The impact of junk food consumption on nutritional status among adolescents : A literature review

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Abstract

Junk food is ready-to-eat food that has low nutritional value. Junk food is available in restaurants such as fried chicken, french fries, snacks, pizza, burgers, and sandwiches etc. Junk food is more popular because it tastes good, is quick to serve and is available in strategic places. Junk food promotion has a big role in society, especially teenagers. Junk food should be avoided as it has many dangerous effects on the body, including obesity, diabetes, autism, high blood pressure, cancer and others. This research uses data from the Health Behavior survey of adolescents aged 11-21 years. Results: Consumption of unhealthy foods significantly influences the increase in disease at all ages. It is important to increase teenagers' awareness of choosing nutritious food, and using media and technology appropriately.

Keywords: junk food, obesity, adolescents

1. INTRODUCTION

Junk food is ready-to-eat food with a high in calorie content and minimal nutrition. Junk food contains unsaturated fats, trans fats, salt, refined sugar, white flour, lack of protein, lack of vitamins, lack of fiber and there are various food additives such as tartrazin, MSG/monosodium glutamate. The popularity of junk food stems from its delectable taste, convenience in preparation and consumption, as well as its extended shelf life. Studies indicate that teenagers often have diets characterized by excessive amounts of fat, particularly trans fat, along with elevated levels of salt and sugar (Dwi & Apsari, 2020).

1.1 Problems

    a. High fat content

Examples of junk food are fried chicken, french fries, fried snacks (chiki/ potatochips, etc.),

sandwiches, hamburgers, pizza, which contain lots of saturated fat and bottled/canned drinks which contain high levels of sugar. Saturated fat in food that is consumed excessively will result in weight gain/obesity, being overweight will pose a risk to heart health, as well as other diseases (Van et all, 2018) .

b. High salt content

Junk food is not healthy, because it often contains high amounts of salt so that it tastes good on the tongue.

c. High sugar content

Sodas, candy also contains a lot of sugar, contributing to their appealing taste. However, an excess of sugar can lead to weight gain, tooth decay, adverse effects on blood health, and the development of various diseases. Additionally, the consumption of junk food has been associated with conditions such as autism and dyslexia.

2. TYPES OF JUNK FOOD

Types of junk food that are widely sold include fried chicken, french fries, fried snacks (Chiki/potatochips, etc.), sandwiches, hamburgers, pizza and soft drinks (Fanta, Coca-Cola, Pepsi), candy. In Indonesia, junk food is sold in several outlets such as Pizza Hut, AW, Domino Pizza, KFC, Burger King, Dunkin Donats, Wendy's, McDonald's. Available on the market, the most popular junk foods are soft drinks, fried chicken, fritters, ice cream, sandwiches, chili cheese. Quick-service meals such as fried chicken, hamburgers, French fries and soft drinks are provided by well-known companies such as Pizza Hut, AW, Domino Pizza, KFC, Burger King, Dunkin Donats, Wendy's. These food items generally lack nutritional benefits and tend to be high in fat due to the frying process in oil. Likewise, breakfast cereals, may contain elevated levels of sugar, salt and fat.

3. REASONS FOR JUNK FOOD'S POPULARITY

3.1 Time factor

Young people are addicted to junk food, because of the ease and speed of serving it and having a delicious taste accompanied by several comfortable places. Junk foods like Chiki, Cheetos and other snacks don't even need to be cooked or heated. People prefer to eat it while watching TV, they save a lot of time when they are in a hurry to eat pizza and burgers because it is served at their doorstep hot and ready to eat (Gifari et all, 2020).

3.2 Taste factor

If time limitations serve as a factor driving people to opt for junk food, the delectable taste is another

influencing factor. Junk food tastes good because of the excessive use of oil, salt and sugar.

3.3 Fast food advertising

Fast food has great appeal for food lovers. Junk food marketing plays a significant role in this phenomenon. There are also concerns about teenagers who are potential and easily targeted by junk food advertisements (Mohiuddin & Nasirulla, 2019).

3.4 Shelf life

Junk food is food that is durable, and can be stored for a relatively long period of time, even without being stored in the refrigerator, for most products such as chips.

3.5 Ease of transportation

The packaging of junk food facilitates its transportation in contrast to artificial food. The convenience in transport and accessibility is contributing to the growing popularity of junk food on a daily basis.

3.6 Fees

The cost is cheaper than that healthy food. The main reason for the popularity of junk food is also cheaper costs. It can be easily used by people of all society because the price range is adequate.

4. REASONS TO AVOID JUNK FOOD

Junk food has a bad impact, both short and long term. Large amounts of fat content can affect the heart and cholesterol (Masdar et all, 2016). Consuming excessive amounts of sugar can cause diabetes mellitus. Excessive and continuous consumption of salt can cause high blood pressure, stroke, kidney failure, etc.

