

## Assessment of Socio-Economic Profile and Fast-Food Consumption Pattern among Children of the Northern Region of India

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### ABSTRACT

*This study investigates fast food consumption patterns among school children aged under 18 in Northern region of India, aiming to understand the influences behind their preferences. A sample of 634 students from five schools were participated, with data collected via a pre-tested, self-designed questionnaire distributed through social media platforms from November 2023 to April 2024. The sample included 356 males and 278 females. Data analysis was conducted using SPSS version 20, incorporating chi-squared tests, percentage analysis, and frequency test to evaluate the significance of relationships between variables. The chi-square analysis results corroborate the finding that respondents' fast-food consumption patterns are not significantly influenced by socioeconomic factors such as age, gender, family type, diet, parental income, and spending. The data further revealed that fast-food is consumed by people from a wide range of socioeconomic backgrounds. Most respondents said they eat fast food one or two times a week and that they like both well-known international fast-food companies and local restaurants. It also reveals that the majority of teenagers prefer fast food due to its taste, convenience, and quick service, reflecting their fast-paced lifestyle and desire for variety. The study comes to the conclusion that lifestyle and personal preferences, rather than socioeconomic factors, have a greater influence on respondents' consumption of fast food.*

**Keywords:** Fast-Food, Consumption, Frequency, Socio-Economic Profile.

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### INTRODUCTION

Health is a fundamental aspect of quality of life, with nutrition playing a pivotal role. Proper nutrition is a basic human need and a prerequisite for a healthy life [1]. It is essential for growth, development, and maintaining an active life, starting from early childhood. However, the increasing fast-food consumption among school-going children raises concerns about its impact on their health and nutrition. In today's fast-paced world, convenience is king. The alarming rise in fast food consumption has left experts warning of a looming health crisis. Fast-food refers to food prepared and served quickly, including chips, sandwiches, burgers, pizza, and French fries. Fast food meets the needs of many people due to its quick preparation, reasonable pricing, and ready availability [2]. These foods are typically high in calories, saturated fats, sugar, and salt, contributing to poor eating habits and physical inactivity among children [3]. It is low in nutritional value and contains only fats that cause adverse effects on one's health [4].

The World Health Organization identifies adolescence as the period of human growth and development between childhood and adulthood, under 18 years. Healthy eating behaviour during adolescence is crucial for physical growth, psychosocial development, cognitive performance, and preventing diet-related chronic diseases in adulthood [5]. In the current scenario, the fast-food industry has adapted to Indian food preferences and is proliferating in urban areas, gaining acceptance primarily among the youth

[6]. However, dietary habits among adolescents are often suboptimal, influenced by various socio-cultural and environmental factors. This study focuses on the eating habits of school-going children in Mainpuri district, Uttar Pradesh, and Bastar district, Chhattisgarh, aiming to identify their dietary patterns and the factors influencing their food choices.

School-going children often consume an increased number of meals outside the home, leading to a higher intake of fast foods as snacks. This trend can result in health problems associated with poor nutrition. The availability of foods high in fat and sugar content in large portion sizes contributes to overconsumption and reduced physical activity, setting the stage for health issues in adulthood [7].

## **MATERIAL AND METHODS**

The study was conducted in Mainpuri district of Uttar Pradesh, Bastar District of Chhattisgarh targeting school-going Children under 18 years old. The participants were selected from various schools within the districts to ensure a representative sample and the study participants were students both male and female who were under 18. Students with background information, data regarding their preference, attitude, reasons for their preference, influenced factors, frequency, and type of fast-food consumption among school students were collected using the questionnaire. The questionnaire was framed in Google form and the link was sent to the students through WhatsApp and around 638 students submitted the forms completely.

### **Questionnaire:**

1. Gender
2. Age
3. Family type
4. Diet
5. Monthly Household Income
6. Weekly expense on Fast-Food
7. How often do you consume fast food per week?
8. Choice of Eateries

### **Tools of analysis**

The data collected from the Sample respondents were analysed using the statistical software in SPSS Version 20 (Statistical Package for Social Sciences) which satisfies the goals set for the analysis.

