



Nutrition and Health Education: The Role of the Nurse

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Abstract

Nutrition refers to the study of what food does to the body and is concerned primarily with the part played by nutrients in the body growth, development and health maintenance. Adequate nutrition plays key roles in the health and well-being of humanity. The importance of proper nutrition to good health therefore cannot be overemphasized. Little wonder that the World Health Organization places much emphasis on proper nutrition as basic to the attainment of set goals towards attaining health for all citizens of the world in the year 2020 and beyond. Attainment of healthy, thriving lives and well-being which is free from preventable diseases, disabilities, and premature death are possible with proper nutrition. Attainment of Sustainable Development Goal 3 is also possible with effective nutrition health education. Nutrition education entails breaking down a large body of nutritional knowledge into small, individual components that are presented to clients at a rate and level, to which they are able to absorb and use the information to form and reinforce healthy dietary habits. The role of the Nurse in nutritional health education is of key importance. Nurses' role as care giver, teacher, patients' advocate and patients care coordinator enables opportunity for nutrition health education. The Nurse uses diet therapy and nutrition health education among other therapies to manage clients in health and illness conditions. The implication is that there is therefore need for adequate educational preparation of the Nurse in that regards to influence and impact nutrition health education for positive health outcomes and the subsequent achievement of vision 2030.

Keywords: Nutrition, Health education, Role of the nurse.

Introduction

The quest for good health has been the concern of both the public and private health organizations globally. Even from time immemorial, various cultures, race, communities, families and individuals have devised different means of promoting and maintaining health. This is so because it is said that 'health is wealth'. Little wonder the World Health Organization has left no stone unturned in pursuit of strategies and plans geared towards health promotion and maintenance. This is evidenced in various strategies designed both at short and long term plans. In a bid to promote and maintain health and well-being, WHO has made several strategic plans since her inception in 1947 which included the declaration of health for all people of the World by the year 2000. This was later updated to Millennium Developmental Goals (MDGs), and further to Sustainable Developmental Goals (SDGs), in 2015. The present Vision 2030 also is an update



of the plans and the strategies aim at maintaining and promoting health of the citizens of the world. Cardinal in these plans and strategies is provision of adequate food and nutrition (Zero hunger (Sustainable Development Goal SDG 2) and good health and well-being (Sustainable Development Goal SDGs 3), (WHO, 2022).

Food is described as substance people or animals eat or drink or that plants absorb in order to maintain life and growth. Food substance consist essentially protein, carbohydrates, fat, minerals, vitamins and other nutrients required in the body to sustain growth and all the vital functioning that the body requires to maintain health and well-being. On the other hand, nutrition may be defined as the science of food and its relationship to health (Park, 2008). Nutrition is concerned primarily with the part played by nutrients in the body growth, development and health maintenance. Adequate food and nutrition play key role in the health and well-being of humanity. According to Joshi (2013), food is a basic necessity of life. Every person eats food. Because everyone eats food, Park (2008) explained that scientists were curious about the food eaten and how the body handles the food. That curiosity developed into science of nutrition. Nutrition can be said to include the sum of the processes involved in eating the food, digesting, absorbing and using it for normal physical growth, cognitive and physical development, and body repairs.

The importance of proper nutrition to good health therefore cannot be overemphasized. As a matter of fact, there is an adage that says that ‘you are what you eat’. The phrase “you are what you eat” refers to the fact that your body will respond to the food it receives, either good or bad. This goes to indicate that apart from genetic endowments of an individual, every other human functioning is influenced by nutrition (McGhie, 1983). For instance, Tope-Ajayi (2022) pointed out that proper nutrition provides adequate energy and strength needed for increase productivity and economic viability of any nation. It also enhances immunity and provides protection against infections and diseases that are capable of incapacitating people and limiting their functions. Furthermore, proper nutrition assists quick recovery from illnesses and injuries, enhances good quality of life and promotes longevity, which are components of the Sustainable Development Goal and the vision 2030 agenda of United Nations. The importance of nutritional health education cannot therefore be overemphasized as part of effort to achieve sustainable development even as it is contained in vision 2030. This paper therefore aims to discuss the concept of Nutrients and nutritional health education, consumers of nutritional health education, and the role of the Nurse in nutritional health education.

