FOOD AND NUTRITIONAL INTAKE AS A CORRELATE OF PRESCHOOLERS HEALTH STATUS IN RIVERS STATE

Nene Comfort EGUMAH-NYEMSDUKE, Ph.D

Department of Home Economics, Hospitality and Tourism
Faculty of Vocational and Technical Education
Ignatius Ajuru University of Education
Port Harcourt, River State

ABSTRACT

This study was to assess the food and nutritional intake as a correlate of preschoolers' health status in Rivers State. The study adopted an Ex-post facto research design. The study was undertaken in River State. The population of the study consisted of the all experts in home economics in River State. Simple random sampling technique was used to select three senatorial districts in River State. From each of the district 60 home economics were randomly selected, giving the total of 180 respondents that comprised the sample size for the study. The main instrument titled "Food and Nutritional Intake Questionnaire (FNIQ)". was used for data collection. Face and content validation of the instrument was carried out by an expert to ensure that the instrument was recorded accuracy while Cronbach Alpha technique was used to determine the level of the reliability of the instrument. Interestingly, the reliability coefficient obtained was 0.86 which was high enough to justify the use of the instrument. The researcher subjected the data generated for this study to appropriate statistical techniques such as percentage analysis and simple regression. The test for significance was done at 0.05 alpha level. The study concluded that food and nutritional intake have been a basic part of health status. The nutritional intake of food can be determined by knowing the food composition. Nutritional intake of food ensures growth in preschoolers and maintains good health through recovery from illness. However, nutrients are components of foods needed by the body in adequate amounts for proper growth, reproduction, and leading a normal life for preschoolers in Rivers State. One of the recommendations made was that parents should ensure sufficient nutritional intake for preschoolers to promote their health status.

KEYWORDS: Food, Nutritional Intake, Preschoolers, Health Status, and Rivers State

Introduction

Nutritional intake is one of the basic needs of every preschooler and individual on earth. Preschoolers' health status is affected by nutrition. Nutrition is the quantity and quality of food that the body receives. The body breaks down food to get the molecules that it actually needs: proteins, fats, carbohydrates, vitamins, and minerals. Nutrition is the process by which the body obtains energy to perform various tasks in daily life (Khan, 2018). Nutrition involves how organisms obtain nutrients, metabolise them, and use them to support all of life's processes. Different kinds of disease, weakness, and disabilities are closely related to the intake of an insufficient amount of food nutrients. Nutrition is a critical part of health and development. Better nutrition is related to improved infant, child, and maternal health, stronger immune systems, safer pregnancy and childbirth, and a lower risk of noncommunicable diseases (such as diabetes and cardiovascular disease) and longevity (World Health Organization, 2021). Nutrition plays a crucial role in human growth, development,

and health. Adequate nutrition during childhood not only has an important influence on the current health status of the child but also prevents diet-related diseases in adulthood.

Nutrition and nutritional intake are basically the study of the use of foods by the body for processes of growth, repair, and work. It is the study of how people eat and what they eat. Ojofeitimi (2007) posited that nutrition is the science that deals with the study of food values and their effects on the body. The condition of preschooler health is influenced by the consumption and use of nutrients to improve health status, which is influenced by food and nutritional intake. It amounts to the fact that the preschooler receives all nutrients in appropriate amounts so as to meet the needs of the body. When nutrients are adequate, the body is in a state of good nutrition and normal growth (Shills, 2005). Nutrition is one of the basic needs of life. Nutrition in the early years of life, particularly in early childhood and the preschool period, is very important for an individual's health status. It is important that preschoolers not only acquire knowledge about appropriate and adequate nutrition but also develop good eating habits that will enhance their growth and development. Begum (2007) stated that nutritional intake is the combination of processes by which the living organism receives and utilizes the materials necessary for the maintenance of its functions as well as growth and renewal of its components.

Statement of the Problem

Over the years, nutritional intake has long been a necessary requirement for every preschooler and individual on earth. Nutritional intake has an impact on the health of preschoolers. Inadequate nutrient intake is linked to a wide range of diseases, weaknesses, and disabilities. Every preschooler's health and growth are dependent on proper nutrition. However, food and nutritional intake are critical to preschooler health through the stages of life in River state.

Objective of the Study

- 1. To find out the extent of food and nutritional intake of preschoolers in river state
- 2. To examine the health status of preschoolers in river state
- 3. To determine the influences of food and nutritional intake on health status

Research Questions

- 1. What is the extent of food and nutritional intake of preschoolers in River State?
- 2. What is the health status of preschoolers in River State?
- 3. What is the influence of food and nutritional intake on health status?

