



E-ISSN: 2278-4136

P-ISSN: 2349-8234

[www.phytojournal.com](http://www.phytojournal.com)

JPP 2022; Sp 11(1): 09-13

Received: 05-11-2021

Accepted: 09-12-2021

**Mini**

Ph.D., I. C. College of Home Science, Chaudhary Charan Singh Haryana Agricultural University, Haryana, India

**Poonam Malik**

I. C. College of Home Science, Chaudhary Charan Singh Haryana Agricultural University, Haryana, India

**Radha**

Ph.D., I. C. College of Home Science, Chaudhary Charan Singh Haryana Agricultural University, Haryana, India

**Khushbu**

Ph.D., I. C. College of Home Science, Chaudhary Charan Singh Haryana Agricultural University, Haryana, India

**Bhawana**

M.Sc., I.C. College of Home Science, Chaudhary Charan Singh Haryana Agricultural University, Haryana, India

**Corresponding Author:****Mini**

Ph.D., I. C. College of Home Science, Chaudhary Charan Singh Haryana Agricultural University, Haryana, India

## Role of counseling on awareness of junk foods & beverages on the life of adolescence

Mini, Poonam Malik, Radha, Khushbu and Bhawana

**Abstract**

One of the most important prerequisites for a long life is to "eat healthy and live healthy." But most of the adolescence eat junk food even in their meal time and get addicted to the taste of the junk food. Junk foods which are low in fiber, high in palatability, high number of calories, high in fat and high in sugar in liquid form. Even school canteens serve high-fat, high-sugar items, which contribute to child weight growth as well as other issues such as infections, food poisoning, and dental disease. In this framework, nutrition counseling plays an important role regarding the importance of balanced diet and it is imperative to concentrate on nutrition counseling in order to support the consumption of nutritious junk foods such as sprouted pulses, sprouted tikki, fermented foods, wheat noodles with a lot of vegetables, sprouted pulses, vegetable samosas, cutlets, and wheat and multigrain bread are some of the items on the menu.

**Keywords:** Junk foods, beverages, counseling, health

**Introduction**

Adolescence is a transitional period between childhood and adulthood, which begins from the earliest signs of secondary sexual characteristics development and ends when a person has achieved adult status (WHO, 1995). It's the only moment when your physical growth rate truly accelerates. This rapid development spurt is accompanied by hormonal, cognitive, and emotional changes, making adolescence a particularly vulnerable time. First, due to the rapid rise in physical growth and development over a short period of time, there is a higher demand for calories and nutrients. Second, adolescence is a time of changing lifestyles and food habits, which affects both nutrient needs and intake.

Third, adolescent individuation means increased freedom to declare eating preferences and broaden or narrow healthful options. Adolescence can be divided into three stages -

- The onset of puberty and increasing cognitive development characterize early adolescence (ages 11-14).
- Increased freedom and exploration characterize middle adolescence (15-17 years of age).
- Late adolescence (18-21 years old) is a time when major personal and professional decisions must be made.

It is very important for the adolescence that they should consume that type of foods which are highly rich in nutrients. But, there are many adolescents who eat unhealthy/Junk food and consume sugary Beverages every day and sometimes they consume for the whole day which is not good for their health.

Junk food is unhealthy food that is high in calories from sugar or fat, with little dietary fiber, protein, vitamins, or minerals; similarly, sugar-sweetened beverages are liquids sweetened with various forms of added sugars such as brown sugar, corn sweetener, corn syrup, dextrose, fructose, glucose, high-fructose corn syrup, honey, lactose, malt syrup, maltose, molasses, raw sugar, and sucrose; as Junk food is high in saturated fats, which are damaging to the body after digestion and cause a lot of toxins to be released. Furthermore, it is deficient in vitamins and minerals, which are essential for optimum health and disease resistance. Diet has a critical part in a person's overall health and well-being. A healthy, well-balanced diet increases one's quality of life, but a bad diet can lead to disease and morbidity.

Adolescence is marked by high calorie and protein demands, as well as significant changes in physical, emotional, and cognitive functions. In order to ensure proper growth and development, adolescent dietary needs are at their highest. The practice of healthy eating habits is one of the most important parts of addressing the nutritional needs of adolescence.

Beyond this, Nutrition counseling also plays an important role in promoting sustainable healthy eating behaviors. Adolescents are frequently unaware of the health hazards connected with unhealthy habits and have not considered changing their eating habits.

