

Utilizing Nutrition Education for Sustainable Household Nutrition in Nigeria

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Abstract

Poor nutrition is a major problem in the life of individuals and families in Nigeria. This is usually a consequence of lack, (poverty) and ignorance (lack of knowledge) or both combined. This paper examines the concepts of nutrition, nutrition education and sustainability of household nutrition. The approaches to nutrition education are also highlighted. This paper portrays nutrition education as a tool for initiating that spark of creative and innovative thinking, changes of behavior, development of attitudes, skills and confidence people need to improve their nutrition practices. However, effective nutrition education must be conveyed through a suitable approach. This paper also advanced some strategies that would make nutrition education, meaningful and sustainable to recipients.

Introduction

Knowledge economy has evolved as the ability to apply or utilize knowledge to create tangible economic benefits and sustainable development at all levels of individual and community growth and development. In order words, it is a call to make knowledge more functional and useful in solving everyday problems of humanity.

One of such problems that stare Nigeria and other African countries in the face is malnutrition. The case of malnutrition is not just an issue for the poor, but also for the rich. According to Food and Agricultural Organization (FAO, 1997), malnutrition for the poor a question of lack of food and knowledge and for the rich lack of knowledge of basic nutrition and application- knowledge of what to eat and how to prepare food. This calls for nutrition education. Nutrition education can be defined as a planned use of any educational process to modify and improve food and nutrition behavior in the pursuit of improved health (Fatima Shittu, 2011). Nutrition education, therefore, is to provide for the poor adequate information, skills and motivation to produce or/ and procure and to consume appropriate diets looking inwards on the available local foods to utilize them more efficiently and to avoid nutrition practices that are detrimental to healthy living. For the rich, who suffer nutritional disease of affluence, nutrition education should be targeted towards proper food selection, consumption and lifestyle.

This will enable both the poor and the rich to attain sustainably in household nutrition.

Sustainability of household nutrition refers to the capacity to ensure the long term stability of the household food supply and the ability of households to meet consumption and livelihood needs on a continuous basis. Sustainability requires that food be procured in a way that does not lead to a loss in the productive capacity of the household. Sustainability also requires a stable food production system as well as the procurement of food through self reliance (FAO, 1999). Another requirement for sustainability is the ability of households to place food needs in the context of a wider overall framework of all other basic household needs in which resources are limited and there is competition among needs and priorities (FAO, 1997) Nutritional wellbeing at the household level is not only dependent on access and availability of food in quantity and quality but also on the ability to sustain such access. However, for households to attain access and sustainability of food there is need for sufficient knowledge and awareness of nutrition problems and how best to solve them through nutrition education which must be delivered through a relevant and appropriate approach.

This paper is therefore discussed under the following sub-headings: meaning of nutrition education and approaches to nutrition education. Strategies towards an improved and sustainable household nutrition are also recommended.

What then is Nutrition Education?

Nutrition is coming to fore as a major modifiable determinant of chronic disease with strong effects, both positive and negative on health throughout life (WHO, 2003). Nutrition is defined as the study of foods in relation to the needs of living organisms. (Sharma and Caralli 2011).

Nutrition is the science or practice of consuming and utilizing food. It is also the study of metabolic and physiological responses of the body to food and diet, including the role of nutrients in the cause, treatment and prevention of disease. Nutrition also focuses on how disease conditions and problems can be prevented or lessened with a healthy diet. In addition, it involves identifying how certain diseases, conditions and problems may be caused by dietary factors such as poor nutrition, food allergies, metabolic disorders etc. (Medical News Today, 2013:1).

Nutrition education is that form of education that provides people with knowledge, skills and confidence to change harmful food habits while adopting positive and lasting healthy nutrition practices.

Nutrition education is any 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 is delivered through multiple venues and involves activities at the individual, community and policy levels.(Jones and Bartlett, 2007:1).

Nutrition education goes beyond simple accumulation of knowledge to positive action and change in behavior. As a medium of change in behavior, nutrition education provides awareness on the relationship between diet and health, nutritional requirements of groups and individuals, nutritional value of food, making appropriate food choices and purchases, storage, processing and presentation of food, conservation of nutrients during cooking and nutritional needs of family members in sharing food (FAO, 1997).

However, sustainable nutrition education should take into cognizance the culture, and value system of a people since these greatly influence choice of food. To this end, Shittu (2011) pointed out that nutrition education should initiate changes that are in keeping with a people's established food habits and are acceptable within the framework of their value system.

The aim of nutrition education should be to;

1. influence public policies & promoting access to food;
2. increase knowledge of nutritional value of foods;
3. develop personal skills and motivation to adopt healthy eating practices.(FAO,2010)

In term of content, nutrition education shall be designed to help recipients learn; nutritional knowledge, including, but not limited to, the benefits of healthy eating, nutritional deficiencies, principles of health weight management, the use and misuse of dietary supplement, safe food preparation, handling and storage; nutrition related skills, including, but not limited to, planning a healthy meal, understanding and using food labels, assessing and critically evaluating nutrition information, misinformation and commercial food advertising; how to assess and manage ones personal eating habits, set goals for improvement and achieve these goals; and How to communicate, make healthy decisions and advocate for developing life- long healthy habits. (Connecticut Dept. of Education, 2009).

