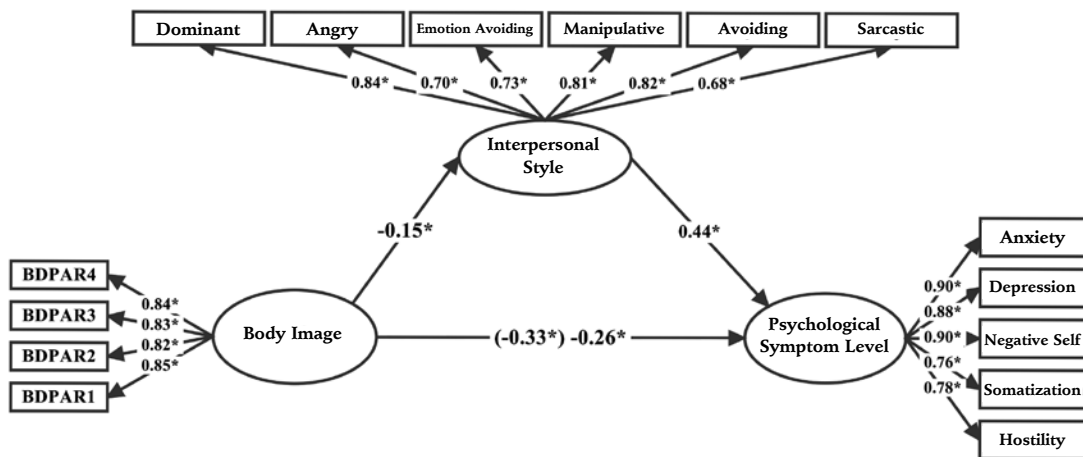


Figure 4: Standard path coefficients of Model 2 (* $p < 0.05$)

Significance of Indirect Effects

The Bootstrap method proposed by Shrout and Bolger (39) was used to evaluate the significance of indirect effects in the models. In this method, data sets of various quantities and sizes are created by randomly replacing and resampling the observations in the current data set. Therefore, as much information as possible is derived from the current data set. In the implementation of the method, 1000 bootstrap samples were created. In the bootstrapping method, the criterion for the significance of the indirect effect is that the prediction intervals for the indirect effect

should not contain 0. If the indirect effect interval does not contain 0, then the indirect effects are interpreted as statistically significant, if it contains 0, indirect effects are interpreted as not statistically significant. For Model 1, the interval of the significance of the indirect effect was calculated as -0.24, -0.09 in the 95% confidence interval and for Model 2 -0.14, 0.01 in the 95% confidence interval. Since no significance was observed in the 95% confidence interval for Model 2, the analysis was repeated for the 90% confidence interval. The results show that indirect effect prediction interval of Model 2, in the 90% confidence interval, is -0.13, -0.01 and significant. This

may be due to the fact that the indirect effect in Model 2 occurs not through full mediation but through partial mediation. In this respect, it can be said that the indirect effects in the structural models are significant.

DISCUSSION

This study was carried out to reveal the relationship between body image and psychological symptoms and interpersonal styles. In the study, it was determined that body image significantly predicted both psychological symptom level and interpersonal style. At the same time, it was determined that psychological symptom level has full mediating effect on the relation between body image and interpersonal style; whereas interpersonal style has partial mediating effect on the relationship between body image and psychological symptom level. In the context of direct effects, as satisfaction with body image increases, the negative interpersonal style decreases and psychological symptom level decreases. In the context of indirect effects, the fact that psychological symptom level has full mediating effect on the relationship between body image and interpersonal style indicates that psychological symptom level is an important factor in between these two variables. Thus, the relationship between body image and interpersonal style can be addressed as positive body image decreases psychological symptom level, and the decrease in psychological symptom level decreases negative interpersonal style. On the other hand, the relationship between body image and psychological symptom level can be regarded as; the positive body image decreases negative interpersonal style, and the decrease in the negative interpersonal style decreases psychological symptom level, but the direct relationship between body image and psychological symptom level still continues. These findings indicate that in addition to interpersonal style there may be other mediating variables in the relationship between body image and psychological symptom level such as conflict and problem solving styles, and relationship quality.

