

THE IMPACT OF MEDIA AND BODY DIMENSIONS ON BODY ESTEEM: A GENDER PERSPECTIVE

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Abstract

Background: Body esteem, reflecting individuals' feelings about their bodies, varies by gender and involves cognitive evaluations and emotional responses. Influences include self-esteem, body image, and societal standards, impacting social anxiety. Scales like BES and BESAA measure satisfaction with weight, appearance, and perception of others' evaluations. This study explores media exposure and anthropometric effects on body esteem and personality development. **Materials and Methods:** 258 subjects (108 males, 150 females) participated in this cross-sectional observational study at a medical college, approved by the Ethics Committee. Volunteers aged 18-25 proficient in English were included. Height, weight, and BMI were recorded using a stadiometer with a weighing scale, alongside Body Surface Area (BSA) calculated using the Du Bois formula. Subjects completed a Google form on media usage, influence, and the Body-Esteem Scale for Adolescents and Adults (BESAA), assessing appearance, weight, and attribution perceptions. BESAA, developed by Mendelson, Mendelson, and White, comprises 23 Likert-scale questions. Responses were analyzed using Google Sheets, Excel, and DATAtab software. **Result:** Increased BMI and media influence correlate with decreased satisfaction with weight and appearance in females. Females spending more time on media report a greater influence on self-perception compared to males. In males, age and height positively influence appearance satisfaction, while increased media exposure correlates with lower satisfaction with weight and appearance. Across genders, heightened satisfaction with appearance amplifies pressure from others' evaluations, fostering self-objectification. These findings emphasize the need for interventions promoting media literacy and positive body image to mitigate societal pressures on body esteem. **Conclusion:** Multifaceted policy actions, including media literacy in schools, regulating media content, and promoting body diversity, are vital for addressing body esteem. School-based interventions and increased mental health support play key roles in fostering positive body image.

INTRODUCTION

Body esteem refers to how individuals feel about their own body or physical appearance, encompassing subjective evaluations and emotional responses.^[1,2] It refers to an individual's evaluation of their physical body, reflecting feelings of approval or disapproval towards their bodily characteristics.^[3] Body esteem encompasses the thoughts and emotions an individual holds regarding their own physical body, encompassing both cognitive evaluations and affective responses.^[4] It indicates the degree to which

an individual harbors positive sentiments and convictions regarding their physical attributes, especially those associated with attractiveness.^[5] Body esteem is multidimensional and gender-specific, with varying dimensions for males and females.^[5]

Factors influencing body esteem include self-esteem and body esteem, which affect social anxiety among adolescents. Body esteem partially mediates the relationship between self-esteem and social anxiety, moderated by weight and gender.^[1] Higher dissatisfaction is linked to lower self-esteem.

Females report more dissatisfaction and lower self-esteem than males.^[6]

Body esteem can be estimated by various scales such as the Body-Esteem Scale (BES),^[7] and Franzoi's Body Esteem Scale,^[8] among many others. The present study employs the Body-Esteem Scale for Adolescents and Adults (BESAA),^[9] containing three subscales indicating the subject's satisfaction with weight, appearance, and perception of others' evaluations of their body.

The following study investigates how media exposure and anthropometric measurements influence subjects' perceptions of body esteem and its impact on personality development.

MATERIALS AND METHODS

A convenient sample of 258 subjects, including 108 males and 150 females, was collected for this observational and cross-sectional study at a medical college. The study was conducted with the approval of the Organizational Ethics Committee and involved student volunteers as subjects. The subjects were selected based on several inclusion criteria, such as being aged between 18 and 25 years, having proficiency in English, and having the ability to respond to queries in a Google form. Any subject who was unwilling to sign the consent form or complete the questionnaire was excluded from the study.

Using a stadiometer with an integrated weighing scale, the height and weight of the subjects were recorded. Following this, they completed a Google form on their mobile phones. The Body Mass Index (BMI) was computed, and the Du Bois formula was used to determine the Body Surface Area (BSA).

The Google form had questions regarding the number of hours spent on media daily, the grade of influence of media on self, and the Body-Esteem Scale for Adolescents and Adults (BESAA).^[9] Subjects had to grade the influence they felt by the media on them using a Likert scale from 1 to 5 where 1 was 'definitely disagree' and 5 was 'definitely agree'.

