

Body Shaming and Body Dissatisfaction with Mediating Role of Social Appearance Anxiety among Women University Students with Below and Above Average Body Mass Index

Gulzar Ahmad and Zainab Shakeel Safdar

Lahore Garrison University

Body shaming, social appearance anxiety and body dissatisfaction among women are seen as arising concerns in this modern era of electronic and social media usage, and rapid involvement of women in almost all areas of life along with men. The aim of this research was to investigate the relationship of body shaming and body dissatisfaction with the mediating role of social appearance anxiety among women university students with below and above average body mass index. For this purpose, a total of 172 women university students with age ranging from 18 to 25 years with above and below average Body Mass Index were recruited. The recruited sample was surveyed using demographic information questionnaire including BMI, Weight and Body-Related Shame and Guilt Scale (WEB-SG; Conradt et al., 2007), Social Appearance Anxiety Scale (Hart et al., 2008), and Body Dissatisfaction Scale (Tariq & Ijaz, 2015). It was hypothesized that body shaming, social appearance anxiety and body dissatisfaction have significant relationship among them. Additionally, it was hypothesized that social appearance anxiety plays a mediating role between body shaming and body dissatisfaction. It was found that there is a relationship between BMI, body shaming, social appearance anxiety and body dissatisfaction. It was also found that social appearance anxiety plays a mediating role between body shaming and body dissatisfaction with below and above BMI women students. Additionally, body shaming and social appearance anxiety predicted body dissatisfaction. This research has suggested to tackle the social pressure faced by women due to their perceived body perfect ideals being portrayed on social and mass media; underlined the need to modify women's own perceptual self, psychoeducation to refrain from undue social comparisons, and the society's thinking towards a perfect body positive approach. The study has implications for the women life with body dissatisfaction, their mental health and psycho

Gulzar Ahmad and Zainab Shakeel Safdar, Department of Psychology, Lahore Garrison University, Lahore, Pakistan.

Correspondence concerning this article should be addressed to Gulzar Ahmad, Department of Psychology, Lahore Garrison University, Lahore, Pakistan.
Email: gulzar818@gmail.com

social concerns along with media communications and social policy makers.

Keywords. Body shaming, social appearance anxiety, body dissatisfaction, body image, body mass index

With rapid advancements in globalization, education, human rights awareness and digital and social media communications, the status and role of men and women are changing rapidly. Such advancements are influencing not only their perceptual outlook on intellectual and social development but their physical appearance of body satisfaction/dissatisfaction as well while they try to fit in their idealized body cultural norms. Moreover, due to many contemporary women liberation movements around the globe, women are being involved in almost all areas of life along with men. Further, women are still more concerned with their body shape and make more comparison with ideal body shape as compared to men (Najam & Ashfaq, 2012). Young women have higher levels of body dissatisfaction, anxiety and depressive symptoms as compared to men counterparts in culture of Pakistani context (Azhaar et al., 2020). A recent study on women between 16 to 30 years in KPK province in Pakistan, body dissatisfaction and body surveillance were significantly related to each other, and the social comparison was found as a significant moderator between their body dissatisfaction and body surveillance (Khan et al., 2023). A study on young individuals in Karachi has indicated that young women make more comparisons and feel dissatisfied with their bodies as compared to men while they feel more environmental and social pressure in pursuit of ideal body self (Khan et al., 2011). Shabu et al. (2024) indicated that unmarried women misperceive their body weight with over-estimation. Lee (2013) indicated that women become much concerned with their difference of body-mass index (BMI) between their actual and ideal body self even in very young age. Rather, for women, their body image usually becomes a central self-evaluative dimension while they make social comparison (e.g., Balcetis et al., 2012, Gilbert et al., 1995). The social comparison theory first proposed by Festinger (1954) emphasized the belief that people make comparisons with upper and/or lower social groups for their drive to gain accurate self-evaluations and perceptions, and the discrepancies may lead them to mental health concerns.

Additionally, people have varied views of their own body forms, and their perceptions may not fit into their cultural models, propensities, norms and desires. The information of the realities and elements of the individuals' own traits in discrepancy with the social

expectations fundamentally influence their mental working and propensity (Tiwari & Kumar, 2015) which may influence their psychological difficulties and wellbeing. People with high perfectionistic body self-presentation are very vulnerable to anxiety, depression and body dissatisfaction (Hashmi, Ijaz & Ijaz, 2022), eating disorder (Goss & Gilbert, 2002), and body shame (Goss & Allen, 2009).

Body shame is meant by the subjective outlook of the people on the way they are perceived by themselves or others with respect to the cultural beauty standards. The idea of body shame may be utilized in mental disposition of sexual maltreatment, body dysmorphic or dietary issues, and further, shame, as an aversive emotion of one's sense of self has been related with these variables (American Psychiatric Association, 2013; Conradt, et al., 2007; Wong & Qian, 2016).

Goss and Gilbert (2002) have proclaimed that body shame may likewise identify with one's body's capacities. For instance, obese patients feel shame on not having the option to perform ordinary exercises such as strolling long or physical playing activities that inspires them to limit caloric consumption. Some authors have proposed that being compared to the symbols of perfect bodies and not achieving their desires with surgical procedures leads to low self-respect, low self-esteem and it pays a hazardous toll on increasing body shame (e.g., Markham et al., 2005). Additionally, presentation to admire self-perception likewise prompted expanded body shame in a sample of non-clinical participants under study test by Monro and Huon (2005).

Social appearance anxiety is the stress or nervousness experienced by a person when his or her physical appearance is appraised by his/her friends (Erdemir & associates, 2013; Hagger & Stevenson 2010; Hart et al., 1989). Additionally, social appearance anxiety is characterized as "the dread that one will be adversely assessed as a result of one's appearance" (Levinson et al., 2013). This is an idea which overrides one's general physical appearance, for example, stature, weight, and muscle structure, including explicit highlights such as, complexion, facial features, distance between the eyes, and smile (Doğan, 2010). Accordingly, social appearance anxiety in youthful grown-ups may have negative and genuine implications for their life path (Argon, 2014; Çelik & Turan, 2014; Doğan, 2010; Yaman, 2017).