As a result, nutrition counseling aims to raise adolescence' knowledge of the hazards associated with their eating habits, teach them how to eat a well-balanced diet that includes a range of foods, and teach them how to make wise food choices on their own. In this pandemic period (COVID-19), we all need to have healthy food, in order to, our immunity system is strong. Moreover we can safe from this pandemic. But paradoxically, adolescent are consuming unhealthy/Junk food and sugary beverages. As far as, it's imperative to conduct counseling session for adolescent regarding this, so that they get to know about the importance of healthy food.

### Here are some examples of junk foods

- Soda
- French Fries
- Milk Shake
- Pizza
- Fried Chicken
- Cheese cake
- Hot Dog
- Burgers
- Samosas
- Ice-creams
- Noodles
- Kurkure
- Carbonated Beverages
- Creamy Cakes

### History

According to an article in the *New York Times*, "The history of junk food is a largely American tale". It's been around for hundreds of years in various parts of the world, but no one has done a better job at inventing so many different versions, branding it, mass-producing it, making people wealthy off of it, and, of course, eating it. "Cracker Jack, the sugar-coated popcorn-and-peanuts delicacy, is acknowledged as the first successful name-brand junk food; it was invented in Chicago in 1896, registered in 1897, and became the world's best-selling confectionery in 20 years."

### Facts of Eating Junk Foods

- It can cause memory and learning problems
- It can cause type 2 diabetes
- It can trigger digestive problems
- It causes fatigue and weakness
- It causes fluctuations in blood sugar levels
- It affects the brain function
- It increases the risk of heart disease
- It can cause kidney disease
- It can damage your liver
- It increases your risk of cancer
- It impacts your fertility

### Reasons of popularity of junk Food

- **The time factor:** Junk food addiction is so common because it is so easy to obtain. They're simple to make and delicious. Junk foods like potato wafers and Cheetos don't need to be cooked or heated. People love to eat them while watching television; they save time and effort when they are in a rush by ordering pizzas and burgers, which are delivered hot and ready to eat.
- **The taste element:** While time constraints are one factor that drives consumers to eat junk food, fantastic taste also

plays a role in their decision. The excessive use of oils, salts, and sugar in junk foods, on the other hand, gives them their flavor. A survey done by global broadcaster BBC World and prominent market research firm Synovate revealed that Britons are more addicted to junk food than any other country. Overall, the poll revealed that people have differing attitudes and habits when it comes to junk food. They find it difficult to consider the nutritional loss caused by junk food once they have been addicted to it.

- **Shelf life:** Junk food has a lengthy shelf life and most goods, such as chips and wafers, don't need to be refrigerated.
- **Ease of transportation:** Junk food is easier to carry than man-made food due to its packaging. The convenience of mobility and the availability of junk food are increasing the popularity of junk food every day.
- **Cost:** When compared to healthy food, it is less expensive. The appeal of junk food is also due to its low cost. Due to its modest and attractive price range, it is widely accessible to people of all socioeconomic strata.
- **Reward System:** The reward system is a component of our brain. This system was created to "reward" us for doing activities that help us stay alive. Primal activities such as eating fall under this category. When we eat, the brain recognizes that we're doing something "correct," and the reward system releases a slew of feel-good chemicals, including the neurotransmitter dopamine, which our brains perceive as pleasure. The reward system is programmed in the brain to seek out acts that release dopamine. The issue with modern junk meals is that they can produce a reward that is far more potent than anything we've ever encountered in nature. Whereas eating an apple or a piece of steak may result in a moderate release of dopamine, eating an apple or a piece of steak may result in a significant release of dopamine. (Ayano, G. 2016) <sup>[1]</sup>

### Effect of SSB (Sugar-sweetened Beverages) on BMI and Bones

Soft drink consumption has surged 500-fold in the last 50 years, with the majority of customers being children, teenagers, and young adults, and consumed primarily during the summer (Heller *et al.*, 2001) <sup>[9]</sup>. Consumption of soft drinks has been found 73% in boys and 62% in adolescent girls (French *et al.*, 2003) <sup>[7]</sup>. Soft drinks are the largest source of added sugar in adolescents' diets; the American Academy of Pediatrics has suggested reducing soft drink intake and prohibiting the sale of soft drinks in school vending machines. Several studies have found a link between sugar-sweetened beverages and the prevalence of obesity. Children who consumed the most sugar-sweetened beverages also gained weight. American Academy of Pediatrics Committee on School Health (2004) <sup>[3]</sup>.

