International Journal for Multidisciplinary Research (IJFMR)



E-ISSN: 2582-2160 • Website: <u>www.ijfmr.com</u> • Email: editor@ijfmr.com

Fast Foods Consumption Impact on Physical Health of Adolescent Girls

Dr. Vinita Tomer¹, Dr. Sonika Chaudhary²

¹Ph.D. Scholar, Home Science, Raghunath Girls Post Graduate College Meerut, U.P., India ²Associate Professor, Home Science, Raghunath Girls Post Graduate College Meerut, U.P., India

Abstract:

The fast food industry in India became the fastest growing company in the last decade as many global companies entered the market to expand their market share and region of operations. Adolescents are an aggressive target of food marketing messages (primarily for unhealthy foods) and are susceptible to these messages due to their developmental vulnerabilities and the influence of peer groups. The negative impact on adolescent weight and insulin resistance was seen in all participants who ate frequently at fast food restaurants.

Index Terms: Fast Foods, Adolescent Girls, Physical Health

Objectives:

- To study the Fast food intake in adolescent girls.
- To find out the effects of fast foods on physical health of adolescent girls.

INTRODUCTION:

Adolescence is the period of transition from childhood to adulthood. It includes big changes, in the body and in the way a young person relates to the world. The multiple physical, sexual, cognitive, social, and emotional changes that occur during this time can generate anticipation anxiety in children and their families. Understanding what to expect at different stages can support healthy development during adolescence and early adulthood.

Asgarian et al., (2019), based on his study of the prevalence of junk food during snacks and its association with obesity and overweight among high school students in the inner city of Kuma, said that junk food was associated with high consumption of salt and calories is one of the causes of overweight / obesity. For this cross-sectional study, 638 secondary school students (age group 15-18) were selected using a multi-stage random sampling method. Overweight / obesity was measured using a body mass index (BMI), and the questionnaire was used to determine daily, weekly, monthly, quarterly and random intake of junk food. The results showed that the prevalence of underweight and overweight subjects was 23.2 percent and 11.4 percent, respectively. BMI was not significantly associated with a specific type of junk food. However, it has been found that chocolate and soft drinks are associated with a higher prevalence of underweight (75.8 percent) compared to overweight or obesity (57.6 percent). The prevalence of junk food consumption was high among the high school student population in the disadvantaged Kuma region. No significant association was found between the consumption of junk food and BMI in this study group. Lahiri et al., (2019) conducted a study to assess the effects of various eating habits and physical activity on overweight



International Journal for Multidisciplinary Research (IJFMR)

E-ISSN: 2582-2160 • Website: <u>www.ijfmr.com</u> • Email: editor@ijfmr.com

and obesity. This study was conducted with 645 adolescents (average age 16 years) studying in government-funded rural schools in West Bengal. Student eating habits and factors associated with physical activity have been suggested as key predictors. Taking into account the age and sex of the participants, the influence of these factors on the development of overweight and obesity was analyzed using generalized estimation equations for 2 repeated measurements carried out at intervals, 6 months. The results of this study showed that the prevalence of unhealthy eating habits was obtained as 68.99 percent at the starting of the study and 66.82 percent was observed at the time of observation. The overall prevalence of inadequate physical activity increased to 48.68 percent from 47.91 percent. Women and the older age group were at increased risk of being overweight or obese. Strong evidence has been presented that eating practices are more closely related to overweight in adolescents. Healthy eating practices associated with physical activity should be encouraged to reduce the risk of obesity.

Asgarian et al., (2018), in a crossover study conducted with 300 students, studied the prevalence of fast food consumption and overweight or obesity. This study also aimed to assess the association of fast foods with abdominal and general obesity. In this study, 300 students were randomly selected from the two largest universities in Qom, central Iran, who study in the medical and basic sciences. Data collection was done using a modified version of the questionnaire. According to our results, 72.4 percent (67.4 percent for women versus 80.7 percent for men) at at least one type of fast food in the past month, including 44.4 percent from sandwiches, 39.7 percent of pizza and fried chicken 13.8 percent, the prevalence of obesity based on BMI and WHR was 21.3 percent and 33.2 percent, respectively. Fast food has been found to be associated with abdominal obesity in the form of WHR, but is not associated with general obesity in the form of BMI. The prevalence of consumption and fast food, as well as obesity or overweight among Iranian students was high. Fast food consumption was associated with WHR based on abdominal obesity, but was not associated with general obesity based on BMI.

