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Advantages of Healthy Foods and Disadvantages of Unhealthy Foods (Empty Calories) Adult Human Nutritional Health

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ABSTRACT

The paper highlights the importance of healthy eating and the risks associated with consuming unhealthy foods, also known as "empty calories." It emphasizes that a balanced diet rich in fruits, whole grains, vegetables, milk, and other nutritious food groups is crucial for maintaining good health. The paper discusses the advantages of healthy foods, including providing essential macronutrients and micronutrients, and the disadvantages of unhealthy foods, which are often high in solid fats, added sugars, salt, and chemical preservatives. The paper notes that the prevalence of unhealthy foods is a significant public health concern, particularly among older adults who may face malnutrition due to various factors such as low appetite, dementia, and poverty. The paper also touches on the role of food industries in promoting unhealthy foods and the need for individuals and organizations to promote healthy eating habits. Some of the key points mentioned in the abstract include: Healthy foods provide essential nutrients like carbohydrates, proteins, fats, vitamins, and minerals, unhealthy foods are often high in empty calories, added sugars, and unhealthy fats; malnutrition is a significant public health concern, particularly among older adults; food industries play a significant role in promoting unhealthy foods. Overall, the abstract emphasizes the importance of promoting healthy eating habits and reducing the consumption of unhealthy foods to maintain good health and prevent chronic diseases.

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Introduction

Nutritional science and researches highly recommend the consumption of diets rich in fruits, whole grains, vegetables, milk, and other nutritious food groups, in order to have a healthy society. There with, nowadays, people are trooping and consuming empty calories or unhealthy stuffs, with virtually no nutritional value. Unhealthy stuffs are rich in solid fats, added sugars, salt, and chemicals preservatives, either mixed together or possessing majority of the unhealthy constituents (Reedy, & Krebs-Smith 2010). Woefully, nowadays unhealthy stuffs are the topnotch agenda of us environment, forcing or persuading the people to trade -off future health. In the UK, the consumption of very healthy foods was just 28.6%, compared to 50.7% of the unhealthiest stuffs consumption as reported by Soil Association (2020). The trend has been similar in France, Italy, and Portugal as parable (Soil Association, 2020). The situation may be more devastating in poor countries especially Africa and the likes.

The older people are experiencing changes in the biological system, therefore, are potentially having some specific nutritional complaints. The whole

biological system tends to go down in terms of biological activities, as the individual get older. For instance, there is low appetite, low taste, body weight loss, etc. There is possibly also issues such as dementia, depression, delirium, poverty, isolation, inability to cook or shop healthy foods. Thus, in turn is significant portion of the elderly that may face the problem of malnutrition. Malnutrition in elderly cause effects such as anemia, low wound healing, low cognitive function, impaired muscle function, etc (Reilly & Harris, 2016). The aim of the study appears to be: To highlight the advantages of consuming healthy foods and the disadvantages of consuming unhealthy foods (empty calories) in relation to adult human nutritional health.

Advantages of Healthy Foods: Dietary Nutrients Present in Healthy Foods

Macronutrients

Macronutrients are nutrients needed in large amount by the human body fir growth, development, and health. The human digestive system requires some dietary nutrients that are broken down to provide energy and maintain heath. Mostly, the major role of the macroelements is to provide energy for healthy living to the human body. The macronutrients include carbohydrates, proteins, and fibre. The selection of foods consumed by an individual is called diet, while, the balanced diet is a kind of diet that provides all nutrients in the correct proportions while meting up with all demands of the body. Basically, humans have to consume nutrients through foods, therefore, nutrients are essential. An essential nutrient is a type of nutrient that has to be provided to the body through foods (Elbastawy et al., 2022). People have to gather combinations of foods in order to obtain a balanced diet, therefore it is important to eat variety of foods in right proportion, consumption of nutrients in excess or deficient manner cause effects to the body. Eating healthy foods (consisting of balanced diet) that provides the energy requirement of the body (which depends on factors such as health status, age, gender, activity levels) is known as healthy eating. Healthy eating requires knowledge or awareness, planning, and supportive environment (Barth et al., 2021; Sarkingobir & Miya, 2024).