4.1 Energy Shortfalls

Junk food does not provide the nutrients the body needs such as protein, minerals, vitamins and fiber. Things like this are the bad effects of consuming junk food in the short term.

4.2 Poor concentration

This will not have an impact in the near and medium term, when people consume fast food that is high in oil so that their concentration ability decreases and they feel sleepy (Young Men Health, 2020). Continuous consumption of junk food can lead to reduced blood circulation, attributed to the accumulation of fat and a deficiency in essential components such as protein, oxygen, and nutrients (Aulia, 2021).

4.3 Diseases

High cholesterol, heart disease, diabetes mellitus, hypertension, cancer.

4.4 Low nutritional value

Phytochemicals present in natural foods, absent in junk food, absorb free radicals to mitigate the risk of diseases.

4.5 Highly addictive

Sugar and fat can cause a person to become addicted, just like cocaine and heroin. Sugar and fat can stimulate receptors in the human brain, where dopamine levels increase, causing pleasure which results in a person becoming addicted.

4.6 High chemical additives

Junk food contains additional chemicals, where these chemicals have a bad impact on health. Additional chemicals that are often used, for example artificial colorings for food, preservatives, MSG and tartrazine which cause cancer, kidney disease, obesity and other bad things.

4.7 Better health

Better nutrition increases lifespan and improve quality of life.

4.8 Avoid traffic

There will be savings in petrol expenses when cooking meals at home, thus avoiding going out and going anywhere during the day and avoiding hassle.

5. FACTS

a. The junk food industry specifically targets 17-21 years old in an effort to create establish brand preference and cultivate lifelong loyalty. Fast food chains employ the allure of discounts to incentivize people to make purchases (A, Putri et all, 2021).

b. Artificial flavors in food design for teenagers can be 2x as sweet as hose in food intended for adults.

c. Metal cans are more expensive than their contents, which consist primarily of water, caffeine,

sweetener/sugar blended with additives. A can of cola, for instance contains ten teaspoons of sugar.

d. Soft drinks are aggressively branded by fast food chains, because it is highly lucrative, yielding a profit margin of approximately around 97% of the price per cup.

e. Thin French fries absorb more fat than large potatoes.

6. HEALTHY AND NUTRITIONAL FOOD

A healthy diet is an eating pattern that aims to improve or maintain optimal health. Healthy eating patterns can vary greatly, and depend on environment, genetic makeup, individual health. Approximately 21% of the global population faces challenges related to food shortages and malnutrition as primary barriers to maintaining a healthy diet (Meidelfi et all, 2021). Conversely, individuals in developed countries grapple with a different concern, prioritizing worries about obesity.

a. A person's caloric intake should be adequate to meet their metabolic and activity requirements, yet not so excessive that it leads to fat storage exceeding approximately 30% of body mass.

b. The recommended daily energy allowance for most individuals is 2,000 calories, though this varies based on factors like age, gender, height, weight, and physical activity.

c. The recommended daily fat intake falls within the range of 65 to 80 grams.

d. Maintaining a balanced ratio between carbohydrates and lipids at 4:1 is advisable.

e. Avoiding excessive intake of saturated fat (with a recommended limit of 20 grams) and trans fat is crucial.

f. Ensuring a sufficient supply of essential amino acids is necessary for cell replenishment and the synthesis of transport proteins.

g. Incorporating essential micronutrients, including specific vitamins and minerals, is essential for overall health.Avoid directly toxic (e.g. heavy metals) and carcinogenic substances.

h. Steer clear of food tainted with human pathogens, such as E. coli, tapeworm eggs.

i. Avoid certain foods in high, chronic doses that are not harmful or beneficial when consumed in smaller or occasional amounts.

j. Combination of foods eaten and meal times so that hunger remains under control; for instance, adherence to a calorie target of two thousand calories so that you don't gain weight.

7. CONCLUSION

The consumption of junk food gives rise to various health issues, and this tendency is on the rise among

the younger generation. The primary concern with junk food is the escalation of childhood obesity, leading to numerous health complications in teenagers (Indrasari & Sutikno, 2020). The influence of appealing advertisements plays a significant role in shaping the minds of teenagers towards the consumption of junk food. Multinational companies employ attractive and aggressive marketing strategies to allure new customers, particularly teenagers. Raising awareness about health issues is crucial for teenagers to modify their eating habits and steer clear of junk food (Bargiota et all, 2013). Overcoming junk food habits requires a strong determination and awareness of the adverse effects they can induce (Hafiza et all, 2021).