The phase of youth, which for the most part traverses between 18 to 25 years, during which an individual faces physical, psychological,

and social formative issues, may be one of the most passionate and variable phases of life (Altunay & Öz, 2006; Özgüven, 1992). Whereas, negative self-perception has an impact on personal satisfaction and emotional wellness in each phase of life, that might happen fundamentally in the younger stage of life (Nayir et al., 2015).

Body dissatisfaction has been seen as connected with various mental issues including burdensome temperament (Stice et al., 2000), uneasiness (Ivezaj et al., 2010), socially built tension (Brunet et al., 2010), and social fear among young women (Paxton et al., 2006). Body image dissatisfaction is defined as “the negative perceptions and feelings a person has about his/her body and is influenced by factors such as body shape and appearance, attitudes towards weight loss/gain, and cultural norms in relation to an ideal body” (Tariq & Ijaz, 2015).

Thompson and associates (1999) have indicated that body dissatisfaction is attached in socio-cultural weights to be dainty and appeal of the flimsy perfect as it is embraced in Western societies. As such, disguise of the slim, fair perfect in current social orders assumes a significant role in the advancement of body dissatisfaction and odd feelings identified with the body appearance (Agliata & Tantleff-Dunn, 2004; Groesz et al., 2002).

The research literature has indicated varieties of findings on the subject with various related variables. McDonald (2013) observed that a positive relationship existed between body shame, social appearance anxiety and body dissatisfaction among young adults. Additionally, one's own self-perception contributes in body shame and body dissatisfaction.

The ‘judgment about self’ plays a very important role in the process of psychological development. One of the areas in which individuals evaluate about self is about their body's mental image. Luqman and Dixit (2017) found a positive correlation of body image with social anxiety and psychological distress as well. Some studies have found that primary and secondary school girl students showed a great discrepancy between ideal and actual body shape which might lead to body shaming and body dissatisfaction. But, while they enter middle adulthood, they show less concerned with their ideal and actual body shape (e.g., Cocca et al., 2016; Lee, 2013). This indicated that such variables are also related to the developmental stages of life.

The perfectionistic attitude, generally found among young women, is also related with their struggle to achieve, along with some psychological difficulties including body dissatisfaction. A recent study has found that perfectionistic self-presentation among

500 Pakistani women participants was significantly correlated with anxiety, depression and body dissatisfaction. The study also indicated that individuals with high perfectionistic self-presentation were particularly vulnerable to anxiety, depression and body dissatisfaction (Hashmi et al., 2022).

Social comparison is also one of the related factors in body shaming and body dissatisfaction. Myers and Crowther (2009) explored data from 156 studies (189 effect size) showing that social comparison was significantly related to higher levels of body dissatisfaction. The impact of social comparison and body dissatisfaction was higher for women than men and younger women were more involved in social comparison than elderly women. Results confirmed that social comparison theory (Festinger, 1954) and research that comparing one's appearance unfavorably with others may lead to dissatisfaction of appearance.

From looking at the literature, it can be observed that the interlinked variables of body shaming, social appearance anxiety and body dissatisfaction are well researched but there is still shortage of research regarding social appearance anxiety as a mediating variable between body shaming and body dissatisfaction in general, and the Pakistani context, in particular. It is also deduced from previous literature that variables like social appearance anxiety and body dissatisfaction have a two-way relation such that not only social appearance anxiety can predict body dissatisfaction, yet body dissatisfaction can also predict social appearance anxiety, and the predicting pathway is different with different countries and cultures (Ko, 2010). Because of the ramifications of body dissatisfaction, it is imperative to consider this marvel in Pakistani culture as well.

Theoretical Framework

Mediated Pathway: Subjective Body Shame → Social Appearance Anxiety → Body Dissatisfaction

Pathway 1: Subjective Body Shame → Social Appearance Anxiety

Subjective body shame encompasses the negative self-perceptions and emotional distress individuals experience when they perceive their bodies as flawed or inadequate (Tylka & Wood-Barcalow, 2020). This internalized self-criticism can lead to heightened social appearance anxiety, as individuals become increasingly concerned about others' evaluations of their bodies (Kallen et al., 2020).

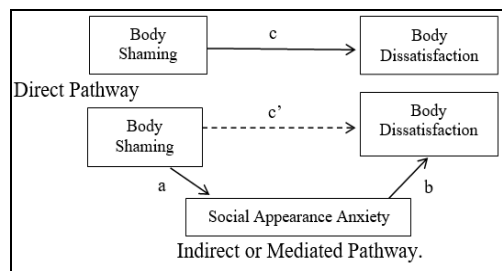
Pathway 2: Social Appearance Anxiety → Body Dissatisfaction

Social appearance anxiety can perpetuate body dissatisfaction, as individuals become preoccupied with their appearance and feel pressure to conform to societal beauty standards (Slater & Tiggemann, 2020). This anxiety can lead to negative self-comparisons and a distorted body image, ultimately contributing to body dissatisfaction.

Mediating Role of Social Appearance Anxiety

Social appearance anxiety serves as a mediator between subjective body shame and body dissatisfaction, providing a cognitive and emotional link between the two constructs. The relationship between subjective body shame and body dissatisfaction is not direct but rather is influenced by the individual's level of social appearance anxiety.

