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Research Article

To Assess The Relationship Between Body Image, Eating Attitude And Multimedia In Students

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ABSTRACT:
THEME TITLE: TO ASSESS THE RELATIONSHIP BODY IMAGE, EATING ATTITUDE AND MULTIMEDIA IN STUDENTS.
INTRODUCTION: This study explores the complexity of body image among college students in India, with particular emphasis on its relationship with eating attitude and influence of media.
MATERIALS AND METHODS: This study used a cross-sectional design with a total of 303 participants meeting inclusion and exclusion criteria. Characteristics such as BMI, social standing, social status, life satisfaction, and current health, eating attitude, media influence were assessed using a self-administered questionnaire.
RESULT: : Males showed less concern about body image. Significant relationship of body mass was seen with BMI ($p < 0.001$),eating attitude ($p < 0.001$), influence of media ($p < 0.001$). Overweight students had a significantly higher prevalence of dissatisfaction ($p < 0.001$) than students with low weight who reported a higher body image satisfaction.
CONCLUSION: The conclusion of this study is that there is a positive relationship between body image and eating attitude among Indian college students. These findings help better understand young people's physical concerns and highlight the need for more preventive measures to address these problems.

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INTRODUCTION:

Mental health problems have increased in the last decade, especially among young people [1]. Mental health problems are mostly behavioural, emotional and hyperkinetic disorders. In these cases, unhealthy eating habits increase rapidly in a short time, especially in young women [2,3]. These bad habits mean suffering for people whose eating habits, thoughts and feelings are greatly affected. People suffering from these complaints often focus on food and weight.

In this sense, eating disorders are used to describe a variety of persistent behaviours that may or may not be diagnosed as eating disorders [4].

Body image is also greatly influenced by changing relationships with the social environment [5] and by cultural factors as well as biological and psychological factors[6].

Body image dissatisfaction is a frequently discussed term in public health and psychology. [7,8] According to the data, body image is influenced by factors such as individual characteristics (age, gender, body weight and weight), by beauty culture communicated through media, marketing and advertising and society's relations[9] .

Perceived weight status has been considered as the most significant determinant affecting eating habits and weight loss.[10-14]. In contrast, true BMI does not always reflect true weight[12].

Studies have shown that most young people, especially women, consider themselves overweight, regardless of their body weight, [15-17]. A study reported that flawed body weight can lead to unhealthy eating attitude[12].

The most important thing is media that promotes beauty. 90% of young population reported as active users (18-29 years old), are continuously exposed to different content and images from social networks.[18,19] Influencers stand out among the most active users of this media. These new advertising models have a great impact on the new trends, news and trends that young people follow.[20] Therefore, media plays an important role in shaping life choices and makes it difficult for women to achieve their best in slimness and beauty.[21,22] These concepts confirm how young people see themselves and evaluate themselves.[23,24]

The conflict between the role model portrayed by society and the actual body of many young women leads to body anxiety. Physical anxiety often occurs from time to time and causes physical discomfort. This body dissatisfaction occurs due to the incompatibility between the body image and its perception and therefore the focus of the body [25,26]. This dissatisfaction also plays an important role in eating disorders as it can lead to anxiety and psychological disorders. [27]

Studies reported that any discrepancy between role models in society and the real body of many young women can lead to body anxieties. Physical anxiety usually occurs from time to time and causes physical discomfort. This body dissatisfaction arises with the effect of body image and its thoughts and thus causes the body [28,29]. Since this insatiability causes stress and psychological problems, it also plays an important role in the behaviour of eating disorders[30].

There is very little information on this subject, and research has focused on women. This article presents a study with the following objectives: First To assess the body image satisfaction among college going students, second to assess eating attitude in students and lastly to assess the relationship between the body image and eating attitude.

MATERIALS AND METHOD

Study design:

A 4-week study was conducted at four different universities**.** The study protocol was approved by the review board of the author's institution. Participants who refused to give consent and had known mental disorders, endocrine abnormalities, metabolic disorders, malignancies, digestive disorders or infectious diseases were excluded from the process. All individuals who agreed to participate were informed about the motivation behind the study and written consent was obtained.

