

Body appreciation as a mediator between social appearance anxiety and healthy lifestyle behaviors

BACKGROUND

Social appearance anxiety is a significant psychosocial factor that may influence individuals' engagement in health-promoting behaviors. However, the pathways underlying this relationship remain insufficiently explored. This study aimed to examine the indirect associative role of body appreciation in the association between social appearance anxiety and healthy lifestyle behaviors.

PARTICIPANTS AND PROCEDURE

This cross-sectional, correlational study was conducted with 382 adults residing in a city in northwestern Türkiye. Data were collected through face-to-face interviews using the Social Appearance Anxiety Scale, Body Appreciation Scale, and Health-Promoting Lifestyle Profile II. Statistical analyses included non-parametric tests, Spearman's rank correlation, and mediation analysis using the bootstrap method (5000 resamples).

RESULTS

Social appearance anxiety was found to be moderately and negatively associated with body appreciation ($r_s = -.40$,

$p < .001$). Body appreciation was significantly and positively associated with healthy lifestyle behaviors ($B = 0.45$, $p < .001$). Although social appearance anxiety showed a weak but significant direct association with healthy lifestyle behaviors ($B = 0.09$, $p < .05$), the analysis indicated that body appreciation showed a significant indirect association, consistent with partial mediation ($B = 0.17$, 95% CI [0.11, 0.23]).

CONCLUSIONS

The findings suggest that the association between social appearance anxiety and healthy lifestyle behaviors is explained, at least in part, through body appreciation. Interventions aimed at improving body appreciation and reducing appearance-related anxiety may contribute to the promotion of healthier behavioral patterns.

KEY WORDS

body appreciation; social appearance anxiety; health-promoting lifestyle behaviors; mediation analysis; cross-sectional study

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BACKGROUND

Physical appearance has long played a central role in social interactions and interpersonal evaluations. With the widespread use of social media platforms, idealized body images have become more visible and influential, creating a pervasive social pressure on individuals (El Achkar et al., 2026; Fabio & Tripodi, 2024; Papapanou et al., 2023; Vandenbosch et al., 2022). In particular, filtered and digitally enhanced images normalize unrealistic beauty standards, leading individuals to engage in continuous social comparison (Alyami et al., 2026; Vandenbosch et al., 2022). This phenomenon constitutes a widespread psychosocial process that affects individuals across diverse segments of society.

In this context, social appearance anxiety (SAA) is defined as the anxiety experienced by individuals due to the possibility that their physical appearance may be negatively evaluated by others (Hart et al., 1989). SAA is not merely a superficial concern about appearance; rather, it is a multidimensional construct associated with psychological well-being, self-perception, and social functioning. Previous studies have demonstrated that high levels of SAA are associated with depression, anxiety, and low self-esteem, and have been associated with reduced participation in physical activity and unhealthy lifestyle behaviors (Alyami et al., 2026; Kızılkaya & Özkaya, 2023; van de Grift et al., 2016).

One domain particularly relevant to these psychosocial concerns is healthy lifestyle behaviors. Healthy lifestyle behaviors encompass a range of actions aimed at maintaining and improving health, including physical activity, balanced nutrition, stress management, interpersonal relationships, and health responsibility (Walker et al., 1987). According to Pender's Health Promotion Model, individuals' cognitive evaluations and self-perceptions are considered to play a crucial role in shaping these behaviors (Pender, 1996). Within this framework, body-related perceptions emerge as key psychological correlates of health behaviors.

Body appreciation refers to individuals' subjective evaluations of their own bodies, and in this study, higher scores indicate higher levels of body appreciation. From a theoretical perspective, Objectification Theory suggests that individuals who evaluate their bodies from an external observer's perspective are more likely to develop appearance-related concerns, which in turn are linked to body-related perceptions (Fredrickson & Roberts, 1997). Accordingly, a negative relationship is expected between social appearance anxiety and body appreciation. Furthermore, body appreciation is considered an important psychological factor associated with individuals' engagement in healthy lifestyle behaviors (Üstündağ et al., 2026).

Although prior studies have explored the relationship between appearance-related psychological constructs and health-promoting behaviors, the pathways underlying this association remain insufficiently explored (Kızılkaya & Özkaya, 2023; Sabiston et al., 2019). In particular, studies investigating the mediating role of body appreciation within community-based samples are limited, indicating a significant gap in the literature.

