

“Impact of Junk Food on Human Health”

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Abstract : This study examines the growing consumption of junk food and its impact on human health, particularly among students and young adults. Despite widespread awareness of its harmful effects, junk food intake continues to rise due to convenience, taste preference, affordability, and social media influence. A descriptive research design was adopted, and primary data was collected from 50 respondents using a structured questionnaire through Google Forms. The findings reveal that most participants consume junk food 2–4 times per week, and nearly 80% are aware of its health risks. However, a significant gap exists between awareness and actual behaviour. Although most respondents reported no immediate health issues, early signs of lifestyle-related problems such as high blood pressure were observed in some cases. The study concludes that awareness alone is insufficient to change eating habits, and stronger health education initiatives and behavioural interventions are necessary to reduce long-term health risks associated with junk food consumption.

Keywords : Junk food, ultra-processed foods, obesity, cardiometabolic disease, public health, diet, sugar-sweetened beverages.

1. Introduction : Junk food has become a very common part of our daily lives. People of all age groups—especially children and teenagers—eat junk food regularly because it is tasty, cheap, and easily available. Fast-food shops, packaged snacks, and online delivery apps have made it even easier to consume junk food anytime. As a result, many people now prefer junk food over healthy home-cooked meals. The rise in junk food consumption began with rapid urbanisation and changing lifestyles in the late 20th century. As people became busier, they started choosing quick and convenient meal options. The expansion of fast-food industries and strong advertising—especially through television and social media—further increased its popularity among young people. Junk food usually contains high amounts of oil, sugar, salt, and calories, but very little nutritional value. It does not provide the vitamins, minerals, or fibre that the body needs. In recent years, researchers have linked frequent junk food consumption to health problems such as obesity, diabetes, stomach issues, and heart disease. Many young people are developing lifestyle-related diseases at an early age, making this a serious public health concern.

One of the main reasons for conducting this study is to understand why people continue to eat junk food even when they know it is unhealthy. The research tries to find out:

- How often do people eat junk food
- What kind of junk food do they prefer
- Whether they face any health issues
- How aware they are of nutrition
- Why do they choose junk food over healthy food

This study uses survey data to understand the behaviour and choices of people related to junk food. The results can help create awareness programs, guide students to make better food choices, and help parents and teachers encourage healthier eating habits.

Overall, this research shows that junk food has a big impact on human health and that there is a need to promote healthy eating in schools, colleges, and homes. Changing food habits is important for preventing long-term health problems and improving the well-being of future generations.

2. Motivation of Research

Even though people know that junk food is harmful, its consumption is still increasing. There is a need to identify the factors influencing consumption and its actual impact on health.[1]

3. Aim of Study

- 1) To study the consumption pattern of junk food among individuals.
- 2) To analyse awareness levels regarding ingredients and health risks.
- 3) To identify health issues associated with junk food consumption.
- 4) To examine reasons behind the preference for junk food.
- 5) To provide suggestions for healthier eating habits.

4. Literature Review

Over the past few decades, dietary patterns have undergone a significant transformation due to rapid urbanisation, globalisation, and changing lifestyles. Junk food, also known as ultra-processed food, has become a dominant part of daily diets, especially among students and young adults. These foods are characterised by high levels of sugar, salt, unhealthy fats, and calories, while lacking essential nutrients such as vitamins, minerals, and fibre. With the increasing availability of fast-food outlets, packaged snacks, and online food delivery platforms, junk food consumption has risen dramatically, making it a major public health concern.[2]

Global Consumption Trends:

Recent studies and global health reports indicate a sharp increase in junk food consumption worldwide. The expansion of the fast-food industry, aggressive advertising, and affordability have made these foods highly accessible. Surveys show that a large proportion of young individuals consume junk food multiple times per week, with some even consuming it daily.[3]

In developing countries like India, changing lifestyles and busy schedules have further accelerated this trend. Increased screen time and social media exposure also influence food choices, promoting high-calorie, low-nutrient foods. This shift from traditional diets to processed foods has contributed to the rising burden of lifestyle-related diseases.[4]

Nutritional Composition and Health Risks:

A major focus of existing research is the poor nutritional quality of junk food. Studies consistently show that these foods contain excessive calories, refined sugars, trans fats, and sodium, while providing minimal nutritional benefits.

Regular consumption of such foods has been strongly linked with:

- Weight gain and increased Body Mass Index (BMI)
 - Elevated blood sugar levels
 - High cholesterol
 - Nutritional deficiencies
- 1) How often do people eat junk food
 - 2) What kind of junk food do they prefer
 - 3) Whether they face any health issues
 - 4) How aware they are of nutrition

These dietary patterns disrupt metabolic processes and increase the risk of chronic health conditions over time.

Impact on Physical Health:

Numerous studies highlight the direct relationship between junk food consumption and physical health problems. Research indicates that individuals who frequently consume junk food are more likely to develop:

- Obesity and overweight conditions
- Hypertension (high blood pressure)
- Cardiovascular diseases
- Type 2 diabetes
- Digestive issues such as acidity, bloating, and irregular bowel movements

Large-scale health surveys also show that non-communicable diseases account for a significant proportion of deaths globally, with dietary habits being a major contributing factor. The increasing intake of ultra-processed foods has been identified as one of the key drivers behind this trend.[5]

Impact on Mental and Cognitive Health:

In addition to physical health, recent research has explored the effects of junk food on mental well-being and cognitive performance. Studies suggest that high consumption of processed foods may negatively impact brain function.[6]

Key findings include:

- Reduced concentration and attention span
- Poor memory retention
- Increased stress levels
- Higher risk of anxiety and depression

These effects are particularly evident among students, where unhealthy eating habits can directly influence academic performance and productivity.[7]

Digestive Health and Gut Function:

Another important area of research focuses on gut health. Junk food consumption has been associated with:

- Disruption of gut microbiota
- Increased inflammation
- Poor digestion

The lack of dietary fibre and high presence of artificial additives negatively affect the digestive system, leading to long-term gastrointestinal issues.[8]

Behavioural and Social Factors Influencing Consumption:

Several studies have examined why people continue to consume junk food despite being aware of its harmful effects. The most common factors identified include:

- Taste and palatability – High sugar and fat content make junk food highly addictive
- Convenience – Easy availability and quick preparation
- Affordability – Often cheaper than healthier alternatives
- Advertising and social media influence
- Peer pressure and lifestyle habits

These factors create a strong preference for junk food, making it difficult for individuals to adopt healthier eating behaviours.

