



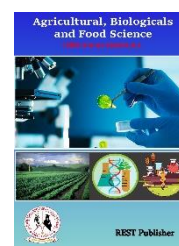
Agricultural, Biologicals and Food Science

Vol: 2(1), 2023

REST Publisher; ISB N: 978-81-956353-8-2

Website: <https://restpublisher.com/book-series/abfs/>

DOI: <https://doi.org/10.46632/abfs/2/1/3>



Reasons Behind High Consumption of Fast Food in Youth of Delhi/NCR- A Survey

Richa Mehta

Lady Irwin College, University of Delhi, India.

Corresponding Author Email: richamehta1970@gmail.com

1. INTRODUCTION

Junk food term refers to fast foods which are easy to make and quick to consume. They are zero in nutritional value and often high in fat, salt, sugar, and/or calories. Common junk foods include salted snack foods, fried fast food, and carbonated drinks. Junk Food has become a major problem and many countries are taking action – banning junk food advertising in children’s programmes, removing it from schools and even imposing a fat tax. Many junk foods also have trans fats. Trans fats behave like saturated fats when they get in the body. They clog up the human arteries and cause plaque to build up contributing to heart disease and stroke symptoms. A 2008 report suggests that mothers who eat junk food while pregnant or breast-feeding have children who are more prone to obesity. The children are also more prone to diabetes, raised cholesterol, and high blood fat. Consumption of fast foods has become almost a global phenomenon. India’s fast-food industry is expanding at the rate of 40% every year. India ranks 10th in the fast-food per capita spending figures with 2.1% of expenditure in annual total spending. Popularity of these food stuffs in this age of urbanization has been attributed to quick preparation and convenience of finishing a meal within no time. Great taste, attractive appearance along with advertising has played a major role in attracting people particularly adolescents to the selling joints. Unfortunately, the current world’s adaptation to a system of consumption of fast foods has resulted in several adverse effects on health. The energy density of fast foods had been found to be more than twice the recommended daily allowance for children. Experts therefore attribute the current childhood obesity epidemic to fast foods. This increase in childhood obesity has led to increase in life-threatening conditions particularly non communicable diseases in developing countries [1,6]. Dental cavities another common ailment in school children can result due to dense sugar content in fast foods. Food additives used in these food stuffs are found to be carcinogenic and can be allergic causing asthma and rashes which are also seen frequently among children. Added to this in developing countries there are problems like poor hygiene during preparation storage and handling of fast foods leading to contamination by microorganisms. As food habits learnt in childhood tend to persist into adulthood it becomes important to educate children about healthy eating habits and make them aware about the health hazards of fast foods right. It becomes equally important to have a clear understanding of the factors influencing food choices so as to formulate appropriate nutritional educational strategies. Fast food culture is a vigorously uprising trend among the youngsters (Kaushik et al., 2011). Although, its impact exists on whole society, whether belong to lower middle class and/or elite class. But beside this thing till today there is no proper definition of the fast food. According to leading websites, fast food is the term given to food that can be prepared and served very quickly while Habib et al. (2011) described fast food as quickly prepared, reasonably priced and readily available alternatives to home cooked food. Salt, sugar and fat are items that need to be regulated. Junk Food is not standardized under Indian regulations. It comes under the category of food which is only expected to declare their composition or nature of food and comply with general regulations under the Food Safety and Standards Act in India. As there are no reports of nutritional analysis in Junk Food in India, Pollution Monitoring laboratory undertook a study on Nutritional analysis of Junk Food. A total of 23 junk food samples from seven different food categories like potato chips (4), snacks (2), instant noodles (2), burgers (6), pizzas (3), french fries (2) and carbonated drinks (2) were collected from Delhi Outlets and analysed for salt content, total carbohydrate, total fat and trans fat with a widely and internationally used methodology of Association of Official Analytical Chemists (AOAC).

2. MAJOR NUTRIENTS IN DIET AND RECOMMENDED DIETARY GUIDELINES

Carbohydrate, protein, and fat are the main sources of calories in the diet. The nutrient requirements vary with age, gender, physical activity and physiological status. It can be easily achieved through a blend of the basic food groups. Most foods and beverages contain combinations of these macronutrients in varying amounts. According to the Dietary Guidelines for Indians (National Institute for Nutrition, 2011) a balanced diet should provide 50-60% of calories from carbohydrates, 10-12% from proteins and 20-25% from fats. Though NIN recommends a maximum of two per cent of total calories to come from trans fats, the recommendations of WHO is one per cent. Balanced diet should provide other non-nutrients such as dietary fibre, antioxidants and phytochemicals which bestow positive health benefits. Antioxidants such as vitamin C and E, beta carotene, riboflavin and selenium protect the human body from free radical damage other phytochemicals such as polyphenols, flavones etc. also afford protection against oxidant damage.