Based on this framework, the present study aims to examine the role of body appreciation as an indirect pathway in the relationship between social appearance anxiety and healthy lifestyle behaviors.

Accordingly, the following hypotheses were tested:

H1: Social appearance anxiety is significantly and negatively associated with body appreciation.

H2: Social appearance anxiety is positively associated with healthy lifestyle behaviors.

H3: Body appreciation is significantly and positively associated with healthy lifestyle behaviors.

H4: Body appreciation will show an indirect association consistent with mediation in the relationship between social appearance anxiety and healthy lifestyle behaviors.

PARTICIPANTS AND PROCEDURE

STUDY DESIGN

This study was conducted using a quantitative, cross-sectional correlational design to examine the relationships among the study variables. Additionally, mediation analysis was performed to test the mediating role of body appreciation in the relationship between social appearance anxiety and healthy lifestyle behaviors.

PARTICIPANTS

The study sample comprised 382 community-dwelling adults residing in a city located in the northwestern region of Türkiye. Participants were recruited using a non-probability convenience sampling method, which involves selecting individuals who are readily accessible and willing to participate. Although this approach limits generalizability, it is widely employed in community-based cross-sectional research conducted in naturalistic settings.

Data were collected between May 2024 and May 2025 through face-to-face interviews using a structured questionnaire that included a sociodemographic information form and three standardized measurement instruments. All participation was voluntary, and informed consent was obtained prior to data collection.

A priori sample size estimation was conducted using G*Power 3.1 software. Based on a linear multi-

ple regression model with two predictors, assuming a medium effect size ($f^2 = 0.15$), a significance level of $\alpha = .05$, and a statistical power of .80, the minimum required sample size was determined to be 68 participants. The final sample of 382 substantially exceeded this threshold, ensuring adequate statistical power for both correlational and mediation analyses.

MATERIALS

Sociodemographic information form. A structured sociodemographic information form was developed by the researcher to collect participants' background characteristics. The form included items on age, gender, marital status, educational level, and perceived income level.

Social Appearance Anxiety Scale (SAAS). The Social Appearance Anxiety Scale, developed by Hart et al. (1989) and adapted into Turkish by Doğan (2010), consists of 16 items rated on a five-point Likert scale. Higher scores indicate greater levels of social appearance anxiety. The original scale demonstrated high internal consistency (Cronbach's $\alpha = .94$), and the Turkish version also showed strong reliability ($\alpha \approx .93$). In the present study, the internal consistency of the scale was high (Cronbach's $\alpha = .94$).

Body Appreciation Scale (BAS). The Body Appreciation Scale, developed by Avalos et al. (2005) and adapted into Turkish by Bakalım and Taşdelen Karçkay (2016), consists of 9 items rated on a five-point Likert scale (1 – *strongly disagree*, 5 – *strongly agree*), with no reverse-coded items. Higher scores indicate greater levels of body appreciation. The original scale demonstrated high internal consistency (Cronbach's $\alpha = .90-.95$), and the Turkish adaptation also showed good reliability ($\alpha \approx .91$). In the present study, the scale demonstrated high internal consistency (Cronbach's $\alpha = .92$).

Health-Promoting Lifestyle Profile II (HPLP-II). The Health-Promoting Lifestyle Profile II was developed by Walker et al. (1987) and adapted into Turkish by Bahar et al. (2008). The scale consists of 52 items and is composed of six subdimensions: health responsibility, physical activity, nutrition, spiritual growth,

interpersonal relations, and stress management. Each item is rated on a four-point Likert scale, with higher scores indicating greater engagement in health-promoting behaviors. In addition to the total score, subdimension scores can be calculated to evaluate specific domains of healthy lifestyle behaviors. The original scale demonstrated high internal consistency (Cronbach's $\alpha \approx .94$), and the Turkish version also reported strong reliability ($\alpha \approx .92$). In the present study, the Cronbach's α coefficient was .93, indicating high internal consistency.