Awareness vs. Actual Behaviour Gap:

One of the most important findings in existing literature is the gap between awareness and behaviour. Many studies reveal that:

- People are aware of the health risks of junk food
- However, this awareness does not translate into reduced consumption

This gap highlights the limitation of knowledge-based interventions alone and suggests the need for behavioural and environmental changes to promote healthy eating habits.[9]

Intervention Strategies and Public Health Measures:

Various intervention-based studies have proposed methods to reduce junk food consumption. These include:

- Health awareness campaigns
- School and college nutrition programs
- Government policies such as sugar taxes
- Promotion of healthy food alternatives

While these strategies show positive outcomes, research suggests that they are most effective when combined with continuous education and supportive environments.[10]

5. Research Methodology

5.1. Methodologies Used:

1. Descriptive Research Method

This study adopted a descriptive research design to understand the patterns of junk food consumption and its impact on human health. This method was chosen because it helps in describing current behaviours, habits, and awareness levels without manipulating any variables. It was implemented by collecting data from respondents regarding their eating habits, health conditions, and lifestyle patterns, and then analysing the results to identify trends.

2. Survey-Based Method

A structured survey method was used to collect primary data from participants. This method was selected because it allows efficient and standardized data collection from multiple respondents within a short period. It was implemented using Google Forms, where participants answered multiple-choice questions related to junk food consumption, awareness, and health effects. The responses were later analysed using Excel and Microsoft Power BI.

5.2. Research Design

The study follows a **descriptive research design** based on survey data. It focuses on analysing:

- Frequency of junk food consumption
- Types of junk food preferred
- Awareness of health risks

- Health issues experienced by individuals
- Lifestyle and behavioural factors influencing food choices

Population

The target population for this study includes:

- Students
- Young adults
- Individuals from different backgrounds

Most respondents belong to the youth category, as they are the primary consumers of junk food and are more influenced by lifestyle and social factors

Sampling Method

A **convenience sampling method** was used, where participants voluntarily responded to the survey.

Additionally, **simple random sampling** was considered to ensure that each individual had an equal chance of participation, helping reduce bias in responses.

Sample Size

A total of **50 respondents** participated in this study. These participants were selected randomly and represent different age groups and backgrounds.

5.3. Data Collection Tools

For this study, data was collected using the following methods:

1. Google Form Survey

A structured online questionnaire was prepared and distributed among participants. The survey included questions related to:

- Frequency of junk food consumption
- Types of junk food preferred
- Awareness of calorie content and health risks
- Health conditions such as diabetes, cholesterol, and blood pressure
- Lifestyle habits like physical activity

2. Secondary Data Sources

Information from previously published research papers, health reports, and online resources was used to support and compare the findings. These sources helped in understanding global trends and health impacts of junk food consumption.

5.4. Process

The research process consisted of the following steps:

Stage 1 – Data Collection

Participants were asked to fill out a Google Form questionnaire. The form collected:

- Eating habits and frequency of junk food consumption
- Awareness about nutritional value
- Health issues experienced
- Lifestyle-related factors

Survey Questionnaire

The following questions were included in the survey to analyse junk food consumption and its impact on health:

1. What is your age group?
2. How often do you consume junk food?
3. Which type of junk food do you consume most frequently?
4. Are you aware of the calorie content of the junk food you consume?
5. According to your knowledge, your BMI falls under which category?
6. Have you ever been diagnosed with high blood sugar or diabetes?
7. Have you experienced high cholesterol levels?
8. Do you suffer from high blood pressure (hypertension)?
9. Have you experienced weight gain due to junk food consumption?
10. How would you describe your physical activity level?
11. Do you feel your diet lacks essential nutrients (vitamins, minerals, fibre)?
12. After consuming junk food frequently, do you experience mood changes or low energy?

Stage 2 – Data Tabulation

Responses collected through Google Forms were exported into Microsoft Excel for cleaning and organisation. Data was arranged into tables for easier analysis.

Stage 3 – Data Visualisation

The collected data was analysed using Microsoft Power BI. The following visual tools were used:

- **Pie charts** – to show percentage distribution (e.g., frequency of junk food consumption)
- **Bar graphs** – to compare different responses (e.g., types of junk food consumed, health issues reported)

Stage 4 – Interpretation

Based on the visual charts, patterns and trends were identified. The interpretation focused on understanding:

- Consumption behaviour of respondents

- Awareness vs actual eating habits
- Health risks associated with junk food
- Influence of lifestyle factors

Stage 5 – Result Analysis

Data analysis in this study was:

- **Descriptive**
- **Visual**
- **Based on survey responses and chart interpretation**

Microsoft Power BI was used to create:

- Pie charts
- Bar graphs
- Comparative visuals

These visuals helped in understanding:

- Frequency of junk food consumption
- Most preferred types of junk food
- Awareness levels among respondents
- Health impacts experienced by individuals

No advanced statistical techniques were used, as the study is based on survey observations and descriptive analysis rather than complex experimental testing.

5.5. Experimental Setup

A. Survey Setup

The study was conducted using an online structured questionnaire created through Google Forms. The questionnaire consisted of multiple-choice questions related to junk food consumption frequency, awareness levels, health conditions, and behavioural influences.

