



Review

Misunderstanding nutritional related problems

Accepted 27 October, 2014

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Malnutrition (not having adequate nutrient in a diet) and under-nutrition (not eating the right portion size) are two predominant nutritional problems devilling the under-developed nations like Nigeria. This is as a result ignorance and poverty respectively. As unpleasant as it sounds though, the under developed countries have fared badly on the anomaly on this dispensation. Certain factors may have accounted for this anomaly and this has lead to lots of misunderstanding of nutritional related problems. For the problem of nutrition to be properly understood it is of high importance to note and recognize the roles nutrition can play on an individual or group of people's health as well as the likely hazards that generates from poor nutrition. Nutrition is primarily the study of the use of food by the body for growth, work and repair. It is also the study of how people eat and what they eat. Food on its own does not guarantee good health but adequate and proper nutrition plays a vital role in achieving optimum health which depends on other factors like environmental conditions, mental health, diseases, lifestyle, educational and economic status, heredity etc.

Key words: malnutrition, under-nutrition, diet, food nutrient, consumption

INTRODUCTION

A healthy child is one who is mentally alert and full of energy, has good eye sight, sparkling eyes, a clear skin, hair in good condition, strong bones and teeth, well formed muscles and who is not too fat. "According to Ricketts (1999) the way children are looked after determines their health conditions when they grow. If they were not well fed or looked after as children, they may not be as healthy as other. Healthy children grow faster and taller every year, their bones harden and become firm and straight, they enjoy mental and physical activities, so long as it is not too prolonged, they are emotionally stable and have contact with other children". People are not all alike some may have the tendency to be large, some small and clever, others not. If children are healthy, however they will be mentally alert and physically fit and will reach their potential size and intellect. When one looks around, one is bound to see children who are very small for their age and do not seem to grow especially in the developing nations. Some are very thin and have no strength with poor eye sight. It is assumed that conditions like these are not caused by bad luck, fate or evil spirit. These could be effects of poor nutrition.

Contribution of food to health

Different things can cause ill health in The World Health Organization (WHO) report of 2012, accident was said to cause burns and broken limbs. Infections due to micro-organism can cause diseases like poliomyelitis, tuberculosis and typhoid fever and parasites such as tapeworm and hookworms cause sickness. According to WHO, food and water can cause illness by passing on micro-organism and that too little food or the wrong kind of food taken can also cause illnesses. In essence the right kinds of food eaten together in the needed amount are necessary for good health.

Meaning of nutrition

In the Oxford advanced dictionary (7th Edition) Nutrition is defined as the process by which living things receive the food necessary for them to grow and be healthy. Ricketts (1999) supported this definition as the study of how food is converted to nourishment in the body.

In other words the study of nutrition is concerned with the composition of food and how food is used to keep the body cells functioning.

Principles of food and nutrition

The contribution of foods and nutrition to health cannot be over emphasized. Studies have shown that nutrition contributes to good health which leads to increase in longevity. In the words of Achelue (2000) the increase in average life is related to the control of preventable disease, better nutrition as well as curative medical treatment. According to Achelu (2000) good nutrition promotes good health as observed by Whitney (2005) optimal health is founded on good nutrition. Nutrition is one of the most important environmental factors affecting individuals and community health. Because of this statements, it health is founded on good nutrition.

The right kinds and amount of food as well as good dietary or eating habits can go a long way in maintaining good health and vitality, healthier bodies and mind as well as resistance to infections and diseases, happiness and longevity. On the other hand, poor health exists when a person is deprived of an adequate amount of essential nutrition.

Functions of good health

Good nutrition is essential for the following:

1. Body building, protection and energy production.
2. Normal organ development function.
3. Normal reproductive growth and maintenance.
4. Improved working efficiency.
5. Resistance to infection.
6. Ability to repair body and injury (Manguwante 2002).

Types and importance of food to school children

There are six kinds of food namely; carbohydrates, protein, vitamins, mineral, fats and oil and water. All these foods are important to the human body. There is a general agreement that school children use energy from food in working and playing that is food makes it possible for them to run, jump, throw, swim, dance, play games and to learn their lesson well. It is without a doubt that food helps children to grow in height and weight, those who do not eat well do not grow well properly and when children become adults and stop growing in height they need food to maintain and repair the body. As humans with a unique body system we must have a certain amount of heat and this is obtained from our food (Guthrice, 2000). The food children take gives warmth as well as energy to their body. In this regard most people are of the opinion that some foods children eat provides substances that do not give them energy to their bodies but is necessary in regulating certain body processes. For

example calcium and phosphorus are necessary for the growth and maintenance of bones and teeth, irons found in the hemoglobin of the blood.

Relationship between nutrition and disease

Nutrition is said to be the study of what the food we eat does to the body. Good health could be achieved by eating the right kind and quality of food all the time. Nutrition had been also been seen as the science of nutrition concerned with food production and distribution, food classes, food values and so on, thus the food we eat must pass through metabolism before it is converted into a form, which is suitable for body use sometimes the benefit nutrition may not be achieved. According to Achelue (2000) many factors may be responsible which includes:

1. Poor nutrition and development of diseases.
2. Insufficient food production as a result of over population.
3. Poor method of food storage and distribution to towns and villages.
4. Limitation via transportation and bad roads.
5. Little or no knowledge of nutrition.

