

# Body Image Perception among Undergraduate Female Medical Students in Mangalore: A Cross Sectional Study

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DOI: <https://doi.org/10.24321/2454.325X.201803>

## Abstract

**Background:** Body image is the dynamic perception of one's body. Body image perception depends on anthropometric and psychological factors. Body dissatisfaction is influenced by the socio-cultural environment and is associated with eating disorders and low self-esteem.

**Objectives:** To study the body image perception among undergraduate female students in a medical college.

**Materials And Methods:** It is a cross-sectional study conducted among 239 undergraduate female medical students. It was conducted during December 2015-January 2016 in one of the medical colleges in Mangalore. A 34 item Body Shape Questionnaire (BSQ) along with the details on socio-demography was collected using a validated questionnaire. The 34-item BSQ measures body image concern through a 6-point Likert-scale. The scores are classified into 4 categories: satisfied (not worried) about body shape (<81), slightly worried (81 - 110), moderately worried (111 - 140), and extremely worried (>140). The data so obtained was entered and analyzed using SPSS version 16.0.

**Results:** Median age of the students was 20 years. 64% of them were in the age group of 20-26 years. 50% of them were from Karnataka. According to the BSQ it was seen that up to 32.6% were dissatisfied with themselves. No association was noted between the body image perception and place of origin or age groups of the subjects. But a significant association was noted between body image perception and subjects avoiding communal changing rooms and self consciousness.

**Conclusion:** With adequate health education people can be made aware that being dissatisfied with their body images could lead to adverse health events like anorexia nervosa and bulimia. A number of potential factors that may help to protect against negative body image or prevent negative body image exist.

**Keywords:** BSQ, Body Image, Medical Students, Mangalore

## Introduction

Body image is the dynamic perception of one's body. It is shaped by perception, emotions and physical appearance. It is not static, but can change in relation to mood, physical

experience and environment.<sup>1</sup> Body image was defined as "a person's perceptions, thoughts, and feelings about his or her body" by Grogan.<sup>5</sup>

It is influenced strongly by self-esteem and self-evaluation,

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**How to cite this article:** Chandana G, Singh RP, Prasanna KS et al. Body Image Perception among Undergraduate Female Medical Students in Mangalore: A Cross Sectional Study. *Int J Preven Curat Comm Med* 2018; 4(1): 9-13.

more so by external evaluation by others.<sup>1</sup> Body image perception depends on anthropometric and psychological factors. It depends on various factors: psychological components and socio-cultural influences such as family, peers, and ethnicity. No less important are the mass media which generate aesthetic ideals influencing the perception of one's image and leading to a tortuous search for the ideal body: this creates real pressure that leads to internalization of a beauty ideal and to an inevitable desire to conform to it.<sup>5</sup>

Body dissatisfaction is also influenced by the socio-cultural environment and is associated with eating disorders and low self-esteem.<sup>2</sup>

As body dissatisfaction is a risk factor for eating disorders, the importance of assessing and reducing this dissatisfaction must be emphasized. Inclusion of strategies that reduce body dissatisfaction and increase body esteem could improve treatment effects. In particular, regular participation in physical activity confers many positive health outcomes in young people, such as reduced risk of coronary heart disease, hypertension, depression and obesity.<sup>5</sup>

Overwhelming prevalence of thin and lean female images and strong and lean male images are common to all westernised societies.<sup>1</sup> Body image concerns have become widespread among adolescents and young adults. Hence this study was conducted with the objective of studying the body image perception among undergraduate female students in a medical college.

## Material & Methods

**Study design:** Cross sectional.

**Study period:** December 2015 to January 2016.

**Study Population:** 239 undergraduate female medical students.

**Place of Study:** One of the private medical colleges in Mangalore.

## Method of data collection

Verbal consent was taken. The female students present

on the day were included in the study. Self administered questionnaire were given. Details on age and place of origin were collected. The Body Shape Questionnaire (BSQ) is a 34-item instrument designed to measure concerns about body shape among young women. The BSQ is based on the notion that disturbance of body image is a central feature of both anorexia nervosa and bulimia. Although a number of assessment procedures have been developed that deal with various aspects of body image, the BSQ is one of the few measures that focus on concerns about body shape. This is especially important because concern about body shape is one of the key dimensions distinguishing the disorder of anorexia. In particular, the BSQ focuses on the phenomenological experience of "feeling fat". The BSQ can be used for both assessment purposes and to evaluate response to treatment. It measures body image concern through a 6-point Likert-scale.<sup>8</sup> For each of the 34 statements, participants respond with the number that reflects their feelings or experiences over the past four weeks (1- Never, 2-Rarely, 3-Sometimes, 4-Often, 5-Very Often, 6- Always). To score the BSQ, one must sum up the individual responses, thus yielding a possible score between 34 and 204. The cut-off points were based on previously published research conducted among university student. Afterwards, the variable was divided into satisfied, for those who scored 34 to 80 points; and dissatisfied for those above an 80 point score, for statistical analysis reasons.