Figure 1: *Hypothesized Model: Theory Through a Set of Path Models*



Rationale

It is commonly known that the usage and addiction of electronic and social media is increasing world-wide including Pakistan. There is continued increase in display of beauty, glamour and body perfect ideals being portrayed on mass media including newspapers, televisions, social media apps, advertisements, modeling, internet communications etc. that creates an increasing pressure to look good/better/best, similar to perceived ideals but people born with different body shape, size, color and traits cannot always be the same or closest as their ideals. Such realistic or perceived shortcomings are likely to create frustrations and conflicts, leading to body shaming, social appearance anxiety and body dissatisfaction among young women which may be thwarting their healthy professional, social, marital and/or personal life. Additionally, such frustrations and conflicts may result in mental health issues such as hypochondriasis, low self-esteem, anxiety, obsessions, panic spells, withdrawal behavior, depressive dispositions, eating disorders and suicidal ideation along with body dissatisfaction. Such thoughts and feelings of

their body shaming, body dissatisfaction, and social appearance anxiety for some people may be like misery or trauma. Further, people ending up with such sufferings are likely frequent visitors to beauty parlors, dieticians, counseling psychologists and sometimes, unwanted body procedures and medical treatments like liposuctions and plastic surgeries with additional financial strains. This continued pressure of body shaming and body dissatisfaction with social appearance anxiety has numerous psychological, social and financial implications that should not be ignored by society. Additionally, there is shortage of literature about body shaming and body dissatisfaction with social appearance anxiety on our culture. This phenomenon should be addressed appropriately for the better mental health of our younger generations.

Objectives

The objectives of this study were:

1. To find out the relationship between body shaming, social appearance anxiety, and body dissatisfaction among women university students with below and above average body mass index.
2. To find out the mediating role of social appearance anxiety in relationship between body shaming and body dissatisfaction among women university students with below and above average body mass index.

Hypotheses

1. There is likely significant relationship between body shaming, social appearance anxiety and body dissatisfaction among women university students with below and above average body mass index.
2. Social appearance anxiety likely plays a mediating role between body shaming and body dissatisfaction among women university students with below and above average body mass index.

Method

Research Design

Correlational research design was used to examine the relationship of body shaming and social appearance anxiety on body dissatisfaction among young adult women with below and above average body mass index.

Sample

The 172 women volunteered University students, 18 to 25 years of age, with above and below average body mass index (BMI) were recruited with non-probability, convenient and snowball sampling strategy. While there was some difficulty in identifying and approaching the required sample, some initially recruited students further identified and recruited students they knew fulfilled the required criteria to participate in the study. [Simpson \(2018\)](#) has indicated the young adulthood as the age range of 18 to 25 years with stunning changes leading towards full maturity. For this age range, the women participant university students were at BS and MPhil/MS levels of education.

Inclusion and Exclusion criteria

Inclusion Criteria

Women students at university level education were included who were within the age range of 18 to 25 years. These university students were at their BS and M.Phil./MS levels of education in various departments.

Exclusion Criteria

Students with any kind of physical and/or mental challenges were excluded. Students with chronic physical ailments, deformities etc., and suffering or undergoing treatment of any psychiatric or severe psychological difficulties were excluded. The married students were also excluded.

Instruments

Body Mass Index

Body Mass Index (BMI) was used to calculate weight in kilograms divided by the height in meter square (kg/m^2). It is used to classify the sample as obese, overweight, normal and underweight. $\text{BMI} \geq 30.00$ is indicated as obesity, $\text{BMI} \geq 25.00$ as overweight, $\text{BMI} = 18.50 - 24.99$ as of normal range, and BMI lower than 18.50 is measured as underweight ([World Health Organization, 2010](#)).

Weight and Body-Related Shame and Guilt Scale (WEB-SG; Conradt et al., 2007)

The subscale of body shame of WEB-SG assesses the feelings of shame and guilt for individuals with obesity as well as no obesity. The

body shame subscale consists of 6 items, gauges the frequency of shame experiences about the body, figure and weight while the individual happens to be in front of the real or imagined others. It is a 5-point Likert-type scale with responses as 1 (*not at all*) up to 5 points (*always*). The alpha coefficient of body shame subscale with 6 items is .92, and the test-retest reliability is .76 in its German description (Conradt et al., 2007). The WEB-SG still has its enduring relevance and strong psychometric properties (Pila et al., 2015; Dumitrescu & Dumitrescu, 2022), established reliability and validity across diverse populations (Mensing et al., 2020), and demonstrating its adaptability and applicability to contemporary issues (Dumitrescu & Dumitrescu, 2022).

Social Appearance Anxiety Scale developed (SAAS, Hart et al., 2008)

The Social Appearance Anxiety Scale is a 16-item self-report measure that is used to assess the situational anxiety on general appearance related to an individual's body shape. It is a 5-point Likert-type scale that ranges from 1 (*not at all*) up to 5 (*extremely*). Higher the scores, greater the disparity between perceived actual and ideal physical traits, dysfunctional patterns, perceived feelings of unattractiveness, importance of physical appearance, and a preoccupation with thoughts of becoming over/under weight. The scale has strong internal consistency ($\alpha = .94$), a high test-retest reliability ($r = .84$) and a high level of construct validity (Hart et al., 2008). SAAS's relevance remains robust, supported by extensive research across diverse populations and contexts, which confirms its strong psychometric properties. It has high relevance in modern context such as social media usage and its psychological impacts (MDPI, 2022). It has utility across diverse samples, across age groups and clinical as well as non-clinical settings (Claes et al., 2011; Hart et al., 2008) with strong theoretical foundations and support in literature exploring contemporary psychological phenomena (MDPI, 2022).

Body Dissatisfaction Scale (Tariq and Ijaz, 2015)

The Body Dissatisfaction Scale (Tariq and Ijaz, 2015) is a self-report instrument to assess personal body dissatisfaction, specified to Pakistani context. It has 26 items with gender orientation. It has 4 subscales for men and 3 subscales for women. The applied subscales for women included bodyweight, facial features, and skeletal structure. It is a Likert scale that ranges from 0 (not at all) up to 4 (always). The total scores can be categorized from no dissatisfaction

up to severe body dissatisfaction. The reliability of the total scale is .88 (Tariq & Ijaz, 2015). This scale is still widely used, valid and reliable for the indigenous population.

