



Shaping Wellness: College Students' Views on Body Image, Fitness, and Eating – A Cross-Sectional Study Among Dental Students in Chennai

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ABSTRACT

Background: Self-perception of body weight, physical fitness, and body image significantly influence eating behaviors among college students. Negative body image often leads to unhealthy behaviors such as restrictive dieting and emotional eating, which can adversely affect mental and physical health.

Objective: To explore the relationship between self-perception of body weight and physical fitness, body image, and eating behaviors among dental students.

Methods: A descriptive study was conducted from August to November 2024 with 102 dental students. Data were collected using the Three-Factor Eating Questionnaire (TFEQ) via Google Forms, and analyzed using IBM SPSS Statistics.

Results: A significant proportion of students misperceived their body weight, which correlated with unhealthy eating patterns. Emotional eating was common, and portion control was practiced by many.

Conclusion: Addressing body image issues and promoting healthy eating behaviors are crucial for improving mental and physical well-being among college students.

Keywords: Body image, Emotional Eating, Self-Regulation, Portion Control, Social Influences, Hunger Management, misperception.

INTRODUCTION

Self-perception of body weight and physical fitness plays a significant role in shaping an individual's body image, which refers to how they view and feel about their physical appearance.¹ A negative body image, often driven by societal expectations, can lead to harmful behaviors such as restrictive dieting, binge eating, and excessive exercise, which may have lasting effects on both mental and physical health. These behaviors are linked to an increased risk of developing eating disorders, anxiety, depression, and other mental health issues.² College students, in particular, are at a crucial stage in their lives where habits related to nutrition, exercise, and self-care are established, making it important to understand how they perceive their body weight and fitness, and how these perceptions impact their body image and eating behaviors.³ Addressing these issues can help foster healthier attitudes toward body image, improve eating habits, and promote overall well-being.⁴ Research has shown that body weight misperception is common, especially among female students, often leading to unhealthy eating patterns and weight management practices. Those who view themselves as overweight are more likely to engage in maladaptive eating behaviors, further exacerbating mental health concerns such as anxiety and depression.⁵ Body image dissatisfaction is also closely linked to these unhealthy eating behaviors, particularly among students in sports, where dissatisfaction with appearance is widespread. On

the other hand, a positive body image is associated with healthier eating habits, indicating that improving body image could enhance overall well-being. Social influences, including family and media, significantly affect body image perceptions and eating behaviors among students, with gender differences also playing a role. Women, in particular, are more likely to report dissatisfaction with their body image, even though they may engage in healthier eating practices.⁶ This study aims to explore the relationship between self-perception of body weight and physical fitness, body image, and eating behaviors among college students.

MATERIALS AND METHODS

Study Design:

This study utilized a descriptive design to evaluate college students' self-perception of body weight, physical fitness, body image, and eating behaviors. The research was conducted over a three-month period, from August to November 2024, which included data collection, statistical analysis, and report preparation. The study focused on dental students from a private dental college. The research was conducted at a private dental college. Ethical approval for the study was obtained from the Department of Public Health Dentistry, with clearance granted by the Institutional Review Board. A total of 102 students were randomly selected to participate in the study. Demographic information, such as age, gender, and academic year, was



recorded for each participant. The study used a structured Three-Factor Eating Questionnaire (TFEQ) consisting of 18 questions, which were administered through Google Forms. Informed consent was obtained from participants to ensure confidentiality and privacy, and they were briefed on the questions to encourage accurate and thoughtful responses.

Data was collected via Google Forms, and participants were provided with detailed instructions to ensure clarity in their responses. Informed consent was obtained from all participants, and confidentiality was assured. The collected data was organized in an Excel spreadsheet and analyzed using IBM SPSS Statistics for Windows, Version 26.0.

