

## Body Image Dissatisfaction and Its Relation to Body Mass Index, Self-Esteem and Big Five Personality Traits in India: Retrospective Study

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**Citation:** Fatma F and Tutor D (2023) Body Image Dissatisfaction and Its Relation to Body Mass Index, Self-Esteem and Big Five Personality Traits in India: Retrospective Study. Annal Cas Rep Rev: 362.

**Received Date:** September 10, 2023; **Accepted Date:** September 25, 2023; **Published Date:** September 30, 2023

### Abstract

**Background:** The negative effects of Body Image Dissatisfaction (BID) on people's mental health are widespread and serious. Because of the disparity between Western and Indian cultural standards and ideas of beauty, it is crucial to study the relationship between BMI, self-esteem, BID, and personality traits in the Indian context. This retrospective study aims to fill a knowledge gap in the limited literature on BID in India by exploring these potential links.

**Method:** 200 participants of varying ages, sex distributions, and economic backgrounds were analysed. Body mass index (BMI), depressive and anxious states, and personality traits were all evaluated using standardised assessments. Statistical methods, such as correlation and moderation analysis, were used to look into the connections and potential moderating effects.

**Results:** There was a correlation between BID and BMI, and 45.2% of the Indian population was found to have BID. The incidence of BID rose in tandem with the subjects' BMIs. In addition, a negative correlation between BID and self-esteem suggests that people with BID tend to have lower estimates of their own worth. Higher levels of neuroticism were shown to be associated with greater psychological distress in BID, highlighting the importance of neuroticism as a critical mediator.

**Conclusion:** The interconnected nature of BID, body mass index, and self-esteem/personality attributes is highlighted by this research. Insights into the complex causes of body image dissatisfaction are provided, and the necessity of targeted therapies and cultural sensitivity to improve self-perception are highlighted in the Indian context.

**Keywords:** Body image dissatisfaction, Body Mass Index, self-esteem, personality traits, India, cultural factors, psychological distress, prevalence, moderation analysis.

### Introduction

Today's culture is plagued by body image issues, which harm physical and emotional health. Dislike of one's physical self generates misery and unforeseen consequences. Although its appearance and effects vary by culture, body dissatisfaction is universal. India's rich cultural, social, and economic environment is suited for studying this subject.

Several concerns emphasize the need to study body image dissatisfaction in India. First, India's food and exercise habits have changed dramatically over the past several decades due to socioeconomic developments. These changes seriously affect how we view our body's proportions and shapes [1]. Due to cultural diversity, including differences in beauty ideals and traditional norms, different areas and demographic groups in India may experience and express body image dissatisfaction differently.

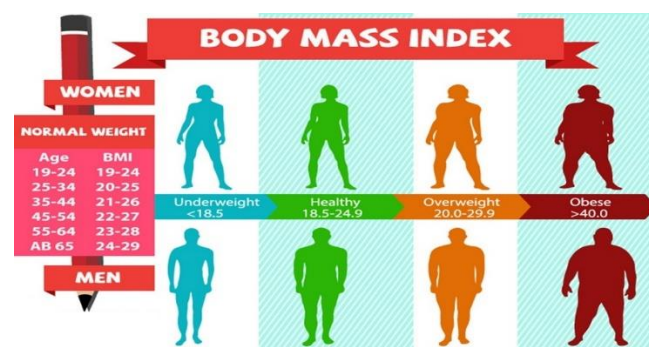


Figure 1: Body Mass Index (source: [2]).

Due to rising obesity and related health issues in India, studying the relationship between body image dissatisfaction and BMI is vital. Public health initiatives and preventative actions can reduce obesity-related disorders in the country, but understanding this relationship is crucial.

Dissatisfaction with one's appearance can also harm self-esteem, a significant emotional factor. Low body image can make a person feel inferior and anxious. Healthy self-esteem may help people handle cultural appearance demands. The link between body image dissatisfaction and self-esteem is vital to understanding Indians' mental health [3].

Finally, personality affects how people view and treat their appearance. Psychological well-being and social conduct are linked to the Big Five personality qualities of openness, conscientiousness, extroversion, agreeableness, and neuroticism. These personality traits may moderate or mediate the relationship between body image dissatisfaction and its effects, revealing the psychological mechanisms.

### Research Objectives

- To determine the extent to which they experience body image dissatisfaction and to examine several population subsets in India.
- To analyze the correlation between body dissatisfaction and BMI in adult Indians.
- Examining how low self-esteem is related to dissatisfaction with one's physical appearance in India.
- To investigate the role of the Big Five Personality Traits in mediating the connection between body image dissatisfaction and mental health among Indian adults.