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STATISTICAL ANALYSIS

Data were analyzed using IBM SPSS Statistics version 25.0. The normality of the data distribution was assessed using the Shapiro-Wilk test (see Table 1), which indicated that the data were not normally distributed. Accordingly, non-parametric tests were used for group comparisons and correlational analyses. The Mann-Whitney *U* test was applied for comparisons between two groups, and the Kruskal-Wallis *H* test was used for comparisons among three or more groups. Relationships between variables were examined using Spearman's rank correlation analysis. The mediating role of body appreciation was examined using the PROCESS macro (Model 4) with 5000 bootstrap resamples. As bootstrap-based mediation analysis estimates indirect effects through repeated resampling from the observed data rather than relying on normality assumptions. This approach was considered appropriate despite the non-normal distribution of the data. The significance of the indirect effect was evaluated based on 95% confidence intervals. A *p*-value of less than .05 was considered statistically significant.

ETHICAL APPROVAL

Ethical approval for this study was obtained from the Human Research Ethics Committee of Zonguldak Bülent Ecevit University (Approval date: April 4, 2024; Approval Number: 599). The study was conducted in accordance with the ethical principles out-

Table 1

Shapiro-Wilk test results for normality

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	Skewness	Kurtosis	<i>W</i>	<i>p</i>
HPLP-II Total	382	123.18	20.44	0.61	1.25	0.97	< .001
SAAS Total	382	58.03	13.50	−0.66	0.05	0.95	< .001
BAS Total	382	21.53	7.93	0.36	−0.33	0.97	< .001

Note. *W* – Shapiro-Wilk statistic. Since $p < .001$ for all variables, non-parametric tests were used. HPLP-II – Health-Promoting Lifestyle Profile II; SAAS – Social Appearance Anxiety Scale; BAS – Body Appreciation Scale.

lined in the Declaration of Helsinki. All participants were informed about the purpose of the study, and informed consent was obtained prior to data collection. Participation was voluntary, and confidentiality and anonymity of the participants were ensured throughout the study.

Table 2

Sociodemographic characteristics of participants

Variable	<i>n</i>	%
Gender		
Female	190	49.7
Male	192	50.3
Age group		
18-24	104	27.2
25-34	110	28.8
35-44	114	29.8
45-54	54	14.2
Marital status		
Single	72	18.8
Married	296	77.5
Divorced/Widowed	14	3.7
Education level		
Primary/Secondary school	22	5.7
High school	93	24.3
Associate degree	112	29.3
Bachelor's degree	150	39.3
Postgraduate	5	1.3
Occupation		
Student	67	17.5
Other	60	15.7
Housewife	28	7.3
Self-employed	84	22.0
Public employee	143	37.5
Income level		
Low	60	15.7
Middle	293	76.7
High	29	7.6
Smoking status		
Yes	117	30.6
No	265	69.4
Total	382	100.0

RESULTS

Table 2 presents the sociodemographic characteristics of the participants. The sample was almost equally distributed by gender, with 49.7% females and 50.3% males. In terms of age, participants were relatively evenly distributed across age groups, with the highest proportion in the 35-44 age group (29.8%), followed by 25-34 (28.8%) and 18-24 (27.2%), while the lowest proportion was observed in the 45-54 age group (14.2%). The majority of participants were married (77.5%), whereas single (18.8%) and divorced/widowed individuals (3.7%) constituted smaller proportions of the sample. Regarding education level, most participants held a bachelor's degree (39.3%), followed by associate degrees (29.3%) and high school education (24.3%), indicating a relatively well-educated sample. Occupational distribution showed that the largest group consisted of public employees (37.5%), followed by self-employed individuals (22.0%) and students (17.5%). Most participants reported a middle-level income (76.7%), while only a small proportion reported a high income (7.6%). In terms of health-related behavior, the majority of participants were non-smokers (69.4%). Overall, the sample represents a predominantly middle-income, moderately educated adult population with a balanced gender distribution.

Table 3 presents the descriptive statistics of the study variables. The mean total score for healthy lifestyle behaviors (HPLP-II) was 123.18 ($SD = 20.44$), indicating a moderate level of engagement in health-promoting behaviors among participants. At the subdimension level, the highest mean scores were observed for spiritual growth ($M = 2.75$, $SD = 0.54$) and interpersonal relations ($M = 2.71$, $SD = 0.46$), suggesting stronger psychosocial and relational well-being. In contrast, the lowest mean score was found for physical activity ($M = 2.02$, $SD = 0.59$), indicating lower participation in exercise-related behaviors. The mean score for social appearance anxiety was 58.03 ($SD = 13.50$), reflecting a moderate level of concern regarding appearance-based evaluation. The mean body appreciation score was 21.53 ($SD = 7.93$), suggesting a moderate level of body appreciation. Overall, these findings suggest that while participants demonstrate moderate levels of healthy lifestyle behaviors and body appreciation, physical activity appears to be the weakest domain, and social appearance anxiety remains a notable psychosocial factor within the sample.

