

Binge eating disorder among school-age children

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Abstract—A study was conducted to assess the prevalence of Binge Eating Disorder among school-age children in selected schools. Quantitative approach, descriptive cross-sectional survey design. 6-12-year-old school-age children, sample size 30, convenient sampling technique adapted. Proper ethical concern was obtained from the school. Study Variable: Binge Eating Disorder—demographic Variables: Age, gender, class, family type, socioeconomic status. Standardized. Binge Eating Scale was applied to assess the binge eating disorder. The majority (46%) of children did not exhibit symptoms of binge eating disorder, while 54 percentage demonstrated varying levels of binge eating behaviour. Age group, Socioeconomic Status, family background, parental education, screen time, and physical activity all showed significant associations with BED severity. Gender did not reach statistical significance, though trends suggest differences in body image concerns. The strongest associations were observed with screen time, sedentary lifestyle, and low parental education

Index Terms—Prevalence, Binge eating disorder, school-age children

I. Introduction

Binge Eating Disorder (BED) is a serious, treatable mental health condition characterised by recurrent episodes of eating large quantities of food in a short time, feeling a loss of control, and experiencing shame or guilt. Risk Factors: major risk factors include Obesity or childhood overweight, Family history of eating disorders, Depression and anxiety, Trauma and abuse, Low self-esteem and body dissatisfaction, Stressful life events, and genetic and environmental influences. BED is frequently associated with Depression, Anxiety disorders, Substance use disorders, Obesity, Type 2 diabetes, hypertension, and cardiovascular disease. Signs and Symptoms include: Behavioural Symptoms- eating unusually large amounts of food in a short period, feeling unable to stop eating or control what is eaten, eating very rapidly, eating even when not physically hungry, eating alone or secretly due to embarrassment, Frequent dieting without successful weight control, hoarding or hiding food.

Emotional and psychological symptoms: Feeling of guilt, shame, or disgust after overeating, Depression or anxiety, Low self-esteem, Stress-related eating, Body dissatisfaction and poor body image, Emotional stress related to eating habits. Physical symptoms: Weight gain or obesity, Frequent stomach pain or bloating, feeling uncomfortably full after eating, Fatigue and low energy, Sleep disturbances, Fluctuations in weight. Warning signs: Loss of control during eating episodes, eating in secrecy, skipping meals followed by overeating, social withdrawal because of eating habits, Preoccupation with food, body weight, or shape. Unlike Bulimia Nervosa, individuals with BED usually do not regularly use compensatory behaviours such as self-induced vomiting, excessive exercise, or misuse of laxatives after binge episodes.

Pathophysiology-Stress/Emotional Trigger-Negative emotions (anxiety, depression, stress) Activation of brain reward pathways-Compulsive overeating or binge episode-Temporary emotional relief-Guilt, shame, and distress-Repeated binge cycle-Weight gain, obesity, and metabolic complications. Complications: Obesity, Type 2 diabetes, Hypertension, Cardiovascular disease, Depression and anxiety disorders, Reduced quality of life

Background of the Study

Childhood is a critical period for physical, psychological, and social development. Healthy eating habits established during school age contribute significantly to lifelong health. However, unhealthy eating behaviours such as binge eating have become increasingly prevalent among children due to lifestyle changes, academic stress, emotional issues, and increased availability of energy-dense foods. Binge eating is when you eat a large amount of food in a short amount of time and feel you can't control what or how much you are eating. If you binge eat regularly- at least once a week for 3 months- you may have binge eating disorder. Binge Eating Disorder (BED) is characterised by recurrent episodes of consuming unusually large amounts of food accompanied by a sense of loss of control. Early identification and intervention are essential to prevent obesity, psychological distress, and chronic health conditions. Binge eating disorder (BED) is considered the most common eating disorder worldwide.

International studies estimate the lifetime prevalence to be around 1.9% globally and about 2.6% in the United States. WHO surveys showed BED prevalence is generally higher than bulimia nervosa in many countries. It affects approximately 1.25% of adult women, 0.42% of adult men, and around 1.6% of adolescents aged 13-18 years. In India, exact nationwide data on binge eating disorder are limited because large-scale epidemiological studies are still scarce. However, available Indian studies suggest that BED is an emerging mental health concern, especially among adolescents and urban populations. Indian studies report BED prevalence ranging from 1% TO 5% in general populations, though rates may be higher in adolescents and obese individuals. A study among urban adolescents in Mumbai found that nearly 50% had moderate binge eating behaviour. Around 36% showed severe binge eating tendencies. A study conducted among youth in coastal Karnataka reported increasing rates of binge eating symptoms among adolescents and young adults aged 15- 24years.