A total of 50 respondents participated voluntarily. The survey was distributed through social networks and student groups.

B. Technical Setup

Data collected through Google Forms was exported into Microsoft Excel for cleaning and preprocessing. Data visualisation and graphical analysis were performed using Power BI. Statistical summaries such as frequency distribution and percentage analysis were applied to interpret the results.

5.6. CASE STUDY 1: Analysis of Key Health Indicators Associated with Non-Communicable Diseases

Health Indicator	Statistic / Trend	Source
Adult Obesity (BMI ≥ 25)	Women 24%, Men 23%	NFHS-5
Child Overweight (Under 5)	3.4%	NFHS-5

High Blood Sugar (Women 15–49)	13.5%	NFHS-5
High Blood Sugar (Men 15–54)	15.6%	NFHS-5
Hypertension (Women)	21.3%	NFHS-5
Hypertension (Men)	24.0%	NFHS-5
Anaemia (Women 15–49)	57%	NFHS-5
Cardiovascular Disease Deaths	~28% of total deaths in India	ICMR
Diabetes Prevalence (Adults, India)	~10–11% adults	ICMR-INDIAB Study
Physical Inactivity (Adults)	~25% globally insufficiently active	WHO
Salt Intake (India avg.)	~8–9 g/day (WHO recommends <5g)	ICMR
Ultra-Processed Food Market Growth	~150% growth in last decade	Economic Survey 2025–26
NCD Contribution to Deaths	~63% of total deaths in India	WHO
Raised Cholesterol (Adults)	~31% globally	WHO
Childhood Obesity Projection	8.3 crore by 2035 (projected)	Economic Survey