Table 4 indicates that HPLP-II, BAS, and SAAS differed significantly across several sociodemographic variables.

Gender-based comparisons showed that females had significantly higher healthy lifestyle behaviors and social appearance anxiety scores, whereas males reported higher body appreciation ($p < .01$). Age

was also a significant factor, with older participants demonstrating higher levels of healthy lifestyle behaviors, particularly among individuals aged 35-54 compared to younger groups. Marital status revealed

that married individuals had higher healthy lifestyle behaviors and body appreciation, while single individuals exhibited higher social appearance anxiety ($p < .05$). Similarly, higher education and income lev-

Table 3

Descriptive statistics of study variables

Scale/Subdimension	<i>N</i>	<i>M</i>	<i>SD</i>	Min	Max	Median	<i>Body appreciation and health behaviors</i>
Health responsibility	382	2.16	0.51	1.00	4.00	2.13	
Physical activity	382	2.02	0.59	1.00	4.00	1.88	
Nutrition	382	2.17	0.45	1.22	4.00	2.11	
Spiritual growth	382	2.75	0.54	1.11	4.00	2.78	
Interpersonal relations	382	2.71	0.46	1.33	4.00	2.78	
Stress management	382	2.33	0.50	1.12	4.00	2.25	
HPLP-II Total score	382	123.18	20.44	62.00	208.00	122.00	
SAAS Total score	382	58.03	13.50	16.00	80.00	60.00	
BAS Total score	382	21.53	7.93	9.00	45.00	20.50	

Note. HPLP-II subdimensions are presented as item mean scores ranging from 1 to 4. HPLP-II – Health-Promoting Lifestyle Profile II; SAAS – Social Appearance Anxiety Scale; BAS – Body Appreciation Scale.

Table 4

Comparison of scale scores by sociodemographic variables

Variable	HPLP-II			BAS			SAAS		
	<i>M</i>	<i>Md</i>	<i>SD</i>	<i>M</i>	<i>Md</i>	<i>SD</i>	<i>M</i>	<i>Md</i>	<i>SD</i>
Gender									
Female	2.65	2.65	0.36	3.05	3.89	0.87	2.68	2.85	0.82
Male	2.03	2.09	0.47	3.51	3.07	0.94	2.13	2.09	0.94
Mann-Whitney <i>U</i>	<i>U</i> = 11867.00 <i>p</i> = .003			<i>U</i> = 10451.00 <i>p</i> = .002			<i>U</i> = 11318.50 <i>p</i> = .001		
Age									
18-24 ¹	2.34	2.31	0.39	3.64	3.78	0.89	2.36	2.25	0.85
25-34 ²	2.50	2.43	0.33	3.98	3.72	0.95	2.32	2.03	0.98
35-44 ³	2.53	2.42	0.41	3.83	3.89	0.87	2.51	2.56	0.63
45-54 ⁴	2.54	2.47	0.46	3.21	4.01	0.61	2.45	2.38	0.90
Kruskal-Wallis <i>H</i>	<i>H</i> = 11.81; <i>p</i> = .008 4 > 1; 3 > 1			<i>H</i> = 12.82; <i>p</i> = .002 2 > 4			<i>H</i> = 12.06; <i>p</i> = .005 3 > 2, 1		
Marital status									
Single ¹	2.34	2.42	0.43	3.53	3.83	0.86	2.51	2.25	0.88
Married ²	2.48	2.31	0.38	3.92	3.78	0.89	2.26	2.25	0.83
Divorced/widowed ³	2.29	2.42	0.39	3.21	4.22	1.19	2.39	1.94	1.39
Kruskal-Wallis <i>H</i>	<i>H</i> = 8.07; <i>p</i> = .018 2 > 1, 3			<i>H</i> = 7.16; <i>p</i> = .012 2 > 3			<i>H</i> = 7.19; <i>p</i> = .008 1 > 2		