Null Hypothesis

HO₁: There is no significant influence of food and nutritional intake on health status

Conceptual Review

Concept of Food

Food is any substance consumed to provide nutritional support for an organism. The substance is ingested by an organism and assimilated by the organism's cells to provide

UNIVERSAL ACADEMIC JOURNAL OF EDUCATION, SCIENCE AND TECHNOLOGY, VOL4 NO3, DECEMBER 2021, England, UK

energy, maintain life, or stimulate growth (Wikipedia 2021). Food is any substance normally eaten or drunk by living things. The term "food" also includes liquid drinks. Food is the main source of energy and nutrition for humans. According to Fisher (2020), food refers to the substance consisting essentially of protein, carbohydrates, fat, and other nutrients used in the body of an organism to sustain growth and vital processes and furnish energy. The absorption and utilization of food by the body is fundamental to nutrition and is facilitated by digestion. Manjunath, (2017) Food is the material consisting essentially of protein, carbohydrates, and fat used in the body of an organism to sustain growth, repair, and vital processes and to furnish energy. Such material is also together with supplementary substances (as minerals, vitamins, and condiments). According to Kapur (2018), food has been considered to be an imperative part of the existence of a human being or any other living organism in order to obtain good health, to accomplish one's jobs and duties in an effective manner, to recover from illnesses, to implement adequate growth and development of the children, and to survive. Food is a basic necessity that is required to be fulfilled.

Food is that which nourishes the body. Food may also be defined as anything eaten or drunk that meets the needs for energy, building, regulation, and protection of the body (Mudambi & Rajagopal, 2007). In short, food is the raw material from which our bodies are made. Intake of the right kinds and amounts of food can ensure good nutrition and health, which may be evident in our appearance, efficiency, and emotional well-being. The term "food" refers to anything that we eat and that nourishes the body. It includes solids, semi-solids, and liquids when swallowed, digested, and assimilated into the body. These substances not only keep the person alive, but also provide energy used for growth and development, regulate the body's processes, and protect the body from diseases (Devadas, 2017). Food is an essential element for life. Historically, humans have depended on natural sources for food. Rapid population growth, particularly during the last few decades, has driven the need to increase food supply to meet the fast-growing demand (Valyasevi, Winichagoon, & Chavasit, 2019). However, emphasis has been given to the provision of staple foods rather than a totality of diet, which is composed of several foods to provide the various constituents that the body needs for proper functioning. Food is mainly composed of water, lipids, proteins, and carbohydrates. Minerals (e.g. salts) and organic substances (e.g. vitamins) can also be found in food. Food provides energy and nutrition to the body.

Concept of Nutrition and Nutritional Intake

Nutrition refers to those chemical substances which are supplied by food and needed as a source of energy and structural material for every cell in the body. Nutrition is the biochemical and physiological process by which an organism uses food to support its life. It includes ingestion, absorption, assimilation, biosynthesis, catabolism, and excretion (Snell, Carpenter, & Truswell, 2021). Nutritional intake refers to the daily eating patterns of an individual, including specific foods and calories consumed in relative quantities. Nutritional intake is the set of guidelines for the daily intake of nutrients (as vitamins, protein, and fats) and other food components (as fiber) that include recommended daily allowances (Merriam-Webster 2021). Nutrition is the assimilation by living organisms of food materials that enables them to grow, maintain themselves, and reproduce. Nutrition is the process by which a human, animal, or plant takes in and utilizes food substances. Essential nutrients include protein, carbohydrates, fat, vitamins, minerals, and electrolytes. Normally, 85% of daily energy use is from fat and carbohydrates and 15% from protein. In humans, nutrition is mainly achieved through the process of putting foods into our mouths, chewing them, and swallowing them (Health Engine 2007). Nutrients are substances required by the body to perform its basic functions. Most nutrients must be obtained from our diet since the human

UNIVERSAL ACADEMIC JOURNAL OF EDUCATION, SCIENCE AND TECHNOLOGY, VOL4 NO.3, DECEMBER 2021, England, UK

body does not synthesize or produce them (Calabrese, Gibby, Meinke, Revilla, & Titchenal, 2019). Nutrients have one or more of three basic functions: they provide energy, contribute to body structure, and regulate chemical processes in the body.