## **RESULTS AND DISCUSSION**

### **Null Hypothesis (H<sub>0</sub>):**

The null hypothesis for this study states that there is no significant association between key socio-economic variables—age, gender, family type, diet, parental income, and expenditure—and the fast-food consumption patterns of the respondents. This hypothesis aims to test whether these socio-economic factors influence how often and where respondents consume fast food.

### **Fast-Food Consumption and Socio-Economic Conditions of the respondents:**

The chi-square analysis results provide insights into the relationship between socio-economic variables and fast-food consumption. As indicated by the p-values for each variable, all of them are greater than the significance threshold of 0.05. It is inferred from the Table.1 that since p - values are greater than the  $\alpha$ -value ( $>0.05$ ) the association between the attributes are observed to be statistically insignificant at 5 percent level. Thus, the null hypothesis that there is no significant association between Socio economic attributes with Fast-Food Consumption pattern of the respondents are accepted at 5 percent level of significance. Therefore, it could be concluded that the fast-food consumption pattern does not significantly depend on Age, Gender, Family type, Diet, Parental Income, and Expenditure with the Fast-Food Consumption Pattern of the Respondents in the study area.

The results suggest that socio-economic characteristics such as age, gender, and parental income do not significantly affect how often the respondents consume fast food. Despite this, the survey reveals that 70.7% of the respondents consume fast food 1 to 2 times per week, indicating a dominant pattern of moderate consumption among the sample population. A smaller but notable portion, 14.2%, consumes fast food 3 to 4 times per week, while 8% of respondents report that they never consume fast food. Only 4.4% of respondents consume fast food daily, which is relatively low, suggesting that habitual or daily consumption is uncommon within this group. The fact that a majority of respondents fall into the 1-2 times per week category implies that fast food is a regular, yet controlled, part of their diet. This moderate consumption may be driven by various factors, such as convenience, taste preferences, or social eating habits, which are not directly linked to their socio-economic background as per the study's findings.

### **Socio - Economic Conditions of the Respondents**

Majority (40%) of the respondents who consume fast food falls in the age group of 14 to 15 years followed by 16 years above age group. Majority (53.5%) of the respondents who consume fast food are observed to be male in the study area. Majority (21.5%) of fast-food consuming respondents live in joint family. Majority (79.7%) of the respondents are non-vegetarians by diet in the study area. Majority (54.6%) of the respondent's parents earn income below 1000 dollars in the study area. Majority of (62.4%) of respondents spend Rs. 101 to 300 on fast food consumption. Majority (70.7%) of the respondents consume fast food 1 to 2 times per week followed by the respondents consuming 3 to 4 times (14.2%) per week. Majority (31.3%) of the respondents prefer to choose on the street eateries to consume fast food, followed by Dominos (27.9%), KFC (19.2%) and Mc Donalds (18.6%)

### **Fast-Food Consumption Frequency:**

The results suggest that socio-economic characteristics such as age, gender, and parental income do not significantly affect how often the respondents consume fast food. Despite this, the survey reveals that 70.7% of the respondents consume fast food 1 to 2 times per week, indicating a dominant pattern of moderate consumption among the sample population. A smaller but notable portion, 14.2%, consumes fast food 3 to 4 times per week, while 8% of respondents report that they never consume fast food. Only 4.4% of respondents consume fast food daily, which is relatively low, suggesting that habitual or daily consumption is uncommon within this group. The fact that a majority of respondents fall into the 1-2 times per week category implies that fast food is a regular, yet controlled, part of their diet. This moderate consumption may be driven by various factors, such as convenience, taste preferences, or social eating habits, which are not directly linked to their socio-economic background as per the study's findings.

