

Analyzing Dietary Patterns and Unravelling the Factors Behind Obesity: A Comprehensive Evaluation

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Abstract

The purpose of this research paper is to identify the changes that occurred in the food habits of people in the past few years. This research is based on the findings for the evaluation that have been done on the food habits of people in the past few years and the rise of the rate of obesity percentage and the rate of diabetic patients in these years. And finding the reason for the change in food habits in the age group between 15 and 25. The food habits are based on the lifestyle of the people. This research aims to find the problems that have arisen because of overweight, obesity, and diabetes. It tells the problems caused by being obese the treatment for obesity how to control and cure it. Then we analyze data from some years and find the reason behind the issue by analyzing some literature surveys. From the literature survey and some graphs from the past few years, we will conclude the reasons for obesity and overweight among certain age groups. What are all the steps that should be followed to control it? Additionally, this research paper seeks to explore the socioeconomic factors and cultural influences that have contributed to shifts in dietary patterns among individuals aged 15 to 25. By examining the correlation between lifestyle choices and health outcomes, including the prevalence of obesity and diabetes, this study aims to provide actionable insights into effective strategies for promoting healthier eating habits and mitigating associated health risks. Through a comprehensive review of relevant literature and data analysis spanning several years, this paper aims to offer valuable recommendations for addressing the underlying causes of obesity and implementing preventive measures on both individual and societal levels.

Keywords: Diabetic, obesity, food habits, lifestyle, overweight, few years, age group

INTRODUCTION

Food habits have slowly changed over the past few years. In the past few years, the rates of obesity and diabetes have also increased because of changes in food habits. The obesity percentage increased from 15 to 25 years of age. The age group between 15 and 25 years consumes a lot of junk food. Irregular diet plans cause changes in food habits, which are major causes of obesity and diabetes. In recent years, eating habits have changed because of changes in the modern lifestyle of people in the past few years. The main cause for the increase in the percentage of obesity is the consumption of junk food by the age group from 15 to 25.

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In recent years, there has been an increase in the occurrence of obesity worldwide, which has become a significant public health issue. This multifaceted issue is influenced by myriad factors, with dietary habits playing a pivotal role in its development. As societies undergo rapid changes in lifestyle, urbanization, and food availability, understanding the intricate relationship between dietary patterns and obesity is essential for designing effective intervention strategies.

This comprehensive evaluation aims to delve deeply into the complex interplay between food habits and the underlying causes of obesity. By scrutinizing various dietary patterns and their impact on weight gain, we sought to identify the contributing factors that propelled the obesity epidemic. From cultural influences and socioeconomic disparities to psychological aspects and environmental triggers, this research seeks to shed light on the multifarious dimensions that collectively shape eating behaviors and their consequences.

Through an amalgamation of empirical studies, statistical analyses, and critical literature reviews, this research endeavors to provide a holistic perspective on this subject matter. By recognizing the nuances of dietary preferences, accessibility to nutrition, and the role of marketing, we can better understand the pathways through which dietary habits are intertwined with obesity. Moreover, this evaluation aimed to bridge the gap between research and practical applications, offering insights that can inform public health policies, educational initiatives, and clinical interventions targeting obesity and its associated complications.

As we embark on this exploration journey, it is crucial to acknowledge that the battle against obesity requires a multidisciplinary approach. Researchers, policymakers, healthcare professionals, and individuals alike must collaborate to decipher the intricate web of influences that mold food choices and subsequently impact weight status. Only through such collaborative efforts can we hope to develop comprehensive strategies that effectively address the root causes of obesity and pave the way for a healthy future.

LITERATURE SURVEY

A brief literature survey highlights key studies and research relevant to the topic of analyzing dietary patterns and unraveling the factors behind obesity [1]. Changes in diet, lifestyle, and long-term weight gain in women and men. *The New England Journal of Medicine*, 364(25), 2392-2404. In this landmark study, we investigated the relationship between specific dietary changes and long-term weight gain. This emphasizes the importance of overall diet quality, highlighting that weight gain is associated with the consumption of processed foods and sugary beverages, and reduced intake of whole foods, fruits, and vegetables [2]. Global nutrition dynamics: The world is shifting rapidly toward a diet linked to noncommunicable diseases. *The American Journal of Clinical Nutrition*, 84(2), 289–298. Popkin's work explored the shift from traditional diets to diets rich in added sugars, fats, and processed foods across various countries [2]. This shift has been linked to rising rates of obesity and related chronic diseases. Human perceptions and preferences for fat-rich foods. Montmayeur JP, le Coutre J [3] focused on the psychological factors underlying food preferences, including the pleasurable aspects of consuming high-fat and energy-dense foods. Understanding these preferences is crucial for addressing overconsumption and obesity [4]. The availability of fast food and full-service restaurants in the United States: Associations with neighborhood characteristics. *American Journal of Preventive Medicine*, 33(4S), S240-S245. This study explores the relationship between the density of fast food and full-service restaurants and neighborhood characteristics. This highlights the influence of the food environment on dietary choices and its potential contribution to obesity.

