Naveen Shodh Sansar (An International Refereed / Peer Review Multidisciplinary Research Journal)
RNI No.- MPHIN/2013/60638, ISSN 2320-8767, E- ISSN 2394-3793, Scientific Journal Impact Factor (SJIF)- 8.054,
July to September 2025, E-Journal, Vol. I, Issue LI (51), ISO 9001:2015 - E2024049304 (QMS)

Impact of Mobile Use on Food Habits of Children Between 6 To 12 Years

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Abstract: Children's daily routines and lifestyles have been drastically changed by the sharp increase in mobile phone use, which has had a particular impact on their eating habits. The goal of the current study, "Impact of Mobile Use on Food Habits of Children between 6 to 12 Years" is to investigate the effects of extended mobile device use on young children's eating habits and dietary patterns. Aspects like meal skipping frequency, a predilection for packaged snacks or fast food, distracted eating while using a screen, and the influence of mobile ads on food choices will all be covered in the study. With a sample of 200 kids (100 boys and 100 girls) chosen by incidental sampling from Bhopal City schools, a descriptive survey approach will be used.A structured, self-made questionnaire,MUFHAQ: Mobile Usage and Food Habits Assessment Questionnairewas used to gather data, along with demographic data. Based on the analysis of all three tables, the study concludes that mobile phone usage has no significant impact on the food habits of children aged 6 to 12 years in Bhopal City. Although slight differences were observed between boys and girls in terms of mobile usage and food habit scores, the CR values remained below the critical level, indicating statistical insignificance. Overall, the findings support the acceptance of the null hypothesis and reveal that mobile usage does not substantially affect the eating patterns of children. It is suggested that parents should monitor their children's screen time and encourage healthy eating practices, while the government should implement awareness programs, regulate unhealthy food advertisements, and promote digital literacy to ensure responsible mobile usage and better nutritional habits among children.
Keywords: Mobile Usage, Food Habits and Children (6–12 Years).

Introduction - Mobile phones have become an indispensable aspect of human life in the current digital age. Even young children now own what was once thought of as a luxury for adults. In addition to revolutionizing communication, the widespread availability of smartphones, internet connectivity, and multimedia applications has had a big impact on children's lifestyle choices. Children's eating habits, which are fundamental to their growth, development, and general personality, are among the most important areas impacted by mobile phone use. Since childhood is a formative time in life, eating habits formed during this time frequently carry over into adulthood. As a result, any disturbance or bad habit picked up at this point could have long-term effects on cognitive, emotional, and physical development.

Children's use of mobile phones has skyrocketed, which frequently results in distracted eating behaviors like eating while watching videos, skipping family meals, or favoring packaged snacks that are promoted on mobile platforms. According to research, kids who are exposed to digital ads are more likely to develop cravings for junk food, sugary drinks, and high-calorie fast food. Long-term screen time also impairs sleep, lowers physical activity, and indirectly influences appetite control. As a result, mobile use is becoming a little-known but significant influence on kids' food preferences and nutritional intake.

Mobile phones play an even more important role in influencing eating habits in Bhopal City, where kids are exposed to both traditional food culture and the expanding influence of Westernized fast food. Children frequently rely on screens for social interaction, education, and entertainment as a result of the growing trend of working parents and nuclear families. Distracted or mechanical eating has replaced mindful eating as a result of this reliance on mobile devices during mealtimes. Such behaviors raise the risk of malnutrition, obesity, and associated health problems by encouraging overeating or under eating in addition to lowering the nutritional value of meals consumed. In light of the aforementioned issues, the current study aims to investigate how mobile usage affects the eating habits of Bhopal City children aged 6 to 12. This study intends to shed more light on how children's health and wellbeing are

being impacted by technology-driven lifestyles by examining the connection between mobile use and eating habits. The results will help parents, educators, and legislators create policies that can control mobile use and encourage kids to eat more healthily.

Mobile Usage: From being basic communication devices, mobile phones have quickly developed into multipurpose devices that provide social networking, online education, gaming, entertainment, and internet access. Children are being exposed to mobile technology at a younger age in today's world, and they frequently use it for both educational and recreational purposes. Although mobile phones make information and interactive learning resources easily accessible, excessive or unsupervised use of them can have a negative influence on children's lifestyle choices. Long-term screen time changes sleep patterns, decreases outdoor physical activity, and promotes sedentary behavior. Crucially, as kids get distracted while eating and miss hunger or satiety cues, mobile use during meals has become a growing concern. Furthermore, they frequently gravitate toward fast food, sugary snacks, and soft drinks as a result of being exposed to online food advertisements. Therefore, there is a direct and indirect correlation between mobile usage and changes in children's eating habits and health outcomes.

