

# Innovations

## Exploring Eating Behavior and Contributing Factors among Undergraduate Students at a Private University in South Gujarat

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### Abstract

**Context:** The study explores the present conditions of disordered eating behaviours and contributing factors among University students, especially behaviors that can cause serious physical, emotional, and mental health issues, such as eating disorders like anorexia nervosa, bulimia nervosa, and binge eating disorder. It aimed to explore disordered eating behaviours among students and identify the contributing factors.

**Setting and Design:** Data were collected from individuals across various colleges using descriptive analysis and a stratified random sampling, with a sample size of 351. Data collection methods included questionnaires which were employed to analyze the data.

**Results:** The findings indicate diverse attitudes towards exercising for calorie burning. While 17.1% of respondents always focus on burning calories during exercise, 16.0% usually think about it, and 24.5% sometimes do, showing a moderate concern for calorie expenditure. A smaller portion, 11.7%, rarely considers calorie burning, possibly due to an awareness of disordered eating behaviors, while 16.0% never engage in this behavior, suggesting they are not focused on calorie-related exercise motives. Furthermore, the data shows that 76.1% of respondents reported never making themselves vomit to control their weight, implying that extreme measures for weight control, such as purging, are uncommon among them. This suggests that the majority are more likely to focus on body-building or healthier weight control practices instead of engaging in harmful behaviors. **Conclusion:** The study at University reveals that while disordered eating behaviors (DEBs) are present among students, extreme practices like purging are uncommon. A notable portion (17.1%) consistently focuses on burning calories during exercise, with 24.5% showing moderate concern, while a

*smaller group demonstrates less focus, possibly due to awareness of DEB risks. Most students (76.1%) do not engage in extreme weight control methods like vomiting, indicating a preference for healthier or body-building practices. However, the presence of DEBs emphasizes the need for increased awareness and interventions to prevent more serious health issues.*

**Keywords:** *Eating disorders, Risk factors, Prevalence, Body image, anorexia, bulimia, binge*

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## **Introduction**

Disordered eating behaviours (DEBs) refer to a range of irregular eating patterns that deviate from healthy dietary practices. These behaviours include excessive dieting, compulsive overeating, self-induced vomiting, and an intense preoccupation with body weight and shape. While not all DEBs meet the clinical criteria for an eating disorder, they can serve as early indicators of more severe conditions, such as anorexia nervosa, bulimia nervosa, and binge eating disorder (American Psychiatric Association, 2013). The consequences of DEBs extend beyond physical health, often leading to severe emotional and psychological distress, including anxiety, depression, and low self-esteem.

University students, particularly those attending private institutions, may be especially vulnerable to developing DEBs due to the unique challenges they face. The transition to university life often entails increased academic pressure, greater personal responsibility, and heightened exposure to social comparisons. Many students experience stress related to academic performance, peer influence, and societal beauty standards, all of which can contribute to unhealthy eating habits (Eisenberg, Nicklett, Roeder, & Kirz, 2019). Additionally, the newfound independence in managing one's diet and lifestyle may lead to irregular eating patterns or the adoption of extreme dietary practices in an attempt to maintain a desired body image.

The Eating Attitudes Test (EAT-26) was originally developed by Garner and Garfinkel in 1979 as a standardized tool for identifying symptoms and concerns associated with eating disorders (Garner, Olmsted, Bohr, & Garfinkel, 1982). It is a self-report questionnaire designed to assess attitudes, thoughts, and behaviours related to eating and body image. The test consists of 26 items, with responses scored to determine an individual's risk of engaging in disordered eating. Individuals who score above a certain threshold are considered at increased risk and may benefit from further assessment by a healthcare professional.

The EAT-26 has been extensively validated across diverse populations, including clinical and non-clinical groups, making it a widely accepted screening instrument in the field of eating disorder research. It has been used in various cultural and demographic contexts, providing reliable insights into the prevalence and severity of disordered eating behaviours among different populations (Garner et al., 1982). Its application in university settings has proven particularly useful in identifying at-risk individuals who may not otherwise seek help for their eating-related concerns.