Nutrition is also known as nourishment or aliment in the form of food in order to support life. Nutrition is the combination of processes by which the living organism receives and utilizes the materials necessary for the maintenance of its function and for the growth and renewal of its components (Jaypee Brothers 2018). Nutrition is that condition which permits the development and maintenance of the highest state of fitness and also involves the processes or activities by which the human body receives and uses all the food necessary for its growth, development, and other substances therein, their action, interaction, and balance in relationship to health and disease. According to the National Council of Educational Research and Training (2020), nutrition is defined as the science of foods, nutrients, and other substances they contain and their actions within the body, including ingestion, digestion, absorption, metabolism, and excretion. Nutrients are the good things that we get through food, which we need to nourish and nurture ourselves and to be happy and healthy people. In scientific terms, nutrition is the supply of food that we need as an organism to feed our cells and keep them alive (Health and Wellbeing 2018). We can get nutrients from products such as vitamin supplements, but when we talk about nutrition, we mostly mean the nutrients we get from food. Nutrition is best balanced by eating the right amounts of a large variety of foods. These basic functions allow us to detect and respond to our environment, move, excrete waste, respire (breathe), grow, and reproduce.

Concept of Health Status

Health status is an individual's relative level of wellness and illness, taking into account the presence of biological or physiological dysfunction, symptoms, and functional impairment (American Thoracic Society 2007). Health status refers to the physical and mental medical condition of an individual and includes prior medical history, claims experience, receipt of health care services, evidence of insurability (including conditions arising out of acts of domestic violence), disability, and genetic information. According to Rumsfeld (2002), health status is the impact of disease on a patient's function as reported by the patient. More specifically, health status can be defined as the range of manifestation of disease in a given patient, including symptoms, functional limitation, and quality of life, in which quality of life is the discrepancy between actual and desired function. Health status has many components, which range from physiologic structure and function to the ability to participate in a range of social activities. Health status refers to the description of the physical and mental condition of an infant or toddler (Law Insider 2020). Health status may include current diagnoses, medications, required regular medical procedures, current medical supplies and technological devices, primary and specialty care providers, immunization status, nutrition, and oral health. Health status refers to health maintenance and the ability of existing health services to offer health maintenance.

Health status refers to the medical conditions (both physical and mental health), claims experience, receipt of health care, medical history, genetic information, evidence of insurability, and disability (Healthcare 2021). Health status refers to an individual's mental and physical condition using the following factors: medical condition, claims experience, medical history, and health service utilization (Law Insider 2020). Health status refers to the client's medical condition based on a diagnosis of the client's existing illnesses or disabilities, the medical care and medications needed in response to the diagnosis, and an assessment of the client's ability to perform daily tasks. Health status is a generic term referring to the

UNIVERSAL ACADEMIC JOURNAL OF EDUCATION, SCIENCE AND TECHNOLOGY, VOL4 NO.3, DECEMBER 2021, England, UK

health (good or poor) of a person, group, or population in a particular area, especially when compared to other areas or with national data (Farlex 2012). A health status is a description or measurement of the health of an individual or population at a particular point in time against identifiable standards, usually by reference to health indicators. Health Status refers to the level of health of the individual, group, or population as subjectively assessed by the individual or by more objective measures (STANDS4 2021). Health status is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. However, health status assessment methods can be separated into three genres: generic, disease specific, and preference-based.

Concept of Preschoolers

Preschoolers refer to children that are developing the basic life skills, independence, and knowledge that they will need as they enter their school years. A child of 3 or 5 is considered a preschooler (Phillips, 2013). A preschooler has more developed skills than a toddler does. Therefore, they are able to dress themselves, use a fork properly, begin to cut paper with scissors, and draw more detailed pictures. At this age, a preschooler is beginning to learn more life skills, like expressing their needs, dressing themselves, brushing their teeth, blowing their nose, putting on their shoes, etc. Developing these life skills helps them to become more independent, which is what they want at this age. Best Mom Ideas (2021) defined preschoolers as children who attend preschool. He had no idea it was a group of young children of various ages. A preschooler is between the ages of 3 and 5 years old. A preschooler is fascinated by the world around them and will frequently ask a slew of why questions in order to learn more about it. Preschoolers have a good enough command of the English language to be comprehended. This allows them to participate in more engaging play with other kids and adults. Whether your preschooler has made an imaginary friend, is playing at home, fighting off the dragons from the castle, comforting a crying baby doll, or crossing the finish line in their racecar, all of these activities are helping to build their creative thinking (BMI, 2021). Preschoolers start to develop a sense of time as well. They notice the difference between day and night, as well as in their everyday routine. They might even start learning the days of the week and the months of the year.