Story M., Nannery M.S., Schwartz M.B. (2009) [5]. *Schools and obesity prevention: Creating school environments and policies to promote healthy eating and physical activity. Milbank Quarterly* 87(1), 71–100. This review discusses the role of schools in shaping children's dietary patterns and obesity risks. This emphasizes the importance of implementing policies that promote healthy eating and physical activity in school settings [6]. *Marketing food to children: The Global Regulatory Environment*. World Health Organization. Hawkes' report discussed the impact of food marketing on children's dietary preferences and habits. This underscores the need for stricter regulations to counter the influence of marketing on unhealthy food choices [7]. *Global obesity pandemic: Shaped by global drivers and local environments*. This comprehensive review delves into the global drivers and local environmental factors that contribute to the obesity pandemic. It emphasizes the interconnectedness of

numerous factors in shaping dietary habits and obesity rates [8]. Lifetime direct medical costs of childhood obesity. This study focuses on the economic consequences of childhood obesity and highlights the long-term medical costs associated with obesity-related health issues [9]. This underscores the urgency to understand and address the underlying factors that contribute to obesity.

These studies collectively contribute to the understanding of how dietary patterns, along with various social, psychological, and environmental factors, contribute to the development of obesity [10–11]. By synthesizing these findings, the comprehensive evaluation aims to provide a deeper insight into the complex web of factors underlying obesity and guide efforts to combat this global health issue.

Consumption of Junk Food

Fast food has become the contemporary norm in Indian cuisine owing to its accessibility and convenience and is readily available for purchase and preparation. Therefore, this modern tradition also introduces numerous diseases that are harmful to the body and disrupt its natural mechanisms. Because of its flavor and gratification, junk food is favored, but leads to detrimental effects on the body, potentially resulting in death.

The age group between 15 and 25 years is the age group that prefers fast food as they have the most freedom and are in college; therefore, they prefer eating fast food daily. Other than this age group, people consume fast food only when their children, colleagues, or friends eat. Figure 1 shows the survey conducted on the consumption of fast foods in the years between 2016 and 2018.

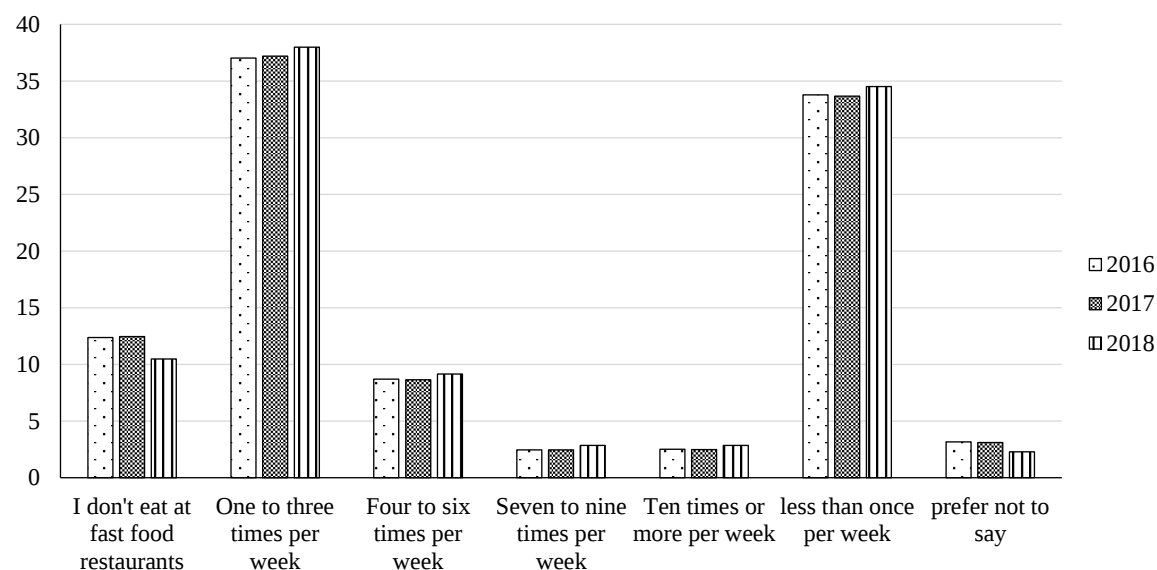


Figure 1. A survey was conducted for the consumption of fast foods in the years between 2016 and 2018.

Consumption of Fast Food According to Their Age

Aysha Karmat and Baig Munazza (2012) authored the article “Review of Trends in Fast Food Consumption” which revealed that the age classification of people that were surveyed, the sample was divided into 4 age groups, people between 15 and 25 age were 70%, 25–35 were 16%, 35–45 were 6% and 45–55 were 8%. They were surveyed, and their preferences were analyzed. Fast food consumption is particularly high among young adults.

Obesity Increase

Obesity is characterized by having a body mass index (BMI) equal to or greater than 30. According to a survey conducted in India, the proportion of women classified as overweight or obese rose from

20.6% in 2016 to 24% in 2021. Conversely, the prevalence among men has increased to approximately 22.9% in 2021. Table 1 depicts the calculation of BMI and Figure 2 depicts the Survey conducted for obesity in India in the years between 1975 and 2016.