Table 1. Recommended Dietary Guidelines for Indians

Source: National Institute for Nutrition (2011)

3. WHAT IS JUNK FOOD?

Junk Food is defined as “any food, which is low in essential nutrients and high in everything else—in particular calories and sodium. Junk foods contain little or no proteins, vitamins or minerals but are rich in salt, sugar, fats and are high in energy (calories). Highly salted like chips, high in refined carbohydrates (empty calories) like candy, soft drinks and high in saturated fats like cake and chocolates.”

Major Contents in Junk Food: Carbohydrates: The free sugar content has generally been found to be high in carbonated beverages and desserts offered by the fast food chains. The desserts and shakes offered by KFC and McDonalds invariably contain very high sugar content (Official websites' information).

Fats: Junk foods like potato chips, burgers, pizza, fried chicken etc. have high fats content. The link between saturated fat and trans-fat and increased risk of heart disease is well established. There is also evidence that the risk of type 2 diabetes is directly associated with consumption of saturated fat and trans-fat and inversely associated with polyunsaturated fat from vegetable sources.

Trans Fat: It is the common name for unsaturated fat with trans-isomer (E-isomer) fatty acid(s). Trans fatty acids (TFA) are the geometrical isomers of monounsaturated (MUFA) and polyunsaturated (PUFA) fatty acids having at least one non-conjugated, (interrupted by at least one methylene group), carbon-carbon double bond in the trans configuration rather than the more common cis configuration. The trans configuration has an effect on the functional and physiochemical properties of these fatty acids which in turn effects their metabolism in humans. High levels of TFA are a public health concern due to some evidence associating TFA with coronary heart disease 4 There is also evidence that the risk of type 2 diabetes is directly associated with consumption of saturated fat and trans-fat and inversely associated with polyunsaturated fat from vegetable sources.

Salt: The amount of dietary salt consumed is an important determinant of blood pressure levels and overall cardiovascular risk. Salt intake should not be more than 6 g per person per day. WHO recommends salt intake of less than 5 grams per person per day for the prevention of cardiovascular disease. WHO estimates that decreasing dietary salt intake from the current 9-12 grams per day to the recommended level of 5 grams per day would have a “major impact on reducing blood pressure and cardiovascular disease.”

4. JUNK FOOD MARKET IN INDIA

According to the National Restaurant Association of India (NRAI) 2010 report, the fast-food industry in India is currently estimated to be between Rs 6750- Rs 8000 crore, growing at a compound annual growth rate of 35-40 per cent. A major chunk of these markets is ruled by global players like McDonald's, Yum! Brands (Kentucky Fried Chicken, Pizza Hut), Domino's, Subway, Taco Bell, Coca Cola and Barista but domestic players are not lagging behind. Nirula's, Pizza Corner, Coffee Day Group, Haldiram's, Bikanervala capture a fair share of the fast-food segment. Junk foods are high visibility products: easily available almost everywhere, extensively

advertised through every media, these foods find a key target group among children. Their manufacturers and sellers also take recourse to attractive packaging and addition of food additives and colors to enhance flavor, texture, appearance and shelf life. The Integrated Disease Surveillance Report, which found that rural India was fast catching up with modern diseases, also noted that people were eating less fruits and vegetables and more fast food. It found that across the seven states in which it conducted its study, in urban and rural areas, there was a growing and substantial percentage of people eating fast food.

5. HEALTH IMPLICATIONS OF CONSUMPTION OF JUNK FOOD

Junk food is popular because it is tasty. But it is unhealthy. It is low in fiber, it is high in fat, high in sugar in liquid form. Studies have shown that despite being unhealthy, junk food induces gorging that leads to obesity. The study published in 2009 in *The Journal of Clinical Investigation*, showed that the fat from fatty acids affected the brain. The study by Deborah Clegg, Assistant Professor of Internal Medicine at UT Southwestern, suggested that when we eat something high in fat, the brain gets 'hit' with the fatty acids, and the fat molecules cause the brain to send messages to the body's cells, warning them to ignore the appetite-suppressing signals from leptin and insulin, hormones that are involved in weight regulation. Since the body does not get the signal that it is satiated it leads to overeating⁶. Another study published in *Neurology* shows that eating too much junk food or food rich in trans fats can shrink the brain similar to that associated with the Alzheimer's disease. The study also showed that if the diet was rich in vitamin B, C, D and E and high in omega-3 fatty acids, the brain benefitted from it. Though this study was done on a set of people above 65 years, the impact of trans fatty acids begins to take place at the fetal stage. Adverse fatty acid supplies during fetal and child development can alter fatty acid composition of membrane phospholipids (these are the lipid/ fatty cells in the membrane- and has an impact on the fattiness of the child) and storage triglycerides (they store unused calories in humans, they are an important measure for the health of the heart, the lower the better). This can lead to disruption in cellular environments, structure and function. Avoiding hydrogenated fats is also important for the growing brains of children as it can lead to attention deficit hyperactive disorder (this is a psychiatric disorder mainly in children where in there is a co-existence of both attention problem and hyperactivity). Studies also show that too much of junk food alters the chemistry of the brain and are addictive like cocaine. High-fructose corn syrup (HFCS), monosodium glutamate (MSG), hydrogenated oils, refined salt, and various other chemical preservatives found in processed junk food do the same thing to a person's brain as cocaine does⁸. Studies have also shown that as early as the age of 30, arteries could begin clogging and lay the groundwork for future heart attacks. What children eat from puberty affects their risks of prostate and breast cancer. Osteoporosis and hypertension are other diseases that appear to have their earliest roots in childhood when lifelong eating habits are being formed⁹. Children are especially vulnerable. Poor diets can slow growth, decay new teeth, promote obesity and sow the seeds of infirmity and debilitating disease that ultimately led to incurable disease. Food containing low nutrition value tends to reduce the IQ level of children. Doctors at Harvard University and the University of Murcia, Spain, have found that junk food can make young men infertile, even if they're physically fit and in good health. Those who ate high amounts of junk food, such as fried foods, processed red meats, potato chips were found to have sperm of poorer quality than their counterparts who ate a nutritious diet high in whole grains, vegetables and fish. In particular, participants who consumed high levels of trans fats, naturally found in fried foods, had the worst quality sperm – that is, sperm that was least likely to survive the journey to fertilize an egg. This was the case, even for men who were a healthy weight and exercised.