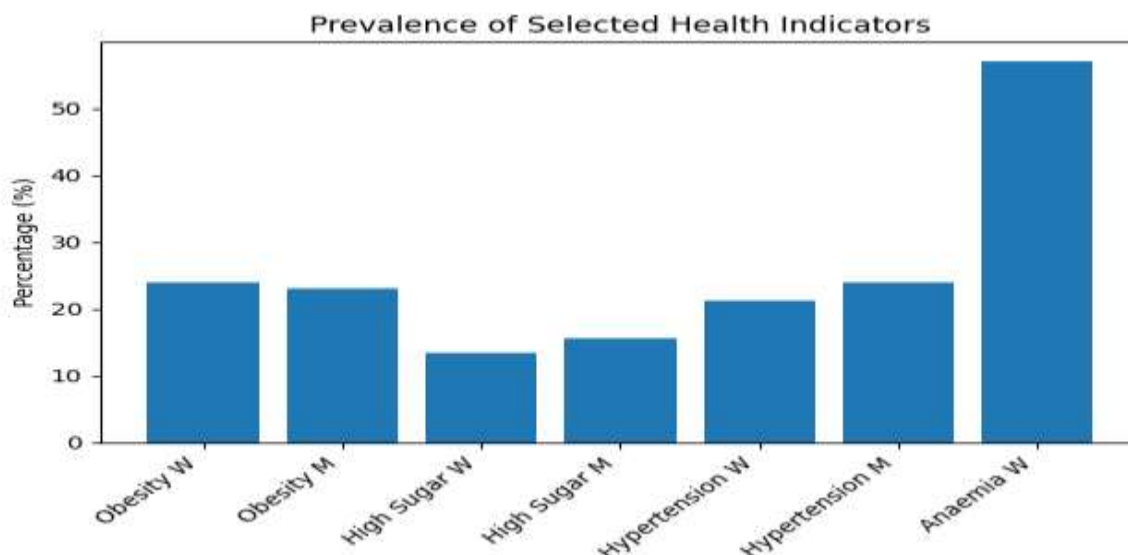


Figure 1 : Prevalence of selected Indicators

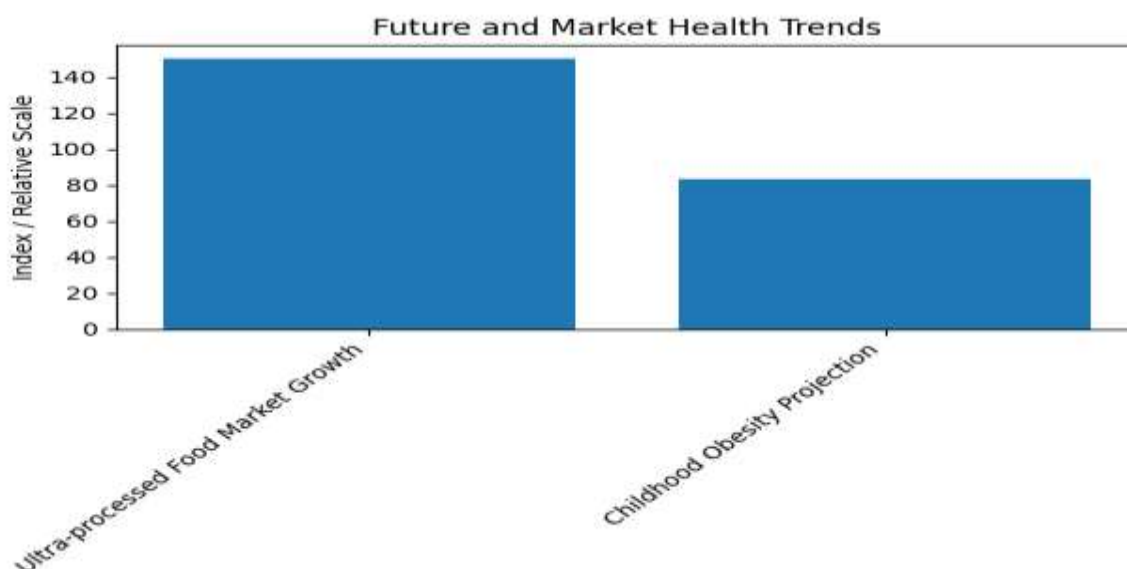


Figure 2: Future and Market Health Trends

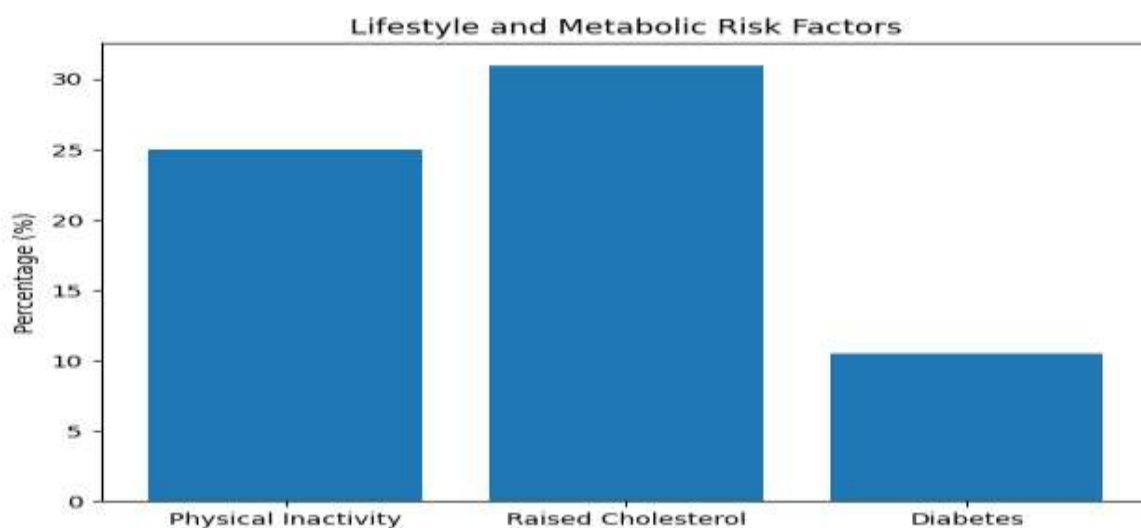


Figure 3: Lifestyle and Metabolic Risk Factors

Contribution of NCDs to Total Deaths

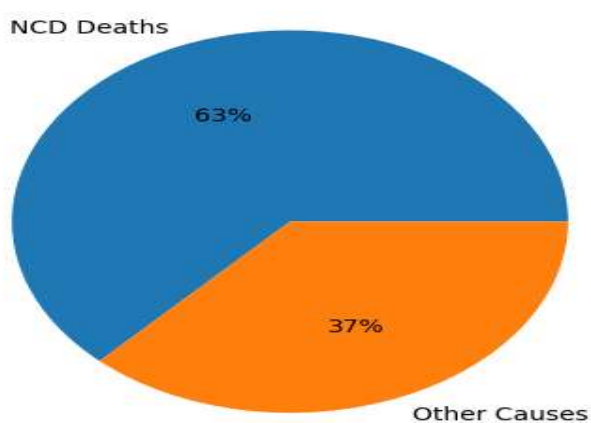


Figure 4: Contribution of NCD's to Total Deaths

5.6.1. Data Analysis

Non-Communicable Diseases

The data indicate that non-communicable diseases account for a large share of mortality in India, contributing to nearly two-thirds of total deaths. Cardiovascular diseases alone represent a significant portion, highlighting the growing burden of chronic illnesses.

Obesity Trends

A notable proportion of adults fall into the overweight or obese category. This trend is likely influenced by sedentary lifestyles, dietary changes, and increasing urbanization. Although overweight prevalence among young children is relatively low, projections suggest a potential rise in childhood obesity in the future.

Blood Sugar and Diabetes

The presence of elevated blood sugar among adults indicates a growing risk of metabolic disorders. Diabetes prevalence among adults further reflects the expanding impact of lifestyle-related health conditions.

Hypertension

Hypertension affects a considerable segment of the population and represents a major risk factor for cardiovascular disease and stroke. The observed prevalence suggests the need for improved screening and preventive measures.

Nutritional Concerns

High levels of anaemia among women indicate ongoing nutritional deficiencies. In addition, average salt consumption exceeds recommended limits, which may contribute to increased blood pressure and cardiovascular risks.

Lifestyle Factors

Insufficient physical activity remains a common concern globally and contributes to several chronic diseases. At the same time, the rapid growth of the ultra-processed food market reflects shifting dietary patterns.

Cholesterol

A significant proportion of adults experience elevated cholesterol levels, which increases the likelihood of cardiovascular complications over time.

Discussion

The findings highlight the increasing influence of lifestyle and dietary patterns on public health. Reduced physical activity, increased consumption of processed foods, and changing living conditions are contributing to the rise of non-communicable diseases. At the same time, nutritional deficiencies such as anaemia remain prevalent, indicating a dual burden of health challenges. Addressing these issues requires preventive healthcare strategies, improved nutrition, and greater awareness of healthy lifestyle practices.

5.6.2. Case Study 1 Conclusion:

Overall, the data demonstrate that chronic diseases and related risk factors are becoming more prominent. Obesity, hypertension, diabetes, and high cholesterol are increasingly common, while nutritional deficiencies continue to affect vulnerable groups. Strengthening preventive measures, promoting balanced diets, and encouraging active lifestyles will be essential for improving long-term public health outcomes.

5.7. CASE STUDY 2 : “Analysis of Junk Food Consumption Based on Questionnaire Data”

Research Questions

- 1) What is your age group?
- 2) How often do you consume junk food?
- 3) Which type of junk food do you consume most frequently?
- 4) Are you aware of the calorie content of the junk food you consume?
- 5) According to your knowledge, your BMI falls under:
- 6) Have you ever been diagnosed with high blood sugar or diabetes?
- 7) Have you experienced high cholesterol levels?
- 8) Do you suffer from high blood pressure (hypertension)?
- 9) Have you experienced weight gain due to junk food consumption?
- 10) How would you describe your physical activity level?
- 11) Do you feel your diet lacks essential nutrients (vitamins, minerals, fibre)?
- 12) After consuming junk food frequently, do you experience mood changes or low energy?

