

# Food Habits in the Digital Age: Impact of Screen Time on Food Habits of the Adolescents

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## Abstract

The present study aims to investigate the association between the digital device use and dietary habit among adolescents. The data was collected from adolescents aged 10-19 years of age from Patna town, Bihar. A total of 300 samples was collected using stratified random sampling technique. The data was collected using a structured interview schedule comprising of general information, device usage pattern, and dietary habits. The collected data was analyzed using frequency, percentage and inferential statistics. The result of the study found that amount of time spend on screen do influence the food habits of the adolescents as the ANNOVA test applied showed that there is statistically significant difference between the screen time and food intake score.

**Keywords:** Screen time, Food habits, Digital Devices.

## Introduction

Adolescence is a critically important stage for facilitating the lifelong wellness, however it is additionally marked by the greater independence and greater vulnerability to external stimuli (Sawyer et al., 2018). Meanwhile the digital device usage has become more prevalent among adolescents, as many teenagers are seen spending significant amount of time on tablets, computers, smartphones, and other electronic devices (Twenge & Campbell, 2018). The growing popularity of these devices among adolescents has been associated with significant modifications in food eating behaviors, which involves an increased intake of calorie-rich, nutrient-low foods and sweetened beverages as well as lessening the diet quality (Moreno et al., 2019). This interrelated phenomenon have brought about tremendous amount of attention in exploring to what extent adolescents use of digital devices influences their dietary habits.

There are a number of reasons why screen time is linked to harmful eating habits. The first of these causes is that young teenagers are continuously exposed to online advertisements for harmful food items and drinks through social networking sites, influencer marketing, and advertising games. Adolescents' brand choices and eating habits are impacted by this exposure (Fleming-Milici & Harris, 2020). The second factor is that eating while using electronic gadgets may lead to distracted eating, thereby causing increased consumption of food by reducing the attention to food intake and causing disruption to satiety signals from the brain (Higgs & Spetter, 2018). More importantly excessive time spend on screen are often found to replace the physical activity and sleep duration, as both of these are related with better regulation of appetite and more nutritious food choices (Kracht et al., 2020). Such effects might be more pronounced during adolescents as neuro developmental plasticity and reward sensitivity are at their

peak, mainly because of interactive and immersive nature aspect of modern day digital media (Crone & Konijn, 2018).

## Objective

To know the influence of screen time on the food habits of the adolescents.

## Research Methodology

The present cross-sectional study was carried out in Patna Town. Stratified random sampling technique was employed for data collection. The sample size was 300. A structured schedule was developed consisting of general information about adolescents, their screen time and food habit related questions. The data was analyzed using descriptive statistics (frequency and percentage) and inferential statistics (ANNOVA).

## Results

**Table 1: Distribution of respondents on the basis of socio-demographic variables.**

Variables	N	%
<b>Age</b>		
10–13	90	30
14–16	120	40
17–19	90	30
<b>Gender</b>		
Male	150	50
Female	150	50
<b>Religion</b>		
Hindu	210	70
Muslim	80	26.7
Other	10	3.3
<b>Caste</b>		
General category	120	40
SC & ST	80	26.70
Other Backward Class	100	33.30
<b>Family type</b>		
Nuclear	180	60
Joint	120	40
<b>Monthly income</b>		
Less than ₹10,000	70	23.3
₹10,000–₹20,000	100	33.3
₹20,000–₹30,000	80	26.7
More than ₹30,000	50	16.7
<b>School type</b>		
Private	180	60

Government	120	40
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**Table 2: Time on Screen versus Food Intake Score.**

Screen Time Group	n	Mean Food Intake Score	SD
Low (<4 hrs/day)	95	8.2	0.6
Medium (4–6 hrs/day)	105	6.3	0.5
High (>6 hrs/day)	100	4.1	0.5

A healthy food intake score was derived based on the self-reported frequency of consuming fruits, fresh foods, and home-cooked food; greater scores correlated to greater level dietary quality. The Table 2 shows that mean food intake score was lowest i.e., 4.1 for those adolescents who fell in the category of high screen time (> 6 hrs/day) whereas food intake score was highest (8.2) for the low screen users (< 4 hrs/day) and for the medium screen user (4-6 hrs/day) the mean score was 6.3. This shows that adolescents those who spend less amount of time on screen had healthy eating behavior as compared to adolescents spending greater amount of time on screen. Also high screen users had irregular eating habits thereby influencing adolescents' daily nutritional requirement.

**Table 3: ANOVA – Screen Time versus Food Intake Score**

Test	F-Statistic	p-value
ANOVA	311.60	< 0.001

Table 3 shows the result of ANNOVA test that was conducted to establish the comparison between three screen time groups with food intake score. The value of F- statistic was 311.60, and that of p-value was <0.001. The results show that there was statistically significant difference between the smart device usages each day and dietary habit among the adolescents of urban Patna. The results thus showed that time spend on screen influences the food intake among adolescents and also brings about changes in their unhealthy and irregular food habit.

## Conclusion

The study concluded that screen time do influence the food habits of the adolescents. This study found that distracted, passive consumption, particularly during meals, is associated with less mindful eating and lower dietary quality. In contrast, active use of digital platforms to get nutritional information and tailored treatments can help people make healthier choices. The overall impact is influenced by user circumstances, such as age and socioeconomic level. Moving forward, measures should strive to reduce the negative effects of distracted eating while leveraging technology's potential for excellent, individualized nutrition advice.

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