### **Preferred Eateries:**

The preference for fast-food outlets is also a critical aspect of the study. The most significant percentage of respondents, 31.1%, prefer to consume fast food from on-street eateries and other restaurants. This preference might reflect the convenience, affordability, and variety offered by local food stalls or small restaurants, which could appeal to younger individuals or those from lower income brackets. In terms of branded fast-food chains, Domino is the most popular choice, with 27.9% of respondents preferring it, followed by KFC (19.2%) and McDonald's (18.6%). This preference for international fast-food chains demonstrates the popularity of these brands among the respondents, likely due to their widespread accessibility, standardized food options, and strong brand appeal.

### **Socio-Economic Factors and Consumption Patterns:**

Although socio-economic factors such as parental income and expenditure might logically influence fast-food consumption, the data suggests otherwise. For example, a significant portion of the respondents belong to low-income families, with 54.6% earning less than \$1000 annually, yet this does not seem to significantly alter their fast-food consumption patterns when compared to higher-income groups. Similarly, those who spend less on food (i.e., below 3.57\$) still consume fast food at rates similar to those with higher expenditures. This lack of association could indicate that fast food is accessible and appealing across different socio-economic strata, possibly due to its relative affordability, convenience, and the desire for ready-to-eat meals among teenagers. The findings suggest that regardless of family income or expenditure capacity, fast food is widely consumed in a manner that cuts across socio-economic divides.

### **Gender and Family Type:**

The study also shows no significant relationship between gender or family type (joint or nuclear) and fast-food consumption. This finding is notable because it implies that whether a respondent comes from a joint or nuclear family, or whether they are male or female, their likelihood of consuming fast food remains similar. This could be because fast food consumption, particularly among adolescents, is more driven by factors such as peer influence, convenience, and lifestyle, rather than traditional family structures or gender roles. With 53.5% of respondents being male and 41.8% female, the gender distribution is fairly balanced, but neither gender shows a distinct difference in fast-food consumption patterns according to the statistical analysis.

### **Dietary Preferences:**

Another interesting result is that dietary preferences (i.e., being vegetarian or non-vegetarian) do not have a statistically significant impact on fast-food consumption. Even though 79.7% of the respondents identify as non-vegetarian, their consumption of fast food is not significantly different from that of the 15.6% who identify as vegetarian. This suggests that fast-food outlets are catering to both dietary preferences effectively, offering a variety of options that appeal to both vegetarians and non-vegetarians alike. At these trends, it is essential for individuals, especially adolescents, to make informed dietary choices, prioritizing long-term health over convenience.

### Multifaceted Opinion of the respondents on Fast-Food Consumption:

The statements in the Table. 3 depicts the opinion of respondents about different aspects of fast-food consumption.

**Table 1: Fast-Food Consumption and Socio-Economic Conditions of the respondents**

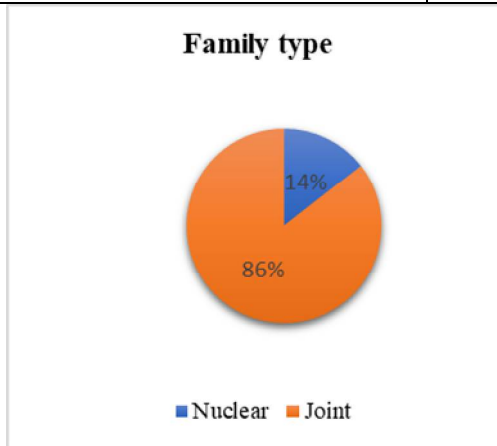
Particulars	$\chi^2$ Value	df	P - Value	Significance
Age	7.498	8	0.484	Insignificant
Gender	4.237	4	0.375	Insignificant
Family Type	3.49	4	0.479	Insignificant
Diet	3.189	4	0.527	Insignificant
Parental Income	12.249	12	0.426	Insignificant
Expenditure	18.359	16	0.303	Insignificant

