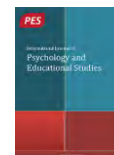





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Mediator Role of Social Appearance Anxiety in the Relationship between Socio-Cultural Attitudes towards Appearance and Body Image Flexibility

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ABSTRACT

This study examines the role of social appearance anxiety in the relationships between socio-cultural pressures, internalization of socio-cultural values, and body image flexibility. Designed as correlational survey research, the study sample comprises 748 students in a university in Turkey. Data of the study is collected with three data collection tools: "Socio-Cultural Attitudes Towards Appearance Scale", "Social Appearance Anxiety Scale", and "Body Image Flexibility Scale". A simple mediation model, which was applied with regression-based mediation analysis, shows that social appearance anxiety is a mediator on the relationships between socio-cultural pressures, internalization of socio-cultural values, and body image flexibility.

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Keywords:

Social appearance anxiety, socio-cultural attitudes towards appearance, body image flexibility, college students

1. Introduction

According to Acceptance and Commitment Therapy (ACT), it is extremely important to provide psychological flexibility in therapeutic processes (Hayes et al., 2011) and S. Psychological flexibility is the ability of individuals to be in touch with their experiences in the present and choose to act in accordance with their chosen values (Harris, 2016). The concept of psychological flexibility can be approached in different contexts and within the framework of specific situations. This approach is based on the idea that psychological flexibility does not have conceptual and clinical tools as well as psychological flexibility focusing on particular situations and problems (Gregg et al., 2007; MacKenzie & Kocovski, 2010; Wendell et al., 2012). Compulsive eating behaviours, continuous dieting, individuals' efforts to "fix" their bodies in line with idealized images are closely related to low psychological flexibility. However, since psychological flexibility refers to the general psychological state, not specific to different problem areas, it does not provide an enlightening explanation of which mechanisms govern individuals' compelling thoughts towards their bodies.

For this reason, examining compelling thoughts specific to body shape and body weight becomes much more important than examining general psychological flexibility (Wendell et al., 2012). Based on this conceptual orientation, Sandoz et al., (2013) present the concept of body image flexibility (BIF), a form of psychological flexibility. BIF is a unique form of psychological flexibility that is addressed in body satisfaction. BIF includes all the basic features of psychological flexibility in terms of differentiating from negative thoughts about body image in real terms, acting devoted to values, and performing desired behaviours without experiential avoidance.

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On the other hand, the concept of BIF includes the ability to be completely open to compelling events and experiences related to body image without judgment and defence, and consequently the support of value-oriented behaviours (Sandoz et al., 2013). When a person starts to internalize social norms related to body size, he determines his behaviour according to "standards" to meet these norms. According to a study, internalization of appearance-related norms was a risk factor for appearance-related disorders (Thompson & Stice, 2001). So, when the person fails to conform to the standards they perceive, they may experience tension. The tension regarding the difference between the reality of one's body and the ideal body recalls social appearance anxiety. Social appearance anxiety (SAA) is the tension that individuals experience that other people will determine their physical appearance will evaluate their physical appearance. SAA emerges because of the negative image of the person's body appearance (Hart et al., 1989).

It is noteworthy that there are important relationships between body image and psychological health-related variables. Several remarkable descriptive studies are emphasizing the relationships between negative body image and depression, low self-esteem, and various anxiety disorders (Goldfield et al., 2010, Konstanski & Gullone, 1998; Noles et al., 1985; Oktan & Şahin, 2010); body appreciation and self-compassion (Perey & Koenigstorfer, 2020); body image and attachment style (Arslangiray, 2013); BIF and self-esteem and depression (Baş, 1996; Oktan & Şahin, 2010); BIF and subjective well-being (Oktan, 2012). Another research reported that BIF mediated the relation between body dissatisfaction and psychological distress (He et al., 2020). Another mediation analysis about body image inflexibility confirms that BIF fully mediated the relationship between body mass index and dietary restraint (Tang et al., 2020).

Although no research to date has explored examining the relationship between body image flexibility and appearance anxiety, according to Shepherd et al. (2019), lower levels of cognitive flexibility appear to be linked to higher levels of appearance-related anxiety or concern. According to another research, increased mindfulness significantly predicted social appearance (Montgomery et al., 2016). Despite the emerging attention to body image flexibility, most research presents the psychological variables and their relations with body image flexibility. Although social appearance anxiety and socio-cultural norms related to appearance are important concepts in BIF, no research has explored examining the role of such socio-cultural attitudes and social appearance anxiety on body image flexibility. Sabucedo (2017) considered psychological flexibility and remarks the relevance. According to Stice and Agras (1998), socio-cultural pressures such as, media pressure, peers and family, individuals to adhere to culturally defined beauty standards. According to Leit et al. (2001), male models in media contents have become more muscular and female models have become thinner. Many studies reported female want to be underweight, unlike their male counterparts, who are primarily want to be overweight (Levinson et al. 1986). Values of the socio-cultural construction of values and a potential connection between psychological flexibility. BIF has received no attention directly and there is a need for studies explaining the relationship between BIF and socio-cultural influences.