Table 4 continues

Table 4*Table 4 continued*

Variable	HPLP-II			BAS			SAAS		
	<i>M</i>	<i>Md</i>	<i>SD</i>	<i>M</i>	<i>Md</i>	<i>SD</i>	<i>M</i>	<i>Md</i>	<i>SD</i>
Education									
Primary/secondary School ¹	2.23	2.39	0.38	3.33	3.83	0.90	2.55	2.65	0.77
High school ²	2.39	2.42	0.45	3.49	3.78	0.99	2.36	2.19	0.90
Associate degree ³	2.35	2.31	0.42	3.53	3.89	0.89	2.22	2.12	0.90
Bachelor’s degree ⁴	2.36	2.35	0.34	3.61	3.72	0.81	2.10	2.31	0.79
Postgraduate ⁵	2.42	2.29	0.4	4.11	4.56	0.91	1.69	1.62	0.15
Kruskal-Wallis <i>H</i>	<i>H</i> = 6.49; <i>p</i> = .046 5 > 1, 2			<i>H</i> = 7.86; <i>p</i> = .010 5 > 1, 2			<i>H</i> = 6.46; <i>p</i> = .001 1 > 4, 5		
Occupation									
Student ¹	2.33	2.31	0.37	3.62	3.67	0.86	2.37	2.25	0.84
Other ²	2.67	2.49	0.38	3.87	3.64	0.83	2.41	2.44	0.75
Housewife ³	2.49	2.47	0.33	3.78	3.81	0.74	2.63	2.78	0.85
Self-employed ⁴	2.25	2.29	0.45	3.55	3.89	1.09	1.89	1.67	0.57
Public employee ⁵	2.57	2.52	0.59	3.8	3.67	0.76	1.89	1.69	0.89
Kruskal-Wallis <i>H</i>	<i>H</i> = 12.67; <i>p</i> = .027 2 > 1			<i>H</i> = 2.99; <i>p</i> = .702			<i>H</i> = 7.66; <i>p</i> = .176		
Income status									
Low ¹	2.22	2.22	0.32	3.44	3.39	0.92	2.40	2.28	0.78
Middle ²	2.39	2.37	0.39	3.61	3.89	0.87	2.37	2.25	0.86
High ³	2.63	2.40	0.56	3.72	4.01	0.98	2.04	1.75	0.58
Kruskal-Wallis <i>H</i>	<i>H</i> = 11.22; <i>p</i> = .004 3 > 1			<i>H</i> = 14.90; <i>p</i> = .006 3 > 1			<i>H</i> = 11.38; <i>p</i> = .002 1 > 3		
Smoking status									
Yes	2.02	2.08	0.43	3.48	3.78	0.84	2.42	2.25	0.92
No	2.45	2.35	0.37	3.65	3.78	0.90	2.24	2.15	0.81
Mann-Whitney <i>U</i>	<i>U</i> = 16792.00 <i>p</i> = .005			<i>U</i> = 15644.00 <i>p</i> = .008			<i>U</i> = 15883.50 <i>p</i> = .007		

Note. Md – median. Since the assumption of normality was not met, non-parametric tests were used. The Mann-Whitney *U* test was applied for comparisons between two groups, and the Kruskal-Wallis *H* test was used for comparisons among three or more groups. Statistically significant differences were considered at *p* < .05. HPLP-II – Health-Promoting Lifestyle Profile II; SAAS – Social Appearance Anxiety Scale; BAS – Body Appreciation Scale.

els were associated with increased body appreciation and more favorable health behaviors, along with lower social appearance anxiety. In terms of occupation, significant differences were observed only in healthy lifestyle behaviors, with non-student groups showing higher levels. Additionally, non-smokers reported significantly higher healthy lifestyle behaviors and body appreciation, whereas smokers had higher social appearance anxiety (*p* < .01). Overall, these findings suggest that sociodemographic characteristics are important correlates of both health-promot-

ing behaviors and appearance-related psychological factors.