Approaches to Nutrition Education

Nutrition as a body of knowledge needs to be conveyed or communicated effectively. Nutrition education, therefore, must be organized and delivered in such a way to suit the target individual or group. This is why it is important to discuss the approach or manner or style in which nutrition education programmes may be presented. Some of the approaches are;

- Child centre approach
- English as a second language
- Facilitated group discussion (FGD)
- Family centered approach.
- Guest speaker
- Interactive activities

- Lecture
- Lecture with discussion
- Panel of experts
- Role play
- Video presentation
- Counseling/advising
- Self learning/study modules. (California WIC Programme, 2002)

Child Centered Approach

This approach is individualistic in nature. The focus is on the child as the learner. It is also activity based and takes into cognizance the maturational readiness of the child.

English as a second language

This is an approach in which participants primary focus is learn to speak, read and write English while the topic learnt is related to nutrition.

This approach can be adopted to suit the language needs of the participant. In Africa, for instance, the focus may not be only in learning English Language skills but also other indigenous language skills may be the focal point, as the case may be. In French speaking countries, this approach may focus on learning to speak, read and write French.

Facilitated Group Discussion (FGD)

This is an interactive form of learner-centered group approach, where the learners discuss a specific nutrition topic and share their questions and knowledge with other group members. In addition, this approach allows learners gather information from each other in a supportive environment where there culture, prior experience and personal concerns are acknowledged and respected.

Family centered approach

This is an approach where the family members (parents/caretakers and children) learn together. The beauty of this approach lies in its ability to increase family bonds and also deal with nutritional problems from the root. It is often said that malnourished individuals may probably core from a nutritionally deficient families.

Guest Speaker

This is an approach in which a person who has experience with a particular topic, such as representative from a community agency or trained personnel presents information on specific areas of concern in nutrition.

Interactive activities

This is an approach in which learners are engaged in various activities in the learning process. It is activity based and encourages skills development.

Lecture

This is an approach in which the educator presents information in highly organized manner to participants usually with the participants as passive learners. It's useful for a large group.

Lecture with discussion

This is an approach in which participants are given the opportunity to ask questions, present feedback during or after the lecture

Panel of Experts

This is an approach in which several experts present information on a topic. This approach provides several viewpoints on a topic depending of the approach of presentation.

Role Play

This is an approach in which two or more people act out a scene as though it was "real life" to address a particular nutrition issue.

Video Presentation

This is an approach in which a video on the topic is presented for viewing in a relaxed and entertaining way.

Counseling/Addressing

This is an approach in which the learner is given advice on what he/she needs to change.

Self Learning/study modules

This is an approach in which the learner independently at his/her pace goes through a learning module. This approach includes computer based modules such as CD ROMs, Study guides, workbooks, etc. It is worthy to note that more than one approach can be used at a time depending on the target group and the content of the nutrition package. The suitability of an approach for a particular individual, group, family, or community should always be considered in the light of the needs, educational level, social, cultural, religious and economic backgrounds.

Strategies for Utilization of Nutrition Education to Improve Household Nutrition**1. Recognition and Promotion of Local Foods**

Local foods are those that are acceptable to a community, through habit and culture, as appropriate and desirable source of food (FAO, 1998). People are used to their local foods, they know how to grow them, make dishes from them and enjoy eating them. Nutrition education would be more effective and sustainable if households are helped to identify nutritious unexploited or underutilized local foods.

2. Promoting Missed Diet or Diversification of Diets

No single food supplies all the nutrients that are required for a healthy balance diet, except mother's milk during the first few months of life. The quality of diet in households can be improved by mixing variety of food at each meal.

The biological value of animal protein is usually rated higher than that of plant protein. Also, animal protein is expensive and usually not affordable by low income families. But there's hope of obtaining the necessary amino acids in the diet by mixing two or more vegetables in the same meal in the ideal proportion (Pamplona-Rogers, 2004). Similarly foods must be combined to achieve a balance among the energy producing nutrients; carbohydrate, fats and protein. Pamplona-Rogers (2004) recommended the following percentage of daily total for carbohydrate, fat and protein;

Carbohydrate: -60%

Fat-30%

Protein-10%

According to a report of FAO (1998), the following combinations also provide complete protein:

- Legumes and grains e.g. rice and beans.
- Grains and vegetables: e.g. freshly boiled corn served with pumpkin sauce.
- Legumes and vegetables: e.g. boiled beans served with vegetable soup
- Grains with milk: e.g. wheat pudding served with fresh milk, almond, tiger nut or soya milk. (Fura da nono is a typical Fulani local delicacy of millet and yoghurt)

3. Promotion of home grown fruits and vegetables

In order to ensure sustainability of household nutrition, home growing of fruits and vegetables should be encouraged. Home grown fruits and vegetables are a good source of micronutrients for the family. They are usually referred to as natural pharmacy due to their abundant richness in antioxidants and phytochemicals which have medicinal properties. No wonder Pamplona-Roger (2004) stated that a healthy meal begins with raw vegetables in the form of a salad. The cost of fruits and vegetables in the market is rapidly increasing due to increased knowledge of its nutritional importance. Growing them at home would make them handy and also reduce the cost of having them as regular part of the family's meal.