When the relevant literature is evaluated, it can be said that the findings of this study are in parallel with

the findings of the relevant literature. Individuals with negative body image may be concerned of being rejected in their interpersonal relations. This concern can cause individuals to express negative emotions such as shyness and social appearance anxiety (29). According to Gorker and et al. (40), since the individuals with negative body image are concerned of being rejected, they become introverted and refrain from interaction with people. They develop irrational thoughts about themselves. These irrational thoughts lead the individual to see themselves as worthless. As a result, self-constructs become negative. In brief, since individuals with negative body image have low self-esteem, this may lead to a negative self-perception. Therefore, the increase in psychological symptom levels can be explained in this way. Individuals with negative body image can be more interested in their body, criticizing their bodies and themselves. Thus, they may exhibit withdrawal and escape behavior in their social environment. They may also be sensitive to be rejected. This concern is generally referred to as social appearance anxiety (12). Social appearance anxiety is the anxiety resulting from the negative body image. According to Kara (29), individuals with negative body image are in negative affects such as disliking, not accepting the body and feeling shame for the body. These negative emotions lead individuals to refrain from social interactions and become introverted. This may affect both their relations and psychological symptom levels. The physiological dimension of body image is related to physical condition, physical skills and health status (41). According to Dokmen (33), the increase in the negative body image of women leads to increase in somatic symptoms. Also, the study emphasized that body image explains about 41% of somatization. In summary, increased negative body image may cause somatic symptoms such as, numbness in the body, shortness of breath, abdominal pain, and nausea. Asberg and Wagaman (42) have found that there was a significant relationship between the negative body image and decreased level of emotion regulation and increased level of perceived stress. According to Atik and Orten (43), the negative body image has also effect on the decrease in self-confidence of the individual. It is

also stated that the dislike of the body is also related to the state of well-being (33). There are also studies showing that there is a relationship between negative body image and depression (6,44). In the related literature, there are findings showing that depression also causes negative body image (45). Body image consists of three main dimensions (46). These are affect, evaluation and investment. The affect dimension is individual's expression of emotional feelings and experiences while evaluating themselves. Individuals with negative body image perceive and think about the negative aspects of each and every situation. Indeed, these negative thoughts can lead to emotional problems. In general; individuals' negative self perceptions may be processes that are effective in increasing the psychological symptoms and—in turn—negative interpersonal styles (47).

In conclusion, since this study demonstrates that body image is associated with both interpersonal style and psychological symptom levels and that it predicts these variables, it provides information that may be useful for professionals giving therapy to an individual who is in the early adulthood. The period of young adulthood is a time when “relationships with others” is important in the life of the individual (48). Problems with interpersonal relations are also important for the individual in this period. The findings of this study seem to be important also in terms of contributing to reveal the dynamics behind the interpersonal problems. It may be useful for sociologists, clinical psychologists, counselors or psychiatrists, in general all mental health professionals who are dealing with individuals in the early adulthood period to obtain directly or secondarily information about body images of counselees who admit with interpersonal problems or psychological symptoms. Findings obtained from this study can also be used in university psychological counseling centers, which are becoming more widespread nowadays. If mental health specialists working in the university psychological counseling centers step in the negative perceptions of college students' negative body images during the individual and group psychological counseling processes, they can prevent these students' interpersonal problems and psychological symptoms.

In this sense, the findings of this study seem important as well in terms of providing a theoretical basis for preventive interventions for psychological symptoms and interpersonal problems.

This is a cross-sectional study as of its design. Cross-sectional studies are aimed at revealing the relationship between certain variables at a certain time. Body image, on the other hand, in part because it is a dimension of the self perception, is changeable. In the course of life self perception of the individuals can be changed by life events such as education, new relations, ended relations and changing developmental periods. This is a limitation of this study. The relationship between body image, psychological symptoms and interpersonal style can be evaluated in future longitudinal studies. Longitudinal studies seem to be important in terms of revealing time-related changes. Another limitation of this study is that it was carried out on college students in young adulthood. It is considered that the studies about body image of the individuals who are in adolescence period, which is a critical period in terms of identity development, will contribute to the field. Another limitation of the study is that the models tested in the study are tested only in the general sample. In the relevant literature, it is emphasized that gender is an important variable in body image and that, women go through different socialization processes than men. In future studies, the tested models can be evaluated separately for each gender.

Contribution Categories	Name of Author
Development of study idea	A.A., A.K.
Methodological design of the study	A.A.
Data acquisition and process	A.A., A.K.
Data analysis and interpretation	A.A.
Literature review	A.A.
Manuscript writing	A.K.
Manuscript review and revision	A.K.

Conflict of Interest: Authors declared no conflict of interest.

Financial Disclosure: Authors declared no financial support.

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