Table 5 presents the Spearman correlation coefficients among healthy lifestyle behaviors, their subdimensions, social appearance anxiety, and body appreciation. The HPLP-II total score was significantly and positively correlated with body appreciation ($r_s = .45$, *p* < .001), indicating that individuals with higher body appreciation tend to engage more in health-promoting behaviors. At the subdimension level, this relationship was particularly strong

Table 5

Spearman correlation coefficients among study variables and subdimensions

Variable	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. HPLP-II Total	20.44	–								
2. Health responsibility	0.51	.75***	–							
3. Physical activity	0.59	.69***	.54***	–						
4. Nutrition	0.45	.69***	.54***	.50***	–					
5. Spiritual growth	0.54	.78***	.42***	.35***	.38***	–				
6. Interpersonal relations	0.46	.72***	.40***	.29***	.35***	.64***	–			
7. Stress management	0.50	.81***	.56***	.48***	.48***	.66***	.54***	–		
8. SAAS Total	13.50	.13*	n.s.	n.s.	n.s.	.30***	.13*	.13*	–	
9. BAS Total	7.93	.45***	.25***	.20***	.22***	.55***	.35***	.43***	–.40***	–

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Note. HPLP-II – Health-Promoting Lifestyle Profile II; SAAS – Social Appearance Anxiety Scale; BAS – Body Appreciation Scale.

* $p < .05$, *** $p < .001$, n.s. – not significant.

Table 6

Results of the mediation analysis

Path	B	SE	t	p	R ²
Model 1 (Path a): SAAS → BAS					.12
SAAS → BAS	–0.40	0.03	–7.07	< .001	
Model 2 (Path b): BAS → HPLP-II					.20
BAS → HPLP-II	0.45	0.06	7.32	< .001	
Model 3 (Paths b and c'): SAA + BAS → HPLP-II					.22
SAAS → HPLP-II (c')	0.09	0.05	1.98	.048	
BAS → HPLP-II (b)	0.42	0.06	7.21	< .001	

Note. Indirect effect (a × b): B = 0.17, 95% CI [0.11, 0.23] (Bootstrap, 5000 resamples). B – unstandardized coefficient; SE – standard error; HPLP-II – Health-Promoting Lifestyle Profile II; SAAS – Social Appearance Anxiety Scale; BAS – Body Appreciation Scale.

for spiritual growth ($r_s = .55$) and stress management ($r_s = .43$), suggesting that psychosocial aspects of health behaviors are more closely linked to body appreciation. A moderate and significant negative correlation was found between social appearance anxiety and body appreciation ($r_s = -.40$, $p < .001$), indicating that higher levels of appearance-related anxiety are associated with lower body appreciation. In contrast, social appearance anxiety showed a weak but significant positive correlation with healthy lifestyle behaviors ($r_s = .13$, $p < .05$). However, this relationship was not consistent across all subdimensions, as no significant associations were found with physical activity or nutrition. Social appearance anxiety was significantly related only to spiritual growth ($r_s = .30$), interpersonal relations ($r_s = .13$), and stress management ($r_s = .13$).

Overall, these findings suggest that while body appreciation is a strong and consistent correlate of healthy lifestyle behaviors, the relationship between

social appearance anxiety and health behaviors appears to be weaker and more selective, supporting the potential role of body appreciation as an intermediary pathway.

Table 6 presents the results of the mediation analysis examining the role of body appreciation in the relationship between social appearance anxiety and healthy lifestyle behaviors.

In Model 1 (Path a), social appearance anxiety showed a significant negative association with body appreciation ($B = -0.40$, $SE = 0.03$, $t = -7.07$, $p < .001$), indicating that higher levels of appearance-related anxiety are associated with lower body appreciation. In Model 2 (Path b), body appreciation was significantly and positively associated with healthy lifestyle behaviors ($B = 0.45$, $SE = 0.06$, $t = 7.32$, $p < .001$), suggesting that individuals with higher body appreciation are more likely to engage in health-promoting behaviors. In Model 3, when both social appearance anxiety and body appreciation were included in

the model, the direct association of social appearance anxiety with healthy lifestyle behaviors remained statistically significant but decreased in magnitude ($B = 0.09$, $SE = 0.05$, $t = 1.98$, $p = .048$). Meanwhile, body appreciation continued to show a strong and significant association ($B = 0.42$, $SE = 0.06$, $t = 7.21$, $p < .001$). Bootstrap analysis further indicated that the indirect effect was significant ($B = 0.17$, 95% CI [0.11, 0.23]), as the confidence interval did not include zero. Overall, these findings indicate that body appreciation shows an indirect association consistent with partial mediation in the relationship between social appearance anxiety and healthy lifestyle behaviors.