Concept of Nutrients and Nutritional Health Education

Nutrients are organic and inorganic complexes contained in the eaten food (Berman et al., 2022). According to Park (2016), there are about 50 different nutrients which are normally supplied through the food that we eat and each nutrient has specific functions in the body. The study of these nutrients is nutrition. Nutrition, according to Joshi (2013) is the scientific study of food and its relation to health. It encompasses also the study of the processes by which the body utilizes food for energy, growth and maintenance of health. Nutrition also focuses on how people can use dietary choices to reduce the risk of diseases as well as manage some medical and non-medical conditions. Furthermore, it also points to what happens to people if they have too much or too little of a nutrient, as well as ability to recognize food allergies. Similarly, Udoh (1994) stated that nutrition is the study of what food we eat does to us and explained that good health is achieved by eating the right kind and right amount of food at all times. According to the author,



the science of nutrition is concerned with food production and distribution, food classes, food values, some psychology, sociology and certain amount of anatomy and physiology which the health care workers are expected to be conversant with. (Park (2016) also maintained that good nutrition is a basic component of good health and that adequate knowledge of nutrition is required for the service of health education by Nurses in other to teach health promotion and maintenance, using locally available foods.

Availability of local food production entails provision of adequate foods for all people and at all seasons, (Tope-Ajayi, 2022). According to Park (2016), food production and security required for adequate nutrition can be ensured at family, community and national level. Food distributions also involve the process of getting produced food to get to the populace who are the consumers in a safe condition. Food distribution process involves many stakeholders as the government, communities and organizations in the business cycle. While food classes involves classification of food based on the nutritional contents and values, their functions, sources or origin, and chemical components. These are the highlights of the nutrition education by the nurse.

The relationship and impact of nutrition on health and well-being cannot be overemphasized, (Swaroop et. al., 2016). Joshi (2013) stated that man has been to a large extent labored to obtain food and explained that the study of the science of nutrition had suffered a limited range which revolved only on carbohydrate, proteins, and fat as energy yielding foods, until the dawn of 19th Century. However, the discovery of vitamins in early 20th century made more impact on the science of nutrition and on its role in maintenance of good health and wellbeing, (Khiyali et.al., 2017). According to Berman et al. (2022) nutrition gained the recognition as a discipline with the discovery of all the vitamins and essential amino-acids, with roots in physiology and biochemistry in 1950. Even since then, great advances have been made in knowledge of nutrition and its practical application to enhance health and good quality of life. Research also identified specific nutritional diseases and methods of their prevention and control, for instance, the identification of deficiencies of nutrients and associated diseases such as protein energy malnutrition, endemic goiter, nutritional anaemia, nutritional blindness, nutritional osteoporosis among others have impacted on human health tremendously, (Park, 2008).

Contributions of Nutrition to Health

Proper nutrition is basic to good health. According to Bassavanthappa (2016), good nutrition is a basic component of health, growth and development for maintaining health throughout life stages and cycle. Furthermore, proper nutrition is necessary for individuals, families, communities and the nation for increase productivity required for the nation's growth and economic development. When we consider food nutrients and their functions in the body it becomes obvious that proper nutrition is basic for good health. For instance, **Carbohydrates** provide a ready source of energy for the body and provide structural constituents for the formation of cells. Fat Provides stored energy for the body, functions as structural components of cells and also as signaling molecules for proper cellular communication. It provides insulation to vital organs and works to maintain body temperature. Protein is necessary for tissue formation, cell reparation, and hormone and enzyme production. It is essential also for building strong muscles and a healthy immune system. Vitamins regulate body processes and promote normal body-system functions. Minerals regulate body processes, and are necessary for proper cellular function, and comprise body tissue while water transports essential nutrients to all body parts,



transports waste products for disposal, and aids with body temperature maintenance. All these form nutrition education highlights that the nurse gives to clients.

Furthermore, Berman et al. (2022) maintained that good nutrition is essential, not only for the attainment of normal growth and development but also intellectual development, cognitive and learning behaviors. On the other hand, improper nutrition or malnutrition affects health negatively. For instance, malnutrition in pregnancy may affect the fetus resulting to still-birth, premature birth, low birth weight and risk of susceptibility to infections and diseases, a situation that can linger throughout life and affect the quality of life and well-being. Furthermore, malnutrition during the early childhood has permanent damaging effect on all dimensions of health: it delays physical and mental growth, slows learning ability, increases susceptibility to succumbing to childhood illnesses and increase in childhood morbidity and mortality rates. As a matter of fact, nutrition affects human health from birth till death. Therefore, it is important that nutritional knowledge should be given priority attention as strategy for achieving desired good health which has always been the aim of World Health Organization and vision 2030 in the spirit of sustainable development.