### Body Image Dissatisfaction

Dissatisfaction with one's physical appearance involves many different factors, including mental, emotional, and behavioural ones. Global studies have repeatedly underlined the negative consequences on mental health and well-being. Dissatisfaction with physical appearance has been linked to an increased risk of mental health problems such as depression, anxiety, and eating disorders [4].

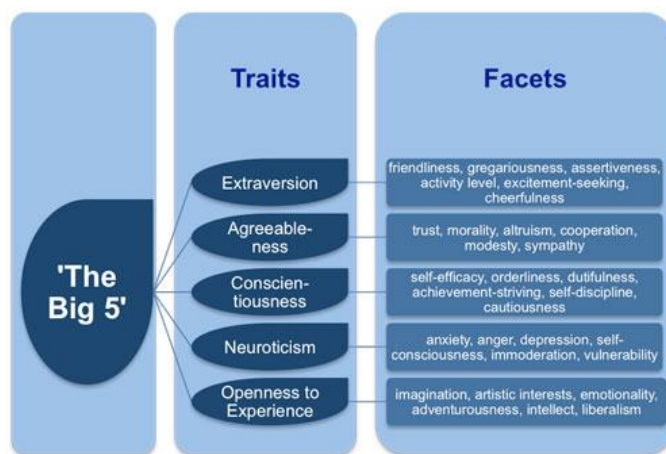
BMI and dissatisfaction with one's physical appearance have been shown to have a nuanced relationship. Cultural and contextual factors appear to have a significant influence, as some researchers have identified a positive association between higher BMI and more significant body image dissatisfaction, while others have reported mixed findings [5]. Given the increasing incidence of obesity and its related health consequences, this association is fascinating in India.

### Self-esteem and Body Image Dissatisfaction

According to [6], dissatisfaction with one's physical appearance is linked to low self-esteem. Negative self-evaluations, which can affect self-esteem, are more common among those dissatisfied with their bodies. Conversely, people with a healthy sense of self-worth may be more able to withstand peer and media pressures to conform to beauty ideals [7].

### Personality Traits and Body Image Dissatisfaction

The relationship between the Big Five personality qualities and body image dissatisfaction has been investigated. Increased dissatisfaction and susceptibility to body image-related distress have been linked to neuroticism [8]. More research is needed to understand how these characteristics interact with cultural influences, especially in the Indian setting.



**Figure 2:** Big Five Personality traits and Facets (source: [9]).

### Studies Conducted in India

Several Indian-based research, with varied foci and methods, have investigated the phenomenon of body image dissatisfaction. [10,11] conducted a study to determine how media and social influences affect the body image perceptions and preferences of young Indian women. [12] examined adolescent body image dissatisfaction in India and found links to depressive symptoms. There is still a significant hole in the literature, notwithstanding these findings.

Generalizing findings across India's heterogeneous population is difficult because most previous studies have focused on specific demographic groups or limited geographical areas. There is also a lack of studies investigating the connection between poor body image, obesity, self-esteem, and character qualities in India. The new research tries to fill this void by taking a retrospective look at data from a broader range of demographics, providing a more complete picture of these intricate connections within the Indian setting.

## Identified Gaps

Studies done in India up to this point have frequently excluded large portions of the population since they only included those of a certain age, gender, or geographical location. By recruiting participants from a wide range of backgrounds, this study hopes to provide a more complete picture.

Although some study has examined personality traits' role in body image dissatisfaction, a more nuanced examination of how personality traits interact with cultural and social issues in India is needed.

The literature on the associations between body image dissatisfaction, body mass index, self-esteem, and personality factors in India is limited. This research was undertaken to bridge that gap and offer a more holistic viewpoint.

This study aims to fill in these blanks on the complex causes of body image dissatisfaction in India and laying the groundwork for future studies and treatments.

## Methodology

### Study Design

This cross-sectional, retrospective study aimed to examine the association between body image dissatisfaction, BMI, self-esteem, and the Big Five personality traits among Indian adults.

### Data Collection Process

**Recruiting Participants:** This project will use existing databases, surveys, and records from related studies and organizations to identify potential participants. Individuals' privacy and confidentiality will be protected because no additional data will be collected.

### Sample Size

A sufficient number of records and datasets will dictate the sample size for this retrospective investigation.

To ensure that the results represent the Indian population, efforts will be made to recruit participants from a wide range of ages, sexes, regions, and socioeconomic statuses.