Anonymity was mentioned which allowed participants to speak freely with option to provide or not provide names. Participants were asked to sit at a certain distance to maintain privacy and anonymity. A self-administered questionnaire was administered during a 50-minute classroom session under the direct supervision of a study authors.

The questionnaire consists of three parts: the first part includes demographic information such as age, gender, qualifications, weight and height, the second part includes an assessment of dietary habits and physical well-being, media influence and the third part includes questioning exclusion.

Eating attitude scale (EAT 26):

The Eating Disorders Scale (EAT-26) is a widely used tool for measuring symptoms and focusing on the characteristics of eating disorders [31].The index measures low, moderate, and high risk of eating disorders. The scale is divided into three subscales 1) Dieting (focusing on questions 1, 6, 7, 10, 11, 12, 14, 16, 17, 22, 23, 24, 26), Bulimia and food preoccupation (focusing on questions 3, 4, 9, 18, 21, 25) and oral control (focusing on questions 2, 5, 8, 13, 15, 8, 20). The total score is calculated from the total score of 26 items, and the score ranges from 0 to 3, and an increase in the score and a score above 20 indicate a high level of disordered eating attitude. This validated study is based on an analysis of eating disorders when scores greater than 20 [32.33].

The body mass index (BMI):

The EAT-26 was used to calculate BMI to determine whether participants were at risk for eating disorders. BMI was calculated by dividing each participant's weight (in kilograms) by their height (in meters) squared. [31] For most people, BMI is an accurate indicator of body fat. In the metric system, the formula for BMI is weight in kilograms divided by height in meters squared. Volunteers reported personal weight to the nearest kilogram and height to the nearest kilogram. Normal body weight by Indian standards is 18 to 22.9 kg/m2. 23 to 24.9 kg/m2 is considered overweight and 25 kg/m2 is considered obese[34].

Body Shape Questionnaire (BSQ)

The Body Shape Questionnaire (BSQ) was used in the original 34-item version of Cooper et al. [33] It is used to measure the fear of gaining weight and negative thoughts [10,12]. A self-report tool to assess the severity and level of concern. Example items include: "Are you so worried about your body that you think you need to diet?"; "Have you ever seen someone else's body and thought your body was bad?" The answers to these questions use a six-point Likert scale (1=never, 5=always)[33].

The multidimensional media influence scale

It is an instrument used to assess participants' recognition of societal/cultural standards of appearance. Item scoring is done by the participants on a 5-grade Likert-type scale ranging from 1 ("strongly agree") to 5 ("strongly disagree") to obtain the results for 1 to 14 items of the scale. The 14 items were subdivided into four components of media influence: Internalization, importance, comparison, and awareness. [33,34]

STATISTICAL ANALYSIS

Normality of distribution was tested with the Kolmogorov-Smirnov test. Data were entered directly into SPSS20th version. The above items require the reverse coding to be changed accordingly. Total scores were calculated for each scale and subscale parameter. . Internal consistency of composite scales was measured by using the reliability analysis model. Data were analysed using descriptive

statistics. Independent sample t-test was used to compare scores across different variables. Bivariate correlations between variables were investigated using the Pearson correlation coefficients of each variable. Stepwise multiple linear regression was used to identify the extent of variation in the scores on the BSQ
scale. Regression coefficients were used to assess the contribution of each independent variable.

RESULTS

Out of 354 students, 303 (85.5%) participated in the study; 298 students qualified for the study after fulfilling the exclusion and inclusion criteria. Of these, 149 (50%) were males and 149 (50%) were females.

