Perception of body image and its association with sociocultural factors: A cross-sectional study among college students from northeast India

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Background: Body image pertains to one's personal perception of their physical characteristics and appearance. However, as individuals, we tend to acquire knowledge by observing others, which can make us vulnerable to the influence of sociocultural messages related to physical appearance and beauty in our immediate environment, such as family, peers, and media. Aim: The primary objective of the current study was to examine the potential impact of sociocultural factors, namely gender, family, peer, and media, on body image satisfaction. Method: The present study utilized a descriptive cross-sectional research design to examine body image concerns among college-going students in the Kamrup metropolis. The study comprised 400 participants, including both male and female students between the ages of 18 to 21 years. Convenience sampling was employed to select participants who expressed interest in taking part in the study. Tools: To evaluate body image satisfaction/dissatisfaction among the student participants, the Body Area Satisfaction scale was employed. In addition, the Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4) was utilized to measure the impact of sociocultural pressure on body image. Results: Results showed that 66.3% of students were satisfied with their body image where whereas only 33.3% were dissatisfied. Pearson correlation analysis revealed that sociocultural factors such as family pressure, peer, and media were negatively correlated with body image satisfaction, and this correlation was found to be significant at 0.01 level. Significance of gender was found in body image satisfaction among male (M=3.37, SD=.652) and female students (M=3.198, SD=.676), where t=2.642, p <0.01. Conclusion: The current study enhances the understanding of body image concerns among students in Guwahati city, Assam. The results indicate a noteworthy prevalence of body image dissatisfaction among students, with a discernible difference between genders. The study further suggests that sociocultural factors, such as family pressure, peer influence, and media exposure, play a significant role in the development of distorted views pertaining to one's own body shape, size, weight, and other related factors. Therefore, the study highlights the criticality of considering sociocultural factors in understanding body image issues.

Keywords: Body image, dissatisfaction, family pressure, peer pressure, media pressure

INTRODUCTION

Body image is a complex and multidimensional construct that encompasses an individual's perceptions, thoughts, feelings, and behaviours related to their physical appearance. It is composed of four interrelated aspects: perceptual, cognitive, affective, and behavioural. The perceptual aspect involves how individuals see themselves in terms of their size, shape, and other physical characteristics. The cognitive aspect refers to the thoughts and beliefs that individuals hold about their bodies. The affective aspect encompasses the emotions and feelings that individuals experience in relation to their bodies. The behavioural aspect involves the actions individuals take in response to their body image, such as dieting, exercise, or avoidance of social situations.

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When a person is fully able to accept their physical attributes as they are and feels proud about it, they possess a positive attitude toward body image, in reverse, unhappiness with one’s physique or appearance relating to the body can be termed as body image dissatisfaction.[2] Such poor body image occurs due to attempts made by individuals to meet unrealistic ideals of beauty.[2] Earlier research shows that body image dissatisfaction occurs mainly among women but many new researches have proved that both men and women are equally affected by body image dissatisfaction.[2] Despite this fact, studies have reported that women tend to experience higher levels of body dissatisfaction than men. Moreover, men and women may have different concerns related to body image. For instance, men may be more focused on gaining muscle mass in specific areas of the body, while women may be more motivated to achieve weight loss goals.[4][5]