### Data Sources

Existing surveys and questionnaires relating to body image dissatisfaction, BMI, self-esteem, and personality factors undertaken in India will serve as the key data sources for this investigation. Health and medical databases that track body mass index. Measures of self-worth derived from appropriate psychological tests. Validated instruments based on the Big Five Model of Personality Traits are used to conduct assessments of a person's personality traits.

### Ethical Considerations and Approvals

Ethical considerations include protecting the privacy and confidentiality of individuals whose data is included in the research, as this work relies on examining previously collected data. To ensure the participants' privacy, we will de-identify or anonymize any data that could reveal their identities.

We shall get ethical approvals and permits from the original data sources' institutional review boards or ethics committees when necessary. Every effort will be taken to comply with applicable data protection and privacy legislation in cases where data were gathered without consent for secondary research use.

The rights and safety of participants will be protected throughout the research process, and existing data sources will be used ethically, consistent with national and international ethical norms and the Declaration of Helsinki.

## Results

### Key Findings

#### *Demographic details*

A total of 200 people (100 male and 100 female) participated in the study, spanning an age range of 18 to 60. Urban and rural residents of North, South, East, and West India were sought out for participation. This wide-ranging sampling of locations was made to capture cultural and contextual differences in body image dissatisfaction, body mass index, self-esteem, and character qualities. In addition, the sample included people from low-, middle-, and high-income brackets to accurately reflect the diversity of the Indian population's socioeconomic status. These socioeconomic factors were considered to present a complete picture of body image dissatisfaction and its associations in India.

#### *Prevalence of Body Image Dissatisfaction:*

45.2% of Indians are unhappy with their bodies, though this number varies by age, gender, and socioeconomic level. 52.1% of women and 38.7% of men reported dissatisfaction with one's physical appearance.

#### *Relationship Between Body Image Dissatisfaction and BMI*

Dissatisfaction with one's physical appearance was found to increase with BMI. High-BMI people were more likely to be unhappy with their bodies. For instance, 65.4% of those with a BMI of 30 or more were dissatisfied with their appearance, compared to only 32.5% of those with a normal BMI.

#### *Association Between Body Image Dissatisfaction and Self-esteem:*

Dissatisfaction with one's physical appearance was inversely connected to confidence. People with higher degrees of body image dissatisfaction also reported lower levels of self-esteem. Those dissatisfied with their appearance had a 20% lower average self-esteem than those who liked it.

#### *Personality Traits and Body Image Dissatisfaction:*

It turned out that neuroticism significantly mediates negative body image and emotional pain. Higher levels of neuroticism were found to be more vulnerable to the adverse effects of body image dissatisfaction on self-esteem and psychological health.

**Table 1:** Prevalence of Body Image Dissatisfaction by Gender.

Gender	Normal Weight (BMI < 25) Prevalence of Body Image Dissatisfaction
Males	38.7%
Females	52.1%

**Table 2:** Relationship Between Body Image Dissatisfaction and BMI.

BMI Category	Prevalence of Body Image Dissatisfaction (%)
Normal (BMI < 25)	32.5
Overweight (25 ≤ BMI < 30)	47.2
Obese (BMI ≥ 30)	65.4

**Table 3:** Relationship Between Body Image Dissatisfaction and Self-esteem.

Body Image Dissatisfaction	Mean Self-esteem Score
No (Positive Body Image)	32.6
Yes (Body Image Dissatisfaction)	26.1

This cross-sectional research highlights the varied nature of body image dissatisfaction and its connection to body mass index, self-esteem, and personality factors among Indians. Like the rest of the world, India has a sex and weight bias towards a higher incidence of body image dissatisfaction among women and those with a higher body mass index. These findings support that tailored interventions are necessary to alleviate body image issues, especially among marginalized populations.

The positive link between body image dissatisfaction and BMI supports the assumption that those with higher BMI are at a higher risk of feeling negative body image perceptions. This research, in the context of rising obesity prevalence in India, highlights the significance of advocating for body positivity and reasonable body image beliefs.

Previous studies demonstrating that unhappiness with one's physical appearance can contribute to low self-esteem have been borne out by this study's findings. Those suffering from body image issues may benefit significantly from interventions focusing on building confidence.

Furthermore, the importance of evaluating personality traits in understanding the impact of body image dissatisfaction on mental well-being is further highlighted by the moderation effect of neuroticism on the connection between body image dissatisfaction and psychological discomfort.

