



Impact Of Eating Habits On Adolescents' Health And Behaviour

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Abstract: Adolescence is a crucial period of growth and development, where nutrition plays a vital role in shaping health outcomes. The eating habits of adolescents in Bhopal, Madhya Pradesh (M.P.), have witnessed significant changes due to urbanization, lifestyle shifts, and the influence of processed and fast food. This study examines the impact of eating habits on adolescents' physical and mental health, academic performance, and behavioral patterns. Using a combination of primary and secondary data, the study highlights nutritional deficiencies, obesity trends, and lifestyle diseases prevalent among adolescents in Bhopal. Recommendations for promoting healthy eating habits and policy interventions are also discussed.

Keywords- Adolescents, Eating habits, Health and Behaviour

Introduction: Adolescence (12-18 years) is a formative phase marked by rapid physical, psychological, and social development. During this stage, adolescents experience hormonal changes, cognitive development, and emotional adjustments that directly impact their dietary needs. Proper nutrition is essential to support this rapid growth, yet unhealthy eating habits are becoming increasingly common among adolescents in urban and semi-urban areas like Bhopal. The shift towards fast food, carbonated beverages, and processed snacks has led to a rise in obesity, nutritional deficiencies, and other health-related issues. Additionally, unhealthy eating habits contribute to behavioral changes, including stress, anxiety, and poor academic performance.

Factors such as socioeconomic background, parental influence, media exposure, and peer pressure play significant roles in shaping adolescents' eating habits. Many adolescents in Bhopal come from middle-income and lower-income backgrounds, where affordability and accessibility to healthy food options vary. Furthermore, the influence of digital media and aggressive marketing of fast-food brands has altered perceptions of healthy eating. This study explores the patterns of eating habits among adolescents in Bhopal and their effects on overall well-being, emphasizing the need for immediate intervention strategies.

Methodology: A mixed-method approach was employed to gather comprehensive insights into adolescents' eating habits in Bhopal and Barkheda. The study involved both quantitative and qualitative research methodologies.

Primary Data Collection:

A structured survey was conducted among 200 adolescents (100 boys and 100 girls) aged 12-18 years from 2 govt schools in Bhopal and Barkheda.

The survey included a self-made questionnaire in which questions were related to dietary habits, frequency of junk food consumption, meal skipping patterns, physical activity levels, academic performance, and emotional well-being.

Anthropometric measurements such as weight and height were recorded to assess obesity trends.

Mental health indicators such as stress levels, anxiety symptoms, sleep quality, and concentration issues were assessed through self-reported questionnaires.

Secondary Data Collection:

Secondary data was obtained from research articles, government reports, and national surveys like the National Family Health Survey (NFHS-5) and Indian Council of Medical Research (ICMR) reports.

Literature on adolescent nutritional trends and health issues in India was reviewed to compare findings from Bhopal with national and global patterns.

Studies linking dietary patterns with mental health outcomes were analyzed to establish correlations between diet and well-being.

Data Analysis:

Statistical methods were used to analyse the correlation between eating habits and health outcomes.

The relationship between eating habits and mental health was examined using survey responses and secondary data sources.

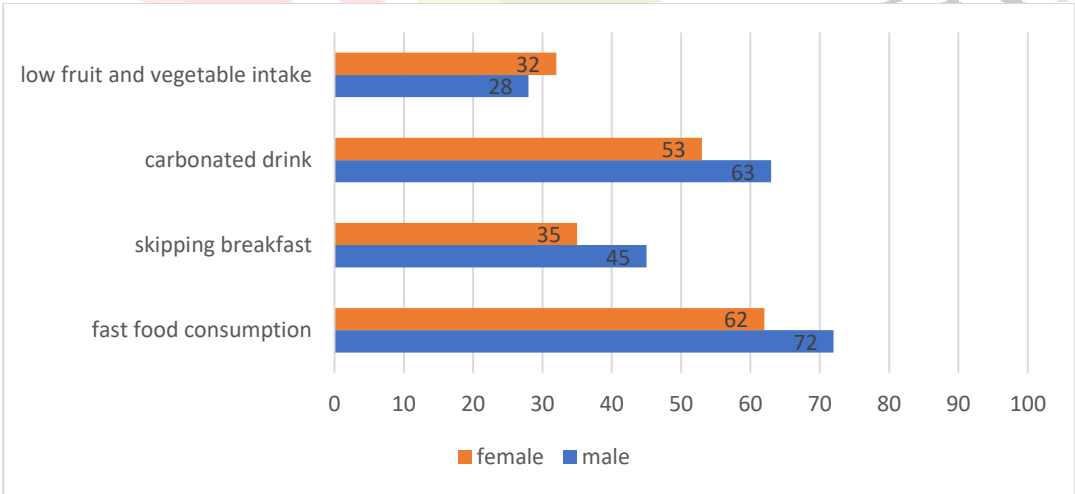
Demographic Information:

Demographic Factor	Percentage (%)	Sample Size	Male	Female
Male Adolescents	50%	100	100	-
Female Adolescents	50%	100	-	100
Age Group (12-14 years)	45%	90	45	45
Age Group (15-18 years)	55%	110	55	55
Urban Background, Bhopal	60%	120	60	60
Rural Background, Barkheda	40%	80	40	40

This demographic data provides an overview of the surveyed population, indicating an almost equal representation of male and female adolescents from urban and rural backgrounds.