BIF, which supports approaching the body with sensitivity, being open to compelling physical situations without judgment, and acting in a value-oriented manner in other areas of life, can be considered as a protective psychological factor. Besides, in a cross-sectional study, it was observed how individuals' body images changed in the following years. In this study covering nineteen years, it was determined that the body images of 3127 university students changed negatively (Cash et al., 2004). It seems that the negative body image has a positive relationship with negative psychological variables, and there is no positive change in the body image with the aging body over the years. At this point, explaining BIF, which integrates the concept of body image with the concept of psychological flexibility, seems meaningful in terms of protecting psychological health. It can be said that descriptive studies on body image flexibility are important and necessary to understand BIF better and increase BIF level.

Based on all these explanations, the problem of this research aims to determine the role of social appearance anxiety on the relationship between socio-cultural pressures, internalization of socio-cultural values, and body image flexibility. The hypothetical model established in terms of the understandability of the proposed model is included in Figure I. The hypothetical model presents relations of body image flexibility, social appearance anxiety, socio-cultural pressures, and internalization of socio-cultural values.

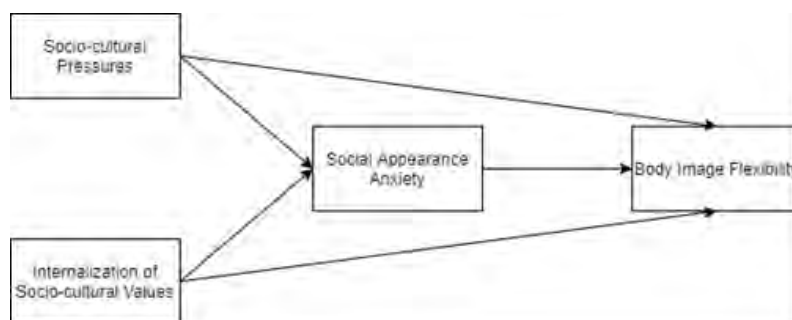


Figure 1. Hypothetical model

The research hypotheses determined according to the hypothetical model are given below.

H1: Socio-cultural pressures directly affects- social appearance anxiety.

H2: Internalization of socio-cultural values directly affect social appearance anxiety.

H3: Socio-cultural pressures directly affect body image flexibility.

H4: Internalization of socio-cultural values directly affects body image flexibility

H5: Social appearance anxiety directly affect body image flexibility.

2. Methodology

2.1. Research Model

The research is a survey model aiming to find relations between social appearance anxiety, socio-cultural pressures, internalization of socio-cultural values, and body image flexibility. The research study sample consists of students in different faculties in a university. The study group was determined using the appropriate sampling method (Büyüköztürk, 2007). When determining the sample size, it is suggested that the ratio of the number of participants to the number of parameters should be at least 10 ($N / P = 10$) (Kline, 1998). Therefore, 59 parameters (12 items for body image flexibility scale, 31 items for socio-cultural attitudes towards appearance scale, 16 items for social appearance anxiety scale) are included in the proposed path model, ($59 * 10$) at least 590 participants supposed to be reached. After all, in the data analysis process, 748 students' questionnaires were analysed.

67.2% ($n = 503$) of the participants are female and 32.8% ($n = 245$) are male. The age range of the participants is 17-32 and the average age is 20.81 (Sd: 1.93). 33.7% ($n = 252$) of the participants were in the 1st grade, 6.1% ($n = 46$) were in the 2nd grade, 20.5% ($n = 153$) were in the 3rd grade and 39.7% ($n = 297$) were in the 4th grade. Participants completed the survey voluntarily. Ethical approval was received from the Mugla Sıtkı Koçman University Research Ethics Committee in Turkey.

2.2. Data Collection Tools

Personal information form (PIF). In the study, two separate "Personal Information Forms" were used to collect data about some personal characteristics of the students. In this form, to determine the gender, age, grade level of the student participating in the study, information about their undergraduate program was obtained.