Body image construct is influenced by various factors, including but not limited to gender, media exposure, family or parental relationships, weight status, peer influences, social comparison processes, and social learning skills. These factors can shape an individual's perception of their own body and affect their levels of body image satisfaction or dissatisfaction. Furthermore, the interplay between these factors is often complex and multifaceted, making it challenging to understand the precise mechanisms through which they impact body image.[2] Social learning theory states that human beings have a strong tendency to learn something by observing others, so, when individuals try to be like others then unknowingly they start comparing themselves with ideal images of society, thus social comparison and social learning behaviour of human are responsible for creating unhappiness relating to one’s body image which later on can create much psychological distress like appearance-related anxiety, depression, poor quality of life, low self-esteem, anorexia nervosa, bulimia, and other related eating disorders.[2] Another theoretical model, the Tripartite Influence model suggests that direct comments about appearance or indirect messages that spread the promotion of ‘ideal body shape’ from three major sources like family, peers, and media can generate body image dissatisfaction among both male and female via its two different mediators such as thin internalization and appearance comparison.[2][8][9] It was seen that comments, teasing pressure relating to appearance produced by family members including parents, friends, or media are significantly associated with the development of body image dissatisfaction as well symptoms of eating disorders through two specific facilitators for instance thin internalization and appearance comparison.[10][11]

Several studies on body image in the context of North East India, specifically Kamrup Metropolis (Guwahati city), have been reviewed. However, these studies were insufficient to fully understand body image concerns in the area. Kamrup Metropolis (Guwahati city) is an important gateway to the North Eastern Region, connecting it with other states, and has become an attractive hub for various activities, including fashion, which draws a large number of young people. The city is home to many students who are pursuing education and trying to establish themselves in different fields. The youth in Kamrup Metropolis (Guwahati city) are increasingly adopting Western concepts related to fashion and eating habits. Given this background, the current study was conducted in Guwahati city, Assam, India, to investigate body image concerns among college students and their relationship with sociocultural factors that precipitate them.

**OBJECTIVES**

The objectives of this study are to determine the prevalence of body image satisfaction and dissatisfaction among college students, examine gender differences in body image satisfaction, and investigate the relationship between body image and sociocultural factors, including influences from family, peers, and media.

**MATERIAL AND METHODS**

The present investigation was a descriptive cross-sectional study that utilized the convenience sampling method to select colleges and students from the Guwahati city. Guwahati city is the capital of North Eastern state Assam and a gateway to other North-Eastern states. The total sample size comprised 400 participants, including 200 male and 200 female students. The sample size was calculated utilizing Raosoft, Inc., a sample size...
calculator, with a 95% confidence level, 5% margin of error, and a population proportion of 50%. Undergraduate students from various colleges in Guwahati affiliated with Gauhati University, Assam, India, were selected for participation. The study included students aged between 18 to 21 years who willingly provided their consent. Data collection took place between August 2018 to April 2019.

Prior to commencing the investigation, authorization was obtained from the relevant authorities of the colleges in Guwahati affiliated with Gauhati University. The selection process for the colleges was conducted via convenient sampling, based on the permission granted by the authorities to conduct the research. Similarly, the selection of students was based on the researcher's convenience and the students' willingness to participate. A rapport was established with the participants before distributing questionnaires, and a brief orientation on the research was provided, along with a consent form for completion. The authors distributed a questionnaire booklet and provided instructions in either the local language (in Assamese language) or English, to ensure participants' understanding. Participants were assured that their responses would remain anonymous and confidential. They were instructed to complete the questionnaire honestly. Height and weight measurements were taken using measuring tape and weight machines to calculate BMI.

**Description of tools**

1. **Socio-demographic data sheet**: A socio-demographic data sheet was employed to gather information about age, gender, height, weight, and other relevant factors.

2. **Body Area Satisfaction Scale (BASS)**: The Body Area Satisfaction scale is a subscale of the Multidimensional Body Self Relations questionnaire- Appearance Scales (MBSRQ-AS). MBSRQ-AS was developed by Thomas Cash and fellow researchers. This scale has 5 subscales, and BASS is one of them. Body Areas Satisfaction Scale (BASS) assesses satisfaction or dissatisfaction with specific areas of the body on a 5-point scale (Complete Satisfaction to Complete Dissatisfaction). BASS consists of 9 items. BAS scale has good psychometric properties and a high level of internal consistency where Cronbach alpha is .82.