Understanding the prevalence of DEBs among university students is crucial for developing targeted interventions. Research indicates that these behaviours are closely linked to several psychological factors, including body dissatisfaction, low self-esteem, anxiety, and depression (Smith, Joiner, & Dodd, 2022). Many students struggle with negative body image, which can be exacerbated by societal pressures to conform to idealized body standards. The psychological distress associated with these perceptions often manifests in maladaptive eating patterns.

Beyond individual psychological factors, environmental influences also play a significant role in the development of DEBs. Peer attitudes, social media, and the broader university environment contribute to the normalization of extreme dieting, excessive exercise, and other disordered eating habits. Media portrayals of unrealistic body ideals further reinforce these behaviours, particularly among young adults who are highly susceptible to social comparison (Johnson & Wardle, 2018).

Despite the extensive research on DEBs in Western contexts, there is a notable lack of studies examining their prevalence among private university students in India. Cultural and socioeconomic factors may shape students' attitudes toward food, body image, and eating behaviours in ways that differ from other populations. For instance, cultural norms regarding body weight and appearance, dietary traditions, and academic stressors unique to the Indian education system may influence the development of DEBs in distinct ways.

This study aims to bridge this research gap by investigating the prevalence of DEBs among students using the EAT-26. By identifying key factors contributing to these behaviours, the findings will provide valuable insights into the specific challenges faced by private university students in India. The study will also contribute to the broader discourse on eating behaviours in university settings, informing future policies and interventions to promote healthier attitudes toward food and body image.

## Literature Review

Research on the prevalence of disordered eating behaviours (DEBs) among university students and the factors contributing to their development has grown significantly over the past few decades. This increasing body of research reflects a broader understanding of the importance of addressing DEBs within this population. The transition to university life is a critical period marked by significant lifestyle changes, increased academic pressures, and shifts in social dynamics. These factors collectively contribute to heightened vulnerability to disordered eating behaviours among students (Grabe, Ward, & Hyde, 2017).

Numerous studies employing the Eating Attitudes Test (EAT-26) have consistently reported high rates of DEBs among university students worldwide. For example, Eisenberg et al. (2019) conducted a large-scale study in the United States and found that approximately 20% of university students exhibited symptoms indicative of eating disorders. The study highlighted that female students, in particular, had a higher prevalence of DEBs, often driven by body dissatisfaction, stress, and inadequate social support systems.

Similar findings have been reported in other regions. A study conducted in Malaysia using the EAT-26 revealed that 23.5% of university students exhibited DEBs, with significant associations between disordered eating and factors such as body image dissatisfaction, perfectionism, and perceived social pressure (Gan, Nasir, Zalilah, & Hazizi, 2020). These findings suggest that DEBs are not limited to a specific cultural context but are widespread issues affecting university students across diverse geographical settings.

Although research on DEBs among Indian university students is relatively limited compared to Western countries, existing studies indicate a growing concern. Chatterjee and Hadi (2018) conducted a study using the EAT-26 among university students in India and found that 26.8% exhibited DEBs. Their study emphasized the significant role of body dissatisfaction, media influence, and peer pressure in the development of these behaviours. The researchers called for culturally tailored intervention programs to address the specific challenges faced by Indian university students.

Despite these findings, there is a significant gap in research focusing specifically on private university students in India. The distinction between public and private university students is important, as private institutions often attract individuals from varying socioeconomic backgrounds who may experience unique stressors. For instance, private university students may be subjected to different social and

financial pressures compared to their counterparts in public universities, potentially influencing the prevalence and nature of DEBs (Pike & Dunne, 2015).

One key factor that may contribute to DEBs among private university students is the socioeconomic pressure they face. Students from wealthier backgrounds attending private institutions may be more exposed to societal norms that emphasize physical appearance, leading to increased body dissatisfaction and a greater likelihood of adopting disordered eating patterns (Grabe, Ward, & Hyde, 2008). The pervasive influence of social media in affluent circles further exacerbates this issue, as students may compare themselves to idealized body images promoted online.