Macronutrients and micronutrients are provided to the body by consuming certain food groups, namely, cereals and grains, fruits and vegetables, milk (and dairy products), and meat, fish, eggs, and beans. For better health, majority of the human daily diet should contain the cereals and grains, and fruits and vegetables; then considerable amount of meat, fish, and eggs (Barth et al., 2021). Therewith, the macronutrients include, carbohydrates, proteins, fats, which are elucidated as follows;

Carbohydrates are macronutrients mostly sugars, starches that can be found in cereals, vegetables, and fruits. The unhealthy sources of carbohydrates include, convenience foods, pasta, biscuits, breads, etc. Carbohydrates contain carbon, hydrogen, and additionally oxygen. Monosaccharides are carbohydrates containing only one sugar unit, such as glucose, galactose, and fructose. Disaccharides are carbohydrates having two basic sugar units joined together, for instance, sucrose, maltose, and lactose (milk sugar). Polysaccharides are classes of carbohydrates referred to as complex sugars because they envisage multiple sugar units, for instance, starches, cellulose, glycogen (Stenesh, 1998); Shuaibu et al., 2024). Generally, carbohydrates provide energy, and heat, because catabolism of simple sugars (carbohydrates) divulges heat and chemical energy for performing metabolic dealings of the body (glucose is the main fuel of the human body). Presence and utilization of carbohydrates from diets spare proteins against catabolism or destruction for energy means, therefore, spares proteins for making new tissues, and repairing injured tissues. Provision of energy y stores due to excess consumption of carbohydrates is a significant role of carbohydrate as well (by storing glycogen in the liber and skeletal muscle) (Michigan WIC Program, 2021; Horowilz et al., 2023; Bashar, 2024).

Proteins are nitrogenous foods classes that are broken down to divulge constituents' amino acids. Proteins contain carbon, hydrogen, oxygen, and as well nitrogen, therewith some may have zinc, iodine, iron, phosphate, and sulphur. Essential amino acids most be provided through diet, for instance, histidine (in infants), isoleucine, leucine, phenylalanine. Functionally, amino acids are b roken down to nitrogenous waste to be excreted, and the carbon skeletons are utilized in making ketone bodies or glucose for energy. Proteins or amino acids are utilized to make new tissues or repair old (or injured) ones. Synthesis of vital entities such as enzymes, antibodies, proteins, hormones is done using proteins. As a se synthesized by the human energy fuel, proteins can be utilized when carbohydrates of fats are insufficient to obtain energy (Michigan WIC Program, 2021; Horowilz et al., 2023).

Fats are composed of triglycerides consisting of fatty acids linked to glycerol molecule. Saturated fatty acids are generally solid at room temperature and come from animals; unsaturated fats are oils that mostly exist as liquid in room temperature (mostly from vegetables or plants). Arachidonic acid, linoleic acid, and linolenic

acid are essential fatty acids needed for synthesis of useful products like leukotrienes, phospholipids, prostaglandins. Cholesterol is another lipid type that is very significant nutritionally. About 20% of the cholesterol synthesis the human biological system, but the remains are taken-up from diets. Cholesterol in the body is applicable in synthesis of steroid hormones, and serve in cell membranes. Transportation of cholesterol in the body occurs in lipoproteins. Low density lipoprotein (LDL) transport cholesterol from liver to the cells, therewith, high (excess) level of LDL can build-up in blood vessels, that is why LDL is denoted as bad cholesterol. High density lipoprotein (HDL) is responsible for shuttling cholesterol from cells to the liver (for catabolism or excretion), therefore this denoted as (good cholesterol." High level of HDL is termed as cardio protective. High cholesterol is linked to disorders such as hypertension, atherosclerosis, and diabetes. Fats are important as diet for their ability to provide concentrated energy source and heat, ability to shield kidney, heart, eyes, and skin. Fats are utilized to make steroid hormones, adipose tissue under the skin, and ensure insulation of the body in heat control, and in storing and transport of vitamins A, D,E,K (Michigan WIC Program, 2021; Harris et al., 2023; Horowilz et al., 2023).

Dietary fibre

Dietary fibre otherwise non-starch polysaccharide is the indigestible part of the food consisting of substances like barn, cellulose, and other components from fruits, and vegetables. Dietary fibre is useful in attracting water to the fecal bulk, against gastrointestinal disorders such as cholecteral cancer, diverticular disease), in stimulating peristalsis, and satisfaction from food (Michigan WIC Program, 2021; Horowilz et al., 2023).

Micronutrients

Micronutrients are nutrients required by the body in minute amounts such as vitamins and minerals. Vitamins are substances needed by the body from diet in small quantities, in order to perform metabolic activities properly. Most of the vitamins have to be imported through the healthy diet. By and large, vitamins are fat-soluble or water-soluble categories (classes). Fat-soluble vitamins are absorbed with the aid of bile, they include, vitamins A, D, E, K. Vitamin A is obtained from diets such as egg yolk, liver, fish, milk and is applicable in vision, cell differentiation, immunity, and growth promotion. Vitamin D is useful in promoting calcium and phosphate absorption from gut, and is consumed in fish liver oils, eggs. Vitamin E is obtained from egg yolk, nuts, cereal, milk, wheat; and act as antioxidant. Vitamin K is from liver, vegetables, and leafy green vegetables, and is useful by the liver (Michigan WIC Program, 2021; Horowilz et al., 2023). Table 1 gives more descriptions (Barth et al., 2021).