Ethical Considerations

Permission for the use of scales was obtained from their authors, and no harm policy for the participants was strictly observed. Permission for data collection from the relevant institutions, and the participants' free consent was also obtained. The accuracy of the responses was kept in mind with data confidentiality.

Procedure

A total of 200 forms were given out to the approached respondents with inclusive criteria. They were briefed about the research purpose. Out of these, 172 Forms were returned with completed responses hence, the rest of them were excluded. All ethical considerations were considered. The data were analyzed on SPSS to get the appropriate results.

Results

Before analyzing the data, reliability of the scales were assessed. It was found that the overall body shaming scale had the reliability of .85, the social appearance anxiety scale had .91 and body dissatisfaction scale had .90, being all strong reliabilities in this research.

Table 1 shows that the body mass index has a significant positive relation with overall body shaming including appearance body shaming and weight body shaming, social appearance anxiety, overall body dissatisfaction including shape and weight, skeletal structure and facial features. Overall body shaming and weight body shaming had a significant positive relation with social appearance anxiety. While overall body shaming including appearance and weight body shaming had significant positive relation with body dissatisfaction including body and shape, skeletal structure and facial features. Social appearance anxiety had a significant positive relation with overall body dissatisfaction and significant positive relation with shape and weight, skeletal structure and facial features. Additionally, no differences were found between below and above average BMI women participants in a separate analysis.

Table 1. *Correlation Matrix for Body Mass Index, Subscale of Body Shaming, Social Appearance Anxiety and Body Dissatisfaction Among Women University Students (N =172)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Age	-	.16**	-.07	.44**	-.01	.07	-.01	.01	.06	.23**	-.08	-.10	-.04	-.04	-.04	.16*	.03	.00
Weight		-	.45**	.07	-.17**	.10	.13*	-.17**	.04	.87**	.05	-.00	.11	.01	.08	.44**	.10	.10
Height			-	-.08	-.14*	.06	.13*	-.07	-.01	-.02	-.14*	-.11	-.15**	-.21**	-.07	.05	-.16*	.09
Education				-	-.10	.07	.00	.04	.01	.11	.08	.08	.07	.10	.09	.24**	.14	.23**
Family system					-	-.05	-.10	-.01	-.13*	-.12*	-.03	-.08	.01	-.05	-.10	-.13	-.04	-.10
Strict diet						-	.14*	.03	.18*	.08	.17**	.12*	.19**	.10	.15**	.39**	.11	.05
Exercise							-	-.04	.02	.09	.00	-.02	.03	.02	.01	.05	-.07	-.01
Edit photos								-	.17**	-.14*	-.02	-.00	-.04	.12*	.08	.07	.18*	.09
Clothing size									-	.06	.21**	.15**	.24**	.16**	.21**	.30**	.30**	.16*
Body mass index										-	.14*	.06	.21**	.13*	.14*	.45**	.18*	.06
Body shame											-	.92**	.90**	.58**	.48**	.49**	.40**	.30**
Body												-	.67**	.48**	.36**	.31**	.29**	.25**
Weight													-	.60**	.53**	.59**	.45**	.31**
Social appearance anxiety														-	.68**	.59**	.65**	.50**
Body dissatisfaction															-	.86**	.88**	.72**
Shape and weight																-	.63**	.44**
Skeletal structure																	-	.50**
Facial features																		-

Note. * $p < .05$; ** $p < .01$.

Table 2: *Linear Regression for Body Shame (Body) as Predictor of Female Body Dissatisfaction in University Students for Women (N = 172)*

Variables	Facial Features		Shape & Weight		Skeletal Structure	
	β	SE	β	SE	β	SE
Body shame (body)	.25***	.12	.31***	.17	.29***	.18
<i>R</i>	.25		.31		.29	
<i>R</i> ²	.06		.10		.08	
<i>F</i>	11.69***		19.05***		15.42***	
Body shame (weight)	.31***	.12	.59***	.15	.45***	.17
<i>R</i>	.31		.59		.45	
<i>R</i> ²	.09		.35		.21	
<i>F</i>	18.04***		94.70***		44.15***	

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 2 shows that body shame (body and weight) are significant positive predictors of body dissatisfaction in women (facial features, shape and weight, and skeletal structure).

Table 3: *Linear Regression for Body Shame (Body) As Predictor of Social Appearance Anxiety in University Students for Women (N = 172)*

Variables	β	SE
Body shame (body)	.48***	.19
<i>R</i>	.48	
<i>R</i> ²	.23	
<i>F</i>	86.99***	
Body shame (weight)	.60***	.20
<i>R</i>	.60	
<i>R</i> ²	.36	
<i>F</i>	165.83***	

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 3 shows that body shame (body and weight) are significant positive predictors of social appearance anxiety in women university students

Table 4: *Linear Regression for Social Appearance Anxiety as Predictor of Female Body Dissatisfaction Subscales in University Students for Women (N = 172)*

Variables	Facial Features		Shape & Weight		Skeletal Structure	
	β	SE	β	SE	β	SE
Social appearance anxiety	.50***	.02	.59***	.03	.65***	.03
R	.50		.59		.65	
R ²	.25		.35		.42	
F	53.92***		88.07***		117.39***	

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 4 shows that social appearance anxiety is a positive predictor of facial features, shape and weight and skeletal structure in university students.

