

## Body Image and Eating Behavior among Medical Students: Eating Disorders among Medical Students

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weight and height was used as anthropometric indicator and ranked based on the World Health Organization criteria [14].

### Introduction

The incidence of problems related to body image distortion and eating disorders (ED) has increased in modern society due to the spread of Westernized body image standards that promote a lean body culture [1,2]. ED are defined as deviations of eating behavior, including anorexia and bulimia nervosa and other non-specific ED, which can lead to serious medical and psychiatric consequences, and even death [3,4]. The prevalence of these disorders can be significantly modified by age, sex and daily or professional activities [3]. It is important to deepen understanding of behaviors and problems related to body image distortion and its interfaces with ED at risk groups, among which studies highlight young females such as university students, especially from the health courses [5].

There are reports of eating risk behavior in university students from health courses of several countries, even in Eastern cultures [2,6-8]. In Brazil, a multicenter study in its five regions indicated that eating risk behavior ranged from 23.7% to 30.1% among university students [9]. Although medical students have access to biomedical knowledge and have a huge responsibility in ED diagnose and treatment, when they are suffering from ED they tend to delay seeking help and treatment for fear of being stigmatized or questioned about their suitability for the medical practice [10].

In this context, the present study aims to analyze the prevalence of abnormal eating behaviors associated with ED, as well as body composition and body image satisfaction among female medical students in a public university located in the Northeast of Brazil.

### Methods

This was a cross-sectional study with a random and representative sample of female students from first to last (12<sup>th</sup>) semester of medical school at a public university in the city of Fortaleza, Ceará, Brazil. Three widely used instruments in screening and ED detection and body image distortions were applied: the Body Shape Questionnaire (BSQ), which measures the degree of concern with body shape and self-deprecation related to physical appearance and feeling fat [11]; the Eating Attitudes Test (EAT-26), used to assess and identify abnormal restrictive eating patterns, characteristic of anorexia nervosa [12]; and the Bulimic Investigatory Test Edinburgh (BITE), to evaluate the presence and severity of behaviors and symptoms to bulimia nervosa [13]. The Body Mass Index (BMI), calculated from self-reported body

### Results

As the result final sample consisted of 202 female medical students with a mean (SD) age of 21.8 (2.8) years and BMI of 22.2 (3.3) kg/m<sup>2</sup>. Although 78.7% of the students presented eutrophic BMI, 66.5% of them indicated a desire to lose weight (22% wish to lose up to 2 kg and 44.5% want to lose more than 2 kg). The mean (SD) difference between the actual weight and the desired weight reported by the students was -3.3 (-6.1) kg.

The prevalence of body image dissatisfaction, inadequate feeding practices and the severity of ED symptoms among female medical students were presented in Table 1. In addition, when complementarily using the EAT26 and BITE classifications, it was a statistically significant ( $p < 0.001$ ) Spearman rank correlation coefficient of 0.48.

Scale (points)	Percentage%	IC 95%	
<b>BSQ severe dissatisfaction</b>			
(≥ 140 points)	6.9	3.4	10.4
<b>BSQ moderate dissatisfaction</b>			
(≥ 111 e<140 points)	13.3	8.6	18.1
<b>EAT positive</b>			
(≥ 21 points)	9.9	5.7	14.0
<b>Bite-presence of symptoms</b>			
High (≥ 20 points)	4.9	1.9	7.9
Moderate (≥ 10 e≤19 points)	33.6	27.0	40.2
<b>Bite- symptoms gravity</b>			
Grave (≥ 10 points)	1.5	0.0	3.1
Moderate (≥ 5 e≤ 9 points)	10.4	6.1	14.6
Abnormal or risk behavior - EAT/ BITE	11.9	7.3	16.3

**Table 1:** Prevalence of body image dissatisfaction, inadequate eating practices and the severity of the symptoms among female medical students.

## Discussion

This is one of the few Brazilian studies with medical students that combine epidemiological screening tools for ED with body image satisfaction and body composition. Results indicated a high prevalence of risk behaviors for ED and body image dissatisfaction within female medical students while the vast majority of them presented normal BMI standards. Statistically significant associations between BMI, the desire to lose weight and abnormal signs of eating behavior can be possible predictors of the risk of developing ED. More studies are needed to understand these and other associations and intervening factors in the adoption of eating risk behaviors in Brazilian populations, making it possible to understand ED etiology and to develop actions to minimize suffering related to them.

## Conclusion

The medical degree does not seem to be contributing to protect these future health professionals from the risk of ED. Rather, although difficult to establish a direct comparison because of different etiology and methods among studies, it seems that the health courses accentuate these risks and/or that the chosen course reflects a previous interest and concern of people with trends to these conditions. These assumptions need to be researched in the future but, in any case, it is necessary to review the professional medical training, taking into account that they can be often "wounded healers" [15] that need attention and spaces for reflection and in-depth discussion regarding the preponderance of aesthetic values over those related to health.

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