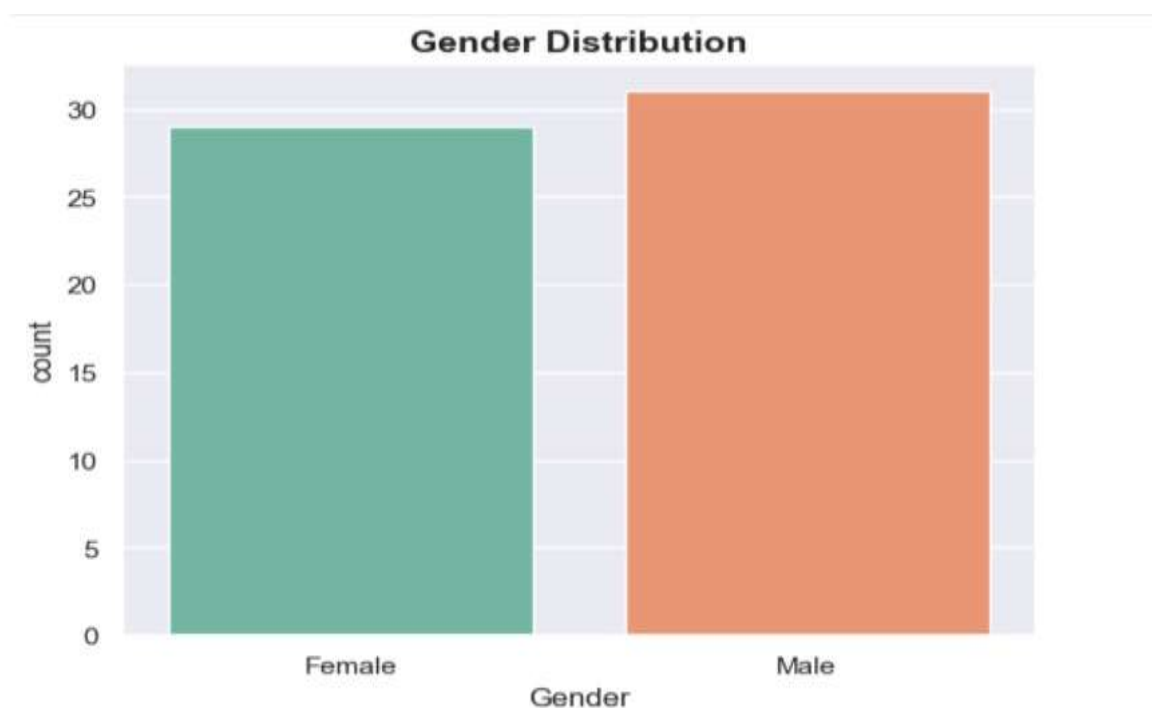


Figure 5: Gender Distribution

Interpretation:

The analysis of respondents based on age group indicates that the majority of participants belong to a specific age category, while other age groups are comparatively less represented. This distribution suggests that the study primarily reflects the perspectives and dietary habits of individuals within the dominant age group. Understanding the age distribution helps in analysing how junk food consumption patterns and their impact on human health may vary across different age groups.

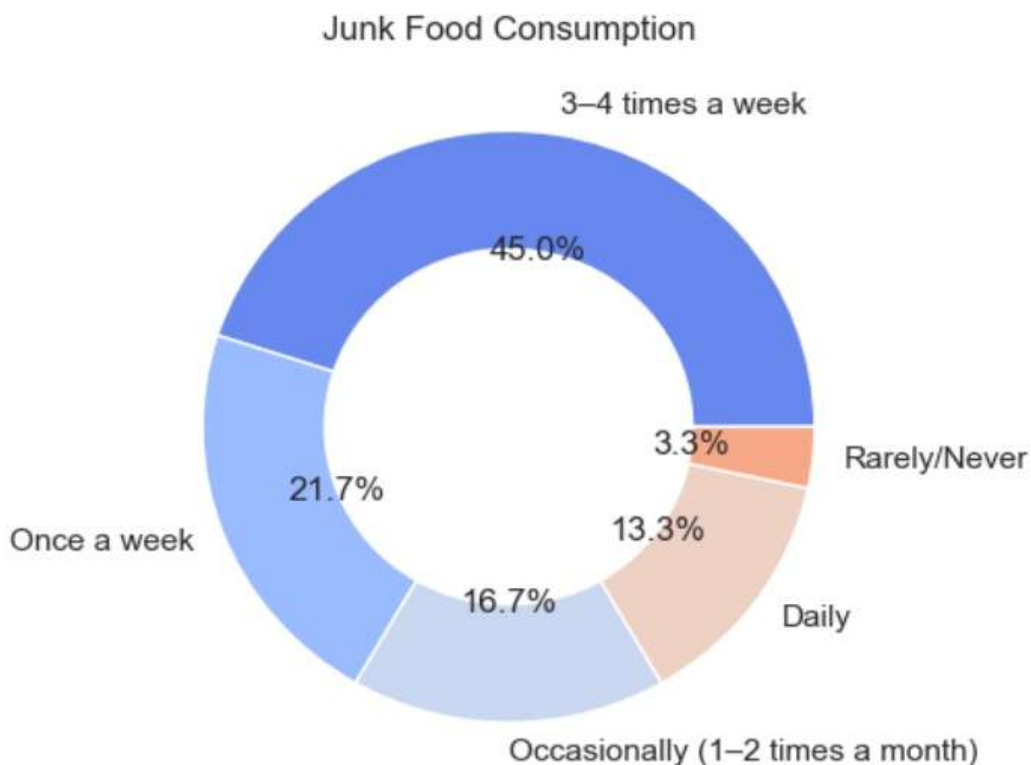


Figure 6: Junk Food Consumption

Interpretation:

The chart illustrates the frequency of junk food consumption among the respondents. A significant proportion of participants (45%) reported consuming junk food 3–4 times a week, indicating a high level of regular intake. About 21.7% of respondents consume junk food once a week, while 16.7% reported eating it occasionally (1–2 times a month). Additionally, 13.3% of participants consume junk food daily, which may pose potential health risks if continued over a long period. Only 3.3% of respondents reported rarely or never consuming junk food. Overall, the findings suggest that a majority of individuals include junk food in their diet on a frequent basis, highlighting the growing prevalence of unhealthy eating habits and their possible impact on human health.