Conversely, students from less affluent backgrounds who attend private universities may experience financial strain, as they navigate the costs associated with tuition, accommodation, and daily expenses. Financial stress has been linked to increased anxiety and depression, which, in turn, can contribute to the development of unhealthy coping mechanisms, including disordered eating behaviours (Pike & Dunne, 2015). These students may also feel the pressure to maintain a certain social status within the university environment, further exacerbating their risk for DEBs.

Given the distinct challenges faced by private university students, it is crucial to investigate the prevalence and contributing factors of DEBs within this demographic. This study aims to bridge the existing research gap by examining the prevalence of DEBs among students using the EAT-26. Additionally, it seeks to identify the key psychological, social, and economic factors influencing disordered eating patterns within this specific population.

By addressing this gap, the study will contribute to a more comprehensive understanding of how university environments, socioeconomic backgrounds, and cultural influences interact to shape eating behaviours among students. The findings will provide valuable insights that can inform the development of targeted interventions and support programs aimed at promoting healthy eating attitudes and overall well-being among private university students in India.

## **Methodology**

**Study Design:** A cross-sectional study using a quantitative data collection method will be conducted to explore the prevalence and contributing factors of disordered eating behaviors among students.

**Study setting:** The study conducted at a private university located in South Gujarat, India.

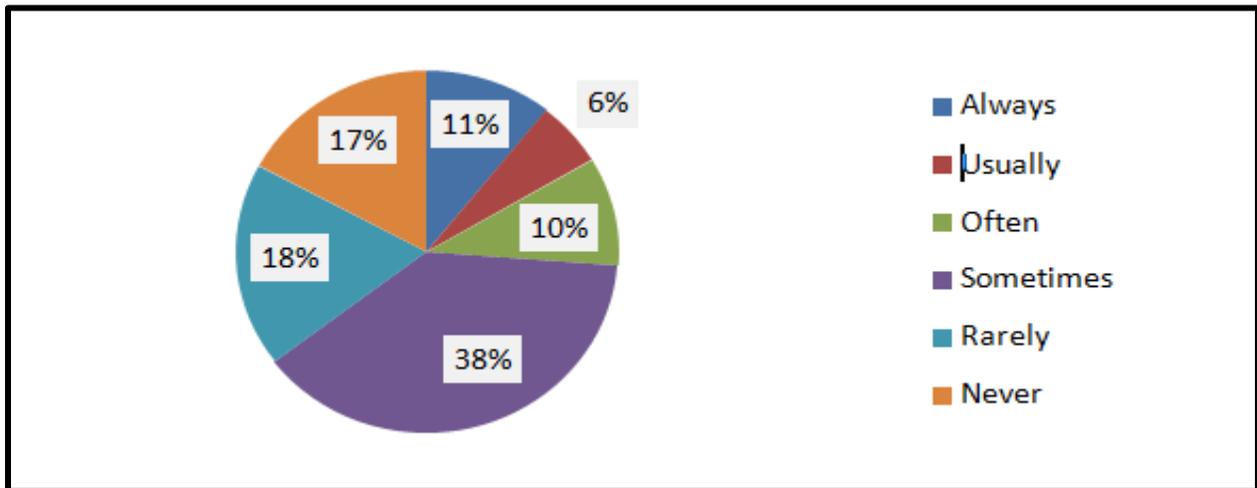
**Sample size calculation:** This workflow illustrates how to conduct a cross-sectional study using a dataset of 351 participants. It covers data collection, cleaning, coding, exporting, and a brief introduction to data analysis using SPSS.