6. REGULATIONS ON JUNK FOOD

WHO: On January 21, 2011, WHO formally issued a recommendation asking for a ban on junk food in schools and playgrounds in order to promote healthy diet and tackle child obesity"¹¹. Settings where children gather should be free from all forms of marketing of foods high in saturated fats, trans-fatty acids, free sugars or salt," said WHO. "Such settings include, but are not limited to, nurseries, schools, school grounds and pre-school centers, playgrounds, family and child clinics and pediatric services and during any sporting and cultural activities that are held on these premises," it added.

Britain: has the biggest obesity problem in Europe with nearly 26 per cent of the population being obese¹². The country banned junk food in schools in 2005¹³. A ban on junk food ads during television programs aimed at children below 16 years came into force in August 2008¹⁴.

UK consumer advocates are now calling for their government to explore provisions allowed under the new EU regulation on food information to make sure that the 'traffic light labelling' is used on all food products¹⁵.

Scotland: In March 2012 proposed to ban advertisements of junk foods in television shows aired before 9 pm¹⁶.
US: In 2010, the US government proposed a law to ban junk food in schools; a decision that still remains to be taken¹⁷. Meanwhile elementary schools in Arizona, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Nebraska, New Jersey, New York, and West Virginia have already banned the sale of junk food in schools until at least after lunch¹⁸.

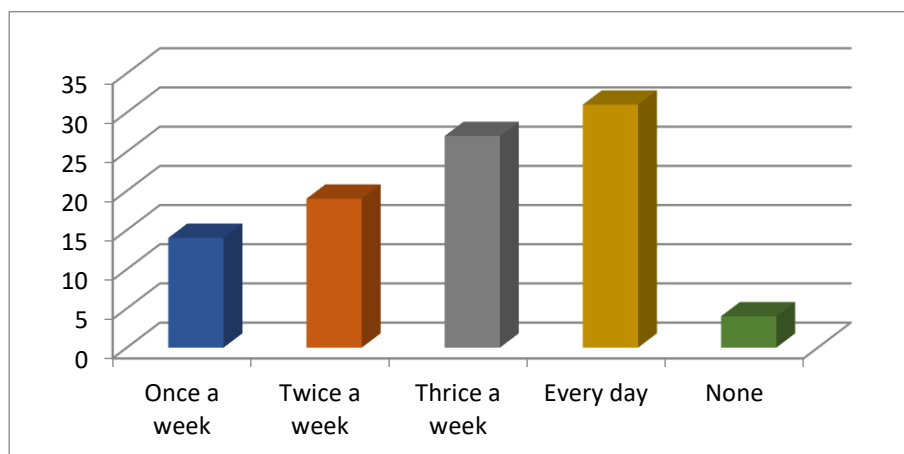
Mexico: Has banned junk food in all of its public, private and elementary schools in May 2010. This was a part of their nationwide anti-obesity campaign¹⁹. United Arab Emirates: Banned junk food and soft drinks in all its schools in Abu Dhabi in 2010²⁰.

Canada: The Ontario state government banned candy, chocolate, fries, pop and energy drinks in school premises in September 2010²¹.

Denmark: Imposed a fat tax on junk food in October 2011. The surcharge will be levied on food items like butter, milk, cheese, pizza, meat, bacon, ice cream and processed food if they contain more than 2.3 per cent saturated fat. According to the new taxes imposed, the consumers will have to shell out about 20 per cent more for a packet of butter and a little more than half a Krone (1 Krone = 0.17 US \$) for a packet of chips²². The government hopes that by imposing such taxes on junk food they will be able to fund the increased health care costs of treating the obese population. Also, high prices will dissuade people from eating food high on saturated fat²³.