DISCUSSION

This study examined the role of body appreciation as an indirect pathway in the relationship between social appearance anxiety and healthy lifestyle behaviors within a community-based sample. The findings revealed a theoretically meaningful pattern, indicating that social appearance anxiety, body appreciation, and health-promoting behaviors are interconnected through both direct and indirect pathways.

One of the primary findings of this study was the moderate and significant negative association between social appearance anxiety and body appreciation. This result suggests that individuals who experience higher levels of concern about being negatively evaluated based on their appearance tend to report lower body appreciation. This finding is consistent with previous literature (Tylka & Wood-Barcalow, 2015) and can be explained within the framework of Objectification Theory (Fredrickson & Roberts, 1997). According to this theory, individuals who internalize an observer's perspective are more likely to engage in self-objectification, which increases appearance-related anxiety and undermines body appreciation. These findings indicate that social appearance anxiety serves as a cognitive-affective correlate of body-related self-evaluations.

Contrary to the commonly assumed negative association, social appearance anxiety demonstrated a weak but statistically significant positive association with healthy lifestyle behaviors. This finding warrants careful theoretical consideration. Notably, subdimension-level analyses revealed that this positive association was confined to the psychosocial domains of healthy lifestyle behaviors, specifically spiritual growth, interpersonal relations, and stress management – with no significant associations observed for physical activity or nutrition. This selective pattern suggests that individuals experiencing elevated appearance-related anxiety may channel their concerns into psychosocial coping strategies such as seeking social support, engaging in meaning-making activities, or employing stress regula-

tion techniques rather than modifying observable health behaviors. From a motivational perspective, appearance-related anxiety may, in some individuals, serve as an activating force toward health-related vigilance, particularly in the psychosocial domains, consistent with the view that appearance-related concerns can motivate compensatory self-regulatory behaviors (Kızılkaya & Özkaya, 2023). However, given the cross-sectional design of the present study, causal interpretations cannot be established, and this finding should be interpreted with caution pending longitudinal replication.

Another important finding is that body appreciation was significantly and positively associated with healthy lifestyle behaviors. The relatively strong association suggests that body appreciation is not merely a peripheral variable but a central correlate of health-promoting behaviors. Previous research has shown that positive body image is associated with increased engagement in health-related behaviors (Jiménez-Morcillo et al., 2024). This finding is consistent with international evidence highlighting the role of positive body image in promoting healthy behaviors (Tylka & Wood-Barcalow, 2015). From a behavioral perspective, individuals who feel positively about their bodies may be more motivated to engage in health-enhancing behaviors, whereas those with negative body evaluations may avoid such behaviors due to discomfort or self-consciousness.

The most notable contribution of this study lies in identifying body appreciation as a mediator in the relationship between social appearance anxiety and healthy lifestyle behaviors. Although social appearance anxiety showed a statistically significant direct association, this association was relatively weak compared to the indirect pathway through body appreciation. These findings suggest that social appearance anxiety may be linked to behavioral outcomes via cognitive and emotional processes related to body evaluation. In other words, body appreciation appears to serve as a key psychological mediator linking appearance-related concerns to health behaviors.

These findings have important theoretical implications by extending Pender's Health Promotion Model. While the model emphasizes the role of cognitive and perceptual factors in shaping health behaviors, the present study demonstrates that body appreciation serves as a central indirect pathway linking appearance-related anxiety to behavioral outcomes. This highlights the need to incorporate body-related self-perceptions into health behavior frameworks, particularly in contemporary contexts where appearance-based evaluation is increasingly prominent.

At the subdimension level, social appearance anxiety was associated primarily with psychosocial components of healthy lifestyle behaviors, including spiritual growth, interpersonal relations, and stress

management, but not with physical activity or nutrition. This selective pattern suggests that appearance-related anxiety may show stronger associations with internal and relational domains of well-being rather than with observable health behaviors. One possible explanation is that individuals experiencing appearance-related anxiety may rely on internal coping strategies, such as emotional regulation or social withdrawal, rather than directly modifying their physical health behaviors.