**Sampling Method:** Stratified random sampling the criteria for stratification to guarantee a varied representation of the student body, the sample will be split into strata according to important demographic traits. Among the factors for classification will be: Male or female gender, academic year (first year, second year, third year, and final year) and faculty members as followed (SLM, SOP, SON, SOE, SOH, SOS, SOPH, and SOA). The process of stratification guarantees that the various subgroups within the population are fairly represented. Each stratum's random selection process lowers sampling bias and enhances the results' generalizability. Procedure for Using Stratified Random Sampling: Based on factors like gender, academic year, and faculty, divides the student body into strata. Calculate the share of students in each stratum in relation to the overall population. Participants from each stratum should be chosen at random in proportion to the size of the stratum.

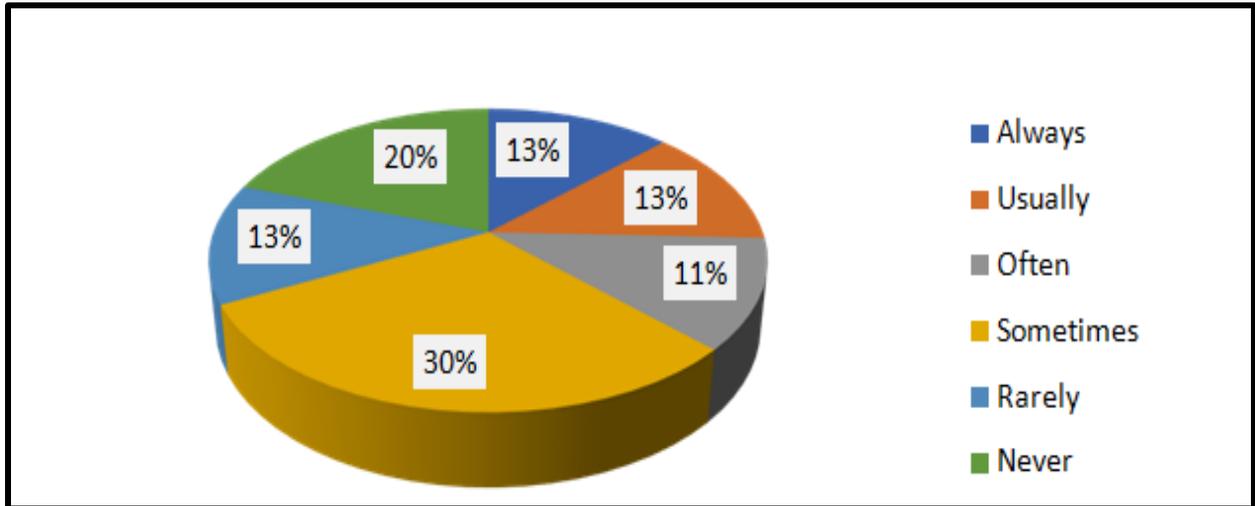
**Data collection tool and method:** The questionnaire examines three primary aspects of eating disorders: dieting, food preoccupation, and oral control, using the EAT-26, a widely recognized screening tool. The EAT-26 comprises 26 questions scored on a scale, with a total score of 20 or more indicating a high risk for eating disorders. It also identifies five key symptoms predictive of eating disorder risk. In addition to this, the Perceived Stress Scale (PSS) measures the frequency of situations where individuals feel helpless, with scores categorized into high, moderate, and low stress. Lastly, the Body Shape Questionnaire (BSQ-34) assesses body dissatisfaction, with higher scores reflecting greater discomfort and concern about body shape.

**Data Analysis:** Data will be collected using Google form, sent to excel for cleaning and coding. It covers data collection, cleaning, coding, exporting, and a brief introduction to data analysis using SPSS software. Descriptive statistics will be used to determine the prevalence of DEBs.