4. Preservation of food

Nutrition education should also encourage food preservation. Seasonality makes it difficult to have food all year round. So at the end of the raining season, most households preserve some vegetables, grains, legumes and others that are regularly consumed to ensure continued food supply. The common method of preservation is sun drying and foods that are commonly preserved are local vegetables like pumpkin, leaves, Ukazi, Utazi, Zogele, grains like maize, millet, sorghum, rice as well as legumes.

5. Encouraging eating fruits and vegetables raw whenever possible

Eating fruits and vegetables raw is the best way to take advantage of their nutritional and medicinal properties as cooking and other forms of processing lead to considerable loss of most of the vitamins and crispiness. All vegetables with the exception of tubers, mushrooms and fruits such as egg plant can be eaten raw in their natural state (Pamplona-Rogers, 2004). If it is safe to eat any fruit or vegetable raw do not choose to cook it. Remember, it is your choice to eat right or otherwise.

5. Promoting equity and fairness in distribution of food within the household

There are socio-cultural factors that affect distribution of food in homes in the negative. A study conducted by Okeke and Nnayelugo (1989) on intra-familial distribution of food and nutrients in rural Nigerian population reveals that males have preferential treatment over their female counterparts with regards to food intake. In some households, it's customary for everyone to eat from the same bowl of food. In this case, children are trained not to be greedy with regards to choice part of the food like meat, fish, egg.

In other cultures, the mother joins her children to eat what is left after serving the man of the house. All these practices may have negative effect on the vulnerable members of the family. There's need therefore to change these practices and ensure that every member of the family gets a fair share of the family's meal. FAO (1990) stated that the most useful general rule in African feeding is to give everyone (except babies) different amount of the staples, but the same share of the relish (fish, meat, egg etc).

6. Giving special considerations to vulnerable members of the group

The most vulnerable groups are children under five years of age, women of child bearing age, pregnant mothers, school age children, the elderly and the disabled. In planning and sharing family meal, the needs of these vulnerable groups should be taken into consideration.

7. Adoption of correct preservation and cooking methods

Processing include practices such as cutting, chopping, milling, fortification, canning, drying, freezing while cooking involves treating raw food by applying heat. The quality of food in terms of nutritional value depends eventually on the type and severity of processing and method of cooking adopted.

Cutting, chopping of vegetable should be minimized as they result in breaking of cellular walls thus, leading to nutrient loss. According to King and Burgees (1993) milling may reduce the amount of fat, protein and fibre and increases the proportion of starch, fortification may increase certain nutrients while fermentation increases the absorption of certain nutrient. Cooking methods such as frying, grilling, barbecuing, roasting, browning should be used sparingly. Boiling, (without discarding the water) steaming, microwave, sauntering, simmering are some cooking methods that minimizes loss of nutrients (Pamplona-Rogers, 2004).

8. Promotion of small scale livestock and Poultry Keeping

The major components of main meals served in most African households are the staples. Animal's foods which are good source of protein and micronutrient are not regularly served as they tend to be too expensive. Promotion of small livestock, and poultry rearing in household is aimed at increasing the quality and quantity of protein in the household diet. Sometimes, livestock's and their products are also sold to earn cash for the household.

The cost of rearing livestock and poultry in most communities is very minimal due to the free-range system whereby the animals are allowed to forage around the village in the daylight and return to their owners at dusk (FAO 1997).

Conclusion

The main focus of this presentation is on making knowledge of nutrition more accessible, functional, purposeful and enduring.

Knowledge is only valuable, to the extent, that it leads to a reformative change in the lives of the person or groups who receive it. The presenter is of the opinion that the manner in which nutrition education package is presented is related to the level of impact it will make on the recipients and so advocacy is on grassroots education using an interactive participatory approach that will make individuals and groups excited, responsible and committed to the course of improving their health through proper nutrition practices. In this way changes nutrition practices can be sustained for a long time.

Recommendations

Based on the strategies proffered, these recommendations are put forth.

1. Nutrition Education should be conveyed in the indigenous language of the people.
2. Presentation of improved and convenient forms of local foods especially in the area of developing snacks based on them. For instance, millet flour can be combined in a workable ratio with wheat flour for production of cookies.
3. Households should be versatile in choice of food in order to achieve diversification of diet. Attempts should be made by women who are mostly in charge of choice and preparation of family meals to include foods that are rich in nutrient irrespective of their origin. This is also to say that households should be receptive to foods of the locality where they are resident.
4. Preservation methods that help to reduce nutrient degradation and loss should be adopted. Shade drying and solar drying are better methods than sun-drying which exposes food to infestations by insect, contamination from dirt, rodents, birds and destruction of some vitamins.
5. Specific nutrition care should be given to vulnerable groups depending on their needs. Emphasis should be given to breast feeding exclusively, enrichment of weaning foods for pre-school children, consumption of micronutrient rich food and pharmaceutical supplements for girls, mothers of child bearing age, pregnant mothers and the elderly.

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