It has been proven that children and adolescents who skip breakfast have a higher body mass index (BMI), because skipping breakfast can lead to an imbalanced eating pattern later in the day, resulting in the consumption of SSB, snacks, and calorie foods. A 20-ounce can of soda includes 16 teaspoons of sugar, 250 calories, 90 milligrams of caffeine, a pH of 3 or lower, and no minerals, vitamins, or calcium. Calcium is critical for the formation of strong bones and teeth in children and teenagers. Calcium and vitamin D are mostly found in milk (Matkovic *et al.*, 1994) <sup>[12]</sup>.

Children's diets have been supplanted with soda and drinks. With a single 12 oz can consumed daily, adding calories to the normal diet without increasing physical activity can result in a weight gain of 15 lb per year. Diabetes is on the rise all across the world and it's accompanied by an increase in obesity. Obese and with a higher proportion of body fat distributed largely in the abdomen area, regular and massive SBB consumers are obese. A young adult's normal body mass index (BMI) is less than 25 kg/m<sup>2</sup>, whereas a BMI of 25 to 30 kg/m<sup>2</sup> is considered overweight, and a BMI of more than 30 kg/m<sup>2</sup> is considered obese.

Several researchers have found a link between soft drink consumption and medical issues. Elevated blood pressure and an increased risk of diabetes are the most pressing concerns. The most remarkable conclusion was that individuals who consumed 1 or more servings of soft drinks per day were twice as likely to acquire diabetes as those who used less than 1 serving per month, according to a research of 91 249 women monitored for 8 years. This alone should be cause for concern when it comes to soft drink use, especially given the rapid rise in type-2 diabetes among children. (Schulze *et al.*, 2004)<sup>[19]</sup>

### Consumption pattern of Junk Food and Beverages

- A study conducted in Baroda reported higher consumption of Junk Food items (56%) such as chocolates, pastries and sweets and soft drinks (39%) by SAC in the last 24 h.
- Another study conducted in Lucknow reported daily consumption of Junk Food items such as chocolate, bakery items, and ice cream by 28%, 14%, and 35% of SAC, respectively.
- Soft drink consumption was reported daily among 30% SAC and once in 2 days among 70% of SAC residing in a study conducted in New Delhi.
- Gupta *et al.*, (2018)<sup>[8]</sup> found that the most popular Junk foods item was chips (71%) followed by chocolate (14%), bakery products (13%), soft drinks (7%), and sugar sweetened beverages (5%). They also found that majority (78%) of the children consumed one Junk Food item in the last 24 h. However, 22% ( $n = 33$ ) children were consuming 2 or more Junk Food items in the last 24 h of the study. They observed that the Junk Food was consumed mainly as snacks from shops outside the school during evening time after the end of school.
- Singh and Singh (2008)<sup>[13]</sup> concluded that practice of high consumption of junk foods like maggi noodles, burgers, pao-bhaji, sandwiches, hot dogs, patties, pastries, popcorn, potato chips, carbonated drinks, biscuits, muffins, toast, kulcha-channa, samosas, chocolates etc. have become common feature of adolescent's diet.
- Chhibber (2010)<sup>[5]</sup> found that ill effects of regular intake of junk foods are mainly lack of energy, poor concentration and obesity leading to inferiority complex, depression, heart diseases, high cholesterol, stunted growth, premature ageing, and tooth decay.

### Statistical data on Junk food consumption

- 93 per cent children eat packaged food more than once a week
- 56 per cent children eat sweet food items such as ice cream and chocolates more than once a week

- 59 per cent children aged between 14 years and 17 years eat packaged beverages or food at least once a day.
- 83 per cent children drink milk food drinks and 69 per cent eat breakfast cereals such as cornflakes as their first meal of the day before heading to school.
- 91 per cent children carry lunch box from their homes but 40 per cent children consume packaged food to school almost daily

### Junk food consumption: How other countries tackle it

- As early as 1948, Finland became the first country in the world to ensure that primary schools serve students a daily hot meals and this remains the case even today. The meals served to the students are balanced, locally sourced and mostly vegetarian. For dessert, fresh fruits like berries are served.
- Thanks to a tradition called 'Pausenbrot', German children usually don't eat their meals at school. Put simply, while there is a long wait between breakfast and lunch; their meals are made and served at home. A typical lunch plate in Germany serves potato salad with meatballs or sausage along with a serving of vegetables like carrots and green beans.
- The Netherlands ranked at the top of a 2014 study for serving nutritious and healthy food out of 125 countries. The Dutch model of families eating meals together has demonstrated health benefits for children, Notably, Dutch children are known to have the lowest obesity rates in the world.
- Schools in Japan believe that lunch is part of the children's education. Result? Serving a balanced lunch of rice, fish, vegetables and soups, the Japanese school lunch is known to be one of the best in the world. Children are encouraged to learn etiquette and manners as part of the lunch experience.