The BESAA scale, a widely recognized instrument for assessing an individual's self-image regarding their body or appearance, was developed by Mendelson, Mendelson, and White. It consists of three distinct subscales:

a) BE-Appearance (BE-AP): This subscale, consisting of 10 questions, evaluates the overall feelings about one's appearance.

b) BE-Weight (BE-WT): This 8-question subscale determines the level of satisfaction with one's weight.

c) BE-Attribution (BE-AT): This subscale, with 5 questions, examines how one perceives others' views of their body and appearance.

In total, there are 23 questions. Each question is presented as a statement (for example, "I am satisfied with my weight"), and respondents indicate their

agreement on a 5-point scale, from "never" (0) to "always".^[4]

The score for each subscale is calculated by summing up the points given to the questions within that subscale.

The answers from the Google forms were gathered into a Google Sheet. Following that, the data was examined using both EXCEL and DATA tab software.

RESULTS

The demographic data, anthropometric data, hours of media usage per day, grading of influence of media on self, and the BESAA subscale marks are mentioned in [Table 1].

TABLE 1: Data regarding Demographics, Anthropometrics, Media usage and BESAA subscales.

Parameter	Males (n=108)		Females (n=150)	
	Average	Standard Deviation	Average	Standard Deviation
Age (yrs)	20.9	1.26	20.59	1.18
Height (m)	1.71	0.06	1.58	0.07
Weight (kg)	72.3	13.34	60.51	11.41
BMI (kg/m ²)	24.61	4.5	24.38	4.43
BSA (m ²)	1.84	0.16	1.6	0.15
Media Hrs/Day (max=24hrs)	4.1	2.41	4.27	1.78
Influence of media on self (max=5)	2.55	1.08	2.96	1.07
BE-Appearance, BE-AP (max=40)	25.3	7.07	24.12	7.64
BE-Weight, BE-WT (max=32)	18.95	6.68	17.3	7.49
BE-Attribution, BE-AT (max=20)	9.65	3.84	8.94	3.15

Females spent more hours per day on media and reported a greater influence of media on their self-perception compared to males. Conversely, males scored higher than females on all subscales of the BESAA.

A simple linear regression analysis was conducted for each pair of variables: age, height, weight, BMI, BSA, hours spent on media per day, and influence of media on self against BE-AP, BE-WT, and BE-AT; and BE-AP, BE-WT, and BE-AT against each other. The following table [Table 2] depicts the correlations which are significant in nature.

Table 2: Correlation of BESAA Subscales with Anthropometric data and Media usage values.

Parameter	Pearson Coefficient (r) & p values	BE- Appearance BE-AP		BE- Weight BE-WT		BE- Attribution BE-AT	
		Males	Females	Males	Females	Males	Females
Age (yrs)	r	0.24					
	p	0.01					
Height (m)	r	0.24					
	p	0.011					
Weight (kg)	r		-0.26		-0.46		
	p		0.001		0.0001		
BMI (kg/m ²)	r		-0.28		-0.48		-0.21
	p		0.0001		0.0001		0.008
BSA (m ²)	r		-0.2		-0.38		
	p		0.012		0.0001		
Media Hrs/Day	r	-0.25		-0.24			
	p	0.009		0.013			
Influence of media on self.	r	-0.3	-0.23	-0.2	-0.21		
	p	0.001	0.004	0.035	0.008		
BE-Appearance, BE-AP	r			0.71	0.69	0.39	0.39
	p			0.0001	0.0001	0.0001	0.0001
BE-Weight, BE-WT	r	0.71	0.69			0.41	0.3
	p	0.0001	0.0001			0.0001	0.0001
BE-Attribution, BE-AT	r	0.39	0.39	0.41	0.3		
	p	0.0001	0.0001	0.0001	0.0001		

* 'p' value < 0.05 is considered significant.

** Negative correlations are mentioned as negative 'r' and the values have been underlined.

*** Blank spaces indicate no significant correlation.

For Both Genders

- An increase in the influence of media on oneself leads to a decrease in BE-AP and BE-WT.
- An increase in scores on any one subscale leads to an increase in scores on the other two subscales.

For Females

- An increase in BMI results in a decrease in BE-AP, BE-WT, and BE-AT.
- An increase in BSA and weight leads to a decrease in BE-AP and BE-WT.

For Males

- An increase in age and height results in an increase in BE-AP.
- An increase in the number of hours spent on media per day leads to a decrease in BE-AP and BE-WT.