Table 5: *Hierarchical Regression Analysis for Mediation Predicting Body Dissatisfaction from Demographics, Body Shame and Social Appearance Anxiety in Women University Students (N = 172)*

Predictors	Body Dissatisfaction					
	Body & Shape		Skeletal Structure		Facial Features	
	β	SE	β	SE	β	SE
Block 1						
Age	-.09	.27	-.12	.32	-.18*	.23
Weight	.48***	.03	.23**	.04	.09	.03
Height	-.10	7.51	-.21**	9.07	.11	6.37
Education	.21**	1.20	.14	1.45	.29***	1.02
Family system	.04	1.12	.04	1.36	.00	.95
Strict diet	.30***	1.03	.05	1.25	-.02	.87
Exercise	-.09	1.08	-.09	1.31	-.08	.92
Edit photos	.04	1.03	.10	1.25	.05	.87
Clothing size diff	.16**	1.02	.22**	1.24	.13	.87
Block 2						
Body shame (body)	.14*	.18	-.05	.23	.01	.17
Body shame (weight)	.51***	.21	.43**	.27	.26*	.19
Block 3						
Social appearance anxiety	.37***	.03	.57***	.04	.53***	.03
R	.79		.69		.58	
R ²	.63		.48		.33	
F	21.50***		11.40***		6.19***	
ΔR^2	.07		.18		.16	

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 5 shows that In Block 1, Demographics were entered to predict body and shape, skeletal structure and facial feature

dissatisfaction in women. The significant models emerged for body and shape $F: (9,150) = 12.364, p < 0.5$, skeletal structure $F: (9,149) = 3.614, p < 0.5$ and facial feature $F: (9,117) = 2.235, p < 0.5$ dissatisfaction in women. Age significantly negatively predicted facial features dissatisfaction in women. Weight significantly positively predicted body and shape and skeletal structure dissatisfaction in women. Height significantly negatively predicted skeletal structure dissatisfaction in women. Education significantly positively predicted body and shape and facial features dissatisfaction in women. Strict diet significantly positively predicted body and shape dissatisfaction in women. Clothing size significantly positively predicted body and shape and skeletal dissatisfaction in women. In Block 2, body shame (body) was entered to predict body and shape, skeletal structure, and facial feature dissatisfaction in women. The significant models emerged for body and shape $F: (2,148) = 22.084, p < 0.5$, skeletal structure $F: (2,147) = 12.546, p < 0.5$ and facial feature $F: (2,148) = 5.155, p < 0.5$ dissatisfaction in women. Body shame (body) significantly positively predicted body and shape dissatisfaction in women. Body shame (weight) significantly positively predicted body and shape, skeletal structure, facial features dissatisfaction in women. In Block 3, Social appearance anxiety was entered to predict body and shape, skeletal structure and facial feature dissatisfaction in women. The significant models emerged for body and shape $F: (1,147) = 32.087, p < 0.5$, skeletal structure $F: (1,146) = 52.287, p < 0.5$ and facial feature $F: (1,147) = 35.453, p < 0.5$ dissatisfaction in women. Social appearance anxiety significantly positively predicted body and shape, skeletal structure and facial feature dissatisfaction in women.

Table 6: *Sobel Test to Check the Significance of Mediation in Women University Students (N = 172)*

Body shame (body)	Sobel test	SE	p
Body and shape	5.76	0.06	0.0
Skeletal structure	6.61	0.09	0.00
Facial features	7.07	0.09	0.00
Body shame (weight)			
Body and shape	6.37	0.07	0.00
Skeletal structure	7.57	0.11	0.00
Facial features	8.29	0.11	0.00

Table 6 shows that all mediation analysis is significant of body dissatisfaction for women (body and shape, skeletal structure and facial features)

Figure 2: *Statistical Model of Mediation for the Study*

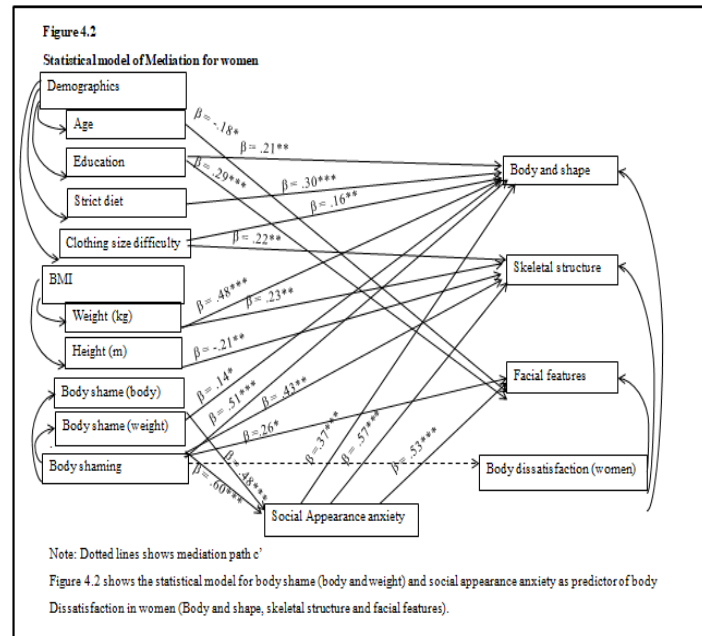


Figure 2 shows that the significant findings of the mediation analysis were that the age negatively predicted facial feature related body dissatisfaction in women like due to wrinkles etc., weight significantly positively predicted body and shape, skeletal structure related body dissatisfaction in women like weight gain led to hair loss; height significantly negatively predicted skeletal structure related body dissatisfaction in women. Additionally, it was also found that education, and having difficulty with dress sizes were positive predictors of body and shape and skeletal structure related body dissatisfaction in women. Following a strict diet is a positive predictor of body and shape related dissatisfaction in women. Lastly, body shame (body) positively predicted body and shape related body dissatisfaction. Body shame (weight) and social appearance anxiety significantly positively predicted all kinds of body dissatisfaction in women (facial features, body and shape and skeletal structure).