Impact of Food and Nutritional Intakes on Health Status

The impact of food and nutritional intake reduces the risk of physical health problems like disease and diabetes. It also helps with sleeping patterns, energy levels, and general health status (Australian Government 2019). Nutritional intake is based on the assumption of the impact of food on a preschooler's health status. The nutritional intake seems to provide preschoolers with a base of knowledge about the impact of eating and dieting on health status. Based on this knowledge, numerous public and private authorities make recommendations about what foods preschoolers should eat and the quantities, frequency, and ways they should be consumed. According to Ukey (2005), a preschooler falls within the age range of 3–5 years. Preschoolers are one of the most vulnerable groups that are at greater risk of malnutrition in society. Nutrition has a direct impact on their growth and development as well as their health status. The nutrition of preschoolers is of considerable importance because it concerns their formative stages of life. It is widely perceived that nutritional intake has a substantial impact on their physical and mental development as well as on their health status and productivity as adults.

Nutritional intake is important at every age. Preschoolers need proper nutrients to stay healthy and strong and grow up healthy and strong (Medical Associates of Northwest

Arkansas, 2021). Nutritional intake for preschoolers can also help establish a foundation for healthy eating habits and nutritional knowledge that they can apply throughout life. Nutritional intake is the key to the health status of a preschooler through the stages of life. It is the fuel that powers each of the cellular mechanisms that allow preschoolers to exist in a functional state of good health status. Imbalances, surpluses, or deficiencies in macronutrients (protein, carbohydrates, fats) or micronutrients (iron, zinc, vitamins, etc.) can lead to pathologic derangements and death (Hilmers & Abrams, 2014). Childhood is a critical time in the growth and development of a person, and it is a key stage in the establishment of their physical and mental abilities. There is therefore considerable scientific interest in determining a preschooler's optimal nutritional intake that will enhance and assist this growth and development. This includes factors such as the quantity, quality, timing, and nutrient components of every meal.

Methodology

The study adopted Ex-post facto research design. The study was undertaken in River State. The population of the study consisted of the all experts in home economics in River State. Simple random sampling technique was used to select three senatorial districts in River State. From each of the district 60 home economics were randomly selected, giving the total of 180 respondents that comprised the sample size for the study. The main instrument titled "Food and Nutritional Intake Questionnaire (FNIQ)". was used for data collection. Face and content validation of the instrument was carried out by an expert to ensure that the instrument was recorded accuracy while Cronbach Alpha technique was used to determine the level of the reliability of the instrument. Interestingly, the reliability coefficient obtained was 0.86 which was high enough to justify the use of the instrument. The researcher subjected the data generated for this study to appropriate statistical techniques such as percentage analysis and simple regression. The test for significance was done at 0.05 alpha level.

Results and Discussion

Research Questions

Research Questions One: The research question sought to find out the extent of food and nutritional intake of preschoolers in River State. To answer the research question percentage analysis was performed on the data, (see table 1).

TABLE 1: Percentage analysis of the extent of food and nutritional intake of preschoolers in River State

EXTENTS	FREQUENCY	PERCENTAGE		
VERY HIGH EXTENT	12	6.67*		
HIGH EXTENT	23	12.78		
LOW EXTENT	56	31.11		
VERY LOW EXTENT	89	49.44**		
TOTAL	180	100%		

^{**}The highest percentage frequency

SOURCE: Field survey

The above table 1 presents the percentage analysis of the extent of food and nutritional intake of preschoolers in River State. From the result of the data analysis, it was observed that the

^{*}The least percentage frequency

highest percentage (49.44%) of the respondents affirmed that the extent of food and nutritional intake of preschoolers in River State is very low, while the least percentage (6.67%) of the respondents stated that the extent of food and nutritional intake of preschoolers in River State is very high.

Research Questions Two: The research question sought to find out the health status of preschoolers in River State. To answer the research question percentage analysis was performed on the data, (see table 2).

TABLE 2: Percentage analysis of the health status of preschoolers in River State

EXTENTS	FREQUENCY	PERCENTAGE	
VERY GOOD	66	36.67	
GOOD	102	56.67**	
BAD	8	4.44	
VERY BAD	4	2.22*	
TOTAL	180	100%	

^{**}The highest percentage frequency

SOURCE: Field survey

The above table 2 presents the percentage analysis of the health status of preschoolers in River State. From the result of the data analysis, it was observed that the highest percentage (56.67%) of the respondents affirmed that the health status of preschoolers in River State is good, while the least percentage (2.22%) of the respondents stated that health status of preschoolers in River State is very bad.