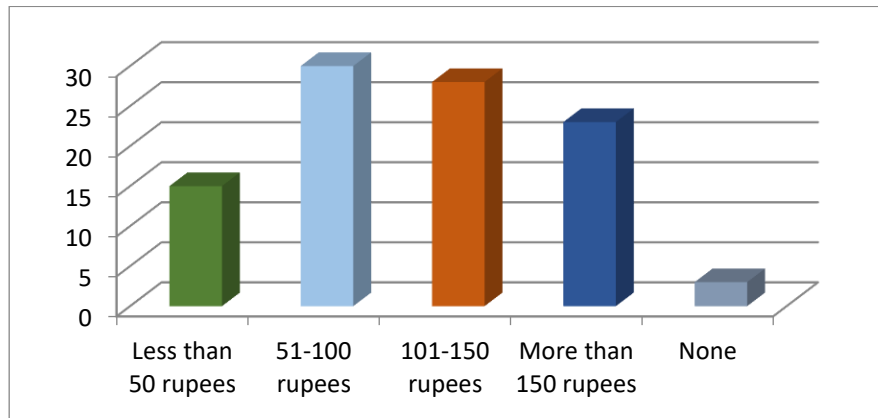
Hungary: In September 2011 had imposed tax on food that was high in sugar, fat, carbohydrates and salt. A tax was also imposed on carbonated beverages, alcohol and drinks with high caffeine levels such as energy drinks²⁴. Other countries in Europe too have experimented with similar taxes. Switzerland and Austria, along with Denmark have already banned trans-fats, while Finland and Romania are considering fat taxes²⁵. Brazil, Mexico and Taiwan too are working towards getting a fat tax in place. India: According to FSSAI, junk food is not defined, but instead calls within the category of proprietary food – which is food not standardized under regulations. This category of food is only expected to declare their composition or nature of food and comply with general regulations under the food act. Therefore, a questionnaire was done to find out the awareness of health hazards of fast foods, consumption pattern of fast foods and its association with the reasons behind its high consumption in the youth of Delhi/NCR.

How frequently do you consume junk food in a week?



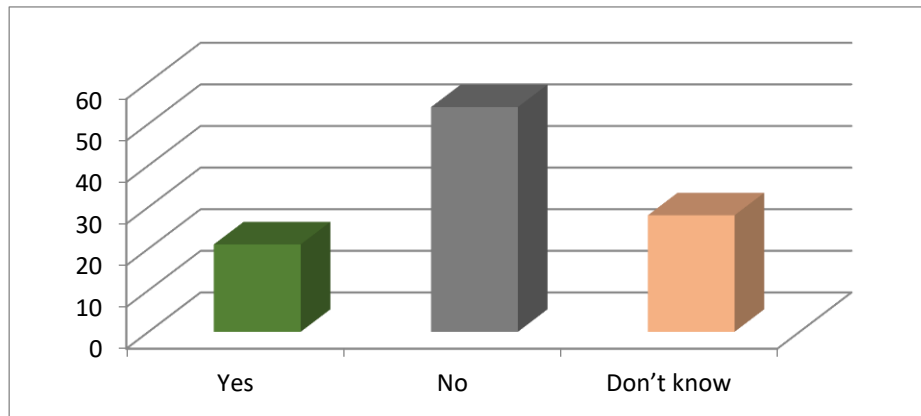
From the above graph we can observe that most of the college youth consume junk food daily. Around 26% youth consume junk thrice, 17% youth consume junk food twice and 13% youth consume junk food once a week. And least of the youth don't consume junk food.

How much money do you spend on junk food in a day?



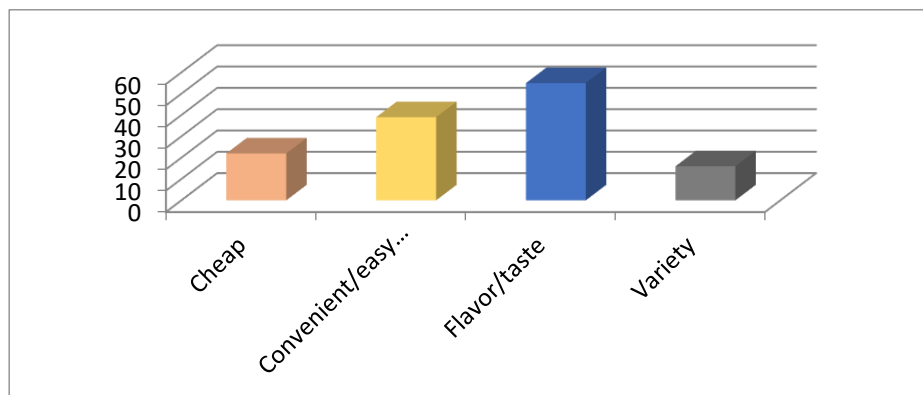
From the above graph we can observe that most of the college students spend 50-150 rupees on junk food daily. And there are around 22% of youth also who spend more than 150 rupees daily. Around 14% of the youth spend less than 50 rupees a day. Youth who don't spend on the junk food are least (almost around 2%).