## Results



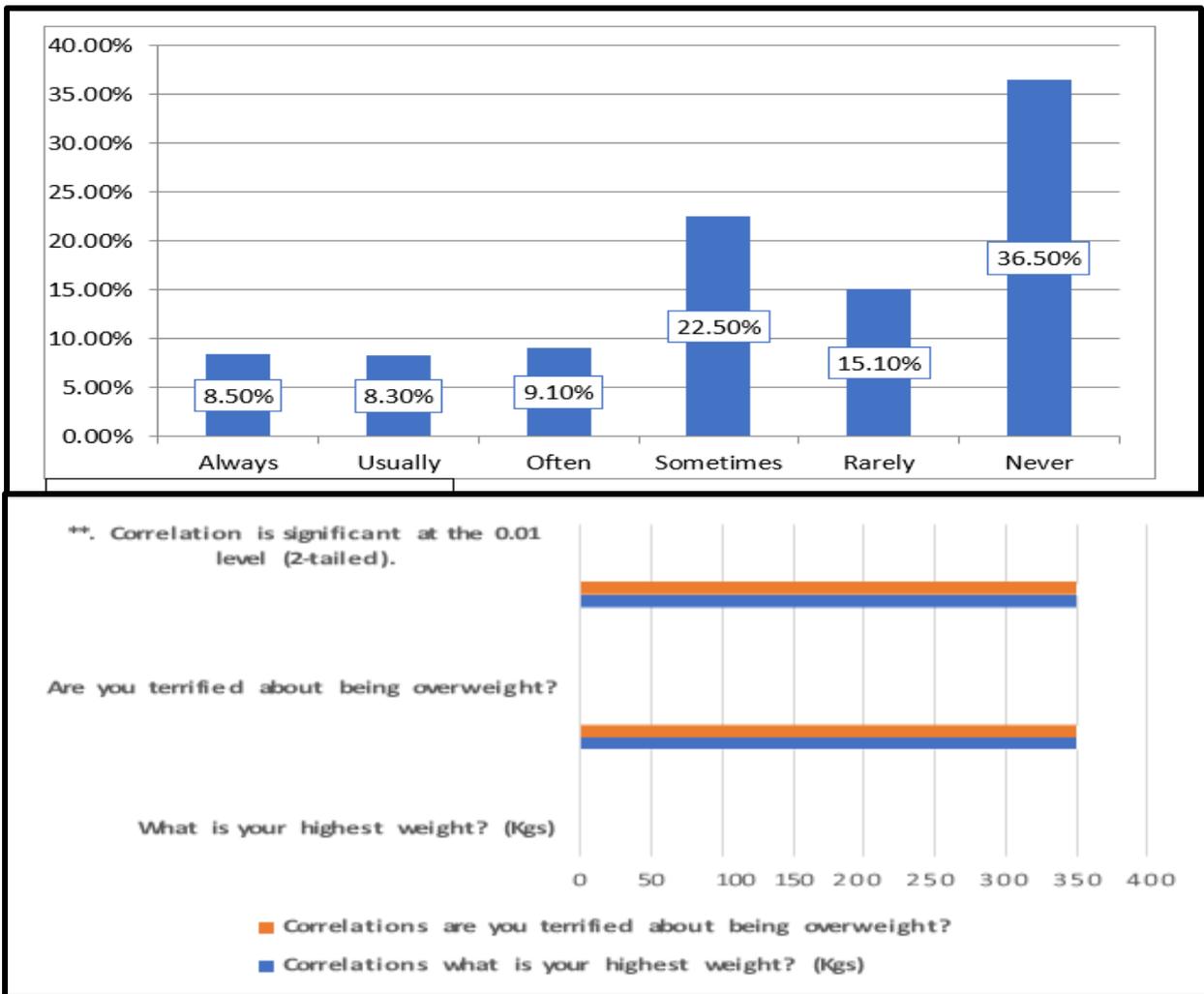
The data from a study of 351 participants shows the distribution of responses regarding a particular behavior. The majority (35.9%) reported they "sometimes" engage in the behavior, making it the second-largest category, while 16.0% said they "never" exhibit the behavior. Smaller percentages fall into other categories: 10.0% "always," 5.4% "usually," 9.1% "often," and 17.1% "rarely" engage in the behavior. This suggests that most participants either sometimes or never show the



behavior, with fewer respondents consistently exhibiting it. In all categories, more females than males report feeling that food controls their life, whether frequently ("always," "usually") or not at all ("never"). Females tend to express stronger feelings about food's influence on their life, both positively and negatively, compared to males.