Magdalena et al., (2017) conducted a study on the nutritional factors of 18-year-old schoolchildren in urban areas and their effect on the frequency of overweight and obesity. The survey was conducted among 1999 randomly selected high school students. The research tool consisted of an original questionnaire. The respondent's height and body weight measurements provided data for calculating body mass index. The percentage of young people with low body weight is estimated at 8.4 percent. The percentage of students with normal weight in the main group was estimated at 77.6 percent. Overweight and obesity accounted for 14.0 percent of the total. Up to 21.8 percent of overweight and obese respondents eat one or two meals, compared with 16.8 percent of students with normal body weight. Three quarters of the students surveyed ate breakfast, regardless of their eating habits. Lunch is eaten by 52.9 percent of 18year-old children with normal weight and 46.1 percent of students with overweight and obesity. Analysis of the lunch break shows that obese and overweight students will have breakfast and dinner later than other respondents. More than half of the participating students did not eat (53.9 percent), and one in four from this group dropped out of lunch. Girls eat fruits and vegetables more often than boys, several times a day. The percentage of people in the study groups who ate fast food daily was the same, regardless of their nutritional status. Overweight and obese children (81.2 percent) are more likely to drink nonalcoholic drinks without sugar than children with good weight (75.8 percent). The same type of drink will be popular with two-thirds of girls, and the result will be the same regardless of nutritional status. About 44.2 percent of girls with overweight and obesity and 20 percent of girls with sufficient body weight tried to lose weight, and 5.7 percent of boys tried to lose weight. 16.5 percent of overweight and obese children reported dietary restrictions and about 3 percent of children with normal body weight. In the group of



E-ISSN: 2582-2160 • Website: <u>www.ijfmr.com</u> • Email: editor@ijfmr.com

young people surveyed, it was possible to distinguish dietary errors, which consisted mainly of irregular meals, a very small number of meals during the day, in particular due to skipping breakfast, more often among overweight and obese students than those of normal weight. The study shows inadequate consumption of fruits and vegetables compared to salty and sweet foods.

Kaur et al., (2016) found that junk food consumption has increased worldwide, as well as in India, especially in recent decades. Frequent junk food increases the risk of obesity in adolescents, which is a serious health problem. This study was conducted to find a correlation between patterns of junk food intake and adolescent BMI. This correlation study was conducted with adolescents in selected schools in the city of Ludhiana in Punjab. A total of 300 adolescents in the 10-19 age groups were selected using a practical sampling plan. A structured questionnaire was used to assess the pattern of junk food in the past. Most teenagers (about 86.3 percent) tended to ate junk food because they liked the taste of junk food. Among subjects, 172 (57.3 percent) were in the healthy weight range, 69 (23 percent) were overweight, and 29 (9.7 percent) were obese. The results indicate a very significant positive correlation of the junk food intake model with BMI. Thus, it was concluded that there is a strong positive correlation between the structure of junk food intake and overweight and obesity in adolescents.

Askari et al. (October 2016) conducted a study to assess the relationship between fast food consumption and the frequency of metabolic syndrome (SEM) and its components in children and adolescents during the observation period of 3, 6 years. Data on the diet of 424 healthy people (aged 6 to 18 years) were obtained using a reliable and reliable questionnaire on the frequency of food intake. Metabolic syndrome was determined by the criteria of Cook et al. findings revealed that the incidence of Mets was 11.3 percent after 3.6 years of follow-up tended to take place. No significant association was found between fast food and other components. It has also been found that fast food is associated with the frequency of metabolic syndrome, abdominal obesity and hypertriglyceridemia in children and adolescents in Tehran.

