Fast Food Consumption and Its Association with Lifestyle-Related Diseases among Adolescents: A Home Science Study in Dhanbad City

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Abstract: The increasing consumption of fast food among adolescents has emerged as a major public health concern, particularly in urban areas of India. Fast food is often high in fat, sugar, salt, and calories, while being low in essential nutrients, thereby contributing to various lifestyle-related diseases. The present study aims to examine the pattern of fast food consumption and its association with selected health problems among adolescents in Dhanbad city. A cross-sectional survey was conducted among 500 adolescents, comprising 250 boys and 250 girls, selected from schools and colleges of Dhanbad. Data were collected using a structured questionnaire focusing on dietary habits, frequency of fast food intake, physical activity, and self-reported health issues. The findings reveal a high prevalence of frequent fast food consumption among both boys and girls, with significant associations observed between fast food intake and obesity, digestive disorders, fatigue, and early symptoms of lifestyle diseases. The study highlights the urgent need for nutrition education, parental awareness, and school-based interventions to promote healthy eating habits among adolescents.

Keywords: Fast food, Adolescents, Lifestyle diseases, Home Science, Dhanbad city

Introduction

Adolescence is a crucial stage of human development marked by rapid physical growth, psychological changes, and increased nutritional requirements. During this phase, dietary habits play a decisive role in shaping long-term health outcomes. In recent years, the dietary pattern of adolescents has undergone a significant transformation due to urbanization, globalization, changing family structures, and easy availability of fast food. Fast food items such as burgers, pizzas, fried snacks, sugary beverages, and packaged foods have become an integral part of adolescents' daily diets.

From a Home Science perspective, food is not merely a source of energy but a determinant of physical health, emotional well-being, and social behavior. Excessive consumption of fast food, which is typically energy-dense and nutrient-poor, has been linked to obesity, gastrointestinal problems, anemia, fatigue, and the early onset of lifestyle-related diseases such as diabetes and hypertension. Adolescents are particularly vulnerable due to peer influence, aggressive food marketing, lack of nutritional awareness, and sedentary lifestyles.

Dhanbad city, a rapidly urbanizing industrial center, presents a unique context where traditional dietary practices coexist with modern fast-food culture. However, limited empirical studies have focused on the dietary habits of adolescents in this region. The present study attempts to fill this gap by analyzing fast food consumption patterns and associated health problems among adolescent boys and girls in Dhanbad city.

Objectives of the Study

The main objectives of the study are:

1. To assess the frequency and pattern of fast food consumption among adolescents in Dhanbad city.
2. To examine the prevalence of selected health problems among adolescent boys and girls.
3. To analyze the association between fast food intake and lifestyle-related diseases.
4. To compare fast food consumption patterns between boys and girls from a Home Science perspective.

Methodology

Research Design

The study adopted a **descriptive cross-sectional research design**, which is appropriate for assessing dietary habits and health conditions at a particular point in time.

Study Area
The study was conducted in **Dhanbad city, Jharkhand**, covering selected schools and colleges representing different socio-economic backgrounds.

Sample Size
The total sample size consisted of **500 adolescents**, distributed as follows:
- **250 boys**
- **250 girls**

Sampling Technique
A **random sampling method** was used to select respondents from various educational institutions to ensure adequate representation of both genders.

Age Group
Adolescents aged **13–19 years** were included in the study.

Tools for Data Collection
Data were collected using a **structured questionnaire**, which included sections on:
- Socio-demographic profile
- Frequency of fast food consumption
- Types of fast food consumed
- Physical activity pattern
- Self-reported health problems

Method of Data Analysis
The collected data were tabulated and analyzed using **simple percentages** and comparative analysis. Tables were prepared to present the findings clearly.

Data Analysis and Interpretation

Table 1: Frequency of Fast Food Consumption among Adolescents

Frequency of Consumption	Boys (n=250)	Girls (n=250)	Total (n=500)
Daily	72 (28.8%)	65 (26.0%)	137 (27.4%)
2–3 times a week	96 (38.4%)	88 (35.2%)	184 (36.8%)
Once a week	54 (21.6%)	67 (26.8%)	121 (24.2%)
Occasionally	28 (11.2%)	30 (12.0%)	58 (11.6%)

Interpretation:
The table shows that a majority of adolescents consume fast food frequently, with nearly two-thirds eating it daily or 2–3 times a week. Boys exhibit slightly higher daily consumption than girls.

Table 2: Common Health Problems Reported by Adolescents

Health Problems	Boys (%)	Girls (%)	Total (%)
Overweight/Obesity	32.0	28.4	30.2
Digestive problems	26.8	34.0	30.4
Fatigue and low energy	29.6	36.8	33.2
Frequent headaches	18.4	25.6	22.0
No major health issues	24.0	20.8	22.4

Interpretation:
Digestive issues, fatigue, and obesity were commonly reported health problems, with girls reporting higher levels of fatigue and digestive discomfort, while boys showed slightly higher rates of overweight and obesity.

Table 3: Association between Fast Food Consumption and Health Problems

Fast Food Frequency	Adolescents with Health Issues (%)	Adolescents without Issues (%)
Daily	78.1	21.9
2–3 times a week	64.6	35.4
Once a week	42.9	57.1
Occasionally	27.6	72.4

Interpretation:

A clear association is observed between higher fast food consumption and increased prevalence of health problems, indicating that frequent intake significantly affects adolescent health.