Table 1: Fats-soluble vitamins and use in the human body

S/N	Vitamin	Dietary sources	Function	Problem affecting the body due to insufficiency
1	Vitamin A	Peppers, kale, mango, milk, eggs, yams, carrots, sweet potato	Help in maintaining vision, help the body to resist infection, help in development of teeth and bones	Night blindness, low resistance to diseases
2	Vitamin E	Liver, nuts, vegetable oils, green vegetables, whole grains, legumes	Help to protect vitamin A, and accord fats with protection against oxidative stress	Destruction in red cells,
3	Vitamin D	Sunlight, egg yolk, liver	Promotes the absorption of calcium, improves bone making, help in calcium metabolism (maintaining calcium balance)	Rickets affecting children, poor bones
4	Vitamin K	Green leafy vegetables, internal bacteria	Assist the body in blood clotting	Slow blood clotting

Source: Barth et al., (2021)

Water-soluble vitamins include B-complex (a group of water-soluble vitamins dealing with enzyme promotion to catabolize fuels to release energy for body's utilization). B-complex vitamins, B1(thiamine), B2(riboflavin), B3(niacin), B6 (pyridoxine), B12 (cobalamin). The sources, and specific uses of B-complex vitamins are indicated in Table 2.

Table 2: Examples of uses of water-soluble vitamins and sources

S/N	Vitamins	Source from the diet	Effect of insufficiency	Biological role in the body
1	Vitamin C	Citrus fruit, mango, papaya, guava, cabbage, peppers, broccoli	Scurvy	Help in collagen formation, help in resistance against infections, covert folic acid into active form, help in strengthening vessels, help in healing wounds
2	Vitamin B1 or Thiamin	Liver, meat, peanuts, fresh green vegetables, whole grains, legumes, wheat	Beriberi	Help in metabolism of carbohydrates breaking down for being a cofactor of a specific enzyme
3	Vitamin B2 or Riboflavin	Oranges, green leafy vegetables, cereals, legumes, fish, eggs, milk, meats	Cracks in the mouth, anemia, scaly skin, teary eyes, red swollen tongue	Help in fat catabolism
4	Vitamin B3 or niacin	Liver, cereals, peanuts, fish, whole grains	Pellagra	Help in energy metabolism in the case of fats and carbohydrates
5	Vitamin B6 or pyridoxine	Bananas cereals, potatoes, meat fish, milk, egg, beans, avocado	Skin changes, poor brain function	Help the body to make proteins
6	Vitamin B 12 or cobalamin)	Meat, eggs, milk, poultry	Anemia, poor metal health	Assist in the health of nervous system
7	Pantothenic acid			

Source: Barth et al., (2021)

Minerals

Minerals are micronutrients needed by the body in tiny amounts. They are similar to the vitamins in many respects, because they are needed in minute amount, participation in biochemical processes, and they are not providing calories to the diet. Minerals are specifically adaptable to heat (cooking), unlike the vitamins. Minerals play parts in body structures such as red cells (iron), bones, teeth, and nails (for instance, calcium, and magnesium), and muscle tissue. Additionally, minerals play vital roles in chemicals biotransformations such as regular heart beat, regular energy release, nerve responses, water balance, etc. Minerals are classified as major or "trace" elements. Major minerals include, magnesium, calcium, sodium, potassium, sulfur, chlorine, phosphorus, and potassium. But, trace elements include, copper, iron, cobalt, selenium, molybdenum, chromium, iodine, iron, zinc, fluoride, and manganese (Labbo, 2016; Saraca & Butnariu, 2020).

Water

Water is the most prevalent (abundant) component of the human biological system, forming about 60% of the body's weight in adult. Water can be found (or lost) in urine, feces, sweet, and vomi ting. Some functions of the water include, providing most internal environment facilitating living cells for (for metabolic reactions), moistening of foods during digestion and eating, regulating body temperature, constituting major part of tissue fluid, and blood, where substances are shuttled or exchanged between blood, tissues, ad cells. Water is useful in excreting waste materials and detoxification of xenobiotics (Michigan WIC Program, 2021).