Research Questions Three: The research question sought to find out the influence of food and nutritional intake on health status. To answer the research percentage analysis was performed on the data, (see table 3).

TABLE 3: Descriptive statistics of the influences of food and nutritional intake on health status

110011111 2001012					
Variable	N	Arithmetic	Expected	R	Remarks
		mean	mean		
Health Status		17.00	12.5		*Strong to
	180			0.76	Perfect
Food and Nutritional Intake		13.87	12.5		Relationship

Source: Field Survey

The above table 3 presents the result of the descriptive analysis of the influences of food and nutritional intake on health status. The two variables were observed to have Strong to Perfect Relationship at 0.76%. The arithmetic mean for health status (17.00) was observed to be greater than the expected mean score of 12.5. In addition to that, the arithmetic mean as regards food and nutritional intake (13.87) was observed to be higher than the expected mean score of 12.5. The result therefore means that there is remarkable influences of food and nutritional intake on health status.

^{*}The least percentage frequency

Hypothesis Testing

Hypothesis One

The null hypothesis states that there is no significant influences of food and nutritional intake on health status. In order to answer the hypothesis, simple regression analysis was performed on the data (see table 4)

TABLE 4: Simple Regression Analysis of the influences of food and nutritional intake on health status

Model	R	R-Square	Adjusted R Square	Std. error of the Estimate	R Square Change
1	0.76a	0.58	0.58	1.28	0.58

^{*}Significant at 0.05 level; df= 178; N= 180; critical R-value = 0.197

The above table 4 shows that the calculated R-value (0.76) was greater than the critical R-value of 0.197 at 0.5 alpha levels with 178 degrees of freedom. The R-Square value of 0.58 predicts 58% of the influences of food and nutritional intake on health status. This rate of percentage is highly positive and therefore means that there is significant influence of food and nutritional intake on health status. It was also deemed necessary to find out the influence of the variance of each class of independent variable as responded by each respondent (see table 5).

TABLE 5: Analysis of variance of the influences of food and nutritional intake on health status

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	403.27	1	403.27	245.21	.000b
Residual	292.73	178	1.65		
Total	696.00	179			

a. Dependent Variable: Health Status

The calculated F-value (245.21) and the P-value as (.000b). Being that the P-value (.000b) is below the probability level of 0.05, the result therefore means that there are significant influences exerted by the independent variables i.e. food and nutritional intake on the dependent variable which is health status. The result therefore means that there is significant influence of food and nutritional intake on health status. The result therefore is in agreement with the research findings of Australian Government (2019) noted that the impact of food and nutritional intake reduces the risk of physical health problems like disease and diabetes. It also helps with sleeping patterns, energy levels, and general health status. Nutritional intake is based on the assumption of the impact of food on a preschooler's health status. The significance of the result caused the null hypothesis to be rejected while the alternative was retained.

Conclusion

The study concluded that food and nutritional intake have been a basic part of health status. The nutritional intake of food can be determined by knowing the food composition. Nutritional intake of food ensures growth in preschoolers and maintains good health through recovery from illness. However, nutrients are components of foods needed by the body in

b. Predictors: (Constant), Food and Nutritional Intake

UNIVERSAL ACADEMIC JOURNAL OF EDUCATION, SCIENCE AND TECHNOLOGY, VOL4 NO.3, DECEMBER 2021, England, UK

adequate amounts for proper growth, reproduction, and leading a normal life for preschoolers in Rivers State.

Recommendations

- 1. Parents should ensure sufficient nutritional intake for preschoolers to promote their health status.
- 2. Health specialists should deliberate and recommend nutritional intake among preschoolers for the purpose of improving their health status.
- 3. Parents or health practitioners should educate the preschooler about the importance of proper nutritional intake and encourage him or her to develop healthy eating habits.

REFERENCES

- American Thoracic Society (2007). *Health Status, Health Perceptions*. Retrieved from: https://qol.thoracic.org/sections/key-concepts/health-status-health-perceptions.html
- Australian Government (2019). *Overview of Food: Head to health.* Available at: https://www.headtohealth.gov.au/meaningful-life/physical-health/food
- Begum, M. (2010). *A textbook of foods, nutrition and dietetics*. New Delhi, India: Sterling Publishers Private Limited.
- BestMomIdeas {BMI} (2021). What's the Difference Between a Toddler and Preschooler? Retrieved from: https://www.bestmomideas.com/home/whats-the-difference-between-a-toddler-and-preschooler
- Calabrese, A., Gibby, C., Meinke, B., Revilla, M. &Titchenal, A. (2019). 1.1: Introduction to Nutrition.