Discussion

The current study's findings indicate a significant relationship between subjective body shame, social appearance anxiety, and body dissatisfaction in women. These results align with previous research suggesting that body shame is a robust predictor of body dissatisfaction (Tylka & Wood-Barcalow, 2020).

The mediating role of social appearance anxiety in the relationship between subjective body shame and body dissatisfaction is consistent with previous research (Kallen et al., 2020). In a study on Pakistani culture, young women body dissatisfaction was significantly correlated with anxiety and depression, and anxiety was significant predictor of body dissatisfaction (Azhaar et al., 2020). These findings suggest that interventions targeting body shame and social appearance anxiety may be effective in reducing body dissatisfaction in women.

Additionally, the current study's findings highlight the importance of considering the role of social media in the development of body image concerns. Social media platforms perpetuate unrealistic beauty standards and promote the objectification of women's bodies. Women who make upward comparisons are more likely to have poorer body image, lower mood, inclined towards dieting/exercise than no comparison. Further, comparison with the appearance of celebrities/models may be more harmful while they might have extreme difficulty attaining it (Fardouly et al., 2021). Women who engage in social media use are more likely to experience body shame and social appearance anxiety, which can contribute to the development of body dissatisfaction (Tiggemann & Brown, 2020).

Sociocultural theory also provides a framework for understanding the relationship between subjective body shame and social appearance anxiety. Societal beauty standards and cultural norms contribute to the development of body image concerns, leading women to experience anxiety about their appearance in social situations (Slater & Tiggemann, 2020; Thompson et al., 1999). Additionally, the social comparison theory (Festinger, 1954) argues that the media influences individuals' socioeconomic status and related forms of perceived competitiveness may influence their self-esteem, moods and emotions as they try to better fit-in the group. In a study on university students in Karachi, the authors indicated that the media had an overall negative influence on body image of young adults (Khan et al., 2011). In most of the studies, the thinness trait is appreciated among women. Further, a study conducted on young adolescent school girls from Quetta, the authors found that most of the obese (62%) and others under-weight (27%) were habitual of maladaptive eating patterns leading them to increased levels of body dissatisfaction, and high levels of social comparisons and internalization (Khan et al., 2017). In a study, the images of average-sized women on Instagram lead to better body image as compared to images of thin women, suggesting that the way the body images are portrayed on social media do have their effects (Tiggemann et al., 2021). In meta-analyses of experimental and longitudinal studies, De Valle et al. (2021) warned

that appearance-ideals are more damaging than other appearance types and recommended that psychoeducation should be provided to the risky clients or experiencing body image disturbance. [Shabu et al., \(2024\)](#) considering their study have recommended that women should be educated not to over-estimate or under-estimate their body weight. However, [Pinto-Gouveia et al. \(2014\)](#) and [Ferreira et al. \(2013\)](#) have emphasized the importance of self-compassion as an antidote to external shame, eating disorders and general psychopathology, and indicated that women's body image dissatisfaction was directly related with their drive for thinness. To cope with such perceptions, they may develop an attitude of self-compassion, regulate their negative feelings that their body image was shared with humanity, and they need not conceal or underestimate their self-worth and social acceptance ([Berry et al., 2010](#)). With such positive attitudes, they may move forward in life with better self-esteem and confidence to utilize their talents and enjoy global wellbeing.

Limitations and Future Directions

This study has some limitations. The sample consisted of only women, and the findings may not be generalized to men. Future studies should aim to recruit a more diverse sample with various developmental stages of life. Additionally, the study relied on self-report measures, while some added observational and behavioral measures along with qualitative and longitudinal data may give better findings in future studies.

Conclusion

In conclusion, the current study's findings highlight the significant relationship between subjective body shame, social appearance anxiety, and body dissatisfaction in university women students. The study's findings emphasize the importance of considering the appropriate role of social media and social comparisons in the development of body image concerns. These findings have implications for the development of educational and counselling interventions aimed at reducing social comparisons and idealized body images. The media and society should promote character strength instead of the undue emphasis on physical beauty, appearance and glamour, and propagate unconditional respect and regard for every individual's unique talents and attributes.

References

- Agliata, D., & Tantleff-Dunn, S. (2004). The impact of media exposure on males' body image. *Journal of Social & Clinical Psychology, 23*, 7-22.
- Altunay, A., & Öz, F. (2006). Self-concept of students from school of nursing. *Journal of Hacettepe, University School of Nursing, 13*(1), 46-59.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.)*. Arlington, VA: American Psychiatric Publishing.
- Argon, T. (2014). The relationship between social appearance anxiety and motivational sources and problems of education faculty students. *Anthropologist, 18*(3), 697-704. <https://doi.org/10.1080/09720073.2014.11891600>
- Azhaar, M., Anwaar, M., Dawood, M., Ali, M., & Shoaib, S. (2020). Relationship between body dissatisfaction, depression and anxiety among young adults. *International Journal of Social Sciences, 2*, 21-39.
- Balcetis, E., Cole, S., Chelberg, M., & Alicke, M. (2012). Searching out the ideal: Awareness of ideal body standards predicts lower global self-esteem in women. *Self and Identity, 1*-15. <https://doi.org/10.1080/15298868.2011.639549>
- Berry, K. A., Kowalski, K. C., Ferguson, L. J., & McHugh, T. F. (2010). An empirical phenomenology of young adult women exercisers' body self-compassion. *Qualitative Research in Sports and Exercise, 2*(3), 293-312. <https://doi.org/10.1080/19398441.2010.517035>
- Çelik, E., & Turan, M. E. (2014). The role of social appearance anxiety in metacognitive awareness of adolescents. *International Journal of Learning, Teaching and Educational Research, 7*(1), 138-147.
- Claes, L., Vandereycken, W., Luyckx, K., Vliegen, N., & Vertommen, H. (2011). Validation of the Social Appearance Anxiety Scale in female eating disorder patients. *European Eating Disorders Review, 19*(2), 12-20. <https://doi.org/10.1002/erv.1066>
- Cocca, A., Blanco, J. R., Pérez, J. E. P., & Ramírez, J. V. (2016). Actual, social and ideal body image in Mexican adolescents and their relation with body dissatisfaction: Gender differences. *Retos: Nuevas Tendencias En Educación Física, Deporte Y Recreación, (30)*, 189-192.
- Conradt, M., Dierk, J. M., Schlumberger, P., Rauh, E., Hebebrand, J., & Rief, W. (2007). Development of the Weight-And Body-Related Shame and Guilt Scale (WEB-SG) in a nonclinical sample of obese individuals. *Journal of Personality Assessment, 88*(3), 317-327.
- De Valle, M. K., Gallego-Garcia, M., & Williamson, P. (2021). Social media, body image, and the question of causation: Meta-analyses of experimental and longitudinal evidence. *Body Image, 39*, 276-292. <https://doi.org/10.1016/j.bodyim.2021.10.001>