Are fast foods nutritious?



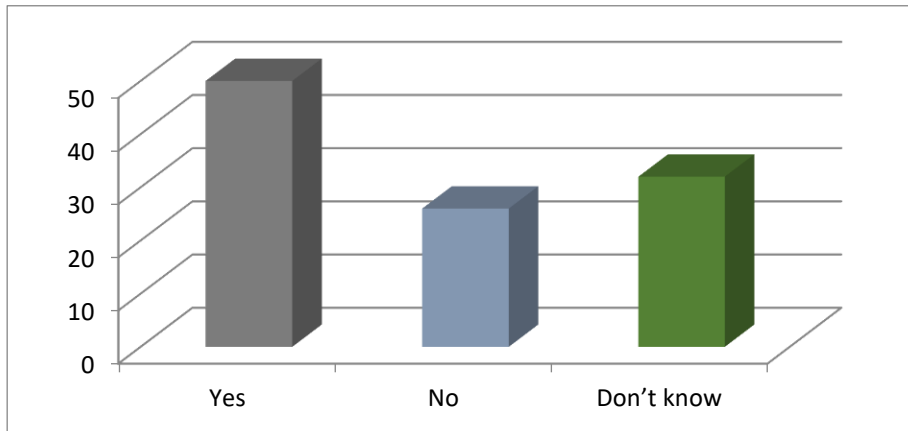
Around 51 % of the college youth feels that fast food is not nutritious. 25% of the youth don't know and 18% youth feels that fast food is nutritious.

Why do you prefer junk food? (You may tick more than one option/s)



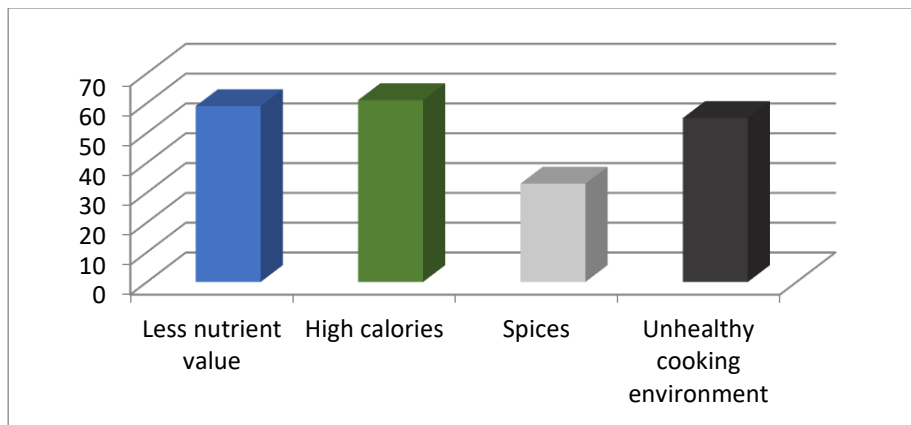
From the above graph we can conclude that 51% of the college youth prefer junk food because of the flavor/taste followed by the easy availability (45%). Due to less price or cheap price (19%) and variety (12%) youth tends to buy more of the junk food.

Do you think fried foods are junk foods?



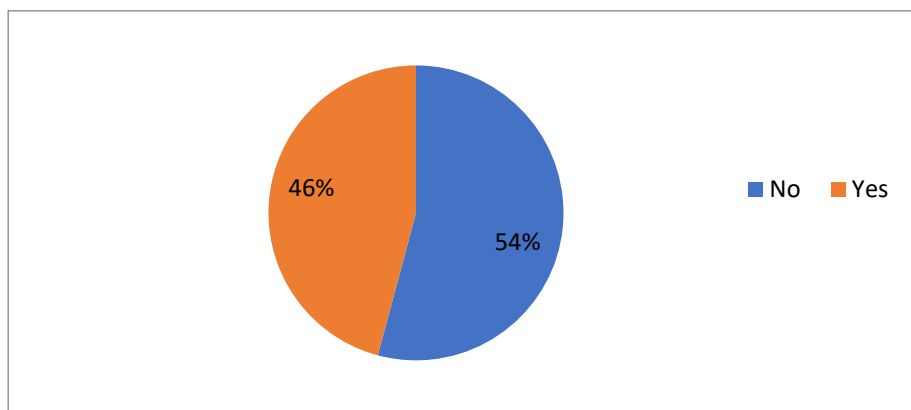
47% youth consider fried food as junk food. 24% youth don't and 29% youth don't know.