Discussion

The findings of the present study indicate a high prevalence of fast food consumption among adolescents in Dhanbad city, which mirrors the changing dietary patterns observed across urban India and other developing regions. Rapid urbanization, increased exposure to mass media, and the growing presence of fast food outlets have significantly altered the food choices of adolescents. The popularity of fast food among school- and college-going adolescents appears to be driven by multiple factors, including taste preference, ease of availability, affordability, peer influence, and limited time for home-cooked meals. These factors collectively contribute to the normalization of fast food as a regular component of the adolescent diet rather than an occasional indulgence.

The study further reveals notable gender-based differences in fast food consumption and associated health outcomes. Adolescent boys were found to consume fast food more frequently than girls, possibly due to higher autonomy in food choices, greater outdoor mobility, and higher calorie demands associated with physical activity. In contrast, adolescent girls reported a higher prevalence of fatigue and digestive problems, which may be linked to irregular eating patterns, lower micronutrient intake, and greater susceptibility to nutritional deficiencies such as iron deficiency anemia. These findings highlight the need to consider gender-specific nutritional vulnerabilities while designing adolescent health interventions.

From a Home Science perspective, the results clearly demonstrate an imbalance between energy intake and nutritional quality among adolescents consuming fast food frequently. Fast food items are typically rich in saturated fats, refined carbohydrates, salt, and added sugars, while being deficient in essential nutrients such as iron, calcium, dietary fiber, and vitamins. During adolescence, a period marked by rapid physical growth, hormonal changes, and increased nutritional requirements, such nutrient inadequacies can have serious implications for physical development, cognitive performance, and overall well-being. The displacement of traditional, nutrient-dense meals by fast food further aggravates the risk of long-term health complications.

The strong association observed between frequent fast food consumption and health problems such as overweight, obesity, digestive disorders, and persistent fatigue underscores the adverse health impact of unhealthy dietary habits. These conditions, once considered adult health issues, are increasingly being reported among adolescents, indicating an early onset of lifestyle-related diseases. Digestive problems reported by adolescents may be attributed to the low fiber content and high fat levels of fast food, which impair gastrointestinal function. Similarly, the rising prevalence of overweight and obesity reflects excessive caloric intake combined with sedentary lifestyles, including prolonged screen time and reduced physical activity.

The findings of this study are consistent with previous research conducted in urban Indian settings, which have reported similar trends in fast food consumption and related health outcomes among adolescents. Studies have repeatedly emphasized that frequent fast food intake is associated with poor dietary quality, increased body mass index, and higher risk of metabolic disorders. The present study adds to this body of literature by providing region-specific evidence from Dhanbad city, thereby strengthening the argument for targeted nutrition education and policy interventions at the local level.

Overall, the discussion highlights the urgent need for comprehensive strategies involving schools, families, and communities to promote healthy eating habits among adolescents. Nutrition education programs, awareness campaigns, and the encouragement of balanced home-cooked meals are essential components of a Home Science–based approach to improving adolescent health and preventing lifestyle-related diseases.

Remedies and Solutions

Addressing the growing problem of fast food consumption and related health issues among adolescents requires a comprehensive, multi-level approach involving families, educational institutions, and the community. From a Home Science perspective, the foundation of healthy eating habits must be established at home through the regular provision of balanced, nutrient-dense meals that meet the specific nutritional requirements of adolescents. Parents and caregivers should be encouraged to plan meals that include adequate amounts of whole grains, pulses, fruits, vegetables, milk, and protein-rich foods while limiting the frequency of fast food consumption. Nutrition education programs aimed at both adolescents and parents can play a critical role in improving awareness about the harmful effects of excessive intake of high-fat, high-sugar, and high-salt foods.

Schools and colleges should integrate basic nutrition education into the curriculum, emphasizing practical knowledge such as reading food labels, understanding portion sizes, and making healthier food choices. In addition, educational institutions should promote healthy canteen policies by restricting the sale of junk food and offering affordable, nutritious alternatives. Encouraging regular physical activity through sports, yoga, and fitness programs can further help adolescents maintain a healthy energy balance and reduce the risk of obesity and lifestyle-related disorders.

At the community and policy level, broader interventions are essential to create a supportive food environment for adolescents. Local health authorities and municipal bodies should regulate the density of fast food outlets around schools and residential areas and enforce guidelines on food quality and hygiene. Mass media campaigns and social media platforms can be effectively utilized to disseminate positive messages about healthy eating and active lifestyles, countering the aggressive marketing strategies used by fast food companies. Community-based workshops and awareness programs led by Home Science professionals can help adolescents develop practical cooking skills, fostering an appreciation for home-prepared meals and traditional diets. Furthermore, routine health screening programs in schools can aid in the early identification of nutrition-related problems such as obesity, anemia, and digestive disorders, allowing for timely intervention. Collaboration between schools, healthcare providers, parents, and policymakers is crucial to ensure sustainable behavioral change. By promoting informed food choices, physical activity, and supportive environments, these remedies and solutions can significantly reduce the adverse health effects of fast food consumption and contribute to the overall physical and nutritional well-being of adolescents

Conclusion

The study concludes that fast food consumption is highly prevalent among adolescents in Dhanbad city and is significantly associated with various lifestyle-related health problems. Both adolescent boys and girls are at risk, though the nature of health issues varies slightly by gender. The findings underline the urgent need for nutrition education, healthy school food policies, and family-level interventions. Promoting balanced diets, regular physical activity, and awareness about the harmful effects of excessive fast food intake is essential for ensuring the overall well-being of adolescents. From a Home Science viewpoint, integrating dietary education into school curricula and community programs can play a vital role in improving adolescent health outcomes.

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