Socio-cultural attitudes towards appearance scale (SATAS). SATAS, which was used to test the model, was developed by Schaefer et al., (2017). The scale aims to identify the sociocultural risk factors related to body image and internalization (muscle structure) (1, 4, 8, 10, 15), internalization (being weak) (3, 6, 11, 13), internalization (general attractiveness) (2, 5, 9, 12, 14), and media pressure (28, 29, 30, 31), peer pressure (21, 22, 23, 25, 26, 27), and family pressure (16, 17, 18, 19); it consists of six subdimensions. The scale was adapted to Turkish by Cihan et al., (2016). The scale consists of 31 items and is answered as (1) strongly disagree, (5) strongly agree. Higher scores obtained from the scale are interpreted as the perception of socio-cultural pressure towards appearance, and items 9, 10, and 14 are reverse scored. An exploratory factor analysis was conducted to evaluate the construct validity of the Turkish form of the scale. As a result of the analysis made on 249 female university students, it was reported that the scale showed a 6-factor structure, and the factor

loads of each factor were above .53. In addition, the eigenvalues are 2.15 for internalization (muscle structure), 1.47 for internalization (weakness), 3.27 for internalization (general attractiveness), 3.88 for media pressure, 9.21 for peer pressure, and 1.80 for family pressure. The internal consistency coefficients of Cronbach's alpha for the subscales range from .84 to .96. In the current study, the Cronbach's alpha reliability coefficient of the scale ranges from .88 to .92 for the subscales.

Social appearance anxiety scale (SAAS). SAAS was developed by Hart et al. (2008) to measure the social appearance anxiety levels of individuals. SAAS was adapted to Turkish by Doğan (2010). The scale consists of 16 items. It is answered between I strongly agree (5), strongly disagree (1), and it is a 5-point Likert type. The first item is scored in reverse. Increasing scores indicate higher social appearance anxiety. The psychometric properties of the Turkish form of SAAS were examined with 340 university students and it was reported that the scale had a single-factor structure as in the original ($\chi^2 = 143.79$, $p < 0.01$; RMSEA = 0.051; AGFI = 0.90; IFI = 0.99; RFI = 0.98; NFI = 0.98; CFI = 0.99; GFI = 0.93). Besides, the correlation of the SSI Turkish form with the Fear of Negative Evaluation Scale is .60. The Cronbach's alpha internal consistency coefficient was .93, and the test-retest correlation made one month apart was .85. In this study, the Cronbach alpha reliability coefficient was calculated as .93.

Body image flexibility scale (BIFS). BIFS was developed by Sandoz et al. (2013) and consisted of 12 items. It is scored between "(1) Not at all suitable and (7) Completely suitable". The scores that can be obtained from the scale are 7-84. All items of the scale are scored in reverse. Thus, high scores obtained from the scale are interpreted as increasing body image flexibility. Turkish form of BIFS was made by Kaya (2019). Goodness of fit values for the tested model ($\chi^2 = 154.87$; $df = 54$; $\chi^2 / df = 2.86$; RMSEA = 0.08; CFI = .95; TLI = .94; GFI = .91; NFI = .92; IFI = .95) indicates that the available data set fits well with the tested model. One month after the first administration of the test, the correlation coefficient between the scores obtained by applying the test for the second time to the same participants was .75. In the positive direction between the first and the last test scores of the BIFS ($r = .88$, $p < .01$). BIFS has a negative and significant correlation with Social Appearance Anxiety Scale ($r = -.50$, $p < .01$) and its correlation with the Self-Concept Scale ($r = .43$, $p < .01$) is positive and significant. These results are evidence of criterion-related validity.

To test the construct validity of the scales for this study, a CFA was performed in which the originals of each scale were retained. Table 1 contains the fit indices for the CFA analysis of BIF, SAAS, and SATAS.

Table 1. CFA Analysis of BIF, SAAS, and SATAS

	χ^2	df	CFI	GFI	NFI	IFI	RMSEA
BIF	379	54	.91	.90	.91	.94	.08
SATAS	2180.27	370	.94	.82	.92	.94	.08
SAAS	546.89	102	.98	.92	.99	.98	.07

When Table 1 is examined, it is seen that the BIF fit well in accordance with the original single-factor structure ($\chi^2 = 379$, $df = 54$, $p < .01$; CFI = .91; GFI = .90; NFI = .91; IFI = .94; RMSEA = .08). It is seen that SATAS fit well in accordance with the original structure ($\chi^2 = 2180.27$, $df = 370$, $p < .01$; CFI = .94; GFI = .82; NFI = .92; IFI = .94; RMSEA = .08). It is seen that the SAAS has a good fit in accordance with the original structure ($\chi^2 = 546.89$, $df = 102$, $p < .01$; CFI = .98; GFI = .92; NFI = .99; IFI = .98; RMSEA = .07). All these findings provide evidence of the construct validity of the BFI, SAAS and SATAS.