Sources of Unhealthy Food Stuffs

All the unhealthy foods have ben industrially or scientifically manipulated through rigorous processes or interventions; therefore, they are of little or no value to nutritional health, rather cause a lot of problems (Sheena, 2020). Sone of the modern diets that provide unhealthy stuffs are as follows:

- Fizzy drinks
- Crisps
- Snacks
- Chocolates
- Confectioneries
- Packaged breads
- Bacon
- Buns
- Margarines
- Pizza
- Mayonnaise
- Chips
- Crakers
- Butter
- Other spreads (made through ultra-processing)
- Pasta
- Nuggets
- Hot dogs
- Burgers
- Instant soups
- Noodles
- Desserts
- Infants formulas
- Sticks
- Candy
- Alcohols
- Candy
- Sweetened coffee or tea
- Sausage
- Burgers
- Refined cereals
- Milk drinks (USDA, 2015; Rezaei, 2017; Hamish & Angus, 2019; Lalnunthara et al., 2020; Shamsol & Fisol, 2020; Soil Association, 2020; Tegmire et al., 2021; Whiteland, 2023; Shankar et al., 2024).

Sources of Healthy Food Stuffs

Healthy foods are provided by naturally provided sources such as plants and animals (FAO, 2012; Schneider et al., 2023). The healthy foods are rich in nutrients required by the human biological system for better health, growth, and development. They are listed as follows (the list is not exhausting):

- Oats, whole wheat, vegetables
- Nuts (such as cashew walnuts)
- Fishes
- Egg whites or generally egg
- Sweet potato
- Yams
- Kidney beans
- Fruits
- Red lentils
- Vegetables
- Grains and cereals
- Soy beans
- Potatoes (Nipun et al., 2017; Nayak, 2020; Sheena, 2020; Nagothi, 2021; Rasheed et al., 2021; Mukoro et al., 2023)

Thereof, the healthy foods are easily identified if considered at the food groups levels as indicated in

Table 3.

Table 3: The healthy foods groups

S/N	Food group	Examples	Major nutrients supplied for human nutrition
1	Cereals, and grains	Rice, wheat, maize barley, millet, sorghum, guinea corn	Energy (calories), vitamins B1, B2, calcium, fibre, iron, folic acid, invisible fat
2	Legumes and pulses	Black gram, lentil, peas, soybeans, cowpea, red gram	Energy (healthy calories), invisible fat, vitamins B1. B2, iron, fibre, folic acid
3	Meat and milk	Milk, meat	Protein, calcium, vitamin B12, vitamin B2, fat
4	Vegetables and fruits	Mango, guava, orange, capsicum, onion, tomato, cauliflower, drumstick, ladies finger	Fibre, vitamin C, minerals, carotenoids, folic acid

Reasons for Prevalence of Unhealthy Foods Stuffs

There are various interwoven reasons or factors behind the successful colonization of our environments with the unhealthy stuff taken as foods, some of the factors are easily controlled by individuals or groups, while other factors are beyond the scope, hence are only controlled by organizational or institutional factors (Mageswari et al., 2021; Lane et al., 2024).

Food environments around every person or groups is responsible for largely contributing to food insecurity or food security in the case of healthy foods. Powerful food industries are making it harder for people to afford or access healthy foods, because the market unhealthy foods at will and through all sorts of interventions. The unhealthy foods are very accessible, affordable, available, and are promoted seriously. This encourage their prevalence and popularity (UNICEF, 2021; Veisimiankali et al., 2022). The food industry uses marketing strategies that are persuasive, creating social acceptance and norms of unhealthy foods manufactured. The marketing of unhealthy stuffs in the environment springs from radio, television, social media, street billboards, stores, markets, packaging, variety of products, etc (Vaida, 2013; Islam, 2020; UNICEF, 2021; Jack, 2023).

Disadvantages of Unhealthy Foods proliferation

The major problem of the consumption of unhealthy stuffs as foods stems from two basic things. Firstly, the environment or food systems nowadays have been disturbed and distorted to contain food swamps and food deserts, as elicited by food producing industries to lobby the public. Therefore, all major problems stem from here, forcing humans to consume stuffs as foods even if they are really not rationally healthy (Smith, 2002; Lucan, 2010; Arya & Mishra, 2013; Berkley, 2023). Secondly, humans are omnivorous, with great tendency to consume almost everything as diet. Therefore, this strong urge for food have been utilized by food producing industries to make tasty stuffs serving as foods, make them cheap, convenient, and available (almost everywhere) thereby persuading consumers to embrace unhealthy stuffs (Smith, 2002; Arimond et al., 2021). Unhealthy foods are including beverages, and all sorts of stuffs that are industrially synthesized or produced as formulations of food stuffs. Typically, they contain excess stuffs of concern to health, such as sugar, sodium, trans fats, saturated fats, and others (UNICEF, 2021; Abonmai et al., 2022). These stuffs are made to earn maximum profit, thus are cheap, contain low-quality ingredients, have longer shelf life, hyperplatable, highly branded, and highly marketed. They are calorie-dense, high in sugars, and refined stuffs, unhealthy fats, and sodium as well (Mahmoud et al., 2021; UNICEF, 2021; Raouf et al., 2022). Empty calories are stuffs that contribute only calories without providing nutrients needed by the body. Unhealthy Foods are either junk foods, fast foods or generally empty calories. They are from the solid fats or added sugars and contain preservatives or salts. Solid fats are fats that are known to be solid at room temperature. The concern is solid fats cause blockage of blood vessels (arteries). Added sugars are sugars synthesized through industrial interventions and are core elicitors of metabolic disturbances such as diabetes, hypertension, obesity, overweight, and cancer. Unhealthy Foods are products brought up through series of industrial treatments, they are if no nutritional values (or at least contribute insignificantly in providing the body with nutrients) such as proteins, vitamins, minerals, antioxidants, carbohydrates, and lipids among others (Bhagyalakshmi et al., 2022; Jia et al., 2022; Collador-soler et al., 2023). Some of the other concerns about proliferation of unhealthy foods in our environment are delineated as follows:

Food additives

Unhealthy foods are substances, mostly chemically synthesized or produced industrially that are added to foods to confer properties. Ironically, the additives are not basic components of foods, rather, they are added to bring about certain characteristics such as palatability in general, enhanced shelf life, kill microbes, add colour, and many other needed properties that attract consumers. Additives are also regarded as preservatives; they are very numerous in unhealthy foods. Some of the additives include, casein, gluten, fructose, syrup, dextrose, insoluble fiber, hydrolyzed protein, and many others. One major concern about them is they are harmful to health, incite effects such as cancer, reduced immunity, toxicity, nervous system problems, hypersensitivity. Other additives include, flavor enhancers, carbonating agents, antibiotics, sweeteners, forming, emulsifying agents,

bulking, glazing agents, which are all unhealthy in acute excess exposure or in chronic long-term exposure (Shankar et al., 2024).

Malnutrition

Malnutrition is a type of condition that take place when people consistently do not consume or absorbs right amounts and kinds of food that are essential. Malnutrition causes morbidities and mortalities worldwide. Unhealthy Foods such as fast foods, junk foods and other forms such as ultra-processed foods are stuffs that add only excess calories, without providing the needed nutrients that nourish the body to maintain health, growth, and reproduction (Shridhar et al., 2015). People consuming the unhealthy foods in excess or chronic exposure are liable to have issues of malnutrition, because the body is deprived of the healthy foods that are responsible for providing nutrients that nourish the body system (Vidya et al., 2015; Sarkingobir et al., 2023).

The unhealthy foods consumption pattern could trigger the three strands of malnutrition, namely, undernutrition, hidden hunger, and overnutrition. Undernutrition is wasting or stunting resulting from factors like food shortage, infection, poverty, poor feeding, etc. Stunting is a form of malnutrition referred to as undernutrition whereby the person involved is too short for his age. Stunting send a signal that the person involved is short in stature, has height less than the required one. Stunting may be due to repeated intake of unhealthy stuffs (as foods) or repeated infection (DOP, 2016). Undernutrition forms such as stunting or wasting may trigger fatigue, irritability, infection, osteoporosis, poor concentration, drug abuse, depression, hyperthyroidism, etc (Whiteland, 2023).

Wasting is a form of undernutrition whereby, a person is too thin for his height. Wasting indicates that the victim has lost fat and muscle mass. Hidden hunger refers to deficiency of essential nutrients and vitamins or generally micronutrients deficiencies. Overnutrition or overweight occurs due to excess food or stuffs intake over the years or specific timeframe. It can result in medical conditions such as gastrointestinal, orthopedic, stroke, musculoskeletal, type 2 diabetes, emotional and behavioral health effects such as depression, stigmatization, suicide attempt (UNICEF, 2019; UNICEF, 2021). Overweight and obesity occur due to excessive consumption of energy, which is bred by ultra-processed foods or empty calories or unhealthy foods. It basically stems if the energy intake us higher than exhausting (DOP, 2016)

Specific Nutritional Disorders in Older People

There is claim that, malnutrition and obesity are prevalent in older people, and there are additional problems. Some of the nutritional problems of older people are disclosed in this section.

Malnutrition problems in order people include anorexia, stunting, protein -energy malnutrition, and obesity (overweight). Obesity occur in people between 40-65 years mostly, because they have been consuming foods and accumulating energy more than they burn. People at this age may be more engaged in sedentary lifestyles, thereby encouraging energy accumulating. This has been a risk factor of diabetes, cancers, heart diseases, stroke, and other chronic disorders (UNICEF, 2021).

Undernutrition forms may be stunting or wasting. After 65 years of age, people may tend to consume less foods, thereby triggering loss of muscle mass or thinness. Vitamin deficiencies may be experienced by old people. Certainly, several vitamins are needed by the body; but as people get older they may have poor access to foods, because of reasons such as lower activity of the body, poverty, poor health, and others. This may spur vitamin deficiencies such as in the case of vitamin D (Aimuson-Quampah et al., 2022).