Nutrition Health Education

Nutrition education is defined by Potter, Perry and the process of teaching the science of nutrition to an individual or group. Nutrition education has been defined as the process by which beliefs, attitudes, environmental influences, and understanding about food lead to practices that are scientifically sound, practical, and consistent with individual needs and available food resources. Nutrition education should be available to all individuals and families. The fundamental philosophy of nutrition education is that efforts should focus on the establishment and protection of nutritional health rather than on crisis intervention (Deshpande, 2003). According to Khiyali et al. (2017), nutrition education is needed by all citizens regardless of income, location, cultural, social or economic practices, or level of education. It involves the combination of educational strategies, accompanied by environmental supports, designed to facilitate voluntary adoption of food choices and other food- and nutrition-related behaviors conducive to health and well-being.

Nutrition education programs, when properly implemented, according to Mushtaq (2018) have the potential to bring out desired behavior modifications among the communities. But for them to be successful, there are several obvious prerequisites such as the right approach suited to the community, motivated change agents, as well as suitable educational strategies (Olise; 2012). The ultimate impact of any nutritional education effort hinges on the extent to which the above criteria are satisfied. Berman et al. (2022) explained that nutrition education involves information exchange as well as techniques to motivate and reinforce improved food habits,

According to Joshi (2013), successful nutrition education must include endeavors to make beliefs, attitudes, values, environmental factors, and individual ideas about food conducive to nutritionally sound, practical, and acceptable dietary habits. The author maintained that nutritional education can be approached in various ways by the health care workers. Nutrition education is delivered by the community health Nurse through multiple venues and involves activities at the individual, community, and policy levels. It is a continuing process throughout the life cycle as new research brings additional knowledge (Olise, 2012). The author maintained that nutrition education offers a great opportunity to individuals to learn about the essentials of



nutrition for health and to take steps to improve the quality of their diets and the subsequent health outcome and so nutrition education need to be continued throughout the individual's life in order to accommodate for developments in the science of nutrition and for changing economic circumstances that affects nutrition, health requirements, and the new food products appearing in the nation's market.

Health professionals have different roles in educating an individual in the clinic, community, or long-term health-care facility. In these settings, the dietician, nutritionist, or nurse serves to assist or enable individuals to incorporate changes in eating patterns and behavior into their lives. The major focus of this type of nutrition is not only knowledge and facts, but rather the development of permanent nutritional behavioral changes. Thus the art of nutrition education according to Bassavanthappa (2016), entails breaking down a large body of knowledge into small, individual components that are represented to a patient or client at a rate and level, at which they are able to absorb and use the information to make healthy nutrition decisions. Nutrition education strategies includes: individual counseling, Group education, Mass media campaigns, environmental changes, Social marketing, nutrition behaviour change techniques among others. Individual nutritional counseling and group nutrition education fall within the nursing role as educator and counselor.

The Role of the Nurse in Nutrition Education

Advances in nutrition research have provided means of prevention and control of some of the major crippling nutritional disorder with sever socioeconomic and health repercussions. The next logical step after the discovery of such solutions will be their propagation among the concerned, individual, families and the community members. It is here that nurse drive nutrition health education to the consumers, as individual, families or and the communities. The emphasis in these nutrition education programs ought to be on the proper use of natural dietary sources of nutrients and the need for full use of available health services such as antenatal health talks, infant welfare clinics, and other health and nutrition intervention programs (Deshpande, 2003). It is worthy to note that in all the stages of life, nursing care which encompass health education generally and nutritional counseling in particular are always available to individual, families, the communities and the nation in their role to protect, maintain, promote and preserve good health and well-being.

Role of the Nurse as a Teacher

The nurse teaches recommended nutritional requirements, especially in some areas in which nutritional care is needed to prevent those concerned from becoming victims of malnutrition. These areas of concern are strategic periods in life, such as during pre-conception periods where adequate nutrition is required for good health and for reserve for pregnancy. During labour and puerperium, pregnancy period, and infancy periods, when baby is entirely dependent on others for survival. Also in early childhood marked with rapid growth and development, and during school age periods when children are exposed to much injuries and infections and need to develop immunity and resistance. During adolescence periods which is a time of rapid growth and outburst of energetic activities, and young adulthood which is a period of lurching out of the family into independent life with the associated stress, as well as in old age periods when body processes slows down. Also during sickness periods when body resistance to infection may be lowered, appetite may be lost and dietary modified which may be required. In some situation the



required dietary modifications may also not be pleasant to the person. As in some chronic medical conditions such as in diabetes mellitus, Liver diseases and hypertension among others. The nurse will still be required to endeavor to encourage and support the patients to understand the need for the dietary modification and also supervise the implementation of same. (Potter et al., 2017).