What makes junk food unhealthy? (you may tick more than one option/s)



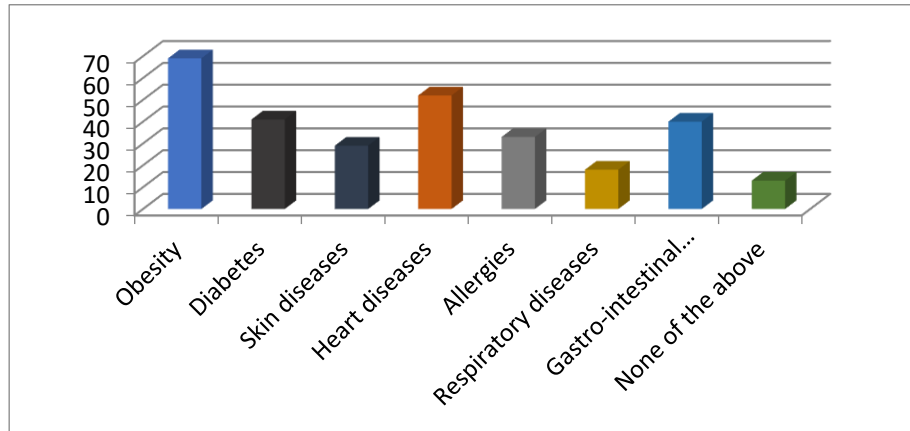
Most of the youth think that because of less nutrient value, high calories and unhealthy cooking environment junk food is unhealthy. 30% of the youth consider spices as the reason that makes junk food unhealthy.

Are there any effects of junk foods on our health?



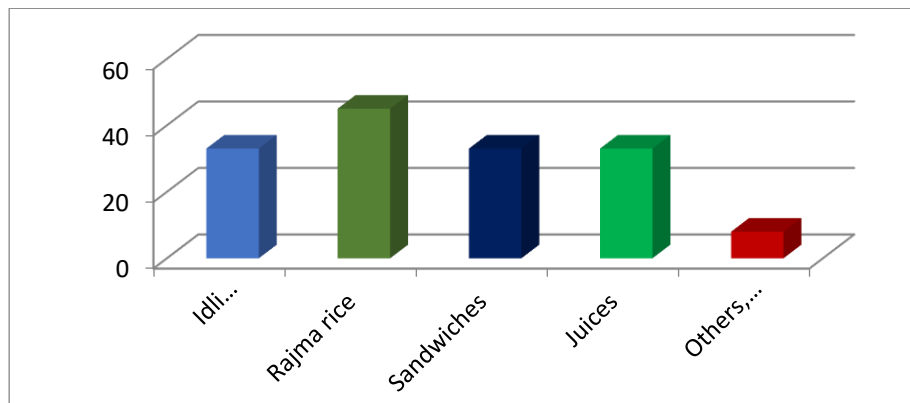
Majority of the youth i.e., 54%, feel that there are no effects of junk food on our health where as 46% of the youth consider that junk food has effects on our health.

What according to you are the effects of junk food on our health? (You may tick more than one option/s)



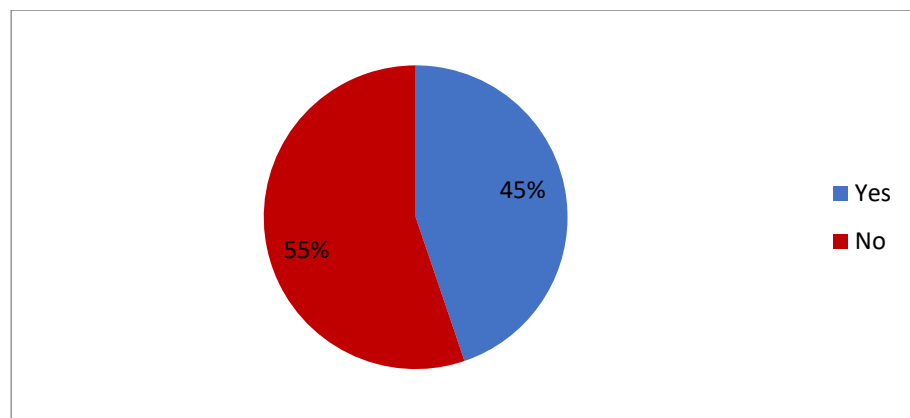
From the above graph we can see that youth consider junk food as the major cause for obesity (67%), diabetes (39%), heart disease (50%) gastro intestinal disease (38%), allergies (31%), skin disease (28%) and respiratory disease (15%). 11% of the youth feel that junk food doesn't have any effect on our health.

What type of healthy food do you prefer?