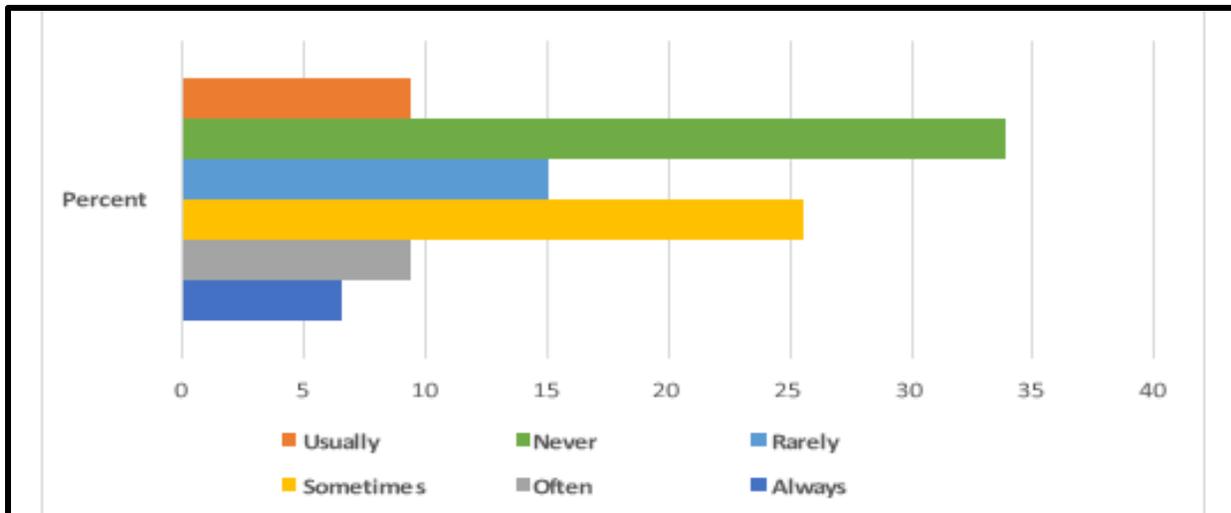
The Figure presents data from a study showing the frequency distribution of responses among 351 participants. **Always:** 45 respondents (12.8%) reported they "always" exhibit the behaviour or give the particular response. **Usually:** 45 respondents (12.8%) "Usually" show the behaviour or response. **Often:** 41 respondents (11.7%) "Often" engage in the behaviour or response. **Sometimes:** 106 respondents (30.2%) "Sometimes" show the behaviour or give the response. **Rarely:** 45 respondents (12.8%) "Rarely" exhibit the behaviour or response. **Never:** 69 respondents (19.7%) reported they "never" exhibit the behaviour or give the response, making it the second largest category.