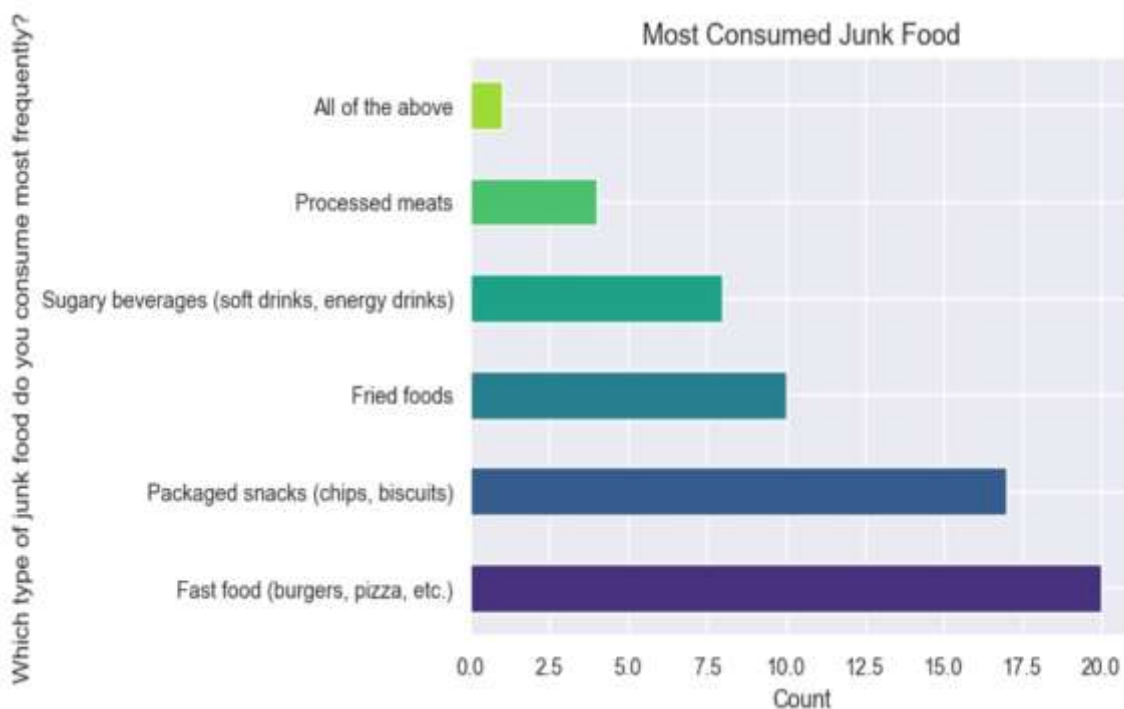


Figure 7: Most Consumed Junk Food

Interpretation:

The chart shows the types of junk food most frequently consumed by respondents. The results indicate that fast food items such as burgers and pizza are the most commonly consumed, followed by packaged snacks like chips and biscuits. A considerable number of participants also reported consuming fried foods and sugary beverages, including soft drinks and energy drinks. In contrast, processed meats and the option “all of the above” were selected by a smaller number of respondents. Overall, the findings suggest that fast food and packaged snack items are the most popular forms of junk food among the participants, which may contribute to unhealthy dietary habits and potential health risks if consumed regularly.