- Doğan, T. (2010). Adaptation of the Social Appearance Anxiety Scale (SAAS) to Turkish: A validity and reliability study. *Hacettepe University Journal of Education*, 39, 151-159.
- Dumitrescu, A. L., & Dumitrescu, S. R. (2022). Body weight, shame, guilt, and oral health: A path analysis model. *International Journal of Environmental Research and Public Health*, 19(8), 4567.
- Erdemir, A. V., Bağcı, S. I., İnan, E. Y., & Turan, E. (2013). Evaluation of the social appearance anxiety and quality of life in patients with acne vulgaris. *Istanbul Medical Journal*, 14, 35-39.
- Fardouly, J., Pinkus, R. T., & Vartanian, L. R. (2021). Targets of comparison and body image in women's everyday lives: the role of perceived attainability. *Body Image*, 38, 219-229. <https://doi.org/10.1016/j.bodyim.2021.04.009>
- Ferreira, P., Pinto-Gouveia, J., & Duarte, C. (2013). Self-compassion in the face of shame and body image dissatisfaction: Implications for eating disorders. *Eating Behaviors*, 14(2), 207-210.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117-140.
- Gilbert, P., Price, J., & Allan, S. (1995). Social comparison, social attractiveness and evolution: How might they be related?. *New Ideas in Psychology*, 13, 149-165. [https://doi.org/10.1016/0732-118X\(95\)00002-X](https://doi.org/10.1016/0732-118X(95)00002-X)
- Goss, K. P., & Allan, S. (2009). Shame, pride and eating disorders. *Clinical Psychology and Psychotherapy*, 16, 303-316. <https://doi.org/10.1002/cpp.627>
- Goss, K., & Gilbert, P. (2002). Eating disorders, shame and pride: A cognitive-behavioral functional analysis. In P. Gilbert & J. Miles (Eds.), *Body shame: Conceptualization, research and treatment* (pp. 219-255). New York: Brunner Routledge.
- Groesz, L. M., Levin, M. P., & Murnen, S. K. (2002). The effect of experimental presentation of thin media images on body satisfaction: A meta-analytic review. *International Journal of Eating Disorders*, 31, 1-16.
- Hagger, M. S., & Stevenson, A. (2010). Social physique anxiety and physical self-esteem: Gender and age effects. *Psychology & Health*, 25(1), 89-110. <https://doi.org/10.1080/08870440903160990>
- Hart, E. A., Leary, M. R., & Rejeski, W. J. (1989). The measurement of social physique anxiety. *Journal of Sport Exercise Psychol*, 11, 94-104. <https://doi.org/10.1123/jsep.11.1.94>
- Hart, T. A., Flora, D. B., Palyo, S. A., Fresco, D. M., Holle, C., & Heimberg, R. G. (2008). Development and examination of the social appearance anxiety scale. *Assessment*, 15(1), 48-59.
- Hashmi, Z. S., Ijaz, T., & Ijaz, S. (2022). Perfectionistic Self-Presentation and Body Dissatisfaction: The Role of Anxiety and

- Depression. *Pakistan Journal of Psychological Research*, 37(4), 515-532. <https://doi.org/10.33824/PJPR.2022.37.4.31>
- Ivezaj, V., Saules, K. K., Hoodin, F., Alschuler, K., Angelella, N. E., Collings, A. S., & Wiedemann, A. A. (2010). The relationship between binge eating and weight status on depression, anxiety, and body image among a diverse college sample: A focus on bi/multiracial women. *Eating Behaviors*, 11, 18-24.
- Kallen, R. W., Perez, M., & Groesz, L. M. (2020). Sociocultural internalization and appearance anxiety: A systematic review. *Body Image*, 32, 53-65.
- Khan, R. J., Bibi, H., Naz, S., & Afsar, F. K. (2023). Body surveillance and body dissatisfaction among Pakistani young females: Social comparison as moderator. *Human Nature Journal of Social Sciences*, 4(1), 16-26.
- Khan, N. T., Jameel, J., Khan, M. J., Rehman, S. U. A., & Jameel, N. (2017). Body image and weight concern among Pakistani adolescent females. *Mathews Journal of Dermatology*, 2(1), 011.
- Khan, A. N., Khalid, S., Khan, H. I., & Jabeen, M. (2011). Impact of today's media on university student's body image in Pakistan: A conservative, developing country's perspective. *BMC Public Health*, 11(379). <https://doi.org/10.1186/1471-2458-11-379>
- Ko, N. (2010). *The role of body shame, social appearance anxiety, and body checking behavior on body dissatisfaction and disordered eating behaviors: A cross-cultural study in Germany and Korea* [Unpublished doctoral dissertation], University of Freiburg, Breisgau, Freiburg.
- Lee, M. S. (2013). *Women's body image throughout the adult life span: Latent growth modeling and qualitative approaches* [Unpublished doctoral dissertation]. Iowa State University, Ames, Iowa. <https://lib.dr.iastate.edu/etd/13212>
- Levinson, C. A., Rodebaugh, T. L., White, E. K., Menatti, A. R., Weeks, J. W., Iacovino, J. M., & Warren, C. S. (2013). Social appearance anxiety, perfectionism, and fear of negative evaluation. Distinct or shared risk factors for social anxiety and eating disorders? *Appetite*, 67, 125-133.
- Luqman, N., & Dixit, S. (2017). Body image, social anxiety and psychological distress among young adults. *International Journal of Multidisciplinary and Current Research*, 5, 567-571.
- Markham, A., Thompson, T., & Bowling, A. (2005). Determinants of body-image shame. *Personality and Individual Differences*, 38, 1529-1541.
- McDonald, A. (2013). *The relationship between self-esteem, social anxiety, body shape concern and BMI among college students* [Unpublished Higher diploma thesis] Department of Psychology, School of Arts, Dublin Business School, Dublin.
- MDPI (2022). Strong correlations between social appearance anxiety, use of social media, and feelings of loneliness in adolescents and young adults. Retrieved from <https://www.mdpi.com>