Achelue (2000) stated further that many people are poor and do not have enough money to buy the right kind of food. Some people spend large amount of on the latest fashionable clothes and buy the poorest quantity and quality of foods to feed their family, because of this school children suffer from different kinds of diseases due to insufficient food intake.

Nutritional deficiency and associated diseases

Infants have many things to learn in the first five years of their life before they go to school, such as walking, talking and playing. If a child lacks the essential food at this time, he becomes sleepy and dull and does not grow like a well fed child of his age and this will result in malnutrition.

Attention have been drawn to the fact that proteins are needed to form some hormones, enzymes and anti-bodies (e.g. thyroxin, insult in and adrenaline) of which are essential for regulating various fundamental body processes (Wilson, 1998). An example can be drawn to antibodies. These are protein materials that are part of the body defenses that fight diseases and infections. These defenses could be reduced by adequate intake of protein and it could lead to deficiency which is kwashiorkor.

Children's diet especially in the developing countries have been found to be low in calcium, ascorbic acid and vitamin D intake, this results to rickets in children and deformation of bones with swollen ends. In the same vein, Mottram (1999) found out that tooth decay of infants/children is of great significance and is one that cannot be overcome in few days. In furtherance, a good intake of fluoride appears to be adequate to reduce tooth decay. This could be achieved when water is fluoridated

(Arliu, 2003). The best source of fluoride is drinking water that is maintained at a level of 0.8 to 1.2 per million fluorides. Due to nutrient inadequacy in Nigerian children a high incidence of reduced hemoglobin and protein level plus riboflavin deficiency is inevitable. Also the inability of parents to meet up and provide the balanced diet for their children is the major cause of loss of resistance to infections particularly tuberculosis.

The loss of resistance at this time of life is seen in children whose spurt is more rapid though less prolonged.

From all indications, based on the above statements the effect of infectious diseases on nutrition particularly on infants and children in the tropics is probably of more significance than that of nutrition and infection. Most infectious diseases are accompanied by a fever with a resulting increase in metabolism. The increased rate of breakdown of tissues creates a need for extra nutrients. If the diet is good and the food given sufficiently, then these increased demands will be met (Nwabah, 2009).

Diet and diseases

The connection between diet and health has been recognized for centuries (Hamilton-Ekeke, 2012). What we eat and drink affects our health. Some of the nutritional diseases recognized by experts include scurvy (vitamin C deficiency), goiter (iodine deficiency), anemia (iron deficiency) and pellagra (vitamin B₃ deficiency). The solution to these deficiencies as noted by Achelue (2000) involves the inclusion of the various vitamins of nutrients into diet as in the case of iodized salt for treatment of goiter and milks for rickets. Besides the deficiency diseases, certain eating habits have been associated with chronic diseases; some of these diseases are slow to develop but long lasting. In the United States of America for example, out of every ten leading killer diseases, six are connected in some way to what one eats or drinks ((Warton, 1999). These diseases include heart disease, cancer, stroke, diabetes mellitus, chronic liver disease, cirrhosis and atherosclerosis. Others include obesity, dental disease, osteoporosis and gallstones.

Malnutrition and deficiency diseases

From the nutritional aspect, the first seven years of life are the most important years in the life of any person. This is the time when growth is very rapid and the demands of the body for all the food nutrients are high. It is assumed that because growth is rapid and the demand is high, the child may not be able to build up much reserve of materials and strength. In essence when the supply of food falls short or extra strain is put on the body by infections, the child will become really ill. And such sickness could develop quickly or rapidly in the young child and may cause death. In many cases, the right food given in the early stages could bring about a quick cure. At present times, infant mortality rate in

Africa amongst children between the ages of one (1) and four (4) is very much higher than that of Europe and North America. The present low rate in the Western world has come about as a result of research, the teaching of nutrition and a rise in the standard of living. On the other hand, many of the details in developing nations have been traced back to poor nutritious (Rickett 1999).

These African deaths due to malnutrition according to Achelue (2000) is the condition of the body resulting from an adequate or excessive supply of food or impaired utilization of one or more essential food or nutrient. On the other hand deficiency disease is a condition that results in the body from lack of one or more nutrients. This view caused Achelue (2000) to see malnutrition as being when one is badly nourished. Scientifically malnutrition has a more exact definition. According to Achelue (2000), the food we eat contains various nutrients or components which give a material its right to be called food. A nutrient is something the body needs or uses to grow, repair tissues, and provide energy. One kind of malnutrition, under nutrition results from too little food and probably a storage of many nutrients over a long period of time.