In college canteens, efforts are made to consistently include healthy food options in the menu (Fiskasari et all, 2020). It is essential to educate teenagers about the detrimental effects of junk food on health, facilitating the avoidance of such food choices and the associated problems (Wijayanti, 2019).

References

A., Putri, VS, Suri, M., Nisa, AC, Indonesian Ministry of Health, Purnami, CT, Sawitri, DR, Purniasari, MM, Gryzela, E., Ariana, AD, Omani-Samani, R. (2021). The Relationship between Stress Levels and Eating Patterns of School Age Children (Study at Candimulyo 1 Elementary School, Jombang District, Jombang Regency). Baiturrahim Jambi Academic Journal, 1(1), 66. https://ejournal.unair. ac.id/ BRPKM/article/viewFile/24328/pdf

Aulia, NR (2021). The Role of Nutritional Knowledge on Energy Intake, Nutritional Status and Attitudes About Adolescent Nutrition. Scientific Journal of Nutrition and Health (JIGK), 2(02), 31–35. http://jurnal.umus.ac.id/index.php/JIGK /article/view/454

Bargiota A, DelizonaM, TsitourasA, KoukoulisGN. Eating habits and influencing factors food choices of adolescents living in rural areas. Hormones. (2013) 12:246–53. doi: 10.14310/horm.2002.1408

Candy. (2021). Minister of Health Regulation no. 18th 2021. 2019(3).

Dwi Ananda, SS, & Apsari, NC (2020). Overcoming Stress in Teenagers During the Pandemic Covid-19 Using Self Talk Technique. Proceedings of Research and Community Service, 7(2), 248. https://doi.org/10.24198/jppm.v7i2.29050

Fiskasari, SR, Angraini, DI, Yusran, M., Ilmu, B., Mata, P., Medicine, F., & Lampung, U. (2020). Relationship of Depression, Anxiety and Stress with Nutritional Status in Students of the Medical Faculty, Lampung University. Relationship of Depression, Anxiety, and Stress with Nutritional Status in Students of Medical Faculty Lampung University. 10, 572–580.

Gifari, N., Nuzrina, R., Ronitawati, P., Sitoayu, L., & Kuswari, M. (2020). Education Balanced Nutrition and Physical Activity in Efforts to Prevent Adolescent Obesity. JMM (Independent Community 55.https://doi.org/10.31764/jmm. v4i1.1749 Journal), 4(1),

Hafiza, D., Utmi, A., & Niriyah, S. (2021). Relationship between eating habits and status Nutrition in Adolescents at Ylpi Middle School, Pekanbaru. Al-Asalmiya Nursing Journal of Nursing Sciences, 9(2), 86–96.https://doi.org/ 10.35328/kebesar.v9i2.671

Indrasari, OR, & Sutikno, E. (2020). Factors Influencing Adolescent Nutritional Status Age 16-18 Years. Indonesian Health Journal (The Indonesian Journal of Health), 10(3), 128–132. Malnutrition in Adolescents Using the Forward Chaining Method. Inspiration: Journal of Information and Communication Technology, 11(1),

Masdar, H., Saputri, PA, Rosdiana, D., Chandra, F., & Darmawi, D. (2016). Depression, Anxiety and stress and their relationship with obesity in adolescents. Indonesian Journal of Clinical Nutrition, 12(4), 138. https://doi.org/10.22146/ijcn.23021

Meidelfi, D., Alfarissy, S., Fauzi, A., & Azura, R. (2021). Expert System Detects

Mohiuddin AK, Nasirullah M. Fast food addiction: a major public health issue. ARC J Addict. (2019) 4:1–11. doi: 10.33552/ABEB.2019.03.000569

Van der Valk, E.S., Savas, M., & van Rossum, EFC (2018). Stress and Obesity: Are Are There More Susceptible Individuals? Current Obesity Reports, 7(2), 193 203. https://doi.org/10. 1007/s13679-0180306-y

Wijayanti, A., Margawati, A., & Wijayanti, HS (2019). Stress Relationship, Behavior Eating and Nutrient Intake with Nutritional Status in Final Year Students. College Journal of Nutrition, 8(1), 1. https://doi.org/10.14710/jnc.v8i1.23807

World Health Organization-Noncommunicable Diseases (NCD) Country Profiles. (2019). Available online at: https://www.who.int/nmh/countries/npl (accessed September 8, 2020).

Yang, F., With, B., Power, P., Childbirth, P., Region, DI, & Community Health Center, K. (2020). Aceh Public Health Magazine (MaKMA). 3(1), 112–118.

Young Men's Health. FastFood Facts. Health Guides. Available online at:https://youngmenshealthsite.org/guides (accessed November 17, 2020).