3. **Sociocultural attitude towards Appearance Questionnaire-4 (SATAQ-4)**: SATAQ 4 is a self-report questionnaire designed to measure perceived thinness and appearance pressures from family, peers, and media. It has three subscales- family, peer, and media and each consists of 4 items rated on a 5-point Likert scale, ranging from 1 (definitely disagree) to 5 (definitely agree). SATAQ-4 has good psychometric properties with reported internal consistency coefficients ranging from .70 to .89 and Cronbach alpha is .88.

**Statistical Analysis**: In the current investigation, statistical analysis was conducted utilizing the SPSS 20 version. Descriptive analysis, including mean, standard deviation, frequency, and percentage, was employed to explore the socio-demographic characteristics of the study participants. An independent t-test was executed to examine gender differences in body image satisfaction/dissatisfaction and the impact of sociocultural factors (i.e. peer, family, and media) on body image. Additionally, a Pearson correlation method was utilized to investigate whether sociocultural pressure significantly correlated with body image satisfaction/dissatisfaction.

**Ethical Consideration**: The sole objective of the current paper was research-oriented. The participants provided an assurance of maintaining confidentiality during the research or data collection process, and no individual's dignity was compromised throughout the procedure. This study is included as a component of the Ph.D. thesis submitted to Gauhati University, Assam, and subsequently awarded.

**RESULTS**

### Table 1 Sociodemographic Profile (N=400)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boys</strong> n = 200</td>
<td><strong>Girls</strong> n = 200</td>
</tr>
<tr>
<td>Age</td>
<td>19.66 ± .86</td>
</tr>
<tr>
<td>Height</td>
<td>5.57 ± .29</td>
</tr>
<tr>
<td>Weight</td>
<td>62.10 ± 11.15</td>
</tr>
<tr>
<td>BMI</td>
<td>21.71 ± 3.58</td>
</tr>
</tbody>
</table>

**Sociodemographic profile**

Descriptive analysis showed (Table 1) participants’ basic information such as gender distribution, participants’ age, height, weight,
and BMI. Table 1 suggested that, boys’ (n=200) and girls’ (n=200) participants are equally distributed. The average age for both boys’ (M= 19.65, SD=.860) and girls’ (M=19.38, SD=.767) was found almost the same. In height and weight calculation displayed in Table 1(b), the average height of boys was found 5.57 (SD=.285) and weight was 62.10 (SD=11.14); which slightly differed from girls’ height (M= 5.27, SD=.253) and weight (M= 53.20, SD=10.16). Similarly, average BMI data showed a normal BMI range (according to WHO classification) for both boys (M=21.714, SD=3.581) and girls (M=20.497, SD=3.681). The Mean, SD, and percentage for all demographic variables are displayed in Table 1.

**Prevalence of body image satisfaction and dissatisfaction**

Table 2 Prevalence of body image satisfaction and dissatisfaction

<table>
<thead>
<tr>
<th>Gender</th>
<th>Body image</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys &amp; girls</td>
<td>dissatisfaction</td>
<td>135</td>
<td>33.8</td>
</tr>
<tr>
<td>N=400</td>
<td>satisfaction</td>
<td>265</td>
<td>66.3</td>
</tr>
<tr>
<td>Only boys</td>
<td>dissatisfaction</td>
<td>58</td>
<td>29.0</td>
</tr>
<tr>
<td>n=200</td>
<td>satisfaction</td>
<td>142</td>
<td>71.0</td>
</tr>
<tr>
<td>Only girls</td>
<td>dissatisfaction</td>
<td>77</td>
<td>38.5</td>
</tr>
<tr>
<td>n=200</td>
<td>satisfaction</td>
<td>123</td>
<td>61.5</td>
</tr>
</tbody>
</table>

The prevalence of body image satisfaction/dissatisfaction among the participants is summarised in Table 2. Out of a total of 400 participants, almost one-third i.e. 66.3% showed body-related satisfaction, while 33.8% of participants were dissatisfied. More specifically, 29.0% of boys (n=200) and 38.5% of girls (n=200) participants were only dissatisfied with their body image, and 71.0% (n=200) and 61.0% (n=200) boys’ and girls’ participants respectively found to be satisfied with their own body structure.