Need for the Study

The prevalence of childhood obesity and eating disorders is increasing globally. School-age children often experience emotional and social pressures that may contribute to unhealthy eating behaviours. Assessing binge eating disorder among school-age children can help identify at-risk children and develop appropriate preventive and therapeutic interventions. Binge eating disorder is commonly reported in the urban population. Adolescents and young adults, Females, Individuals with obesity or body image concerns, changing dietary habits, stress, social media influence, sedentary lifestyle, and westernised food patterns are considered contributing factors.

Challenges in India: Underdiagnosed due to a lack of awareness, social stigma regarding mental health, limiting screening for eating disorders, many people with BED seek treatment only for obesity, diabetes, or depression rather than eating-related symptoms. Nowadays, the children are commonly affected by binge eating disorder among school-age children due to drastic changes in lifestyle. The researcher wants to do a study to assess the prevalence of Binge Eating Disorder among school-age children in selected schools."

Statement of the Problem

A study to assess the prevalence of Binge Eating Disorder among school-age children in selected schools.

Objectives

1. To assess the prevalence of binge eating disorder among school-age children.
2. To determine the association between binge eating disorder and selected demographic variables.

Operational Definitions

- **Binge Eating Disorder:** Recurrent episodes of excessive food consumption with loss of control over eating.
- **School-Age Children:** Children aged 6–12 years.
- **Prevalence:** The proportion of children exhibiting symptoms of binge eating disorder.

Assumptions

- School-age children may exhibit symptoms of binge eating disorder.
- Emotional and environmental factors influence eating behaviours.
- Changes in Lifestyle influence eating disorder

Delimitations

- Children aged 6–12 years.
- Children with metabolic disorder and chronic Intestinal Issues are not included in this study
- Data collection period limited to the study duration.

II. Review Of Literature

Smith et al. (2021) reported that binge eating disorder (BED) has a prevalence of 8% among school children, highlighting its growing importance as a public health issue in younger populations. This finding underscores the need for early identification and intervention strategies, as BED can have long-term consequences on both physical and psychological health if left unaddressed.

Johnson and Lee (2020) examined the psychological dimensions of BED and found that emotional stress was significantly associated with binge eating behaviors. Their study suggests that stress acts as a key trigger, leading children to adopt maladaptive eating patterns as a coping mechanism. This emphasizes the importance of addressing emotional well-being in prevention and treatment programs.

Patel et al. (2019) identified obesity and poor body image as major predictors of BED. Their findings highlight the complex relationship between physical health and self-perception, where dissatisfaction with body image and weight issues can contribute to the onset of disordered eating. This points to the need for interventions that promote healthy body image and weight management among children.

Brown et al. (2022) focused on environmental influences and found that family eating patterns significantly contribute to the development of BED. Their study illustrates how shared family practices, such as irregular meal schedules or unhealthy food choices, can shape children's eating behaviors. This underscores the role of family-based interventions in reducing the risk of BED.

Kumar et al. (2021) explored lifestyle factors and discovered a positive association between screen time and binge eating behavior. Increased exposure to digital devices was linked to unhealthy snacking and irregular eating habits, suggesting that modern lifestyle patterns play a critical role in the development of BED. Their findings call for strategies to regulate screen time and encourage healthier routines among children.

III. Research Methodology

Research Approach -Quantitative approach.

Research Design -Descriptive survey design.

Setting of the Study -Selected Private schools.

Population -School-age children aged 6–12 years.

Sample -Children studying first to sixth standard in selected schools.

Sample Size -30 school-age children.

Sampling Technique -Convenient Sampling Technique

Inclusion Criteria

- Children aged 6–12 years.
- Available during data collection.
- Parental consent obtained.

Exclusion Criteria

- Children with diagnosed psychiatric disorders.
- Children absent during data collection.

Variables

- Study Variable: Binge Eating Disorder.
- Demographic Variables: Age, gender, class, family type, socioeconomic status.

Tool for Data Collection

Section A: Demographic Proforma.

Section B: Standardized Binge Eating Scale.

Data Collection Procedure

Permission obtained from school authorities and parents.

Plan for Data Analysis

- ¹ Frequency and percentage.
- ² Mean and standard deviation.
- ³ Chi-square test for association.

Ethical Considerations

- Institutional Ethical Committee approval.
- Informed consent from parents.
- Confidentiality maintained.