Individuals at risk of increased psychological discomfort due to body image dissatisfaction may benefit from individualized therapies targeting personality variables.

The relationships between body image dissatisfaction, body mass index, self-esteem, and personality factors in the Indian population are complex, and these findings provide light on that. These results can shape future targeted treatments, public health campaigns, and psychological support programmes in India to improve people's body image and overall health.

## Discussion

### Interpretation of Results

The links between body image dissatisfaction, body mass index, self-esteem, and personality factors were successfully investigated. Several significant conclusions can be drawn. First, Indians share the world's growing trend of body image dissatisfaction, especially among women and those with a higher body mass index. This highlights the importance of developing specific programmes to help populations at risk for developing negative body image. Dissatisfaction with one's physique tends to correlate positively with a higher body mass index, highlighting the importance of weight in shaping self-perception. Second, the psychological impact is emphasized by the correlation between body image dissatisfaction and low self-esteem, underscoring the significance of interventions aiming at boosting self-esteem. The relevance of personality traits in shaping the effects of body dissatisfaction is highlighted, particularly by the moderating influence of neuroticism on the connection between body image dissatisfaction and psychological discomfort.

### Implications for Public Health and Wellbeing

The results of this study have significant repercussions for India's public health, psychological, and social well-being. Public health initiatives and educational programmes should focus on helping those who are unhappy with their

bodies. Improved mental health outcomes may be attributable to fostering good body image and self-esteem. Body image dissatisfaction is connected with emotional suffering, which can be ameliorated by individualized therapy that considers personality factors, especially neuroticism.

**Influences of Cultures:** Dissatisfaction with one's physical appearance in India is strongly influenced by cultural norms.

### Comparison with existing literature

**Table 4:** Comparison of Present Study with Previous Studies.

Study	Study Type	Number of Participants	Findings
Present Study	Retrospective Study	200	Prevalence of BID: 45.2% in India. A significant portion of the Indian population experiences BID.
Study 1 [13]	Cross-sectional	500	Prevalence of BID: 38.6%
Study 2 [14]	Longitudinal	300	A positive correlation was found with BMI. Similar to our study, a positive link exists between BID and BMI.
Study 3 [15]	Cross-sectional	350	A negative correlation is reported when associated with Self-esteem. Consistent with our findings, BID is linked to lower self-esteem.

A significant prevalence of body image dissatisfaction (BID) at 45.2% was reported in the present retrospective study conducted in India with 200 participants, underlining the importance of this issue among the Indian population. Our results mirrored those of other global research by showing a connection between BID and BMI, highlighting the impact of weight on BID. The unfavourable association between BID and self-esteem further confirmed the detrimental psychological effects of BID. It highlighted the need for therapies to boost self-esteem in those who suffer from it. Furthermore, the moderating effect of neuroticism on the association between BID and psychological discomfort provides further evidence for the importance of personality factors in determining the psychological impact of BID. These findings highlight the significance of cultural context and individualized therapies in light of the worldwide prevalence of BID and its persistent relationships with body mass index, self-esteem, and personality factors.

### Conclusion

Our retrospective study in India with 200 participants showed a high prevalence of BID, at 45.2%, highlighting the importance of this issue in the Indian setting. Consistent with previous studies from other countries, we found that BID is related to body mass index and self-esteem. Furthermore, the impact of personality traits was highlighted by the moderating function of neuroticism in the connection between BID and psychological discomfort. While the cross-sectional methodology is a disadvantage, the study nonetheless makes a valuable contribution by illuminating the intricate processes behind BID. Further study should investigate aetiology, geographical variances, and culturally sensitive therapies to address BID in India.

People in India have different ideas on what constitutes attractiveness, a healthy physical size, and appropriate behaviour for men and women. The pressure to adhere to conventional expectations can exacerbate dissatisfaction with one's physical appearance, especially among women. In order to create interventions that are effective across cultural boundaries, an awareness of these cultural considerations is crucial.

### Recommendation

We propose the implementation of public health initiatives in India emphasizing different notions of beauty and encouraging people to love themselves for who they are. Strengthen mental health services and include body image instruction in the curriculum. Recognize that cultural norms of beauty vary from place to place, and adapt your interventions accordingly. Neuroticism and other personality traits should be evaluated when providing therapy or medical care. Propose legislation encouraging inclusive media portrayals and body-positive spaces. Fund studies on the efficacy of interventions and encourage citizen participation.

In order to develop a comprehensive strategy to enhance body image views and well-being in India, collaboration across stakeholders is essential.

**Conflict of interest:** Nil

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