 Available at: https://med.libretexts.org/Courses/Dominican_University/DU_Bio_1550%3A_Nutritio n_(LoPresto)/1%3A_Basic_Concepts_in_Nutrition/1.1%3A_Introduction_to_Nutrition
- Devadas, R. P. (2017). *Importance and Functions of Food*. Available at: http://cms.gcg11.ac.in/attachments/article/88/FOOD%20AND%20NUTRITION.pdf
- Farlex (2012). *Health Status*. Retrieved from: https://medical-dictionary.thefreedictionary.com/health+status
- Fisher, M. (2020). Food. Retrieved from: https://www.britannica.com/topic/food
- Health and Wellbeing {HWB} (2018). Why Is Nutrition Important. Available at: https://www.hwb.com.au/why-is-nutrition-important/
- HealthCare (2021). *Health status*.https://www.healthcare.gov/glossary/health-status/
- Health Engine (2007). *Introduction to Nutrition*. Retrieved from: https://healthinfo.healthengine.com.au/introduction-to-nutrition
- Hilmers, D.&Abrams, S. (2014). Role of nutrition in human health. Available at: https://www.researchgate.net/publication/328517169_Role_of_nutrition_in_human_health and disease
- Jaypee Brothers (2018). *Introduction to Nutrition*. Available at: https://www.jaypeedigital.com/eReader/chapter/9789351522997/ch1
- Kapur, R. (2018). *Food and Nutrition*. Retrieved from: https://www.researchgate.net/publication/323745769_Food_and_Nutrition
- Khan, S. (2018). Nutritional complications and its effects on human health. *Journal Food Sciences Nutrient*, 1(1) 17-20
- LawInsider (2020). *Health status definition*. Available at: https://www.lawinsider.com/dictionary/health-status
- Manjunath, N. (2017). *Basic concepts of food and nutrition*. Available at: https://www.slideshare.net/NagamaniManjunath/basic-concepts-of-food-and-nutrition

- Medical Associates of Northwest Arkansas {MANA} (2021). *The Importance of Child Nutrition*. Retrieved from: https://www.mana.md/the-importance-of-child-nutrition/
- Merriam-Webster (2021). *Dietary Reference Intake*. Retrieved from: https://www.merriam-webster.com/medical/Dietary%20Reference%20Intake
- Mudambi, S. R. & Rajagopal, M. V. (2007). *Fundamentals of foods, nutrition and diet therapy*(5-edition). Available at: https://alraziuni.edu.ye/uploads/pdf/fundamentals-of-foodnutrition-and-diet-therapy.pdf
- Ojofeitimi, E.O. (2007). *Principles and practice of nutrition for community health workers* (2nded). Ile Ife: None such house Publishers.
- Phillips, R. (2013). *Preschoolers 101*: Understanding Preschooler Development. Available at: https://www.parents.com/toddlers-preschoolers/development/behavioral/preschoolers-101-understanding-preschooler-development/
- Rumsfeld, J. S. (2002). *Health Status and Clinical Practice*. Available at: https://www.ahajournals.org/doi/full/10.1161/01.cir.0000020805.31531.48
- Shills, M. E. (2005). *Modern nutrition in health and diseases (10th ed.)*. Retrieved from: https://books,nutrition.google.com
- Snell, E., Carpenter, K. & Truswell, A. (2021). *Nutrition*. Available at: https://www.britannica.com/science/nutrition/Herbivores
- STANDS4 (2021). *Health Status*. Available at: https://www.definitions.net/definition/health+status
- The National Council of Educational Research and Training (2020). *Food, Nutrition, Health and Fitness.* Available at: https://ncert.nic.in/textbook/pdf/kehe103.pdf
- Ukey, M. (2005). Under-nutrition and childhood morbidities among tribal preschool children. *Indian Journal for Medical Research*, 12 (2), 43-47
- Valyasevi, A., Winichagoon, P. and Chavasit, V. (2019). *Food Sources*. Retrieved from: http://www.eolss.net/sample-chapters/c09/e4-24-06.pdf
- Wikipedia (2021). Food. Available at: https://en.wikipedia.org/wiki/Food
- World Health Organization (2021). *Nutrition*. Available at: https://www.who.int/health-topics/nutrition