Role of the Nurse as Care Giver

The nurse is popular for the role of care giver. This role encompasses observation of clients for signs of well nourishment and or for malnutrition. The skill of observation enables the nurse to identify nutritional state of a person during nutritional health assessment. The observable and signs of a well-nourished person include: the presence of shiny hair, smooth skin, clear eyes, and alert expression, firm flesh and well developed structured body, good stamina and high immunity, regular sleep and elimination habits, among others. On the contrary, poor nutritional status manifest poor physique, very little stamina, dull lifeless hair, dull eyes, gross underweight, overweight, irregular sleep, and elimination habits. The nurse observes, identifies and counsels the clients as need be in the course of general health assessment and nursing care.

Manager of the Therapeutic Diets

The nurse guides and supervises therapeutic diets as prescribed. Therapeutic diet is the use of planned dietary regimen to manage health both medical and non-medical conditions (Berman, *et.al*: 2018). This could include: conditions where for instance, low salt diet is prescribed as in the management of high blood pressure and heart diseases., low fat diet as in obesity, high cholesterol and heart diseases, low carbohydrates as in diabetes mellitus, gluten free diet, lactose free diets among others. The nurse supervises, monitors and reports patient's compliance with dietary regimen.

Nutritional Assessment

Nutritional assessment is an integral part of nursing care activities, especially during the early stages of life (in-utero, infancy and childhood). According to Tope-Ajayi (2022), nutritional assessment will reveal the nutritional status of individuals, families and of the community at large. This is so important as to detect early onset of malnutrition which, if not properly treated can result to irreversible damage for life. Nurses' means of nutritional assessment include; growth monitoring, anthropometric assessments, clinical examination, observation, body mass index and skin fold measurements. Through nutritional assessment, dietary deficiencies can be sorted and appropriate counseling given by the nurse as the need arise or referral for further intervention.

Advocate

The nurse advocates for food security for individuals, families and communities, by advocating for gardening, encouraging individuals and families to produce the food they consume, subsistent farming, food preservations and the use of seasonal food production to ensure that foods are always available to individual and families in good state.



Summary

Nutrition refers to the study of what food does to the body. Nutrition is concerned primarily with the part played by nutrients in the body growth, development and health maintenance. Adequate food and nutrition play key roles in the health and well-being of humanity. The importance of proper nutrition to good health therefore cannot be overemphasized. Attainment of healthy, thriving lives and well-being free of preventable disease, disability, and premature death are possible with proper nutrition. Attainment of Sustainable Development Goal 3 is also possible with effective nutrition health education. Nutrition education entails breaking down a large body of nutritional knowledge into small, individual components that are represented to patients or clients at a rate and level, to which they are able to absorb and use the information to make healthy nutrition decisions. The role of the Nurse in nutritional health education is therefore of key importance. For one, the Nurse is the health professional who gives care to persons from birth to death. The nursing care for good health begins from pre-conception, intra-uterine, post-uterine life and end up in last office (Death). The Nurse uses diet therapy and nutrition health education to manage her clients' both in health and illness conditions. The role encompasses the function as teacher, care giver, health assessor, manager and coordinator of care, patients' advocate among others. To perform such roles effectively, adequate educational preparation in human anatomy, physiology, psychology, sociology and education principles are necessary requirements for preparing the nurse towards those roles.

Conclusion

Nutrition health education is indispensable in the achievement of Sustainable Development Goals and in vision 2030. The nurse plays key roles in nutritional health education as a health care provider and the coordinator of health care services and therefore need adequate educational preparation in that regards to influence and impact nutrition health education for positive health outcomes.

Suggestions

The skill of Health Education in general and nutrition education in particular need to be developed by Nurses, especially community health Nurses.

Although Nursing and Midwifery Council of Nigeria has spelt out in their curriculum the required nutritional assessment and education skills for student nurses and midwives, it is imperative to cover the curriculum, both in theory and practical demonstration, in order to produce competent nurses/midwives who can perform effectively as nutritional health educators in the aspect of health promotion and maintenance and in all health care fronts.

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