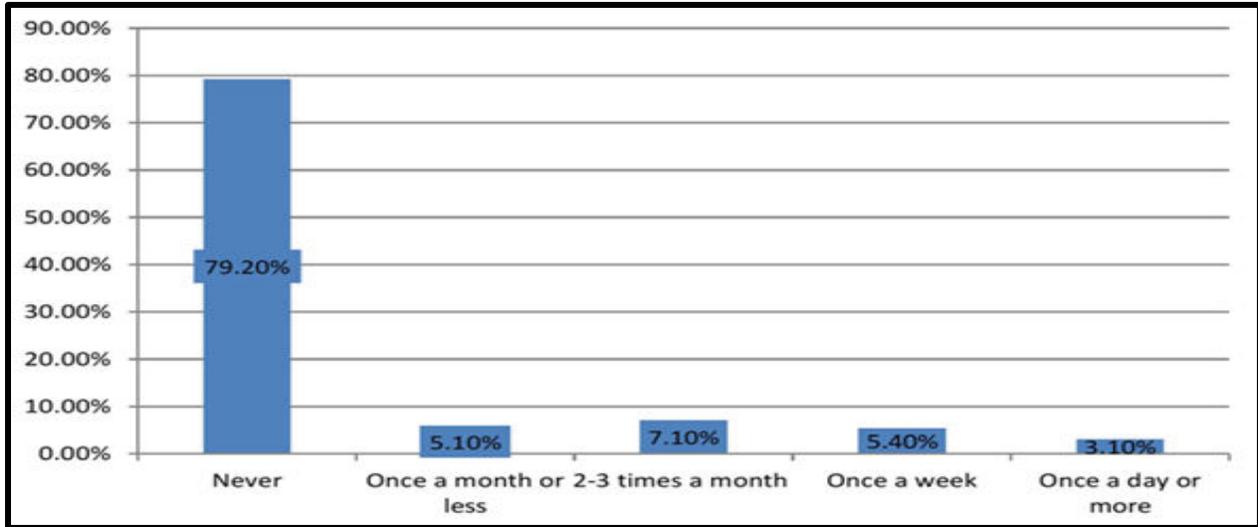
The correlation coefficient of -0.263 indicates a weak to moderate negative relationship between the highest weight and the fear of being overweight. As weight increases, the likelihood or intensity of being terrified about being overweight decreases. The significance value of 0.000 confirms that this relationship is statistically significant at the 0.01 level, meaning it is unlikely due to random chance.



The figure presents data from a study showing the frequency distribution of responses among 351 participants. **Always:** 30 respondents (8.5%) reported they "always" exhibit the behaviour or give the particular response. **Usually:** 29 respondents (8.3%) "Usually" show the behaviour or response. **Often:** 32 respondents (9.1%) "Often" engage in the behaviour or response. **Sometimes:** 79 respondents (22.5%) "Sometimes" show the behaviour or give the response, making it the second largest category. **Rarely:** 53 respondents (15.1%) "Rarely" exhibit the behaviour or response. **Never:** 128 respondents (36.5%) reported they "never" exhibit the behaviour or give the response, making it the highest category.

The table presents data from a study showing the frequency distribution of responses among 351 participants. **Always:** 23 respondents (6.6%) reported they "always" exhibit the behaviour or give the particular response. **Usually:** 33 respondents (9.4%) "Usually" show the behaviour or response. **Often:** 33 respondents (9.4%) "Often" engage in the behaviour or response. **Sometimes:** 90 respondents (25.6%) "Sometimes" show the behaviour or give the response, making it the second largest category. **Rarely:** 53 respondents (15.1%) "Rarely" exhibit the behaviour or response. **Never:** 119 respondents (33.9%) reported they "never" exhibit the behaviour or give the response, making it the largest category.





The data show the frequency of a specific behaviour among 351 respondents. The majority (79.2%) reported never engaging in the behaviour, indicating a strong tendency toward non-engagement. Infrequent participation was observed, with 5.1% engaging "once a month or less," 7.1% "2-3 times a month," 5.4% "once a week," and 3.1% engaging "once a day or more." Overall, the data reveals a clear pattern of infrequent engagement, with the vast majority not participating in the behaviour at all.

### Discussion

This study highlights the complex factors contributing to disordered eating behaviors (DEBs) among university students, focusing on the influence of peer pressure, media exposure, and unhealthy eating practices. These factors align with existing literature, which suggests that environmental and social influences play a significant role in the development of DEBs (Eisenberg et al., 2019; Johnson & Wardle, 2018). The study's objectives were to assess the prevalence of DEBs and to identify contributing factors, revealing notable findings related to the students' psychological relationship with food and body image.

The findings demonstrate varying levels of concern about body weight and food preoccupation. For instance, 29.1% of respondents reported they "never" felt terrified of being overweight, with only 17.4% consistently expressing this fear, suggesting that the majority of students experience low to moderate levels of body image anxiety. This aligns with studies indicating that not all students are equally vulnerable to weight-related fears, although some may be more susceptible due to external pressures like social comparison and media influence (Smith et al., 2022).