In a nutshell, the way in which children are fed on a daily is as important to their health and well-being as are the nutrients in the food they are served.

### Effects of Junk Food and Beverages on health

- Kapil *et al.*, (2001) conducted a study among the affluent public school children in New Delhi revealed that prevalence of overweight and obesity of about 25 per cent and 7 per cent and several studies have been done in India to assess the prevalence of overweight and obesity among the adolescents respectively.
- Story *et al.*, (2002) stated that about one fourth of the adolescents skipped breakfast on at least one day during the school week. A greater proportion of adolescents studying in the private schools skipped breakfast than those studying in government schools. It most probably has to do with the early school timings of the private schools. Moreover students from private schools have to board their school buses at least an hour before the school starts.
- Subramanyam *et al.*, (2003)<sup>[14]</sup> reported that prevalence of overweight and obesity among the affluent adolescent school children in Chennai, Tamil Nadu was about 15 per cent and 3 per cent.
- Zero (2004)<sup>[20]</sup> stated that "fluoride has raised the threshold of sugar intake at which caries will progress to cavitations, but fluoride has its limits and caries remain a



serious problem for disadvantaged individuals in many industrialized countries.

- According to Center for Diseases Control (CDC) report (2005), the prevalence of type-2 diabetes is increasing in adolescents in conjunction with childhood obesity.
- Kaur *et al.*, (2008) conducted study which was done in Delhi revealed that the prevalence of overweight and obesity to be 13 and 9.3 percent respectively.
- Many Scientists from China in the National Meeting of the American Chemical Society in August 2009 reported that dense sugar content can cause dental cavities and type 2 diabetes mellitus. Lack of energy is a short-term negative effect of eating junk meals, which happens when junk foods lack critical nutrients. The high levels of sugar in junk food stress the metabolism, causing the pancreas to generate large amounts of insulin to prevent a dangerous surge in blood sugar levels. Because fast food and junk food lack significant amounts of protein and nutritious carbs, blood sugar levels drop abruptly after eating, causing grumpiness, exhaustion, and a need for sugar.
- A study was done to determine the socio-environmental, personal, and behavioral factors of fast food consumption among adolescents in Minnesota schools, and 806 samples were randomly selected. Personal and behavioral characteristics, such as weight concern and the adoption of good weight-control measures, were found to be protective against increased fast-food consumption in the study.
- Krishna *et al.*, (2013) <sup>[10]</sup> stated that disorders of the balance of saturated / unsaturated fatty acids, as well as an excess of saturated fatty acids have significant consequences on the homeostasis of the immune system, contribute to the development of many allergic, autoimmune and metabolic diseases.

#### **Role of Counseling on awareness of Junk Foods and Beverages**

- Stang and Story (2005) <sup>[16]</sup> stated that the nutrition counseling is a key element in promoting sustainable healthy eating behaviors. Adolescents often are not aware of the potential health risks associated with poor habits and have not thought about making dietary changes. Therefore, the goal of nutrition counseling is to increase adolescents' awareness of risks associated with current eating habits, to teach to eat well balanced diet that contain a variety of foods and to learn to make wise food choices independently.
- Sarah *et al.*, (2007) <sup>[15]</sup> recommended that primary care practitioners should screen children on a universal basis to increase early detection of elevated BMI, medical risks, and bad eating and physical activity behaviors in people who are at risk for obesity. Most children can benefit from obesity prevention messaging, and those who are overweight can benefit from weight control interventions. To estimate the child's obesity risk, BMI should be computed and plotted at least once a year, and the classification should be combined with additional data such as growth pattern, familial obesity, and medical concerns.
- Mahajan (2011) <sup>[11]</sup> observed that the frequency of consumption of fast food items like pakora, burger, macaroni, Manchurian, Maggie, noodles and samosas significantly decreased after nutrition intervention.

- Singla *et al.*, (2012) <sup>[17]</sup> elucidate that the group received nutrition counseling in the form of modules, lectures, visual aids such as charts and posters, flash cards and leaflets for three months, and one counseling session fortnightly in vernacular language on the balanced diet, functions of different nutrients and their requirements, nutritional disorders, their control and prevention, cooking practices, importance of physical exercise, ill effects of junk foods, and how to avoid them.