Constipation is a condition affecting old people sometimes. The activity of peristalsis reduces with age, while consumption of unhealthy foods instigates low fibre intake coupled with poor physical activity and the aforestated factors in old people, there is potential of facing the problem of constipation in older adults death (Barth et al., 2021; Michigan WIC Program, 2021).

Lactose intolerance is nutritional problem because older people have basically reduced level of lactose enzyme (lactase) that is responsible for metabolizing milk protein; therefore, many people among the older adults that take milk or products face the challenge in degrading lactose. This condition is designated as lactose intolerance. Lactose intolerance may be accompanied with cramping gas, bloating, discomfort, and diarrhea death (Barth et al., 2021; Michigan WIC Program, 2021).

Osteoporosis is a condition that may occur in old people. People who are consuming little amount of calcium may develop poor or brittle bones. The risk factors of this disorder include, sedentary lifestyle, empty calories, drug abuse, malnutrition, poor intake of calcium, and poor intake of vitamin D. Anemia is due to lack of iron in the diet of consumers. Lack of enough iron in the diet causes iron deficiency anemia, thereby affecting oxygen supply of the cells or tissues, causing tiredness, irritability, weakness death (Barth et al., 2021; Michigan WIC Program, 2021).

Dehydration is the loss of water from the body. It is prominent in old people, especially due to poor nutrition. Dehydration causes overheats, weakness,

dizziness, and as well headache. Sometimes, the said symptoms proceed to delirium or ultimately death (Barth et al., 2021; Michigan WIC Program, 2021).

Hypertension occurs due to high intake of sodium in unhealthy foods (empty calories). High consumption of unhealthy foods that are high in sodium is a key factor that spur high blood pressure or hypertension and consumption of excess sodium may cut down calcium by increasing it's excretion and consequently instigating osteoporosis (Michigan WIC Program, 2021; Horowilz et al., 2023).

Conclusion

Consequences of unhealthy foods consumption leads to crises because the world is facing obesity epidemic that increases the prevalence of chronic diseases such as diabetes, and heart disae4s. The unhealthy foods cause tiredness, poor sleeping, hunger, in satiety, and in turn may instigate addiction. On the long-term, c hronic intake of unhealthy foods is linked to heart diseases, hypertension, stroke, etc (Jia et al., 2022). It is important to suggest that, people should be educated and aware about basic tips required to avoid unhealthy foods and choose healthy foods. People should be economically buoyant in order to buy healthy foods. However, in terms of environmental factors, there is need to make laws that restrict marketing and selling of unhealthy foods in the environments, especially in specific domains such as homes, school areas. Environmental policies that involved encouraging small-scale farming, as well as climate change adaptation farming practices, and urban farming will eventually help in encouraging food systems providing foods in our environments.

References

Abonmai, K., Rachman, S.K.D. & Bhardwaj, S.C. (2022). Junk food and its impact on health. *Bulletin of Environment, Pharmacology and Life Sciences*, 4,598-601.

Aimuson-Quampah J., Amuna NN., Holdsworth M. Aryeetey R. (2022). A review of food based dietary guidelines in Africa: opportunities to enhance the healthiness and environmental sustainability of population diets. *African Journal of Food, Agriculture, Nutrition and Development*, 22(2), 19471-19495

Arimond, M., Wiesmann D., Ramirez, S.P., Levy, T.S., Ma, S., Zou, Z., Herforth, A. & Beal, T. (2021). Food group diversity and nutrient adequacy: Dietary diversity as a proxy for micronutrients adequacy for different age groups in Mexico and China. Global Alliance for Improved Nutrition (GAIN). Discussion paper A9. Geneva, Switzerland.

Arya, G. & Mishra, S. (2013). Effects of junk food and beverages on adolescents health- a review article. *IOSR Journal of Nursing and Health Science*, 1(6), 26-32.

Barth, M.M., Bell, R.A., & Grimmer, K. (2021). Public health nutrition. Rural, urban, and global community-based practice. Springer Publishing Company, LLC, United States of America.

Bashar, T.A. (2025). Reversing the Tide of Empty Calories: Lessons from Local Food Systems in Gwadabawa *Ribat. Kashf Journal of Multidisciplinary Research, 2(2), 40-54.*

Berkley, M. (2023). The impact of children consuming junk food: A detailed analysis. *Journal of Childhood Obesity*, 8(15), 015-016.

Bhagyalakshmi, U., Kumar, A. & Kumari A. (2022). Factors associated with frequent consumption of fast food and its effect on health among fast food venders and school or college going teenage consumers with a view to develop an informational booklet. *International Journal of Medical Research: K Interdisciplinary,* 20(8), 1-5.