Marlatt et al., (2015) stated that skipping breakfast and eating fast food is associated with a risk of obesity and is a common behavior among adolescents. The relationship between this behavior and biomarkers associated with diabetes and cardiovascular disease is poorly understood in this population. Data from a study of the etiological factors associated with adolescent obesity risk. Breakfast and fast food were measured using self-esteem. Anthropometry, fasting lipids, glucose, and insulin were evaluated and the homeostatic model of insulin resistance (HOMA-IR) was evaluated. Multivariate analysis was used to study the relationship between eating behavior and specific biomarkers, calorie control, body mass index (BMI), and demographic covariates. 367 teenagers (ages 11-18) were evaluated at the University of Minnesota Twin. Breakfast food was widely associated with lower BMI, fat deposits, insulin, and metabolic syndrome, while fast food meals were associated with higher BMI, fat deposits, cholesterol, low density lipoproteins, triglycerides, glucose, and insulin. Some gender differences were also noted. Breakfast and fast food seem to be associated with important biomarkers of the metabolic syndrome for chronic diseases in a sample of healthy adolescents.

Arya et al., (2013) focused on excessive consumption of junk food and studied a wide range of diseases. School canteens offer foods high in fat and sugar that really help young people gain weight, as well as other problems, such as infections, food poisoning, and dental diseases. Eating junk food can prevent children from eating healthy food at school or at home. The practice of eating junk food, such as Maggie noodles, hamburgers, paobhajis, sandwiches, hot dogs, pancakes, cakes, popcorn, French fries, soft drinks, cookies, muffins, toasts, hulcha-chanha, samosa, chocolate, etc. D. They have become common place in



International Journal for Multidisciplinary Research (IJFMR)

E-ISSN: 2582-2160 • Website: <u>www.ijfmr.com</u> • Email: editor@ijfmr.com

the diets of teens around the world. They often eat fast food and fruits, vegetables and dairy products. According to WHO, in India, more than 3 percent of the population is obese. Obesity is a major public health problem worldwide among adolescents. This is one of the most effective tools for changing eating habits that do not affect your feelings. Dietary advice on the importance of a balanced diet, the harmful effects of junk food will help reduce your dependence on junk food and improve your nutritional status. Particular attention should be paid to nutritional recommendations to facilitate the consumption of unwanted healthy foods, such as fermented foods, wheat noodles, the addition of plenty of vegetables, sprouted legumes, sprouted tikki, samosa and vegetable chops, wheat bread and a few grains.

Mohammad et al., (2012) conducted a study to determine the relationship between fast food consumption and food quality and obesity among girls in Isfahan. This cross-sectional study was conducted on 140 Iranian adolescents selected using a systematic cluster sampling method. Food intake was estimated using an approved food intake frequency questionnaire. Food quality was determined based on energy density and nutrient ratio (NAR). People in the upper fast food quartile had significantly lower NAR values for vitamin B1, phosphorus, selenium, and vitamin B2 compared to the lower quartile. People in the upper quartile of fast food consumed more energy-dense diets than the lower quartile. High fast food consumption was largely associated with overweight and obesity. Fast food has been found to be associated with poor food quality.

Marie-Pierre et al., (2003) reviewed literature on children's eating habits and current eating habits to explain their rising BMI, as well as an overview of criticism of catering services and political practices regarding school food options for kids. They concluded that 16 percent of children aged 6 to 11 years are overweight because childhood obesity is currently at the highest level. With an increase in body weight in children, the consumption of soluble products and soft drinks increases. The proportion of food consumed by children in restaurants and fast food restaurants, increased by almost 300 percent between the years of 1977 to 1996. The consumption of soft drinks for children also increased during these years, and soft drinks now provide consumers with soft drinks 188 kcal/day, beyond energy intake. These changes in children's food intake may partly explain the increase in childhood obesity seen in recent years. Furthermore, childhood overweight and obesity can predispose people to morbidity in adulthood. Blood pressure and fasting insulin and cholesterol levels were found higher in overweight children than in normal weight children.

CONCLUSION:

- The prevalence of junk food consumption are high among the high school students. Junk food was associated with high consumption of salt and calories is one of the causes of overweightness and obesity
- Women and the older age group were at increased risk of being overweight or obesity. Eating practices are more closely related to overweightness in adolescents. Healthy eating practices associated with physical activity should be encouraged to reduce the risk of obesity.
- Fast food has been found to be associated with abdominal obesity in the form of WHR, but is not associated with general obesity in the form of BMI.
- Adolescents have inadequate consumption of fruits and vegetables compared to salty and sweet foods.
- There is a strong positive correlation between the structure of junk food intake and overweight and obesity in adolescents.