Table 3 Gender difference in body image satisfaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean ± SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body image</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>satisfaction</td>
<td>3.37±.65</td>
<td>3.20±.68</td>
<td>2.642</td>
<td>398</td>
</tr>
</tbody>
</table>

**p<.01

Gender difference in body image satisfaction/dissatisfaction

An independent t-test was performed to examine gender differences in body image (as shown in Table 3). It revealed a significant difference in body image satisfaction between boys’ and girls’ college students. Considerably, it was found that boys’ (M=3.37, SD=.652) had greater body image satisfaction in regards to facial features, hair, muscle tone, weight, height, lower or mid-torso, etc. than girls (M=3.198, SD=.676), where t value is 2.642, p <0.01.

**Association between sociocultural factors and body image**

To examine the influence of sociocultural factors like family, peers, and media on body image satisfaction, the Pearson correlation test was applied. The result of this test as shown in Table 4(a), suggested that body image satisfaction was significantly negatively correlated with family factor (r= -.153, p<0.01), peer factor (r= -.143, p<0.01), and with media factor (r= -.142, p<0.01) suggesting that, students with high body image satisfaction, perceived less pressure from family, peer and media. However, Table 4(b) describes about which sociocultural factor was most influential to make students aware about improvement of their body appearance. The results revealed that students felt more pressurized from media (M=2.48, SD=1.23), than family (M=2.39, SD=1.24) and peer (M=2.39, SD=1.13).

**DISCUSSION**

This present cross-sectional study was intended to examine whether sociocultural factors can really be a factor in the development of body image dissatisfaction among college-going students. Findings of the present study showed that almost one-third of college students residing in Guwahati city, Assam are affected by body image dissatisfaction, which can be supported by another similar study conducted in Assam, where 19.74% of students are found to fall under the same category. [14]

As technology continues to advance, research suggests that body image concerns among
college students are on the rise. Both genders appear to be susceptible to developing body image issues.\[13\][15] Up to now, many researchers have stated that not only women are suffering from poor body image, but men are also equally concern regarding their body features and they are also suffering from body image dissatisfaction. Similar findings are obtained in the present research also where, it was observed that among the dissatisfied group of students (33.8%), though the ratio of both boys and girls isn’t exactly equal but more than 50 boys out of 200 participants (boys’) reported to have dissatisfaction relating their physique. Although many men are dissatisfied with their weight and shape, somewhat the prevalence is less than in women counterparts.\[17\][19] The results of the present study were consistent with previous findings that girls tend to report higher levels of body dissatisfaction than boys in various contexts. This trend was also observed among college students in the Kamrup metropolis.

While considering the reason behind the growth of body image dissatisfaction, pressure to be thin came from the media and fashion world or direct result of pressure from friends and family are found more relevant.\[22\] Additionally, factors such as depressive mood, parental dieting environment, friend dieting, exposure to TV and magazine messages, and body mass index have also been found to influence body dissatisfaction. Because already Fredrickson and Roberts have stated that society itself constructs an individual’s sense of self.\[24\] The way an individual thinks or treat themselves is always the reflection of other people or society as viewed by them.\[22\]

Furthermore, it is clear that family peers, and media are strongest enough to think about “Thinness as the symbol of ideal, status, or good-looking”.\[22\][23][24] This attitude basically develops within the context of the family at first.\[25\] Because parental attitude matters a lot in shaping body image, through negative communication (teasing or critical comments relating to weight, and shape, along with cheer to diet, parents can spread negative attitude towards body image among their child.\[24\][29] On the contrary, parents or other family members can also play a positive role in preventing negative body image by providing encouragement and accepting words. They can help their children develop an understanding and acceptance of their bodies as they are.\[22\]