#### **Conclusion**

According to WHO, in India, more than 3 per cent of the population is in the obese category. Obesity is an emerging major public health problem throughout the world among adolescents. In that case, nutrition counseling is one of the most effective tools of changing the food habits and aware the adolescence regarding the harmful effects of Junk Foods and Beverages. Nutrition counseling is an important part of promoting long-term healthy eating habits. Adolescents are frequently unaware of the potential health concerns linked with poor behaviors and have not considered making nutritional changes. As a result, nutrition counseling aims to raise adolescence' knowledge of the hazards associated with their eating habits, teach them how to eat a well-balanced diet that includes a range of foods, and teach them how to make wise food choices on their own.

#### **References**

1. Ayano G. Dopamine: Receptors, Functions, Synthesis, Pathways, Locations and Mental Disorders: Review of Literatures, 2016. [https://www.researchgate.net/publication/309116302\\_Do\\_pamine\\_Receptors\\_Functions\\_Synthesis\\_Pathways\\_Locations\\_and\\_Mental\\_Disorders\\_Review\\_of\\_Literatures](https://www.researchgate.net/publication/309116302_Do_pamine_Receptors_Functions_Synthesis_Pathways_Locations_and_Mental_Disorders_Review_of_Literatures)
2. Arya G, Mishra S. Effects of Junk Food & Beverages on Adolescent's Health – a Review Article. *Journal of Nursing and Health Science*. 2013;6:26-3.
3. American Academy of Pediatrics Committee on School Health. Soft drinks in schools. *Pediatrics*. 2004;113(1):152-154.
4. Bhaskar R, Ola M. Junk Food: Impact on Health. *Journal of Drug Delivery & Therapeutics*. 2012;2(3):67-73.
5. Chhibber C. Children Hooked to Junk Food: Schools Fail to Curb the Menace. *The Tribune, Ludhiana*. 2010, pp 1-2.
6. Center for Diseases Control and Prevention. National Diabetes fact sheet. United States, 2005. Available from: [http://apps.nccd.cdc.gov/DDTSRS/template/%20ndfs\\_2005.pdf](http://apps.nccd.cdc.gov/DDTSRS/template/%20ndfs_2005.pdf)
7. French SA, Lin BH, Guthrie JF. National trends in soft drink consumption among children and adolescents age 6 to 17 years; prevalence, amounts and sources. *J Am Diet Assoc*. 2003;103(10):1326-1331.
8. Gupta A, Kapil U, Singh G. Consumption of Junk Foods by School-aged Children in Rural Himachal Pradesh, India. *Indian Journal of Public Health*. 2018, 62(1).
9. Heller KE, Burt BA, Eklund SA. Sugared soda consumption and dental caries in the United States. *J Dent Res*. 2001;80(10):1949-1953.
10. Krishna NK, Matthew D, Koci, Susana Guix. Immune Responses. *Nutrients Review*. 2013, 9781461447
11. Mahajan N. Food consumption pattern and nutritional status of urban and rural adolescent boys. Msc. Thesis. Punjab Agricultural University, Ludhiana, Punjab, India, 2011.

12. Matkovic V, Jelic T, Wardlaw GM, Ilich JZ, Goel PK, Wright JK, *et al.* Timing of peak bone mass in caucasian females and its implication for the prevention of osteoporosis: Inference from cross-sectional model. *J Clin Invest.* 1994;93(2):799-808.
13. Singh P, Singh A. Increasing allurement for fast food in adolescent girls of urban area Varanasi. *Ind. J Prev. Soc. Med.* 2008;39(1 and 2):24-27
14. Subramanyam V, Jayasree R, Rafi M. Prevalence of overweight and obesity in Affluent girls in Chennai 1981 and 1998, *Indian Pediatrics.* 2003;40(4):332-6
15. Sarah E, Barlow MD. M.P.H and the Expert Committee. Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report, 2007.
16. Stang J, Story M. Guidelines for Adolescent Nutrition Services. US department of Health and Human Services, University of Minnesota, 2005, 55-57.
17. Singla P, Sachdeva R, Kochhar A. Impact of Nutrition Counseling on Consumption Pattern of Junk Foods and Knowledge, Attitudes and Practices among Adolescent Girls of Working Mothers, *J Hum Ecol.* 2012;39(3):221-227.
18. SR. Financial Express read to lead, 2019. <https://www.financialexpress.com/lifestyle/junk-food-becoming-menace-in-india-data-points-to-dangerous-increase-in-consumption/1679596/>
19. Schulze MB, Manson JE, Ludwig DS. Sugar-sweetened beverages, weight gain, and incidence of type 2 diabetes in young and middle-aged women. *JAMA.* 2004;292:927-934.
20. Zero DT. Sugars—the arch criminal? *Caries Res.* 2004;38(3):277-285.