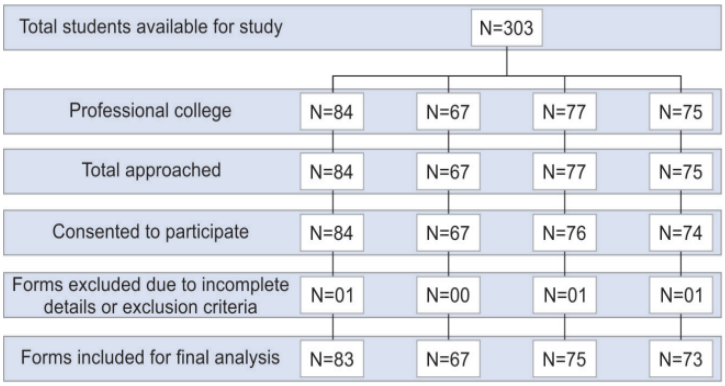

Fig:1 distribution of sample across different professional years:

TABLE 1: Anthropometric profile and related parameters of participants (N= 298)				
	MINIMUM	MAXIMUM	MEAN	SD
AGE	17.00	32.00	21.31	2.59
HEIGHT	1.47	1.99	1.69	0.10
WEIGHT	40.00	109.00	64.01	13.32
BMI	15.53	34.93	22.39	4.23
EAT-26 SCORE	0.00	62.00	13.75	12.38
BSQ SCORE	34.00	187.00	73.86	31.09
MMIS SCORE	14.00	69.00	39.13	11.59

Table 1 shows the demographic characteristics and anthropometric profiles of the participants. Gender distribution of the sample is the same. These percentages allow us to compare gender differences. The average age of the participants was 21.31 (SD = 2.59).

TABLE 2 Gender- based distribution of subscales of the examined variables							
	EAS			MMIS			
Gender distribution, t and p values	**Oral control scale**	**Bulimia and preoccupation scale**	**Dieting scale**	**Awareness scale**	**Comparison scale**	**Internalization scale**	**Importance of media as information scale**
Males	3.99 (3.91)	2.05 (2.99)	7.24 (7.25)	4.67(2.17)	14.26 (4.90)	4.67(2.17)	14.64 (4.99)
Females	4.07 (3.58)	2.44 (3.34)	7.65 (7.14)	5.29(2.29)	14.34 (4.38)	5.29(2.29)	14.89 (4.45)
t-value	-0.30	-1.05	-0.37	-2.38	-0.13	-2.38	-0.45
p-value	0.75	0.29	0.70	**0.001**	0.89	**0.001**	0.65

Table 2 shows the gender distribution of means, t values and p values for the subscale of the analysed variables. Female showed more internalization in MMIS about thin ideal image and influence of media as compared to males. Also although not statistically significant, disordered eating (including calorie counting) was more common in women than in men.

Table 3: Cutoff value of eating attitude test, BSQ, and BMI on the basis of gender		
Test	Number of students (n = 298)	
	Males (%)	Females (%)
EAT-26 score		

≤20	118 (39.60)	115 (38.60)
≥20	31 (10.40)	34 (11.40)
BSQ score		
Not worried about body shape (<81)	102 (34.22)	88 (29.53)
Slightly worried (81–110)	35 (11.74)	35 (11.74)
Moderately worried (111–140)	10 (3.3)	21 (7.04)
Severely worried (>140)	2 (0.67)	5 (1.67)
BMI (kg/m2)		
Severely underweight (<17.0)	2 (0.67)	12 (4.02)
Underweight (17.0–19.9)	28 (9.39)	56 (18.79)
Normal (20.0–24.9)	70 (2.34)	48 (16.10)
Overweight (25.0–29.9)	35 (11.74)	26 (8.72)
Moderate obesity (30.0–39.9)	14 (4.69)	7 (2.34)

Table 3 compares eating attitude scores, BSQ and BMI cut-off values between different genders; 37.6% of participants were concerned about their body shape, and 27.5% of participants had a body mass index above normal. The rate of men is slightly higher than that of women.

Table 4: Correlation between body image, eating attitude, , and self-esteem		
Variable correlation	Pearson correlation	p-value
Gender with		
BMI	–2.626	0.000
EAT-26	0.034	0.559
BSQ	0.143	0.013
BMI with		
EAT-26	0.197	0.001
BSQ	0.328	0.000
EAT-26 with		
BSQ	0.499	0.000

Table 4 demonstrates the correlation between body image, attitudes toward eating and BMI. It was ascertained that eating attitude and BMI were significantly interrelated to body image. Participants who had maladaptive eating attitude were found to have higher body image dissatisfaction.