Table 1: Questions

Questions	Options	Frequency	Percentage
1) When I smell delicious food I find it very difficult to keep from eating even if I have just finished a meal.	Definitely True	9	9.9
	Definitely False	12	13.2
	Mostly True	41	45.1
	Mostly False	29	31.9
2) I deliberately take small helpings as a mean of controlling my weight.	Definitely True	3	3.3
	Definitely False	13	14.3
	Mostly True	55	60.4
	Mostly False	20	22.0
3) When I feel anxious I find myself eating.	Definitely True	9	9.9
	Definitely False	32	35.2
	Mostly True	33	36.3
	Mostly False	17	18.7
4) Sometimes when I start eating I can't seem to stop.	Definitely True	4	4.4
	Definitely False	39	42.9
	Mostly True	17	18.7
	Mostly False	3	34.1
5) Being with someone who is eating often makes me hungry enough to eat also.	Definitely True	9	9.9
	Definitely False	21	23.1
	Mostly True	32	35.2
	Mostly False	29	31.9
6) When I feel blue, I often overeat.	Definitely True	3	3.3
	Definitely False	21	23.1
	Mostly True	28	30.8
	Mostly False	39	42.9
7) When I see a real delicacy I often get so hungry that I have to eat right away.	Definitely True	6	6.6
	Definitely False	12	13.2
	Mostly True	55	60.4
	Mostly False	18	19.8
8. I get so hungry that my stomach often seems like a bottomless pit.	Definitely True	4	4.4
	Definitely False	20	22.0
	Mostly True	31	34.1
	Mostly False	36	39.6
9. I am always hungry so it is hard for me to stop eating before I finish the food.	Definitely True	1	1.1
	Definitely False	28	30.8
	Mostly True	21	23.1
	Mostly False	41	45.1
10. When I feel lonely I console myself by eating.	Definitely True	11	12.1
	Definitely False	18	19.8
	Mostly True	33	38.5
	Mostly False	26	29.7
11. I consciously hold back at meals in order not to weight gain.	Definitely True	8	8.8
	Definitely False	24	26.4

	Mostly True	33	36.3
	Mostly False	26	28.6
12. I do not eat some foods because they make me fat.	Definitely True	8	8.8
	Definitely False	24	26.4
	Mostly True	31	
	Mostly False	28	30.8
13. I am always hungry enough to eat at any time.	Definitely True	3	3.3
	Definitely False	24	26.4
	Mostly True	27	29.7
	Mostly False	37	40.7
14. How often do you feel hungry?	Almost always	1	1.1
	Definitely True	2	2.2
	Definitely False	1	1.1
	Mostly True	13	14.3
15. How frequently do you avoid “stocking up” on tempting foods.	Almost likely	7	7.7
	Almost never	10	11.0
	Definitely True	2	2.2
	Definitely False	1	1.1
	Moderately likely	32	35.2
	Mostly True	14	15.4
	Mostly False	7	7.7
	Seldom	18	19.8
16. How likely are you to consciously eat less than you wanted?	Definitely False	3	3.3
	Moderately likely	21	23.1
	Mostly True	13	14.3
	Mostly False	8	8.8
	Slightly likely	27	29.7
	Unlikely	14	15.4
	Very likely	5	5.5
17. Do you go eating binges though you are not hungry?	At least once a week	2	2.2
	Definitely True	2	2.2
	Definitely False	3	3.3
	Mostly True	13	14.3
	Mostly False	6	6.6
	Never	17	18.7
	Rarely	26	28.
	Sometimes	22	24.2
	Mostly False	8	8.8
	Often between meals	12	13.2
	Only at meal times	13	14.3
	Sometimes between meals	41	45.1
18. On a scale 1-8, where 1 means no restraint in eating (eating whatever you want, whenever you want it) and 8 means total restraint (constantly limiting food intake and never “giving in”), what number would you give yourself?	1.0	15	16.5
	2.0	5	5.5
	3.0	6	6.6
	4.0	16	17.6
	5.0	21	23.1
	6.0	20	22.0
	7.0	4	4.4
	8.0	4	4.4

RESULTS

A total of 102 students participated in the study examining self-perception of body weight, physical fitness, body image, and eating behavior among college students. The participants had a mean age of 21 years, with an age range of 18 to 24 years. Gender distribution showed that 80.4% of the participants were females, while 19.6% were males. In terms of their year of study, 54.9% were first-year students, 23.5% were in their fourth year, 11.8% were interns, and 9.8% were third-year students. The study revealed diverse eating behaviors among participants, reflecting varying levels of self-regulation and emotional influences. A significant portion (45.1%) found it challenging to resist eating when exposed to the smell of delicious food, indicating impulsive eating tendencies driven by sensory cues, while 60.4% deliberately practiced portion control to manage weight, though 14.3% did not adopt such measures. Emotional eating was notable, with 36.3% admitting to eating when anxious and 38.5% using food for comfort when lonely, though many reported not engaging in such behaviors. Social influences also played a role, as 35.2% felt hungry around others eating, though 23.1% remained unaffected. The majority (42.9%) did not overeat when feeling sad, suggesting that emotional eating was not a prevalent coping strategy for many. Hunger levels varied, with 34.1% experiencing frequent hunger and 39.6% reporting better control, while 45.1% indicated they could stop eating before finishing their food. Additionally, 36.3% consciously held back at meals to prevent weight gain, showing an active approach to weight management, while others were less concerned. Regarding food choices, 31% avoided certain foods for fear of weight gain, indicating some awareness of dietary impacts, though many were less mindful. Hunger between meals was common (45.1%), but only a minority felt constant hunger. When avoiding tempting foods, 35.2% were moderately likely to do so, though strong resistance was rare. Self-control in eating less than desired varied, with 29.7% slightly likely to do so, and binge eating was reported as rare by 28%, though occasional by some. Restraint levels in eating were widely distributed, with moderate restraint most common.