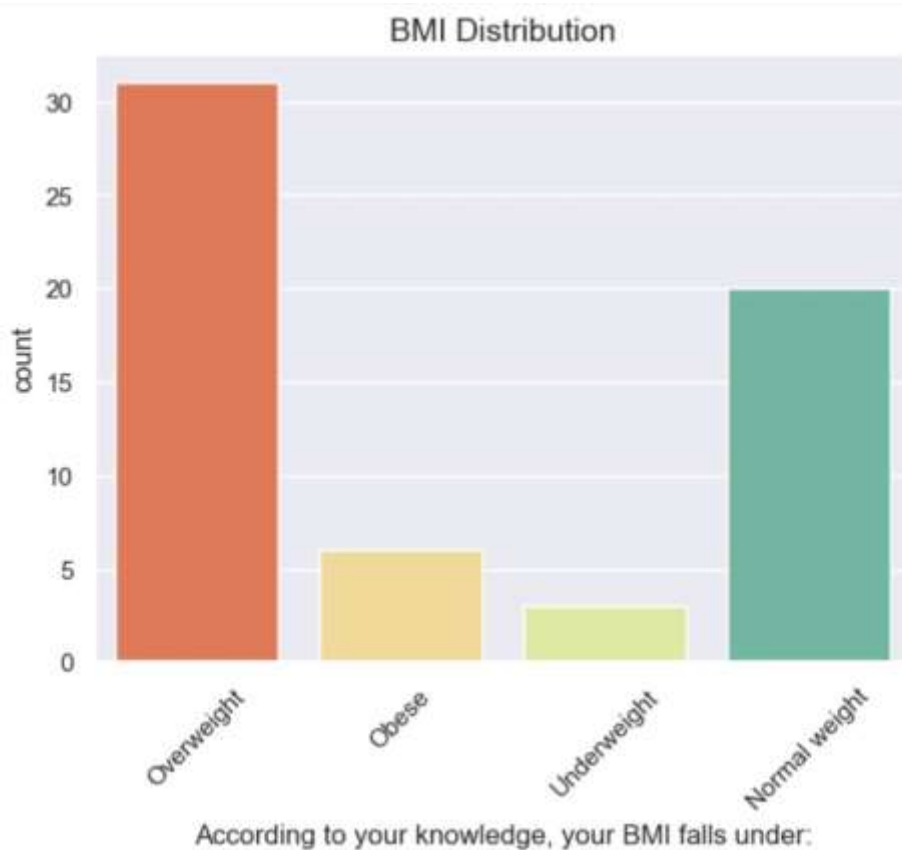


Figure 8: BMI Distribution

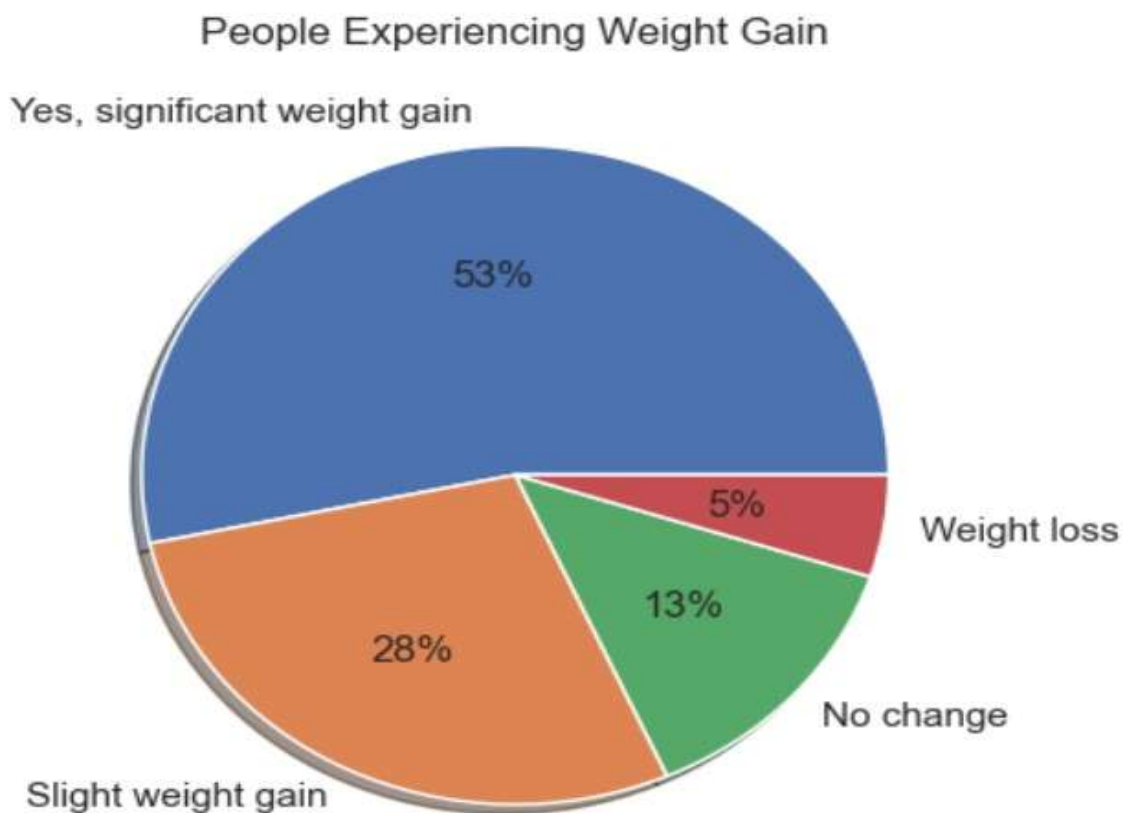


Figure 9: Weight Gain

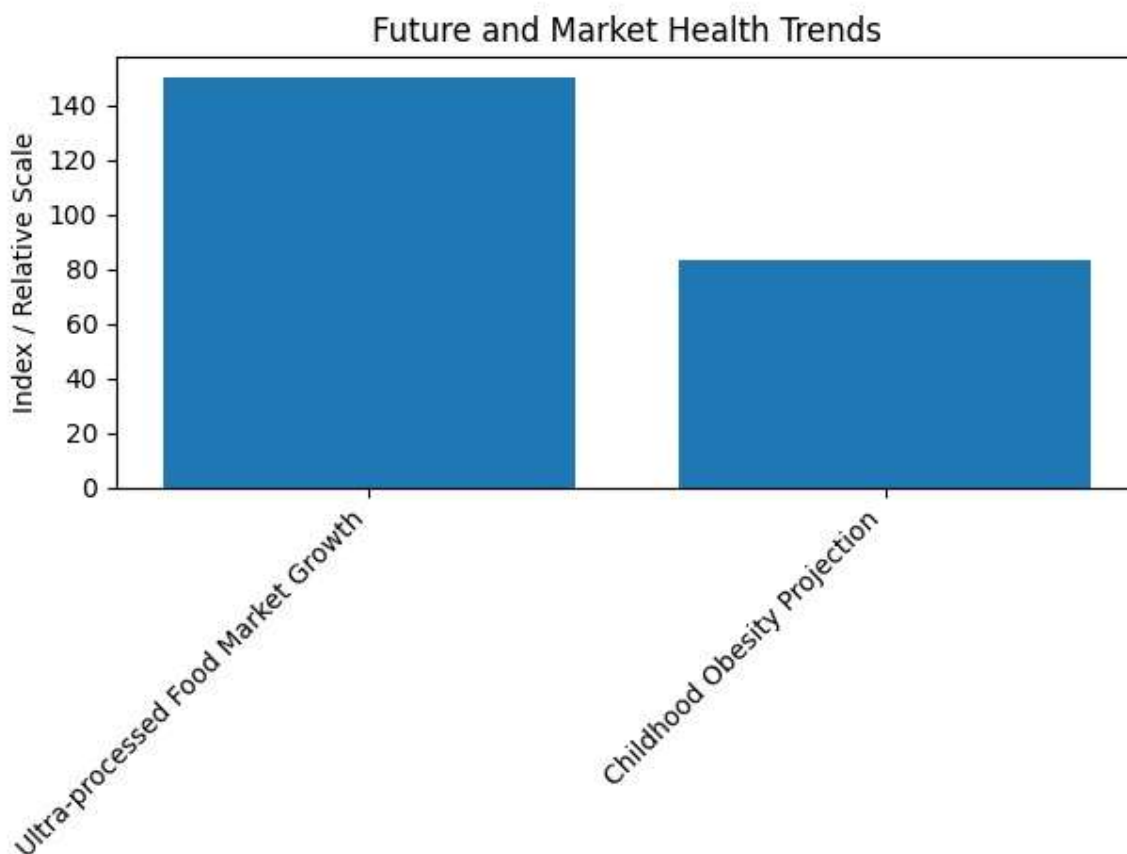


Figure 10: Future and Market Health Trends

6. Discussion

The results of the survey show that junk food is widely consumed by people, especially students and young adults. Even though many respondents are aware that junk food contains high levels of oil, sugar, salt, and preservatives, they still continue to eat it regularly. This shows a clear gap between awareness and behaviour. People know junk food is unhealthy, but convenience, taste, and low cost make them choose it again and again.

Social media and online food delivery apps also play an important role. Many respondents said that attractive advertisements, discounts, and promotional offers influence their decision to buy junk food. This suggests that marketing has a strong impact, especially on young people.

Another important point from the study is that most respondents do not face any major health issues right now. Because they feel healthy at present, they do not take the long-term effects seriously. This can be risky, as junk food can cause problems like obesity, diabetes, and heart issues over time.

The results of this research match the findings from previous studies. Many earlier researchers also found that convenience, taste, and advertisement are the main reasons behind high junk food consumption. They also noted that awareness alone is not enough to change eating behaviour.

Overall, the discussion shows that junk food consumption remains high due to lifestyle, habits, and external influence. To reduce this, there is a need for better awareness programs, healthier food choices, and guidance from family and

schools. Long-term health risks should be communicated more clearly to encourage people to make better food decisions.

7. Findings

- Junk food consumption is frequent among students and young adults
- Awareness about health risks is high, but it does not reduce consumption
- Taste, convenience, and affordability strongly influence food choices
- Most individuals do not experience immediate health problems, leading to neglect of long-term risks
- Lifestyle diseases such as obesity, diabetes, and hypertension show early signs in some respondents
- Social media and advertisements significantly impact junk food consumption behaviour
- Physical activity levels are often low, increasing health risks associated with poor diet
- There is a clear gap between knowledge of healthy eating and actual eating habits
- Regular consumption of junk food contributes to low energy levels and possible mood changes
- Healthy eating habits require behavioural change, not just awareness

8. Future Scope

This study provides useful information about junk food consumption and its effects on health, but there is still a lot of scope for future research. A larger sample size from different regions can give more accurate and general results. Future studies can also include more detailed questions about lifestyle, physical activity, and long-term health issues to understand the topic better.