Collado-soler, R., Alferez,-Pastor, M., Trigueros, R. & Aguillar-Parra, J.(2023). A systematic review of the effects of nutrition programs in high schools. *Revista Latinoamerican de psicologia,* 55, 169-182.

Elbastawy, S., Eleman FEH., Khalil HE.M. Hussein, NKA. (2021). Effect of educational intervention program reading knowledge, attitude, and habits of junk food among primary school students. *Egyptian Journal of Health Care*, 13(10, 487-501.

FAO (2012). Combating micronutrients deficiencies. Food-based approaches.www.fao.org/ag/agn/.

Hamish M & Angus C. (2019). Evaluation of fast foods consumption among children and teenagers. *IAA Journal of Scientific Research*, 5(1), 6-113.

Harris, J., de Steenhuijsen Piters, B., McMullin, S., Bajwa, B., de Jager, I., Brouwer, I.D. (2023). Fruits and Vegetables for Healthy Diets: Priorities for Food System Research and Action. In: von Braun, J., Afsana, K., Fresco, L.O., Hassan, M.H.A. (eds) Science and Innovations for Food Systems Transformation. Springer, Cham. https://doi.org/10.1007/978-3-031-15703-5_6.

Horowilz, M, Hedrick, C., Asch, A., Fernandez, S. & Churchill, K. (2023). The top foods to swap, substitute, shrink, or sneaking to reduce added sugars and solid fats in your diet. University of California.

Islam, S. (2020). The impact of fast food on our life: A study on food habits of Bangladesh people. *Global Journal of Medical Research: K interdisciplinary*, 20(8), 1-5.

Jack, D. (2023). Empty calories unveiled: Understanding their impact on health and strategies for making smarter dietary choices every day. *Journal of Nutrition and Human health*, 7(6), 1-3.

Jia, S.S., Wardak, S., Raeside, R. & Partridge, A. (2022). The impacts of junk food on health. Frontiers for Young Minds, 10(694523),1-7.

Labbo, A. (2016). Islam and the development medicine in Nigeria; Lessons from the Sokoto Caliphate. *Journal of Islam in Nigeria*, 2(1), 89-99.

Lalnunthara R. & Jyoti Kumar, NVR. (2020). Health consciousness and fast foods. A study among college students in Laglei Town, Mizoram. Mizoram University Journal of Humanities and Social Sciences, vi(I), 142-152.

Lane, M., Gamagr, E., On, S., Ashtrrr, D.N. et al., (2024). Ultra processed food exposure and adverse health outcomes. Umbrella Review of Epidemiological Meta analysis. *BMJ*, 384(077310),1-16.

Mageswari, P., Thilagavathi, V., Siva Priya, M., Ayedha, S. (2021). Knowledge on health effects of junk food consumption among pregnant women in Tirunelveli District. *Journal of Emerging Technologies and Innovative Research*, 8(12), 11-17.

Mahmoud, A.H., Mohamed, NM. & El-wardany, SA., (2021). Knowledge and attitudes of students toward fast food in Assiut University. *Assiut Scientific Nursing Journal*,9(240, 67-75.

Meena, P., Nath, F. & David, F.J. (2023). Hazards of junk foods among adolescents. International *Journal of Trend in Scientific Research and Development*, 7(1), 115-119.

Michigan WIC Program (2022). Nutrition education. Staff training basic nutrition module. www.michigan,gov/.

Mukoro, I., Adebayo, O., Oyabambi, O., Kanmodi, K., Ojo, O., Oiwoh, S., Agbogidi, J., Williams, A., Ibiyo, M., Samuel, A., Ogunsuji, O., & Ogunjimi, L. (2023). Fast food consumption habits among young people in south western Nigeria. *Research Journal of Health Sciences*, 11(2), 77–87. https://doi.org/10.4314/rejhs.v11i2.1

Nagothi, K. (2021). Effects of junk food on daily life. *Journal of Food Microbiology*, 5(5),12.

Nayak RK. (2020). Pattern of fast or junk food consumption song medical students of north Karnataka - a cross-sectional study. *Intentional Journal of Community Medicine and Public Health*, 7(5), 1839-1842.

Nipun, TS., Debnath, D., Miah, SU., Kabir A., & Hossan, MK., (2017). Bangladeshi students standpoint on junk food consumption and social behavior. *IOSR Journal of Pharmacy and Biological Sciences*, 12(10, 68-75.

Raouf, N.R., Mahfouz, E.M., Seedhom, A.E., Ghazawy, R. & Abdelrehim, M.G.(2022). The risk of obesity in relation to dietary habits among medical students at Minia University. *Minia Journal of Medical Research,* 33(4), 105-114.