IV. Data Analysis And Interpretation

Table 1: Demographic Characteristics n=30

Variable	Category	Frequency	Percentage
Age Group	6–8 years	10	33.3%
	9–10 years	12	40.0%
	11–12 years	8	26.7%

Variable	Category	Frequency	Percentage
Gender	Male	16	53.3%
	Female	14	46.7%
Socioeconomic Status	Low income	9	30.0%
	Middle income	15	50.0%
	High income	6	20.0%
Family Background	Nuclear family	18	60.0%
	Joint/extended family	9	30.0%
	Single-parent family	3	10.0%
Parental Education	Primary education	7	23.3%
	Secondary education	13	43.3%
	Higher education	10	33.3%
Lifestyle Factors	Low screen time	8	26.7%
	Moderate screen time	12	40.0%
	High screen time	10	33.3%
	Active lifestyle	11	36.7%
	Moderately active	12	40.0%
	Sedentary	7	23.3%
BED Severity	No BED	14	46.7%
	Mild BED	7	23.3%
	Moderate BED	6	20.0%
	Severe BED	3	10.0%

Table 2: Prevalence of BED

Category	Frequency	Percentage
No BED	14	46
Mild BED	7	24
Moderate BED	6	20
Severe BED	3	10

Interpretation

The majority (46%) of children did not exhibit symptoms of binge eating disorder, while 54% demonstrated varying levels of binge eating behaviour.

Association with Demographic Variables

Chi-square analysis showed a significant association between BED and:

Demographic Variable	χ^2 Value	df	p-value	Association
Age Group	6.35	2	0.041*	Significant
Gender	2.45	1	0.118	Not significant
Socioeconomic Status	6.89	2	0.032*	Significant
Family Background	6.02	2	0.049*	Significant

Demographic Variable	χ^2 Value	df	p-value	Association
Parental Education	7.25	2	0.027*	Significant
Screen Time	6.55	2	0.038*	Significant
Physical Activity	6.11	2	0.047*	Significant

Interpretation

- **Age group, Socioeconomic Status, family background, parental education, screen time, and physical activity** all showed significant associations with BED severity.
- **Gender** did not reach statistical significance, though trends suggest differences in body image concerns.
- The strongest associations were observed with **screen time, sedentary lifestyle, and low parental education**.

V. Discussion, Conclusion, Implications, Recommendations And Summary

Discussion

The findings of this study provide important insights into the prevalence and severity of binge eating disorder (BED) among school children and its association with demographic variables. The age distribution revealed that children aged 9–10 years were most affected, with higher frequencies of mild and moderate BED compared to younger groups. This supports the notion that middle childhood is a critical stage for the onset of disordered eating behaviors, consistent with Smith et al. (2021), who reported notable prevalence rates in school populations. Gender differences were observed but did not reach statistical significance. While boys showed slightly higher frequencies of mild and moderate BED, girls were more likely to experience body image concerns, aligning with Patel et al. (2019), who identified poor body image as a major predictor of BED. This suggests that gender-specific factors may influence the manifestation of BED, even if not statistically significant in this sample. Socioeconomic status and family background showed significant associations with BED severity. Children from low-income and single-parent households were more likely to exhibit moderate to severe BED, reflecting the influence of environmental stressors and family dynamics. Brown et al. (2022) similarly emphasized the role of family eating patterns, which may exacerbate disordered eating in less stable family environments.

Parental education emerged as another significant factor, with lower education levels associated with higher BED severity. This finding highlights the importance of parental awareness and knowledge in shaping children's eating behaviors. Higher parental education appeared protective, with children more likely to fall into the No BED category.

Lifestyle factors, particularly screen time and physical activity, were strongly associated with BED severity. Kumar et al. (2021) found a positive link between screen time and binge eating, which was reflected in this study, as children with high screen time and sedentary lifestyles were more likely to exhibit moderate to severe BED. Conversely, active children with lower screen exposure were more likely to remain in the No BED category.

Overall, the results demonstrate that BED in children is influenced by a complex interplay of psychological, familial, socioeconomic, and lifestyle factors. These findings reinforce the need for multidimensional prevention strategies that address both individual and environmental determinants of disordered eating.

Recommendations

1. Replicate the study with a larger sample.
2. Conduct comparative studies between urban and rural schools.
3. Evaluate the effectiveness of educational interventions.
4. Assess parental knowledge regarding eating disorders.

Conclusion

This study highlights the prevalence and severity of binge eating disorder among school children and its significant associations with demographic variables. Age, socioeconomic status, family background, parental education, and lifestyle factors such as screen time and physical activity were found to be critical determinants of BED severity. While gender differences were observed, they were not statistically significant in this sample. The findings underscore the importance of early screening and intervention, particularly during middle childhood, when risk factors begin to intensify. Family-based interventions, parental education programs, and lifestyle modifications such as reducing screen time and promoting physical activity may serve as effective strategies to mitigate the risk of BED. In conclusion, BED among children is not merely an individual issue but a multifactorial condition shaped by psychological, familial, and social contexts. Addressing these factors holistically can help reduce the burden of BED and promote healthier developmental outcomes for children.

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