DISCUSSION

The results of our study reveal a complex interplay between self-regulation, emotional influences, and external cues in shaping eating behaviours. These findings highlighted individual differences in eating habits, the role of emotional and social factors, and the extent of self-regulation among participants. One of the most prominent findings is the tendency for students to respond to food-related sensory stimuli, particularly smells and visual cues. With 45.1% of participants reporting difficulty resisting delicious food even after a meal, it is clear that sensory cues play a significant role in driving impulsive eating. This aligns with previous research suggesting that environmental cues such as food odors can trigger overeating, even in the absence of physical hunger.⁷ In Cid, Juan & Ramírez's study, 41.14% of participants were classified as overweight or obese, and

among those who perceived themselves as overweight, 76.92% were female. This aligns with our results, where a significant portion of students reported body dissatisfaction, influencing their eating behaviors, such as engaging in restrictive eating or conscious portion control. The study also highlighted that more than 70% of participants reported average or good physical fitness, with more boys reporting excellent fitness levels.⁸ This is consistent with our finding that a majority of students have some awareness of their physical fitness. In the study by Ballarin G et al., 27.5% of adolescents were overweight, and 32.5% were obese. A striking 89.7% of those with obesity did not perceive their weight status correctly, and 84.6% were dissatisfied with their body image. This mirrors our results, where many students misperceive their body weight, particularly those who perceive themselves as overweight.⁹ This misperception is closely linked to body image dissatisfaction, as well as unhealthy eating behaviors like restrictive dieting or emotional eating. Furthermore, body image dissatisfaction was associated with a lower self-perception of physical appearance and overall fitness, which aligns with our finding that body dissatisfaction often correlates with poor eating habits and emotional eating. Mallaram, G.K., et al. found a significant correlation between eating disorder behaviors and body shape perception, quality of life, and self-esteem, which is consistent with our results showing that body image dissatisfaction and unhealthy eating behaviors are prevalent among students. In our study, a noticeable portion of students admitted to emotional eating triggered by stress or anxiety, which can be linked to the psychological and emotional factors impacting their eating habits. Similarly, eating disorder behaviors in our study were associated with BMI and self-perception, further supporting Mallaram's findings.¹⁰ Sharma, M et al. highlighted the role of media in promoting unrealistic body image ideals and the importance of institutional efforts to encourage healthier body image perceptions and eating behaviors.¹¹ Our results resonate with this, as many students expressed dissatisfaction with their body image and exhibited unhealthy eating behaviors, such as emotional or social eating, influenced by external factors like media portrayals and societal norms. This indicates the need for educational programs that can help reshape body image perceptions and encourage healthier eating habits among students. The study by Niswah I et al. found that a majority of overweight or obese adolescents correctly perceived their weight status, and body image dissatisfaction was associated with reduced consumption of unhealthy snacks and higher engagement in physical activity. This contrasts with our findings, where while many students engaged in portion control, emotional eating remained a significant issue, especially among those dissatisfied with their body image. However, similar to Niswah I et al.'s findings, a positive body image in our study was linked to healthier eating behaviors, indicating the potential benefits of improving body image for fostering better dietary habits.¹² Lastly, Kapoor et al.'s study found that a significant portion (30.6%) of participants had body



shape concerns, and 76.7% experienced body image dissatisfaction. This was associated with a high risk for eating disorders and low self-esteem, which is consistent with our results.¹³ For future improvements, strategies could include promoting emotional resilience and healthy coping mechanisms for stress and loneliness, encouraging mindful eating practices to enhance portion control, and addressing social pressures that influence eating habits. Educational programs focusing on nutrition, portion size awareness, and emotional well-being could be effective in fostering a more balanced approach to eating, ultimately leading to better self-regulation and healthier lifestyle choices among students.

CONCLUSION

In conclusion, this study emphasizes the strong connection between self-perception of body weight, physical fitness, body image, and eating behaviors among college students. Our findings show that body image dissatisfaction, particularly among female students, leads to unhealthy eating behaviors such as restrictive dieting and emotional eating. Misperception of body weight is common, contributing to negative body image and poor eating habits. These results highlight the need for interventions to improve body image and promote healthier eating habits. Educational programs and institutional support can help address these issues, fostering better mental and physical health outcomes among students.

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