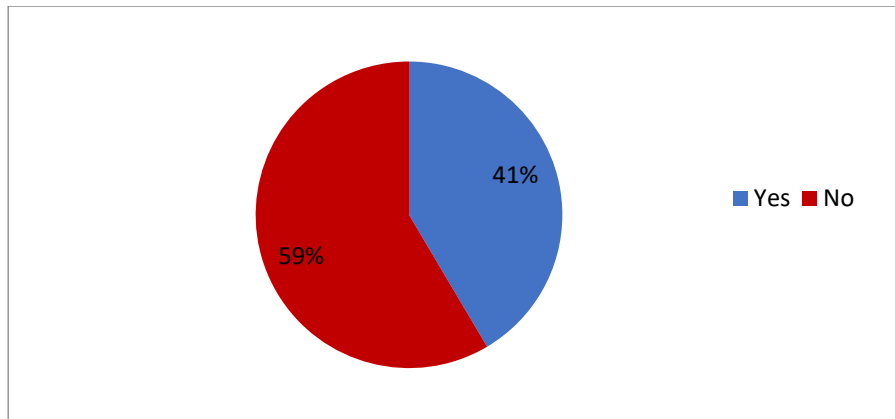
43% of the youth consider rajma rice, 36% youth consider idli sambar, sandwiches & juices as healthy food. 6% of the youth consider food as healthy.

Do you take junk food as alternatives to breakfast?



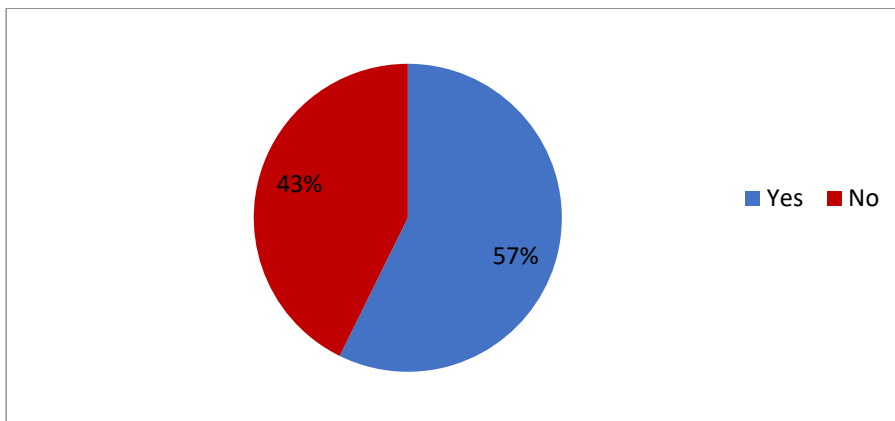
55% youth don't take junk food as a alternative to breakfast whereas 45% youth consume junk food as alternative to breakfast

According to you, are carbonated drinks and packaged juices fast/junk food?



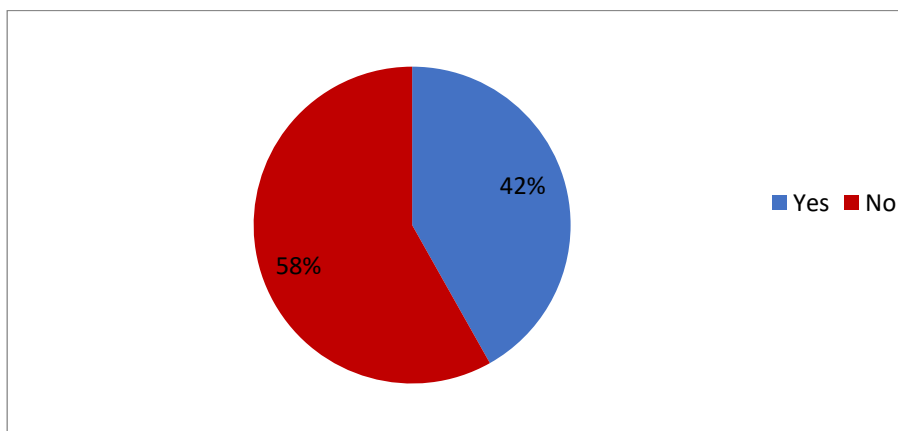
59% youth think that carbonated drinks and packed juices are fast food whereas 41% don't think so

Do you check food labels on food products before buying? (eg. FSSAI, FPO)



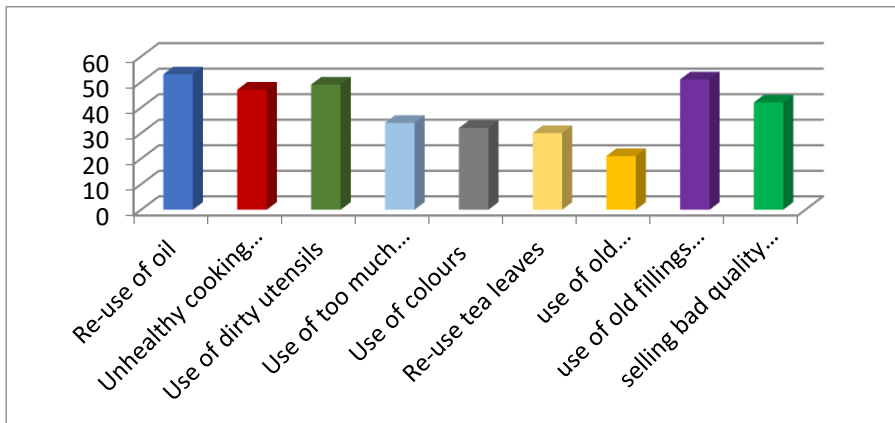
57% youth check food labels on food products before buying whereas 43% of the youth don't check.