Findings and Discussion:

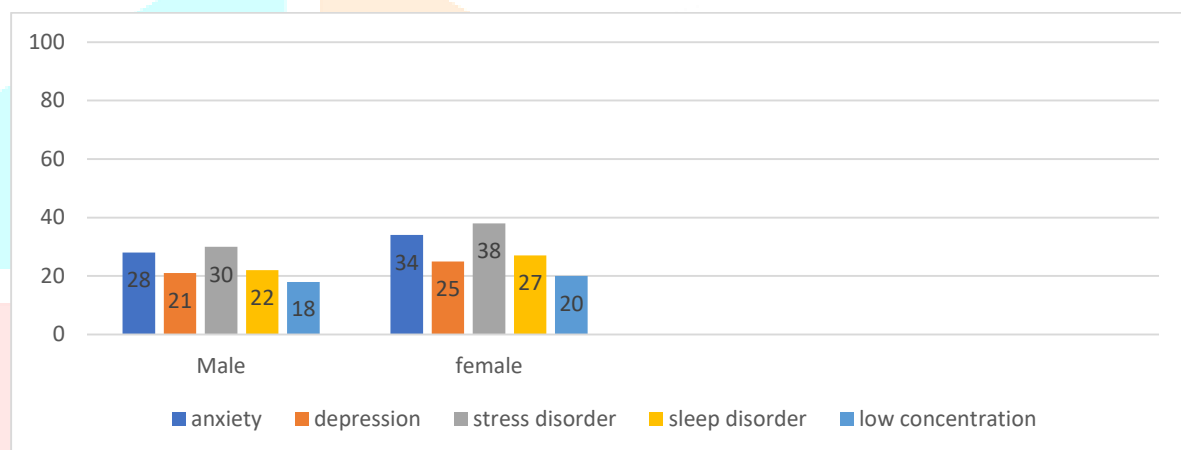
Dietary Patterns Among Adolescents in Bhopal:



The data reveals that a significant percentage of adolescents frequently consume fast food and carbonated beverages. Skipping breakfast is also a prevalent issue, which can have negative consequences on metabolism and cognitive performance. The low intake of fruits and vegetables indicates poor dietary diversity, leading to various nutritional deficiencies.

Impact on Mental Health: Poor dietary habits have a direct link to adolescents' mental health. High consumption of processed and fast food has been associated with increased levels of anxiety and depression due to its impact on brain function and hormone regulation. Skipping meals, especially breakfast, leads to reduced cognitive function, low concentration levels, and mood swings. Nutritional deficiencies such as lack of essential vitamins, minerals, and omega-3 fatty acids contribute to mental health issues like stress and irritability. A diet rich in essential nutrients, including proteins, healthy fats, and vitamins, supports brain development, emotional stability, and better stress management.

Mental Health Issue	Male (%)	Female (%)	Total (%)	Affected Sample Size	Remaining (%)
Anxiety	28%	34%	31%	62	69%
Depression	21%	25%	23%	46	77%
Stress-related disorders	30%	38%	34%	68	66%
Sleep Disorders	22%	27%	24.5%	49	75.5%
Low concentration levels	18%	20%	19%	38	81%



The mental health impact was assessed through **primary data collection** using structured surveys that included self-reported indicators of stress, anxiety, and sleep disorders.

Anthropometric data and dietary patterns were correlated with mental health outcomes to analyze trends.

Secondary data sources, such as research studies and health reports, were used to validate the findings.

Statistical analysis was conducted to determine the prevalence of mental health issues among different dietary groups.

The association between unhealthy eating habits and mental health problems was further supported by references from global and national research studies.

A study by Jacka et al. (2017) found that adolescents consuming high amounts of processed foods were at a greater risk of developing mood disorders, whereas those following a nutrient-rich diet exhibited better emotional well-being. Similarly, research by O'Neil et al. (2014) highlighted the role of dietary patterns in influencing symptoms of depression and anxiety in adolescents.

The findings emphasize the importance of integrating nutritional education into school curricula and promoting balanced diets to enhance adolescents' mental well-being.

Impact on Physical Health:

Health Issue	Male (%)	Female (%)	Total (%)	Affected Sample Size
Overweight or Obesity	24%	20%	22%	44
Vitamin D Deficiency	18%	22%	20%	40
Protein Deficiency	16%	14%	15%	30
Early signs of Diabetes	13%	11%	12%	24

The high prevalence of obesity among adolescents in Bhopal suggests a growing public health concern. Vitamin D deficiency, primarily due to limited sun exposure and poor dietary sources, is also common. Protein deficiency affects 15% of the adolescents, which may result in weakened immunity and slow muscle development.

Recommendations:

Nutritional Awareness Programs: Schools and community organizations should conduct awareness campaigns about the importance of balanced nutrition and the risks of poor dietary choices.

Healthy School Meal Policies: Government and school administrations should implement healthier meal options in canteens and discourage the sale of junk food.

Parental Guidance and Involvement: Parents should be educated about the impact of diet on mental and physical health and encouraged to provide nutritious home-cooked meals.

Mental Health Support: Schools should integrate mental health counseling services to help adolescents cope with stress, anxiety, and depression.

Physical Activity Promotion: Encouraging regular physical activity through school programs and extracurricular activities can help mitigate the effects of unhealthy eating habits.

Conclusion: Eating habits play a crucial role in shaping adolescent health and behavior. The study highlights the urgent need for intervention strategies to promote healthier eating patterns. A multi-stakeholder approach involving schools, parents, policymakers, and healthcare professionals is essential to address nutritional challenges among adolescents. By fostering healthier dietary habits and encouraging active lifestyles, the risks associated with poor nutrition can be mitigated, ensuring better overall well-being for adolescents.

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