DISCUSSION

There is a dearth of Indian literature on issues related to body image, especially covering both men and women. According to our study, participants in general were concerned about body image and were more or less neutral when it came to their eating attitude The cultural context of India has changed in the last few years[36] and there has been a shift towards the idea of a thin image for both women in our country through mass media. Now Indian culture seems to be going through a change due to globalization.[37] In a country like India, previous literature focused on the body and similar problems were well known.[3]

Mallick et al.,highlighted that there is a significant influence of sociocultural ideals of thinness, media portrayals, and peer pressure in shaping body image perceptions and promoting unhealthy eating behaviours and attitude . [38] Rodriguez et al. produced similar results in thin-ideal internalization, body dissatisfaction, and eating attitude symptoms across Asian American, Hispanic, and White participants. This suggested that there isn't significantly influenced by ethnicity. [41]

Body image and gender:

Women were more concerned about body image than men. Additionally, women , females showed more internalizations of the thin ideal and media mindfulness as contrasted with males. A number of studies also evidenced a strong association between body dissatisfaction due to the thin idealized social media content and disordered eating. Consistent with a relatively strong thin ideal prevailing in social media, participants reported moderate body dissatisfaction and an overt aspiration for leanness but these studies focused more on female gender[38-40]

Body Image and eating attitude:

in this study dieting behaviours like Not eating junk foods, joining a diet, focusing on burning calories, etc emerged as the strongest predictors of body image in both genders. This may be due to cultural norms for disturbed eating attitude is a risk factor for body dissatisfaction. The underlying concept for this occurs from a psychological perspective known as cognitive dissonance, which is the state of an individual having consistent—or congruent —beliefs and actions to lessen discomfort. In the context of disordered eating, this discord may manifest as a tension between conforming to the "thin ideal" society reproduces through media and one's true body ideals or health status, as stated earlier. Witcom GL et al, discussed the importance and effectiveness of using dissonance based interventions which aims to shift the attitudes and behaviours towards greater body image acceptance and reduction in eating disorder risk factors.[39]Fitspiration

content is fitness-themed social media rules usually including idealized body images and workout regimes.[39]

Body Image and Media influence:

The current study shows that in a developing country, the media can cause a significant negative effect on body image dissatisfaction among college-going students. Moreover, participants of both genders who took the media as a source of information regarding the appearance like how to look attractive or improve appearance by watching TV and movies, and reading magazines were found to be influenced by the media. Holland et al. found that relative to women who post travel-related content on Instagram, those posting "fitspiration" images multiple times a week experience more drive for thinness, drive for muscularity, and compulsive exercise. A more worryingly high number of "fitspiration" posters were also found to be at risk of an eating disorder. [42] Rousseau A et al, highlighted the importance of positive social media, stating that Instagram body-positive messages may benefit female viewers, but it is also suggested that they generate more protective filtering against the ideal than no-messages and less increase in a tendency to make social comparisons with models by making them irrelevant as targets. [43]

Perhaps better information could help reduce discrimination and stigma from people with body image dissatisfaction. It is important to include information and education about dietary patterns in the curriculum, teach students about other perspectives on body image, ask about their values and beliefs, and celebrate diversity.

LIMITATIONS

First of all, as a cross-sectional study it was unrealistic to discover a causal heading. Second, since this study was conducted in a single city, it would not be appropriate to present the findings nationwide. Additionally, measures of physical distress include weight, height, and facial appearance but do not measure distress related to other parts of the body (e.g., skin, hair, muscular system, etc.).

CONCLUSION

This study provides the first understanding of the characteristics identified in body image. Large scale research involving researchers from different fields and multiple sites is needed. This study identified increases in body satisfaction and found that this was consistent with anthropometric predictions. Our research concludes that eating habits are linked to body image.

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