2.3. Analysis of Data

Before the analysis, outliers in the data set were excluded based on standardized z scores. 13 of the questionnaires were omitted from analyses because they had higher z values ($z \geq 3$). Also, it was determined according to VIF values whether there is a multi-linearity problem.

The Mahalanobis test was also performed to examine outliers, and three observations with high distance values were removed from the data set. Besides, it was examined whether there is a multi-connection problem in the data set. Since the VIF value was seen to be between 5-10, it was observed that there was no multi-connection problem. To test for mediation suitability, we examined whether the data set had a normal distribution. For this purpose, skewness and kurtosis tests were performed for each variable. According to the results obtained, the data set has a normal distribution. Table 2

Table 2. Skewness and Kurtosis Results of the Variables

	χ^2	df	CFI	GFI	NFI	IFI	RMSEA
BIF	379	54	.91	.90	.91	.94	.08
SATAS	2180.27	370	.94	.82	.92	.94	.08
SAAS	546.89	102	.98	.92	.99	.98	.07

When Table 2 is examined, the skewness and kurtosis values of the groups' BIF, SAAS, and SATAS scores are between the limits of -1.96 and +1.96. Therefore, it can be said that these values meet the normal distribution assumption. Confirmatory Factor Analysis was analysed primarily to test moderation models in the study. Afterwards, correlation coefficients were examined to determine the relationships between variables, and the next mediation analysis was performed. In the model testing, mediation analyses were applied. .05 significance level was taken as the criterion for determining the findings' significance. Jamovi and SPSS 21.00 package programs were used to analyse the data.

2.4. Ethical

In this study, all rules stated to be followed within the scope of "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed. Ethical Review Board Name: Muğla Sıtkı Koçman University Ethics Committee. Date of Ethics Evaluation Decision: 15.01.2018 Ethics Assessment Document Issue Number: 2

3. Findings

In this section, descriptive statistics results from variables are presented. In Table 3, means, standard deviation values, and correlations of variables are reported.

Table 3. Descriptive Findings and Correlations of the Variables

	BIF	SAAS	SATAS (internalization of sociocultural values)	SATAS (sociocultural pressures)
Mean	63.3	31.7	7.86	4.88
Med	66	30	7.76	4.25
Sd	13.9	11.6	1.64	1.96
1	1			
2	-.52*	1		
3	-.51*	.39*	1	
4	-.40*	.45*	.30	1

* $p < .001$

Table 3 presents descriptive statistics and correlations between variables of the model. According to analysis there is a significant relationship between all variables. As presented in Table 3, there is a negative and significant relationship between BIF and SAAS ($r = -.52$), BIF and SATAS (internalization of socio-cultural values) ($r = -.51$), BIF and SATAS (socio-cultural pressures) ($r = -.40$). There is a positive and significant relationship between SAAS and SATAS (internalization of socio-cultural values) ($r = .39$), SAAS and SATAS (socio-cultural pressures) ($r = .45$). There is also a positive and significant relationship between SATAS (internalization of socio-cultural values) and SATAS (socio-cultural pressures) ($r = .30$).

Mediation analyses were used to determine whether sociocultural pressures and internalisation of sociocultural values predicted social body image flexibility by performing a simple regression analysis on the data. The results of the simple regression analysis are presented in Table 4.

Table 4. Results for the Regression Model

Predictor	Coeff.	SE	t	p	R	R ²
Constant	103.41	1.98	52.03	< .001	.63	.40
Social appearance anxiety	-0.38	0.04	-9.54	< .001		
Internalization of sociocultural values	-2.90	0.26	-10.98	< .001		
Sociocultural pressures	-1.07	0.22	-4.71	< .001		

As shown in Table 4, regression analysis showed whether social appearance anxiety, socio-cultural pressures, and internalization of socio-cultural values significantly and positively predicted body image flexibility (Coeff. = -.38, -2.90, -1.07, $p < .001$). The result of mediating analysis is shown in Table 4 and Figure 2 below.