DISCUSSION

Body esteem, shaped by media, societal pressures, and physical attributes, is a complex concept. It relates to individuals' perceptions and feelings regarding their bodies, encompassing satisfaction or dissatisfaction with appearance, weight, and shape. This perception significantly affects self-confidence, mental well-being, behaviors, relationships, and overall life quality. Societal beauty standards, media influence, personal experiences, and social interactions contribute to shaping body esteem. The findings suggest important implications stemming from these factors.

Females

1. An increase in BMI and BSA results in a decrease in satisfaction with weight, and appearance, and an increase in BMI results in a decrease in pressure from others' evaluations of oneself: This indicates that increasing weight and BMI does create dissatisfaction among females but it also

leads to an indifference to societal pressures about their physique. Puhl et al,^[10] in their systematic review concluded that weight bias persists across life domains despite awareness, impacting obese individuals' health and relationships, prompting research and international recognition. Yet, gaps persist, challenging interventions. Continued effort is crucial given worsening societal attitudes despite rising obesity rates. Zartaloudi et al,^[11] in their study deduced that an increase in BMI correlated with lower scores on the "Appearance," "Weight," and "Attribution" subscales, as well as a decrease in the overall Body-Esteem score, while also resulting in higher scores on the Social Physique Anxiety Scale.

2. An increase in the influence of media on oneself leads to a decrease in satisfaction with weight and appearance: Field et al,^[12] findings suggest that media exposure, particularly through fashion magazines, plays a role in shaping girls' attitudes towards weight and body image, highlighting potential concerns regarding unrealistic body ideals promoted by the media and their impact on adolescent health. However, Holmstrom et al,^[13] concluded that depictions of thin women might not significantly affect viewers. Conversely, images featuring overweight women appear to positively influence women's body image.
3. Females spent more hours per day on media and reported a greater influence of media on their self-perception compared to males: Papageorgiou et al,^[14] in their study found that adolescent girls seem to be more susceptible to encountering mental health challenges due to their use of social media compared to boys. The study also revealed that girls spent nearly fourteen hours per week, equivalent to approximately two hours per day, engaging with social media. Mougharbel et al,^[15] in their study, concluded that 48% of adolescents spent three hours or more per day on social media, while 43.7% experienced moderate to severe psychological distress, with a higher prevalence observed among females (54%) compared to males (31%).

Males

1. An increase in age and height results in an increase in satisfaction with appearance: Indicating that with an increase in age, the male tends to accept his body better and adjusts to it. Rosenqvist et al,^[16] concluded that body dissatisfaction increased with age for both genders. Lower education levels at ages 32 and 42 which do not concur with the present study. Brewer et al,^[17] concluded that taller men are seen as more attractive and successful, while shorter men may face more relationship issues. A study with 98 heterosexual men found tall men reported higher relationship satisfaction and lower jealousy. Height also impacted mate retention behaviors, confirming previous research on the appeal of taller individuals.

- An increase in the number of hours spent on media per day and the influence of media on self leads to a decrease in satisfaction with weight and appearance: Agliata et al,^[18] study examined 158 males exposed to idealized male images in advertisements. The findings showed that exposure to ideal image ads led to increased depression and dissatisfaction with muscle appearance compared to neutral ads. Molina Ruiz et al,^[19] suggest a positive correlation between social media use and dissatisfaction with body image and low self-esteem. Observation time of content predicts body dissatisfaction and low self-esteem.

Common to both genders

An increase in scores on any one subscale leads to an increase in scores on the other two subscales: Which indicates that as satisfaction with weight and appearance increases, the pressure from others' evaluations of oneself also increases leading to internalization of societal pressures. Adams et al,^[20] suggest that a person's self-worth dependent on their appearance leads to increased self-objectification. This self-objectification, in turn, is expected to cause higher levels of anxiety about one's appearance concurs with our findings.

CONCLUSION

Addressing the influence of media, societal pressures, and physical attributes on body esteem requires multifaceted policy actions. Schools should implement media literacy programs to educate students on discerning realistic body representations and resisting negative messages. Governments need to regulate media content, promoting diversity in body portrayal and limiting digitally altered images. Concurrently, public health campaigns should emphasize body diversity and self-acceptance, leveraging influencers to amplify messages. School-based interventions, such as workshops and support groups, can foster body positivity and self-esteem among youth. Additionally, increased access to mental health services is vital, particularly for vulnerable populations, to address the psychological impact of negative body image. Prioritizing research on body esteem and evaluating intervention effectiveness is essential for long-term progress in promoting healthier attitudes toward body image. Through coordinated efforts, society can work towards fostering greater acceptance and appreciation of diverse body types, promoting overall well-being.

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