Besides family, both peer and media emerged as significant predictors of body image and dieting awareness for both boys and girls.\[22\] It is seen that maximum students engage in frequent conversations with their peers regarding new fashion, trends, body size/weight, physical attractiveness, and most importantly the users share fears of becoming fat.\[29\] So, in such context, media including TV media, print media (magazines), and social media (Facebook, Instagram, WhatsApp etc.) plays an active role in spreading some unhealthy messages about ideal body sizes/shapes in relation to gaining status or feeling of being socially accepted which in turn become a reason to increase eating-related disorders.\[21][30]

The current study aimed to determine which of the three sociocultural factors - family, peers, and media - had the greatest influence on students' desire to improve their appearance. The results revealed that media was the most influential factor associated with the desire for appearance improvement, followed by family and peers. Media is the strongest mode that spreads numerous messages (via its various modes like print media, mass media, social media, etc.) regarding attractiveness, which later on creates an obsession with physical attractiveness.\[23\] Literature suggests that ‘trying to look like ideals on TV/magazine’ was one of the strongest predictors of the development of weight concern or body image concern among youth.\[13\] The social learning theory suggests that humans have a tendency to learn by observing others. In practical settings, students are easily influenced by the “ideal” physical structure portrayed by the media. As a result, youth often start following beauty tips, dieting habits, or using grooming products with the intention of improving their appearance to resemble their ideal physique.\[21][22] While social learning theory provides some explanation for the influence of media on body image and beauty standards, it is important to acknowledge that this theory alone may not be sufficient in understanding the complex interplay of factors contributing to body image dissatisfaction. Additionally, the portrayal of ideal physical structures in media is often unrealistic and unattainable for most individuals, leading to unattainable beauty standards and potentially harmful behaviours,
such as disordered eating or excessive exercising, in pursuit of such standards.

Limitation
The study only included college-going students, and therefore, the findings cannot be generalized to other age groups or populations outside of the college-going population. While media, family and peer factors may have some influence on body image, it is important to consider that individual experiences and societal norms vary greatly across cultures and communities. Therefore, generalizing the findings of this study to other populations may be limited. Additionally, the study did not address the potential influence of other important factors, such as individual personality traits, race/ethnicity, sexual orientation, or socioeconomic status, on body image and sociocultural influences. Further, this study did not assess the impact of interventions or treatments for body image dissatisfaction, which could have provided valuable insights into effective strategies for addressing this issue among college students.

CONCLUSION
The present research sheds light on body image concerns among students residing in Guwahati city, Assam. Consistent with other states in India, the findings indicate a high prevalence of dissatisfaction with body image among students in Guwahati city. The study reveals that sociocultural factors play a significant role in distorting one's perception of body shape, size, and weight, which is evident in the current research. Remarkably, the study also highlights that body image dissatisfaction is not limited to females only but is equally prevalent among males. Both genders experience pressure from their family, peers, and the media regarding their dissatisfaction with their body structure. Furthermore, the research findings indicate that media has a significant impact on shaping one's perception of self-body improvement. Therefore, creating awareness about body image and mental health issues among college students is essential. Additionally, the study reveals that body image concerns are linked with various mental health issues such as anxiety, depression, and low self-esteem. Therefore, addressing these concerns is crucial to ensure the overall well-being of college students. The findings of this study call for the development of interventions and programs to promote positive body image and self-esteem among college students in Guwahati city. Such programs could include education about media literacy, encouraging healthy lifestyle habits, and promoting self-care practices. Finally, it is essential to create a safe and supportive environment where students can openly discuss their body image concerns without fear of judgment or stigma.

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Conflicts of interest: None This paper has been completed as a part of a PhD thesis by the 1st author under the supervision of the 2nd author.

Ethical Clearance: Taken

Acknowledgment: The authors of this paper thank all the people who participated in the study.

REFERENCE