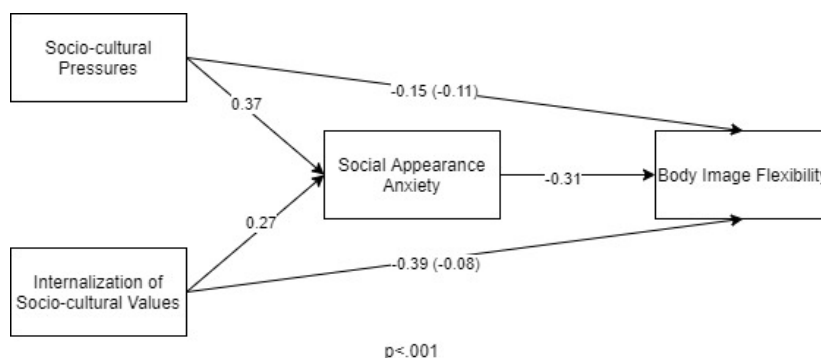


Figure 2. Model of Mediation Role of Social Appearance Anxiety (Final Model)

As presented in Figure 2 and Table 4, the results showed that socio-cultural pressures and internalization of socio-cultural values predicted social body image flexibility (Coeff. = .37, 95% CI: 1.81-2.57; $p < .001$; Coeff. = .27, 95% CI: 1.52-2.42; $p < .001$); besides, in the mediation analysis social appearance anxiety significantly predicted body image flexibility (Coeff. = -.31, 95% CI: (-.45) – (-.30); $p < .01$), and also decreased the effect of socio-cultural pressures on body image flexibility (from -.15 to -.11) and internalization of socio-cultural values on body image flexibility (from -.39 to -.08). Consequently, the results demonstrate the mediating role of social appearance anxiety on the relationship between socio-cultural pressures, internalization of socio-cultural, and body image flexibility.

4. Conclusion and Discussion

The current study examined the association between socio-cultural pressures and internalization of socio-cultural values, social appearance anxiety, and body image flexibility. According to the mediation model, one of the findings is that internalization of socio-cultural attitudes and socio-cultural pressure directly predicts social appearance anxiety. From the point of view of ACT, internal experiences, feelings, and thoughts have a precursor, leading individuals to exhibit certain behaviours (Harris, 2016). Therefore, the internalization of socio-cultural attitudes and pressure can be considered premises in terms of social appearance anxiety. Similarly, Thompson and Stice (2001) stated that internalization of appearance-related norms was a risk factor for appearance-related disorders.

Another finding obtained in the mediation model is the internalization of socio-cultural attitudes and socio-cultural pressure directly predicts body image flexibility. Although there is no study examining the relationships between these variables in the literature, Sabucedo (2017) reports a relationship between psychological flexibility and socio-cultural values. This finding of the research is in parallel with the finding of Sabucedo. Additionally, according to Stice and Agras (1998), socio-cultural pressures such as peers, family, and media pressure, individuals define beauty standard and these standard is how people perceive their bodies. As Leit et al. (2001) and Levinson et al. (1986) proposed, males and females desire to have similar body structures with ideal body symbols from the media. From this point of view, the more individuals are compatible with social standards about body image, the more they have a body image flexibility. Results of the current study is in line with the explanations of the referred authors.

Social appearance anxiety is individuals' anxiety about how they appear in social situations to be humiliated (Hart et al., 1989). Individuals with such anxieties are in a state of fusion with their thoughts triggered by both their internal and external life seems to be one of the reasons for the low BIE. The social appearance anxiety obtained in the mediation model directly predicts body image flexibility, supporting this idea. There is no direct study reporting a relationship between these two variables in the literature. As Shepherd et al. (2019) stated, lower levels of cognitive flexibility appear to be associated with higher levels of appearance-related anxiety or concern.

Finally, according to the findings, social appearance anxiety plays a mediating role between the internalization of socio-cultural attitudes and socio-cultural pressure and body image flexibility. On the other hand, the ability

to be open to compelling events and experiences related to the body image and supporting value-oriented behaviours (Sandoz et al., 2013), individuals with high social appearance anxiety may not have a high capacity to be open to challenging events related to their bodies (Wendel et al., 2012). Therefore, since these people struggle with compelling thoughts, feelings, and memories about their bodies, they increase the probability of cognitive fusion together with their efforts to control their thoughts, which may cause a decrease in BIF (Sandoz et al., 2010).

5. Recommendations

First, in this study, the model analysis was performed using the observed variables. It could be suggested that a similar study should be conducted using latent variables such as socio-cultural pressure and internalization of socio-cultural values. Second, the study was conducted with a nonclinical sample. Similar studies can be conducted in a clinical group with body image disorders.

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