**Table 2: Socio - Economic Conditions of the Respondents**

Particulars	No. of Respondents	Percentage
<b>Age</b>		
Below 13	151	23.8
14 - 15	254	40.1
16 Above	229	36.1
<b>Total</b>	634	100
<b>Gender</b>		
Male	356	53.5
Female	278	41.8
<b>Total</b>	634	100
<b>Family Type</b>		
Nuclear	542	13.8
Joint	92	81.5
<b>Total</b>	634	100
<b>Diet</b>		
Non-Vegetarian	530	79.7
Vegetarian	104	15.6
<b>Total</b>	634	100
<b>Parental Income (In Dollars)</b>		
Below 1000	346	54.6
1000 - 2500	91	14.4
2500 - 4000	30	4.5
4000 - 6000	39	5.9
Above 6000	128	19.2
<b>Total</b>	634	100
<b>Expenditure (In Dollars)</b>		
Below 1.19	56	8.8
1.20 - 3.57	395	62.4
3.58 - 5.45	48	7.6
Above 5.45	134	21.2
<b>Total</b>	634	100
<b>Fast-Food Consumption per Week</b>		
1 - 2 time	448	70.7
3 - 4 time	90	14.2
5 - 6 time	17	2.7
Daily	28	4.4
Never	51	8
<b>Total</b>	634	100
<b>Choice of Eateries</b>		
KFC	122	19.2
Dominos	177	27.9
McDonalds	124	18.6
Home-Made	4	0.6
Others	207	31.1
<b>Total</b>	634	100

**Table 3: Multifaceted Opinion of the respondents on Fast-Food Consumption**

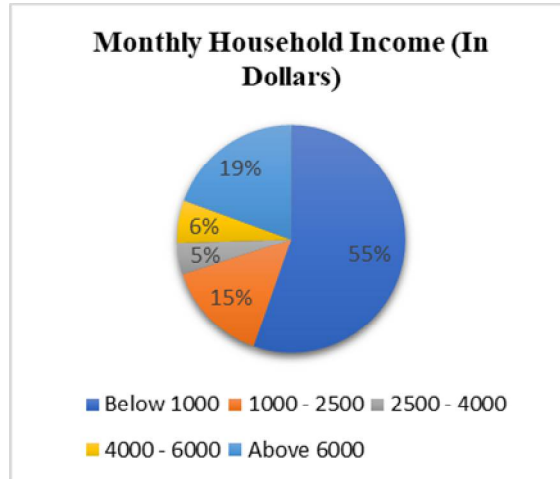
Statement	Mean	Standard Deviation	Cumulative variance
The availability of fast-food in different varieties forces you to eat them	3.86	0.93	25.01
Prefer fast-food for taste, fast service and convenience	4.34	0.89	21.06
Get lured by the appealing presentation	4.17	0.91	21.78
Consumption of fast-food with friends and family for entertainment	3.31	1.68	43.08
Hi-tech life is responsible for habit of consuming fast-food	3.71	1.36	38.64
Eating fast-food occasionally does no harm to health	3.55	1.08	28.06
A number of factors contribute to the habit of eating fast-food such as working mothers, higher income, more fast-food outlets and increased advertising	3.47	1.16	30.78
Urbanisation has greater influence on changing food habits of children	3.92	0.96	24.07
Fast-Food intake for many is largely controlled by availability and cost	3.58	0.98	25.23
Advertisements moulded mind in the way that you are forced to consume certain type of fast-foods	2.91	1.32	44.08



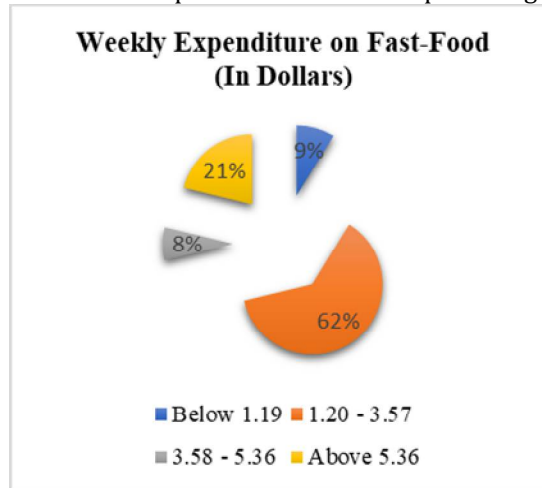
**Fig 1. Represents Family type of the respondents.**  
\*Values are represented in terms of percentage