Rasheed, S., Aslam, M., Fakhar, A., Asif A., Amir H., Khalid S. (2021). Association of unhealthy food practices with nutritional status of adolescents. *Biomedical Journal of Scientific and Technical Research*, 32 (2), 25766-25778.

Ratmini, S., Subiksa, I.G.M., Suprihaton, A., Suasfika, I.W. & Riyanto D. (2023). Optimization of lowland productivity through fertilization as a food bigger against the impact of climate change. *E35 Web of Confidences*, 467(01019). 1-6.

Reedy, J., & Krebs-Smith SM (2010). Dietary sources of energy, solid fats, and added sugars among children and adolescents in the United States. *Journal of American Dietetic Association*,110,1477-1484.

Reilly JM. & Harris P.(2016O). Nutrition in the elderly.

Rezaei, S.M.A. (2017). Frequency and attitudes to fast food consumption in Yasuj South western Iran. *International Journal of Nutrition Sciences*,2(2),92-96.

Saraca, I., & Butnariu, M. (2020) Food Pyramid - The Principles of a Balanced Diet. *International Journal of Nutrition* - 5(2),24-31. https://doi.org/10.14302/issn.2379-7835.ijn-20-3199

Sarkingobir, Y., & Miya, Y.Y. (2024). Empty Calories in Processed Foods: A Comprehensive Review of Dietary Implications. Kashmir Journal of Science, 3(04), 67-88. Retrieved from https://kjs.org.pk/index.php/kjs/article/view/57 .

Sarkingobir, Y., Umar, AI., Gidadawa FA., Miya, Y.Y. (2023). Assessment of food security, living condition, personal hygiene health determinants and relations among Almajiri students in Sokoto metropolis, Nigeria. *Thu Dau Mot*

Journal of Science, 5(1),63-76. https://doi.org/10.37550/tdmu.EJS/2023.01.372.

Schneider KR., Bellows AL., Downs, S., Ramya A., et al., (2023). Inequity in access to healthy foods. Synthesis from a multidisciplinary perspective. GAIN Discussion paper No12.

Shamsol, N.S. & Fisol, N.N.M.M. (2023). The factors that influence youth consumption of junk food. *Journal of Tourism, Hospitality and Culinary Arts*, 15(1),147-163.

Shankar, P., Jan, CL Singhi, H., Holla, A. & Nothin, B. (2024). Impact of food preservatives on human health. *Intentional Journal of Novel Research and Development*,9(3),277-286.

Sheena, (2020). Harmful impact of junk food on teenagers health in Haryana. *Journal of Emerging Technologies and Innovation Research*,7(9),496-503.

Shridhar, G., Rajendra, N., Murihendra, H., Shrideri P Prasad M Mujeeb MA Arun S Neeraj D Vikas, S., Suneel, D. & Vijay, K. (2015). Modern diet and its impact on human health. *Journal of Nutrition and Food Sciences*, 5(6), 430-433.

Shuaibu, M., Saleh, S., Garba, S., Saleh, M., & Shuaibu I. (2024). Analysis of Fadama farming; prospects and challenges of farming livelihood in the northwestern Nigeria: Jigawa State. *Journal of Emerging Technologies and Innovative Research*, 11(4),1301-317.

Smith, T.G. (2002). The McDonald's equilibrium advertising, empty calories, and the endogenous determination of dietary references.wwe.econ.ucsh.edu/ntsmith

Soil Association (2019). Ultra-processed foods. The case for re-balancing the Uk diet. Soilassocaition.org.

Stenesh, J. (1998). Biochemistry. New York: springer Science + Business Media. DOI:10.1007/978-1-4757-9427-4.

Tegmire, S. Borah, A., Kumthekar, S. & Idate, A. (2021). Recent trends in ready to eat/ cook food products: A review. *The Pharma Innovation Journal*, 10(5), 211-217.

UNICEF (2019). The state of the worlds children 2019. Children, food and nutrition: Growing well in a changing world. UNICEF, New York.

UNICEF (2021). Marketing of unhealthy foods and non-alcoholic beverages to children.

United States Department of Agriculture (2015). What are empty calories. Choose.Myplate.ov.

Vaida, N. (2013). Prevalence of fast food intake among urban adolescents students. The *International Journal of Engineering and Science*, 2(1),353-359.

Veisimiankali M. & Mahvar T. & Hemmati M.(2022). The role of nutrition in the health of elderly; a review article. *Journal of Biology and Todays World*, 12(2), 1-4.

Vidya, B., Damayanthi, M.N. & Manjunatha, S. (2015). Junk food consumption pattern and obesity among school going children in an urban field practice area: A cross sectional study. *Journal of Evidence Based Medical and Healthcare*,2(12),1845-1850.

Whiteland, L. (2023). The harmful effects of serving processed food at schools. California State University.