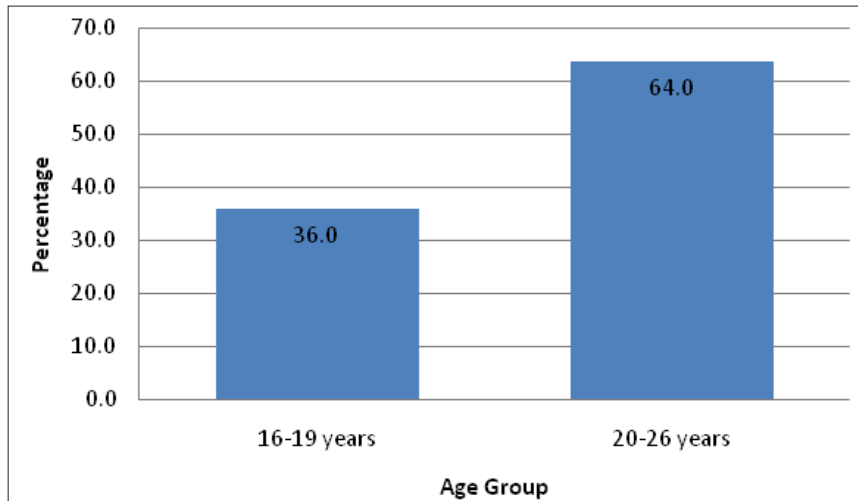
## Scores are classified into 4 categories

- Satisfied (not worried) about body shape (<81)
- Slightly worried (81 - 110)
- Moderately worried (111 - 140)
- Extremely worried (>140)

The data so obtained was analyzed using SPSS version 16.0.

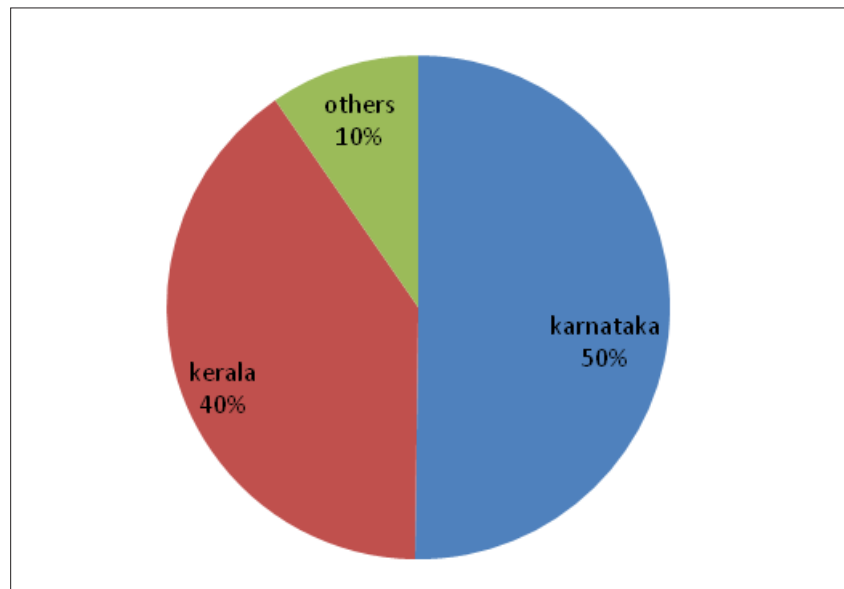
## Results

- The age of the students ranged between 17-26 years with a median age of 20 years.
- 64% of them were in the age group of 20-26 years.



**Figure 1. Age Group Wise Distribution (N=239)**

- There was no significant association between body image perception and the different age groups
- Most of them were from Karnataka itself while 40% of them were from Kerala.
- No association was noted between the place of origin and the body image perception.



**Figure 2. Place of Origin (N=239)**

Based on the Body Shape Questionnaire (BSQ) Table no.1 shows that up to 32.6% were dissatisfied with themselves.

**Table 1. Body Image Perception Based On BSQ (n=239)**

	Number	Percentage (%)
Satisfied	161	67.4
Slightly Worried	46	19.2
Moderately Worried	20	8.4
Extremely Worried	12	5.0

- Figure 3 shows that nearly 10% of the females often took to dieting because of body dissatisfaction while 5.4% of them always dieted.

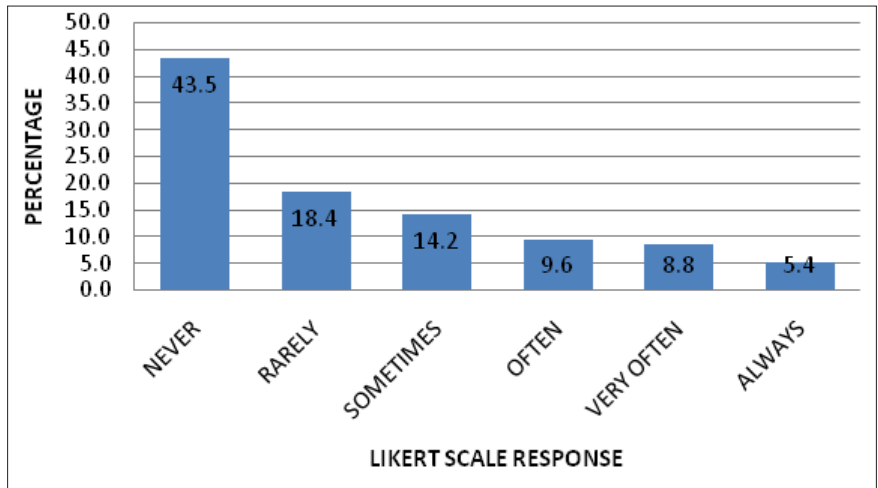


Figure 3. Dieting due to Body Dissatisfaction (N=239)

- Figure 4 shows a graph of how the female students avoided certain situations like changing rooms and communal baths.