Deficiency diseases

There are diseases caused by a deficiency of simple substance in the body. A specific deficiency disease is usually associated with a particular nutrient. Listed below are some of nutrition's related problems amongst school children:

1. Marasmus – Carbohydrates Deficiency
2. Kwashiorkor – Protein Deficiency
3. Night blindness – Vitamin A Deficiency
4. Rickets – Vitamin D Deficiency
5. Beriberi – Vitamin B1 Deficiency
6. Dermatitis – Vitamin B2 Deficiency
7. Pellagra – Vitamin B3 Deficiency
8. Pernicious Anemia – Vitamin B12 Deficiency
9. Scurvy – Vitamin C Deficiency
10. Goiter – Iodine Deficiency
11. Obesity - Overweight

Factors contributing to malnutrition

1. Family size
2. Over population
3. Unemployment
4. Poor production and distribution of food
5. Lack of food storage facilities
6. Socio-economic and education factor
7. Poor food preparation and consumption
8. Geographic problems
9. Inflation
10. Poor government policy
11. Poverty and ignorance

The above listed factors lead to and are the main cause

of malnutrition. Majority of Africans are underfed as a result of poverty, ignorance, harmful taboos, diseases, family size and food habits. According to them the cultural patterns in some communities do not permit the consumption of certain food stuffs irrespective of the nutritious values while ignorance of the potential of food stands out as major health problems (Hamilton-Ekeke, 2012). In addition to the above presentation children are not victims of poverty, but of lack of communication between school and home and continued in ignorance about nutrition which can only be removed by intensive health education that will spell out both the food values and the relevance of food to the overall health of man. Such measures in his words would help relax some of the taboos in the communities and societies.

Apart from the above causes of malnutrition, vagrant young people living away alone often in the older age group are at risk of being under nourished. Sometimes they do not look but exist on cups of tea and sandwiches, with their diets lacking the minerals and vitamins to be found in fruits and vegetables. The inability of people to remain steady at home to prepare a delicious meal for themselves also accounts for malnutrition as such people satisfy the immediate quest, order than having food stuffs that will provide the ultimate goal. There are those who depend on beverages and in hostels instead of having the patience to cook for their tastes.

In addition all these are health problems that can be resolved through meaningful health education. Appropriate nutrition being an essential factor in building up a sound body and a sound mind, individuals would need a well balanced diet to awaken the body against impairment and to be alive to scholastic achievements. When more balance diet fetches socialization and happiness both at home and in school.

Socio-economic status and race have been shown to correlate with inadequacy of nutrients intake for children. Malnourished school children with kwashiorkor do not like to eat at all and have to be forced to eat, even though they are about to die from lack of protein. School children with marabous are however different, they also have other diseases. Showed in a national survey that school children need good diet than other categories of people (WHO, 2012), the dietary habits of children usually reflect pattern in growth and that both family and home related practices influence greatly the eating procedure of children.

The need for good diet for school children

Nutrition pattern in children lays the foundation for the dietary habit of a life time and that for optimal physical development, the diet must include adequate amount of all the required nutrients. The influence of nutritional status upon mental development has been receiving increasing affection for researchers and the public. Malnutrition during the period of rapid cell division in pregnancy and

infancy may lead to the formation of fewer brain cells that will be formed when the infant is well nourished. The formation of brain lipids also have be found to be reduced in young animals that are malnourished. Based on these findings, it is important that school children be given adequate nutrition in the early months and years of their life.

Bircher (1999) opined that the consumption of food is not of a merely animal nature, but an act that requires all our attention. This is because correct and careful nutrition would greatly influence out thoughts and emotions. Bricher wrote 'that to concern one's self about one's body or one's nutrition is of no avail unless a new awakening or a new awareness of one's inner force results. Even in spiritual matters, wonder of the spirit remain a closed book to those who constantly disregard the laws of nutrition'.

Conclusion

Researchers have shown that people's attitude to food, their prejudices that is likes and dislikes are primarily formed in childhood and in the home. Man as a person, not just a physical engine depends on the supply of food in other to become healthy and fit. The use man makes of the food he eats according to them is closely linked with his emotions.

Children are particularly susceptible to the atmosphere make use of the food they eat and even their attitudes to food will be affected among other things like the relationship in the family, the family attitude, the purposeful living of the family and the care and thought showed in the home. Children respond to gradual development and advancement and do not like very sudden changes.

However, observations seem to indicate that the food given is sometimes only just adequate. It should be noted that the least deity ounce such as malaria can precipitate kwashiorkor. A loss of appetite caused by unhappiness can also precipitate disease. Emotions such as fear, unhappiness and insecurity adversely affects the flow of digestive juices and takes away appetite, while a feeling of happiness and security and the flow of digestive juices give a good appetite (Rickett 1999).

The eating of food is of great importance, socially the mother or house wife will best suit her family and at the same time will give them the best opportunity to be physically fit, mentally efficient and socially adjusted. The economic means to provide food are important but they are not necessarily the controlling factors in health and nutrition. Rickett (1999) viewed that the education of women in the principles and application of nutrition, the will to work and make the very best of what is available, the determination to build sound homes on good relationship where husband and wife are united in their desire to do their best for their children, are more important factors.

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