Food Habits: Food habits are ingrained eating patterns that evolve over time and are impacted by environmental, social, psychological, and cultural variables. Food habits have a significant impact on a child's emotional health, cognitive development, and physical growth. Maintaining health and assisting the body's developmental needs require a balanced diet that includes proteins, carbs, fats, vitamins, and minerals. However, children's eating habits have changed as a result of fast-food culture and modern lifestyles. Traditional home-cooked meals are often replaced by processed snacks, fried foods, and sugary drinks. Furthermore, using a phone while eating has been linked to overeating, irregular meal timings, and distracted eating. Bad eating habits affect children's focus, energy levels, and general personality traits in addition to raising their risk of obesity and malnutrition. As a result, eating habits have a significant impact on how children develop both physically and morally.

Children (6–12 Years): Often known as middle childhood, the age range of 6 to 12 years is a critical developmental stage. Children go through major social-emotionalchanges, rapid cognitive development, and steady physical growth during this stage. Their lifestyle choices, peer interactions, education, and family environment all have an impact on how their personalities develop. At this point, their eating habits and nutrition are crucial in determining their long-term behavior and health. Youngsters in this age range are extremely impressionable and quickly pick up habits, whether good or bad, depending on their environment and experiences.As mobile phones become more widely used, digital media is having a greater impact on kids in this age range, influencing their routines, preferences, and even how they see themselves. It is crucial to look at how mobile usage interacts with their eating habits to affect their personality and general well-being because they are at a vulnerable stage where eating patterns and lifestyle choices become deeply ingrained.

Review of Literature

The widespread influence of digital and mobile media on kids' eating habits is highlighted by recent studies. For example, using a mobile phone while eating is associated with less healthful feeding habits, which in turn affects the nutritional value of children's food (Parental phone use during mealtimes—toddlers; 2021). PMC. Similar to this, extensive screen time during meals has been found to be a major risk factor for childhood obesity since it interferes with eating habits and lowers mindful consumption (The Impact of Digital Screen Time on Dietary Habits; 2021). PMC. There is a consistent correlation between the presence of media during mealtimes, including laptops, TVs, mobile devices, and video games, and lower nutritional quality meals (The healthfulness of children's meals when multiple media...; 2021). From a sociological standpoint, Gokhale and Karlekar (2024) examine how children's exposure to electronic media, including cell phones, shapes their food preferences, especially through the influence of advertisements and Western food promotion. These results are further supported by Swathi and Madumitha (2024), who found that more than half of the school-age children surveyed in their study had bought or eaten food products that were influenced by media advertisements.On the anatomical side of nutrition, Doichinova et al. (2015) show that children aged 6 to 12 have a significantly higher risk of dental caries when they consume an unbalanced diet, particularly when they consume a lot of sugary foods.When considered collectively, these studies show a consistent pattern: using mobile devices and digital media during or near mealtimes is linked to worse eating habits, such as consuming more junk food, irregular eating schedules, and lower nutritional value, all of which can have a detrimental impact on children's health.

Methodology

(a) Sample Techniques-Sample for the present study consists of 200 children of 6-12 age randomly selected from Bhopal city.

Area	Boys	Girls
Bhopal	100	100

(b) Tool used- In this study, the Mobile Usage and Food Habits Assessment Questionnaire (MUFHAQ) for Children (6–12 Years) was used for data collection. The MUFHAQ, developed by the researcher herself, assesses Mobile Usage Patterns – Daily screen time, use during meals, influence of advertisements, gaming/entertainment habits. Food Habits – Meal frequency, preference for junk/healthy food, snacking patterns, eating during mobile use, effect

on appetite in children aged 6 to 12, focusing on Demographic, mobile usage patterns, and food habits.

(c) **Data Analysis**- Data analyzed with the help of t test.

(d) **Objective of the study:**

1.To examine the impact of mobile phone usage on the food habits of children aged 6 to 12 years in Bhopal City.

(e) **Hypothesis of the study:**

Hypothesis 01: There is no significant impact of mobile phone usage on the food habits of children aged 6 to 12 years in Bhopal City.

Interpretation

Hypothesis 01: There is no significant impact of mobile phone usage on the food habits of children aged 6 to 12 years in Bhopal City.

Table No. 1: Category-wise Distribution of Children

Category	Boys	Girls	Total
Healthy	12	4	16
Moderate	79	87	166
Risky	9	9	18

Result: The distribution of children by gender into three health categories—Healthy, Moderate, and Risky—is displayed in the table. Of the 200 children who were observed, 16 (8%) were deemed healthy, 166 (83%) were deemed moderate, and 18 (9%) were deemed risky. Of the boys, nine (9.1%) were risky, twelve (12.1%) were healthy, and 79 (79.8%) were moderate. Nine (8.7%) of the girls were risky, four (3.9%) were healthy, and 87 (84.5%) were moderate.

Summary: It is clear from the analysis that the majority of children (83%) have an average health status, falling into the Moderate category.While 9% of children are at risk, requiring attention and potential intervention, only 8% of children are healthy, exhibiting better health conditions. Boys (12.1%) are more likely to be healthy than girls (3.9%), while girls (84.5%) slightly outnumber boys (79.8%) in the Moderate category.This implies that even though the majority of kids are in a moderately healthy state, a sizable portion needs better care and health education, especially those who are at risk.