Researchers can also compare eating habits of students, working adults, and older people to see how junk food consumption changes across age groups. More in-depth studies can be done to find the connection between junk food and specific health problems such as obesity, diabetes, and heart diseases.

Future research can also explore the role of schools, families, and government policies in reducing junk food intake. Awareness programmes, nutrition education, and healthy food campaigns can be studied to see how effective they are. Overall, there is good scope for improving strategies to encourage healthy eating habits and reduce the negative impact of junk food on society.

9. Limitations

1. Small Sample Size

The research includes only 50 respondents, which is not enough to generalise the findings to a larger population.

2. Possibility of Biased Responses

Since the data was self-reported through Google Forms, some respondents may have answered inaccurately or without attention.

3. Time Constraints

Limited time to conduct the survey and analyse the findings may affect the depth of the study.

4. Limited Geographical Reach

Although respondents are from different age groups, they may belong to a similar region or network. Therefore, the results may not represent the overall population.

10. Conclusion

The present study examined the impact of junk food consumption and lifestyle-related factors on human health through secondary data analysis and questionnaire-based responses. The findings from Case Study 1 reveal that non-communicable diseases such as cardiovascular diseases, diabetes, hypertension, and high cholesterol are becoming increasingly prevalent. Factors such as sedentary lifestyles, high salt intake, inadequate physical activity, and increased consumption of processed foods contribute significantly to these health issues. Additionally, nutritional deficiencies such as anaemia remain a concern, particularly among women, indicating the presence of a dual burden of malnutrition and lifestyle-related diseases.

The results of Case Study 2 further support these findings by highlighting patterns of junk food consumption among respondents. A considerable proportion of participants reported consuming junk food frequently, with fast food and packaged snacks being the most common choices. The data also indicate that several respondents fall into overweight or obese BMI categories and have experienced weight gain associated with junk food consumption. In addition, some participants reported health concerns such as high blood pressure, elevated cholesterol, and high blood sugar levels, which are commonly linked to unhealthy dietary habits and insufficient physical activity.

Overall, the study demonstrates that frequent consumption of junk food, combined with low physical activity and poor dietary awareness, can negatively influence health outcomes. These patterns increase the risk of developing chronic diseases and metabolic disorders. Therefore, promoting balanced nutrition, encouraging regular physical activity, and raising awareness about the health risks associated with excessive junk food consumption are essential steps toward improving public health and reducing the burden of lifestyle-related diseases in the future.

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