E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@ijfmr.com

- Fast food is associated with the frequency of metabolic syndrome, abdominal obesity and hypertriglyceridemia in children and adolescents
- Fast food meals were associated with higher BMI, fat deposits, cholesterol, low density lipoproteins, triglycerides, glucose, and insulin.
- School canteens offer foods high in fat and sugar that really help young people gain weight, as well as other problems, such as infections, food poisoning, and dental diseases.
- Fast food has been found to be associated with poor food quality.
- Childhood overweight and obesity can predispose people to morbidity in adulthood.

ACKNOWLEDGMENT:

This research was supported by my research guide Dr. Sonika Chaudhary, who provided insight and expertise that greatly assisted the research. So I thank to her for sharing their pearls of wisdom with me during this research. I would also like to show my gratitude to my husband Mr. Sharad Kumar for supporting me.

REFERENCES:

- 1. Ashakiran, S. & Kiran, Deepthi. (2012). Fast foods and their impact on health. Journal of Krishna Institute of Medical Sciences University. 1. 7-15.
- Askari H.M. Solhi M. et. al., (March 2016), Factors Influencing Fast-Food Consumption Among Adolescents in Tehran: A Qualitative Study, Iran Red Crescent Med J. 2016 Mar; 18(3): e23890. Published online 2016 Mar 6. doi: 10.5812/ircmj.23890
- 3. Geeta, Arya & Mishra, Sunita. (2013). Effects of junk food and beverages on adolescents' health: A review article. IOSR Journal of Nursing and Health Sciences, ISSN: 2320-1940. 1. 26-32
- Jasjit Kaur Randhawa, Kapila Mahajan, Manbir Kaur, Arti Gupta. Effect of Dietary Habits and Socioeconomic Status on Menstrual Disorders among Young Females. American Journal of BioScience. Special Issue: Academic Research for Multidisciplinary. Vol. 4, No. 3-1, 2016, pp. 19-22. doi: 10.11648/j.ajbio.s.2016040301.14
- 5. Kara L. Marlatt Kian Farbakhah et. al. (2015), Breakfast and fast food consumption are associated with selected biomarkers in adolescents, PMR Journal, Volume -3, 2016 June, 49-52 pages, PMC4733061.
- 6. Lahiri A, Chakraborty A, Dasgupta U, Roy AK, Bhattacharyya K.(2019). Effect of dietary habit and physical activity on overnutrition of schoolgoing adolescents: A longitudinal assessment in a rural block of West Bengal. Indian J Public Health 2019;63:171-7
- Marie-Pierre St-Onge, Kathleen L Keller, Steven B Heymsfield (2003). Changes in childhood food consumption patterns: a cause for concern in light of increasing body weights, *The American Journal* of Clinical Nutrition, 78, (6), Pages 1068–1073
- Mohammadbeigi, A., Asgarian, A., Ahmadli, R., Fara-Shirazi, S.Z., Moshiri, E., Ansari, H., Khazaei, S.K. and Afrashteh, S., 2019. Prevalence of junk food consumption, overweight/obesity and self-rated health and fitness in high school adolescent girls: a cross sectional study in a deprived area of Qom. *Sri Lanka Journal of Child Health*, 48(3), pp.208–214. DOI: http://doi.org/10.4038/sljch.v48i3.8754
- 9. Mohammadbeigi, A., Asgarian, A., Moshir, E., Heidari, H., Afrashteh, S., Khazaei, S., & Ansari, H. (2018). Fast food consumption and overweight/obesity prevalence in students and its association with



general and abdominal obesity. *Journal of preventive medicine and hygiene*, 59(3), E236–E240. https://doi.org/10.15167/2421-4248/jpmh2018.59.3.830

10. Z Magdalena and M Elzbieta (2017) Selected nutritional habits of teenagers associated with overweight and obesity, PeerJ. 2017; 5: e3681. Published online 2017 Sep 22. doi: 10.7717/peerj.3681