Has fast food become basic need for you?



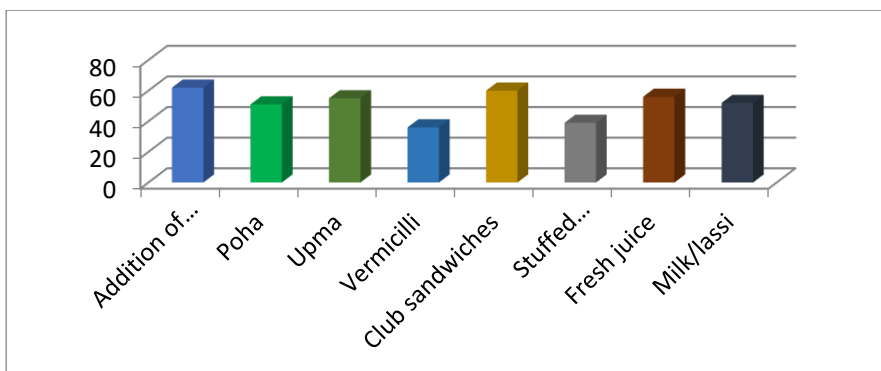
For 42% youth fast food had become a basic need whereas 58% don't consider fast food as their basic need.

Do you believe canteen food is unhygienic? If yes, what factors according to you are responsible for that? (You may tick more than one option/s)



Re-use of oil (51%), unhealthy cooking (45%), use of dirty utensils (46%), use of old filings in samosa (49%) and selling bad quality products (40%) are major factors which in responsible for the unhygienic conditions in the college canteen. Other factors which are responsible are use of too much spices (31%), use of colors(30%), re-use of tea leaves (28%) and use of old vegetables (18%).

What healthy food changes would you like to recommend to the canteen menu? (You can tick more than one option)



60% youth recommend salads, 49% recommends poha, 52% recommends upma, 32% recommends vermicelli, 58% recommends club sandwiches, 36% recommends stuffed paranthas, 53% recommends fresh juices and 50% v recommends mmilk / lassi to be in the canteen menu.

What changes would you like to recommend in the college canteen?

Proper sitting arrangement, food options, more cleanliness use of fresh vegetables, better service, healthier food was available, proper water supply, disposal palettes /gilas, use of clean water, menu display board, green vegetables, fresh oil, more food choices and variety are some of the changes which is recommended by the college youth.

7. CONCLUSION

Consumption of fast foods has become almost a global phenomenon. Popularity of these food stuffs in this age of urbanization has been attributed to quick preparation and convenience of finishing a meal within no time. Great taste, attractive appearance along with advertising has played a major role in attracting people particularly

adolescents to the selling joints. But fast food is responsible for various diseases. Poor diets can slow growth, decay new teeth, promote obesity and sow the seeds of infirmity and debilitating disease that ultimately lead to incurable disease. Don't eat fast food. However, this may cause a craving or wish to eat fast food. That could lead to binge eating when the person cannot stop themselves from eating it. Binge eating harms the body. Eat once in a while. This solution has been tried and tested and it works. Many people do this; however, if you do not realize that you are eating it too frequently, there is still a chance of you getting health problems.

REFERENCES

- [1].Ade, A.D., & Patil, R. (2016). Contraceptive practices and awareness of emergency contraception among Muslim women of urban slum of Raichur, Karnataka. *International Journal of reproduction, Contraception, Obstetrics and Gynecology*, 3(1), 70-74.
- [2].Akbat C, Tiryaki GY, Aykut Gul: Consumer characteristics influencing fast food consumption in Turkey *Food Control* 2007; 18(8); 904-913.
- [3].Anit Goyal, & N. P. Singh (2007). "Consumer perception about fast food in India: an exploratory study", *British Food Journal*, 109(2), 182-195.
- [4].Food.ndtv.com, Indian fast food: Top 10 chaat recepices, S. Parshits, Saxena, NDTV, September 26, 2017.
- [5].Narang, R (2010). Psychographic segmentation of youth in the evolving Indian retail market. *The International review of retail, distribution and consumer research*, 20(5), 535-557.
- [6].Prabhavathi, Y., Kishore, Krishna. N. T, Kumar, Ramesh. M. (2014). *Consumer Preference and Spending Pattern in Indian Fast-Food industry*. International Journal of Scientific and Research Publications, Vol. 4.
- [7].Seo, H. S., Lee, K., & Nam, S. (2011). Factors influence fast food consumption behaviours of middle school student in Seoul: an application of theory of planned behaviours. *Nutrition research and practice*, 5(2), 169-178.