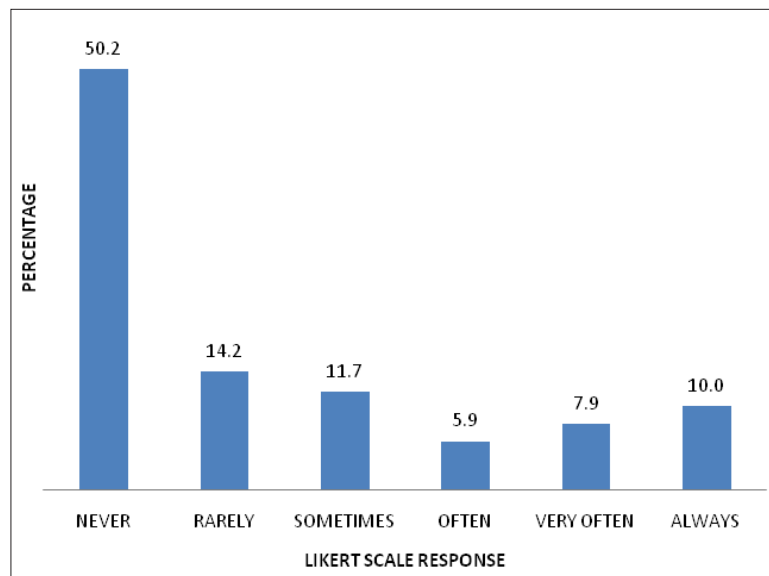


Figure 4. Avoiding Situations such as communal baths and changing rooms (N=239)

- Students who were moderately and extremely worried about body image were more self conscious and were avoiding situations where their body can get exposed and as compared to those who were satisfied or slightly worried. Both these associations were found to be statistically significant ( $p < 0.001$ ).

Table 2. Association of avoiding situations with body image perception (N=239)

	Avoiding Situations	
	Never, Rarely, Sometimes	Often, Very Often, Always
Satisfied, Slightly Worried	168 (81.2%)	39 (18.8%)
Moderately Worried, Extremely Worried	14 (43.8%)	18 (56.2%)

Table 3. Association of Self Consciousness with body image perception (N=239)

	Self Conscious	
	Never, Rarely, Sometimes	Often, Very Often, Always
Satisfied, Slightly Worried	191 (92.3%)	16 (7.7%)
Moderately Worried, Extremely Worried	14 (43.8%)	18 (56.3%)

\*significant association was noted between body image perception and self consciousness

## Discussion & Conclusion

- In our study it was seen that up to 32.6% were dissatisfied with themselves. No association was noted between the body image perception and place of origin or age groups of the subjects. But a significant association was noted between body image perception and subjects avoiding communal changing rooms and self consciousness.
- In one study, majority of the subjects were satisfied with their body shapes (66.4% female). Majority of the students had body shape satisfaction, but male students have higher proportion comparable to female student. While, more female students reported being dissatisfied about their body shape in normal weight status (22.8%) compared to only 8.9% of male students.<sup>3</sup>
- In another study by Goswami, et al nearly, 16 (16.66%), 49 (51.04%), and 31 (32.29%) female students perceived their body image as fair, good and excellent, respectively while overall 13 (13.54%) were dissatisfied with their body image.<sup>4</sup>
- A study in Italy showed females have higher body shape dissatisfaction (33.5%) than males (21.4%). Only 13% of the females were satisfied (FID=0). Most of them (81%) would have liked to be thinner (FID>0).<sup>5</sup>
- Also 50-88% of adolescent girls were not satisfied about their body shape or size in a study in US.<sup>6,7</sup>
- In Brennan's study it was seen that women reported negative body image perceptions during significantly more situations than men on the SIBID-S.<sup>9</sup>
- A study in Udipi showed that the perception of weight problem but not BMI contributed significantly to higher scores on GHQ. There was a significant positive correlation between BSQ scores and BMI, age, and weight.<sup>11</sup>
- Limitations of the study: Body image perception was not correlated with BMI.
- With adequate health education people can be made aware that being dissatisfied with their body images could lead to adverse health events like anorexia nervosa and bulimia. A number of potential factors that may help to protect against negative body image or prevent negative body image. These include maintaining a healthy weight, encouraging close

relationships with others, improving well-being, and reducing any tendency to compare yourself to others. Research indicates that exercise-based interventions and psychotherapeutic interventions are effective at improving body image.<sup>10</sup>

**Conflict of Interest:** None

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Date of Submission: 2018-02-21

Date of Acceptance: 2018-02-26