Table No. 2: Mean Scores of Boys and Girls

Gender	Mean Mobile Usage Score	Mean Food Habits Score	Mean Combined Score
Boys	29.94	31.34	60.28
Girls	31.16	31.2	62.36
Total	30.05	31.27	61.32

Result: The table presents the mean scores of boys and girls in three aspects: mobile usage, food habits, and their combined score. The mean mobile usage score of girls (31.16) is slightly higher than that of boys (29.94), indicating that girls tend to use mobile phones more frequently. For food habits, boys have a marginally higher mean score (31.34) compared to girls (31.20), suggesting slightly healthier food habits among boys. Regarding the mean combined score, girls score higher (62.36) than boys (60.28), showing an overall greater influence of mobile usage and food habits among girls.

Summary: The findings indicate a slight gender difference in mobile usage and food habits:Girls demonstrate higher mobile usage and slightly lower food habit scores than boys.Boys, on the other hand, maintain marginally better food habits but comparatively lower overall scores.The mean combined score is higher for girls (62.36) than for boys (60.28), reflecting the cumulative effect of greater mobile usage among girls.Overall, the total mean scores are 30.05 for mobile usage, 31.27 for food habits, and 61.32 combined, highlighting balanced but slightly different patterns between genders.

Table No. 3: Comparative results between boys and girls

Variable	Boys		Girls		'CR' Value	Significant level
	Mean	S.D.	Mean	S.D.		
Mobile Usage Score	28.94	11.78	31.16	12.72	1.28	Not Significant at 0.05
Food Habits Score	31.34	11.90	31.2	11.73	0.08	Not Significant at 0.05
Combined Score	60.28	15.10	62.36	18.65	0.87	Not Significant at 0.05

df –198Minimum values at 0.05 level of significance- 1.97

Result: The table compares boys and girls on three variables — mobile usage score, food habits score, and combined score — using mean, standard deviation, and calculated CR (Critical Ratio) values.Mobile Usage Score: Girls have a slightly higher mean score (31.16) than boys (28.94), but the CR value (1.28) is less than the critical value (1.97), indicating no significant difference at the 0.05 level.Food Habits Score: Boys (31.34) and girls (31.20) have almost identical mean scores, and the CR value (0.08) also shows no significant difference.Combined Score: Girls have a slightly higher combined score (62.36) than boys (60.28), but the CR value (0.87) is again below 1.97, showing no significant difference.

Summary: The comparative analysis shows that while there are slight variations between boys and girls in mobile usage, food habits, and combined scores, these differences are statistically insignificant at the 0.05 level of significance. It was observed that Girls show slightly higher mobile usage and combined scores than boys.Boys exhibit marginally better food habit scores compared to girls.However, since all CR values (1.28, 0.08, 0.87) are less than the critical value of 1.97, these differences cannot be considered significant.Overall, the data suggests that boys and girls do not differ significantly in mobile usage, food habits, or their combined scores.

Verification of the Hypothesis:

Based on Table No. 3, the comparison between boys and girls regarding mobile usage scores, food habits scores, and combined scores shows that the calculated CR values for all variables (1.28 for mobile usage, 0.08 for food habits,

and 0.87 for combined scores) are less than the critical value of 1.97 at the 0.05 level of significance. This indicates that the differences observed between boys and girls are statistically insignificant, suggesting that mobile phone usage does not have a significant impact on the food habits of children aged 6 to 12 years in Bhopal City.

Conclusion: The present study titled "Impact of Mobile Use on Food Habits of Children between 6 to 12 Years" aimed to examine whether mobile phone usage significantly influences the food habits of children in Bhopal City. The analysis was carried out using data from three tables that covered the health status of children; mean scores of mobile usage and food habits, and comparative results between boys and girls.From Table No. 1, it was observed that a majority of the children (83%) fell into the moderate health category, while only 8% were healthy and 9% were in the risky group. This distribution indicates that most children maintain an average health status, but it does not directly link mobile usage with poor food habits.Table No. 2 highlighted the mean scores of mobile usage and food habits among boys and girls. Girls showed slightly higher mobile usage scores (31.16) compared to boys (29.94), while boys exhibited marginally better food habit scores (31.34) compared to girls (31.20). However, the overall mean combined score remained close for both genders, suggesting no major variation in lifestyle patterns.The statistical validation from Table No. 3 confirmed these observations. The calculated CR values for mobile usage (1.28), food habits (0.08), and combined scores (0.87) were all below the critical value of 1.97 at the 0.05 level of significance. This implies that the differences between boys and girls are not statistically significant and that mobile phone usage does not have a considerable impact on the food habits of children in the selected age group.Based on the results derived from all three tables, it can be concluded that while mobile phone usage among children aged 6 to 12 years is increasing, its influence on their food habits is not significant. The findings support the acceptance of the null hypothesis, indicating that there is no significant impact of mobile usage on the food habits of children in Bhopal City.

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