Table 1. Calculation of BMI.

BMI	Weight status
Below 18.5	Underweight
18.5–24.9	Healthy
25.0–29.9	Overweight
30.0 and higher	Obesity

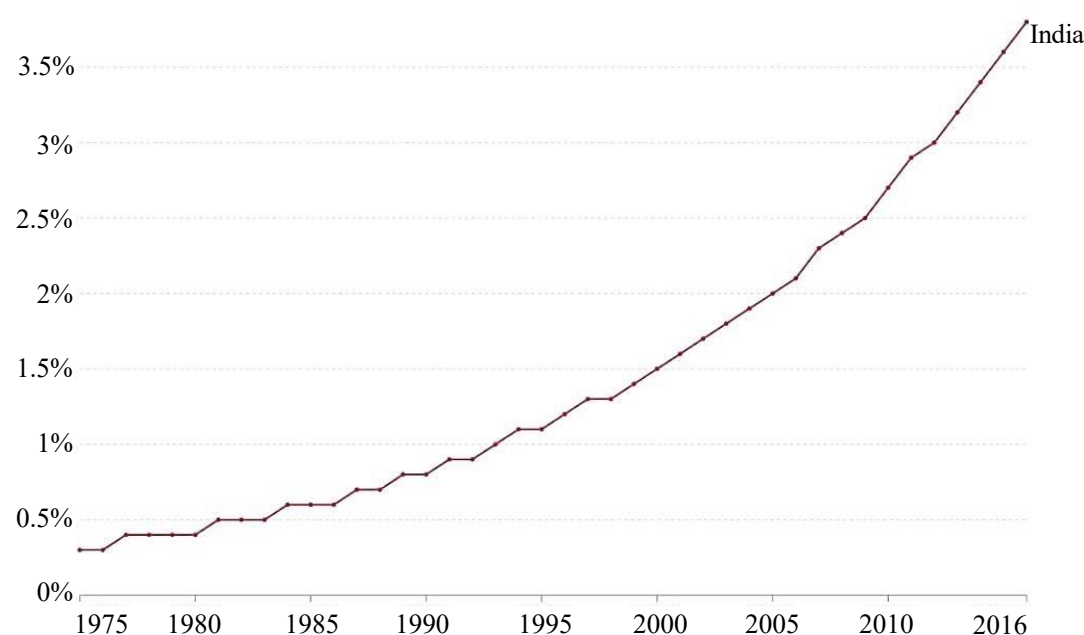


Figure 2. A survey was conducted for obesity in India in the years between 1975 and 2016.

Source: WHO, Global Health Observatory

Causes for Increase in Obesity

Obesity typically arises from the intake of excessive calories, especially fatty and sugary foods, surpassing the amount burned off through physical activity. Surplus energy is retained by the body in the form of fat. Obesity is becoming more prevalent owing to the widespread consumption of large quantities of inexpensive, high-calorie food, coupled with extended periods of sedentary behavior, whether at desks, on sofas, or in cars.

Treatment For Obesity

- Follow a well-balanced diet with controlled calorie intake, as advised by your general practitioner or a healthcare professional specializing in weight management, such as a dietitian.
- Join a local weight loss group.
- Engage in exercises such as brisk walking, running, or playing tennis for 150 to 300 minutes (equivalent to two-and-a-half to five hours) per week.
- Eat slowly and avoid situations where you know you could be tempted to overeat.

PROBLEMS OF BEING OBESE

Health issues: Obesity increases the risk of various serious health conditions including heart disease, diabetes, stroke, and certain types of cancer.

Carrying excess weight places pressure on joints, which can result in conditions such as arthritis and decreased mobility.

Obesity may exacerbate feelings of depression, low self-esteem, and anxiety owing to societal stigmatization and concerns about body image.

Decreased longevity is correlated with obesity, mainly because of its association with chronic illnesses.

Cardiovascular problems: Obesity increases blood pressure and cholesterol levels, increasing the likelihood of heart attacks and other cardiovascular issues.

Type 2 diabetes: Obesity is a significant risk factor for the onset of type 2 diabetes, a persistent condition that affects the regulation of blood sugar levels.

Sleep apnea: Excessive weight can cause breathing problems while sleeping, leading to sleep apnea, a condition that disturbs rest and heightens health hazards.

Fertility and pregnancy complications: Obesity can contribute to infertility in both men and women and increase the risk of complications during pregnancy.

Physical discomfort: Obesity can cause day-to-day discomfort, including difficulty performing simple tasks and activities.

Impact on children: Childhood obesity can lead to physical and emotional problems that persist into adulthood.

CONCLUSION

This study concluded that changes in food habits are the cause of obesity and other issues. The consumption of fast food has increased significantly in the past few years, and processed and packed food contains more calories, which increases the fat content in the body. Fast foods are influenced by social media or local influencers to promote their consumption. To be healthy, we should follow proper diet plans, particularly the obesity cause, in individuals aged between 15 and 25. Over half of young males and females are affected by obesity; unless and until they are involved in a proper diet and perform physical activities, they cannot control the problems caused by obesity.

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