In terms of food preoccupation, 35.9% of participants reported that they "sometimes" experience this concern, while 51.9% stated they never felt extreme guilt after eating. This reflects a tendency towards moderate engagement in unhealthy eating patterns, rather than frequent or severe disordered behaviors. Prior research has shown that preoccupation with food can be linked to emotional stress and social factors (**Garner et al., 1982**). However, the low percentage of students who reported extreme guilt suggests that, for most respondents, disordered eating behaviors do not regularly interfere with their emotional well-being.

Lastly, while 24.5% of students reported significant weight loss, the majority (75.5%) did not, suggesting that extreme weight control measures are not widespread among the student population. This finding supports the broader observation that while DEBs are present, the majority of students are not engaging in severe behaviors like excessive dieting or weight loss (**American Psychiatric Association, 2013**). These insights emphasize the need for targeted interventions, particularly for students who are at higher risk due to peer influence and media exposure, to prevent the escalation of DEBs.

### **Conclusion**

This study sheds light on the prevalence of disordered eating behaviors (DEBs) among students revealing varied degrees of participation in these behaviors. The data from 351 participant's show that a smaller portion of students (21.9%) consistently engage in these behaviors, while 25.1% engage sporadically. Only 9.4% of respondents reported typically engaging in DEBs, while 12.8% rarely participated, and 20.8% stated that they never engage. This suggests that the majority of students are either sporadically involved or completely disengaged from disordered eating practices.

Further analysis shows that nearly half (46.7%) of the participants reported never engaging in DEBs, indicating a strong trend toward non-participation. Among the remaining students, 12.8% participated infrequently, about once a month or less, while 10.3% engaged in DEBs two to three times per month, demonstrating a sporadic pattern. A smaller subset, 12.5%, participated once a week, showing moderate engagement. However, only 3.1% reported engaging in these behaviors daily, indicating that regular participation is uncommon within the student population.

Overall, the study reveals a clear tendency of non-engagement in disordered eating behaviors among the majority of participants, with only a small fraction consistently participating. This underscores a general pattern of infrequent or sporadic

engagement in DEBs, highlighting the need for further research to understand the factors influencing these behaviors and to develop targeted interventions to prevent their escalation among the few students who are at higher risk.

### **Recommendation**

**Awareness programs:** Develop and implement educational programs to increase awareness of disordered eating behaviors (DEBs) and their long-term consequences. These sessions could be held during orientation and periodically throughout the academic year.

**Peer support groups:** Establish peer-led support groups that encourage open discussions on body image, self-esteem, and healthy eating habits. Peer influence can be a positive countermeasure to DEBs.

**Counseling services:** Enhance the availability and accessibility of mental health and nutritional counseling services within the university. Professional guidance can help students better manage stress, body image concerns, and dietary behaviors.

**Regular screening:** Periodic screenings using tools like EAT-26 can help identify at-risk individuals early, allowing for timely intervention and support.

**Stress management workshops:** Since stress is a contributing factor to DEBs, offering workshops on stress management techniques such as mindfulness, meditation, and time management can be beneficial.

**Social media awareness campaigns:** Create campaigns to educate students about the impact of social media on body image and the importance of cultivating a healthy relationship with online content.

**Collaboration with fitness experts:** Partner with fitness experts to promote healthy exercise practices, emphasizing physical well-being rather than calorie-focused goals.

**Cultural-specific interventions:** Tailor intervention strategies to the cultural and socioeconomic context of students at private universities in India, considering the unique challenges they face.

**Longitudinal studies:** Conduct follow-up studies to assess the effectiveness of implemented interventions and monitor changes in students' eating behaviors over time.

**Policy Recommendations:** Advocate for institutional policies that support mental health and well-being, such as integrating healthy dining options on campus and promoting a balanced academic environment.

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