In addition, sociodemographic differences further highlight the role of contextual factors in shaping both psychological and behavioral outcomes. Older individuals demonstrated higher levels of healthy lifestyle behaviors, possibly reflecting increased health awareness and life experience (Erdoğan Taşgın & Bakırhan, 2025). Similarly, higher income and education levels were associated with greater body appreciation and more favorable health behaviors, likely reflecting reduced exposure to behavioral risk factors and more advantageous socioeconomic conditions (Stringhini et al., 2017). The finding that single individuals reported higher social appearance anxiety may be explained by increased exposure to social comparison and evaluative contexts (Tian et al., 2024).

From a practical standpoint, these findings suggest that interventions focusing solely on behavioral change may be insufficient if underlying psychological factors are not addressed. In particular, given that body appreciation emerged as a key indirect mediator linking appearance-related anxiety to healthy lifestyle behaviors, non-clinical health promotion programs stand to benefit substantially from incorporating body image components alongside traditional behavioral strategies. Concretely, community-based programs such as workplace wellness initiatives, public health campaigns, or community center group sessions could integrate structured body image modules that foster body acceptance, challenge appearance-based self-evaluation, and build positive body-related attitudes. Techniques drawn from Acceptance and Commitment Therapy (ACT) and cognitive restructuring approaches, adapted for non-clinical group formats, may be particularly suitable for reducing appearance-related anxiety and strengthening body appreciation in community settings. Furthermore, given that the associations with healthy lifestyle behaviors were most pronounced in the psychosocial subdimensions – spiritual growth, interpersonal relations, and stress management – program components targeting social connectedness and stress regulation may yield the most meaningful behavioral outcomes. Overall, a psychologically informed approach to health promotion, one that addresses body image alongside behavioral goals, is likely to produce more sustainable improvements in healthy lifestyle behaviors within community populations.

The cross-sectional design of the present study precludes causal interpretations and represents the primary limitation informing the agenda for future research. Longitudinal studies tracking changes in social appearance anxiety, body appreciation, and healthy lifestyle behaviors over time would allow researchers to examine whether shifts in body appreciation temporally precede changes in health-promoting behaviors, thereby providing stronger evidence for the indirect pathway identified here. In particular, intervention studies employing pre- and post-assessments with follow-up periods of at least six months would enable evaluation of whether improvements in body appreciation following psychological intervention translate into sustained changes in healthy lifestyle behaviors. Future research should also extend these findings to more diverse populations, including clinical samples, adolescents, and individuals from varying cultural backgrounds, to assess the generalizability of the observed associations. Additionally, incorporating objective measures of health behaviors alongside self-report instruments would help address potential response biases identified as a limitation of the present study. Moderation analyses examining whether sociodemographic variables such as gender, age, or income level influence the strength of the indirect pathway would further enrich the theoretical understanding of these relationships.

Overall, this study provides empirical evidence that body appreciation serves as a key psychological pathway linking social appearance anxiety to healthy lifestyle behaviors in a community-based sample. By highlighting the role of indirect pathways and cognitive-affective processes, the findings support a more holistic approach to health promotion that integrates psychological well-being with behavioral interventions.

STRENGTHS AND LIMITATIONS

This study contributes to the literature by examining the relationships among social appearance anxiety, body appreciation, and healthy lifestyle behaviors within a mediation framework. The use of bootstrap-based mediation analysis strengthens the robustness of the findings. In addition, the inclusion of a community-based sample with diverse sociodemographic characteristics enhances the ecological validity of the results.

However, several limitations should be noted. The cross-sectional design precludes causal inferences. The use of convenience sampling and data collection from a single provincial center limit generalizability. Furthermore, reliance on self-report measures may introduce response biases, including social desirability and common method variance.

CONCLUSIONS

This study found that body appreciation played a mediating role in the relationship between social appearance anxiety and healthy lifestyle behaviors. While social appearance anxiety had a relatively weak direct association, its indirect association through body appreciation was substantially stronger, highlighting the central role of body-related self-perceptions in relation to health behaviors.

These findings suggest that healthy lifestyle behaviors are not solely driven by external factors but are strongly influenced by internal psychological processes. In particular, body appreciation serves as a critical correlate associated with engagement in health-promoting behaviors.

From a theoretical perspective, the findings extend Pender's Health Promotion Model by identifying body appreciation as a key psychological pathway associated with the link between appearance-related anxiety and behavioral outcomes.

From a practical standpoint, interventions aiming to promote healthy lifestyles should incorporate components targeting body image and appearance-related anxiety, rather than focusing solely on behavioral change.

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