- Mensinger, J. L., Tylka, T. L., & Calamari, M. E. (2020). Mechanisms underlying weight stigma and its impact on health outcomes. *Body Image*, 33, 123-131.
- Monro, F., & Huon, G. (2005). Media-Portrayed idealized images, body shame, and appearance anxiety. *International Journal of Eating Disorders*, 38, 85-90.
- Myers, T. A., & Crowther, J. H. (2009). Social comparison as a predictor of body dissatisfaction: A meta-analytic review. *Journal of Abnormal Psychology*, 118(4), 683.
- Najam, N., & Ashfaq, H. (2012). Gender differences in physical fitness, body shape satisfaction, and body figure preferences. *Pakistan Journal of Psychological Research*, 27(2), 187-200.
- Nayir, T., Uskun, E., Yürekli, M. V., Devran, H., Çelik, A., & Okyay, R. A. (2015). Does body image affect quality of life? A population based study. *PLoS ONE*, 11(9), 1-13. e0163290. <https://doi.org/10.1371/journal.pone.0163290>
- Özgüven, I. E. (1992). Problems of college students and ways of coping. *Hacettepe University Faculty of Education*, 7, 5-13.
- Paxton, S. J., Neumark-Sztainer, D., Hannan, P. J., & Eisenberg, M. E. (2006). Body dissatisfaction prospectively predicts depressive mood and low self-esteem in adolescent girls and boys. *Journal of Clinical Child and Adolescent Psychology*, 35(4), 539-549. https://doi.org/10.1207/s15374424jccp3504_5
- Pila, E., Sabiston, C. M., Brunet, J., Castonguay, A. L., & Theriault, R. (2015). Weight bias internalization and self-esteem: The mediating role of body-related shame. *Body Image*, 15, 1-6. <https://doi.org/10.1016/j.bodyim.2015.04.002>
- Pinto-Gouveria, J., Ferreria, C., & Duarte, C. (2014). Thinness in the pursuit for social safeness: An integrative model of social rank mentality to explain eating psychopathology. *Clinical Psychology & Psychotherapy*, 2(2), 154-165. Wiley Online Library. <https://doi.org/10.1002/cpp.1820>
- Simpson, A. R. (2018). The MIT Young Adult Development Project. Massachusetts Institute of Technology. <https://hr.mit.edu/static/worklife/youngadult/index.html>
- Shabu, S. A., Saka, M. H., Boya, M. N., Ahmed, H. M., Zaki, S. M., Hetta, F., & Shabila, N. P. (2024). Association between body weight perception and actual body mass index among adult women in Erbil city, Iraq. *Journal of Health, Population and Nutrition*, 43(15). <https://doi.org/10.1186/s41043-024-00512-8>
- Slater, A., & Tiggemann, M. (2020). A systematic review of the relationship between sociocultural factors and body image concerns in women. *Body Image*, 33, 102-115.
- Stice, E., Hayward, C., Cameron, R. P., Killen, J. D., & Taylor, C. B. (2000). Body-image and eating disturbances predict onset of depression among

- women adolescents: A longitudinal study. *Journal of Abnormal Psychology*, 3, 438-44.
- Tariq, M., & Ijaz, T. (2015). Development of Body Dissatisfaction Scale for University Students. *Pakistan Journal of Psychological Research*, 30(2), 305-322.
- Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. Washington, DC: American Psychological Association.
- Tiggemann, M., Anderberg, I., & Brown, Z. (2021). Love your body: The effect of body positive Instagram captions on women's body image. *Body Image*, 33, 129-136. <https://doi.org/10.1016/j.bodyim.2020.02.015>
- Tiwari, G. K., & Kumar, S. (2015). Psychology and body image: A review. *Shodh Prerak*, 5(1), 1-9.
- Tylka, T. L., & Wood-Barcalow, N. L. (2020). The relationship between body shame and body dissatisfaction in women: A systematic review. *Body Image*, 32, 66-77.
- World Health Organization. (2010). *A healthy lifestyle-WHO recommendations*. <https://www.who.int/europe/news-room/fact-sheets/item/a-healthy-lifestyle---who-recommendations>
- Wong, M., & Qian, M. (2016). The role of shame in emotional eating. *Eating Behaviors*, 23, 41-47. <https://doi.org/10.1016/j.eatbeh.2016.07.004>
- Yaman, Ç. (2017). Physical and physiological correlates of social physique anxiety in college students. *Universal Journal of Educational Research*, 5(3), 334-337.

Received 30 January 2024

Revision received 13 May 2024