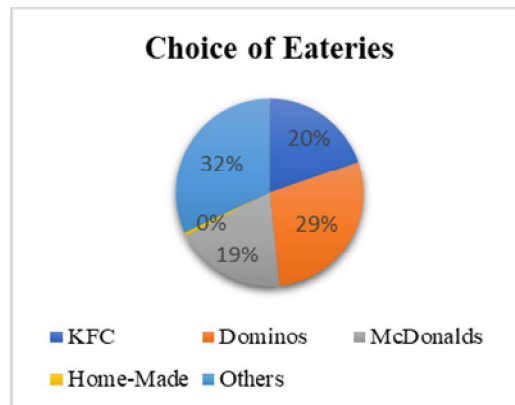
**Fig 2. Represents the Diet pattern of the respondents**  
\*Values are represented in terms of percentage



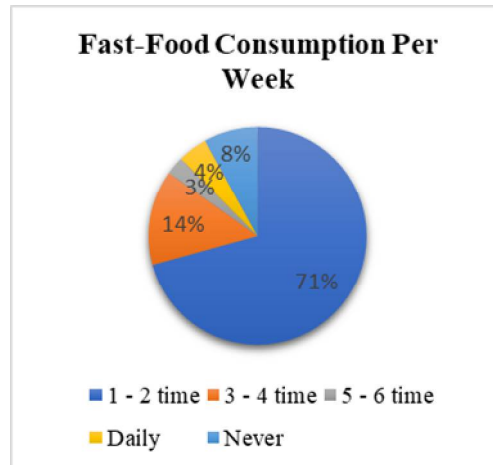
**Fig 3. Monthly Household Income of the parents in Dollars**  
\*Values are represented in terms of percentage



**Fig 4. Weekly Expenditure on Fast-Food in Dollars of the respondents**  
\*Values are represented in terms of percentage



**Fig 5. Choice of Eateries of the respondents**  
\*Values are represented in terms of percentage



**Fig 6. Represents the Frequency of Fast-Food consumption per week of the respondents**  
\*Values are represented in terms of percentage

It has been observed that majority of them prefer fast-food for taste, convenience and fast service implying the fact that most of the teenagers today do not like spending more time on eating and are always in hurry. They are attracted by variety. It is reflected from the mean score value of 4.34 with coefficient of variation as 21.06 percent indicating different viewpoints from the respondents about the preference of fast-food. Followed by this they opined they get lured by the attractive presentation of fast-foods. It has been found that most of the have agreed to the statement whether urbanization has a greater influence on changing food habits with the mean score of 3.92 and co-efficient of variation by 24.07 percentage.

Followed by this it was found the majority of respondents differed in their opinion while some had similar view point regarding the statement whether advertisement moulds the mind of the people to consume certain types of fast-food in the study area.

In conclusion the socio-economic variables, including age, gender, family type, diet, parental income, and expenditure, do not significantly influence fast-food consumption patterns among respondents. The consumption of fast food is prevalent across different socio-economic groups, with a majority of respondents consuming fast food 1 to 2 times per week and expressing a preference for both local eateries and well-established international fast-food chains. This study also reveals that the majority of teenagers prefer fast food due to its taste, convenience, and quick service, reflecting their fast-paced lifestyle and desire for variety. The findings suggest that urbanization significantly influences changing food habits among urban students, and factors such as working mothers and high income contribute to the preference for fast food. Additionally, the availability and cost of fast food play a crucial role in consumption choices. The study concludes that fast food consumption among respondents is primarily influenced by lifestyle and personal preferences, rather than socio-economic factors. The spread of fast-food culture is eroding traditional, nutrient-rich Indian cuisine. To combat these trends, it is essential for individuals, especially adolescents, to make informed dietary choices, prioritizing long-term health over convenience.

These findings can be valuable for future research especially in the context of understanding youth dietary behaviours and their implications for public health, as fast-food consumption becomes an increasingly global phenomenon across all socio-economic levels.

### Competing Interests

The authors have declared that no competing interest exists

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