

# African Research Review

---

*An International Multi-Disciplinary Journal, Ethiopia*

*Vol. 3 (5), October, 2009*

ISSN 1994-9057 (Print)

ISSN 2070-0083 (Online)

---

## **Barriers to Effective Implementation of Nutrition Education in Nigerian Secondary Schools and Solutions to Overcoming Them**

**Ukpore, Bessie A.** - Department of Vocational Education, Home Economics Unit, Delta State University, Abraka

### ***Abstract***

*One of the factors that influence people's food habits is education. This paper discussed the concept of nutrition education and the relevance of nutrition education to individual and family health. The barriers to effective implementation of nutrition education were also discussed. These include lack of contact with professionals, attitude, limitation of human and material resources and too much focus on examinations. Solutions for each of these barriers are provided.*

**Keywords:** Nutrition education, Malnutrition, Barriers and Solutions, Secondary Schools, Home Economics teachers, Effective implementation.

### **Introduction**

Education, a sociological factor, influences food habits whether planned or unplanned (Griffin and Light, 1975). Nutrition education emphasizes that whether food supplies are scarce or plentiful, it is important that people know how best to make use of their resources to ensure nutritional wellbeing. Thus Nutrition Education is frequently needed regardless of income, geographic location, cultural background, social status or level of education (Smith & Justice, 1979).

The term Nutrition Education is defined severally. Alyward (1980) defined nutrition education as a summary of food and nutrition and training to ensure

that other courses are emphasized. Thus Nutrition Education is a multi-disciplinary process that involves the transfer of food habits where needed. The concept of nutrition education involves nutrition issues, food safety, food management as well as application of scientific knowledge in the daily lives of a community for improvement of individuals and family health.

In the formal education system, nutrition education is a useful part of science / home science curriculum (Wheeler, 1980). In Nigeria, despite all changes in its educational structure, nutrition education has been taught through food and nutrition, one of the major subjects of Home Economics taught at all levels of education. Home Economics has been preferred over science curriculum because the science curriculum provides very little opportunity for students to engage in food based practical activities (Oogerah-Pratap, Bholah, Cyparsade and Mathoor, 2003). Thus in this study Nutrition Education is used interchangeably with food and nutrition.

In the curricula of pre- primary, primary and post primary schools, a summary of the reasons for the introduction of food and nutrition are:

- To modify the dietary behavior of the individuals in a family and the public at large for better health.
- To encourage some proportion of the school population to take up professional or paraprofessionals career (including teaching that are related directly or indirectly to food and nutrition (Ukpore 1992). The goals of Food and Nutrition above indicate that apart from modifying the dietary behavior of the adolescents at secondary school level; students could also achieve a career through the study of nutrition education. Thus, it could assist in achieving the goals of National Economic Empowerment Development Strategies (NEEDS) which include: wealth creation, reduction of poverty, elimination of corruption and the general orientation of values (National Planning Commission, 2005).

Psychologists believe that behaviors are the result of learning and persuasion into changed behavior requires three stages- knowledge, attitude and behavior (Yudkin, 1981). Nutrition Education is only complete when the third stage of behavior is reached. A review of some related literature on evaluation programs have shown from the measures used that some programs are effective while some are not (Martins and Coolidge, 1978).

The Purposes of this study therefore were to examine the factors which hinder effective implementation of nutrition education at secondary school level in Nigeria and to suggest solutions to the barriers. The study also aims to highlight the importance of nutrition education in schools.

### **Why Emphasis on Effective Implementation of Nutrition Education at Secondary school level?**

Implementation is putting into action, a policy or officially approved decisions. It is the key to the success of any policy or program. According to the National Planning Commission (2005: xxi) "implementation defines the process, institutional framework and instruments for translating aspirations, goals, and programs into action and concrete results". Nutrition Education is very relevant at the secondary school level to the adolescents (ages 12- 18 years). Seymourrr, Hoerr. & Huang (1997) posited that adolescence has been recognized as a critical development stage during which beliefs, attitudes and habits are both demonstrated and reinforced. For instance, improving and expanding the educational opportunities for girls is one of the best health and social investments a nation can make. Improvements in girls' health will in turn improve the health of their children and families (UNESCO 1999).

There is global concern for the problem of malnutrition (made up of over nutrition and under nutrition). According to UNESCO (1999) over nutrition means more food energy is consumed more than expected, resulting to excess body fat. Conversely, under nutrition means not enough total food energy and nutrients are consumed, resulting in low body weight and/ or nutrient deficiencies. Umoh, (2006), posited that the average Nigeria diet is carbohydrate based which is broken down into glucose and stored as fat deposits around the tissues. Regular consumption of foods that are deficient in nutrients could cause under nutrition. The National Policy on Food and Nutrition (2001) found that generally, poor economic situation in Nigeria has aggravated the poor nutrition status of the citizenry. The policy specifies that the major nutritional problems in Nigeria are protein energy malnutrition and micronutrients. These problems affect mostly the vulnerable groups of infants, young children and pregnant and lactating women, especially those of the poorest segment of the society.

Recent studies also show that there is prevalence of problems of over nutrition. There is rising incidence of diet related diseases such as diabetes, high blood pressure and coronary heart diseases Sobngwi, Mauvais-Jervis, Vexiau et al (2001) found that there is prevalence of diabetes in African

communities including those in Nigeria as a result of ageing of the population and life style changes associated with rapid urbanization and westernization.

Ukpore (1992) argued that in Nigeria with the introduction of the 6-3-3-4 educational system in 1982, integrated Home Economics (a combination of food and nutrition, clothing and textiles and Home Management) is taught as a prevocational subject to both sexes at junior secondary level (JSS). At senior secondary school level (SSS) each of these subjects is taught separately and some students drop the subject. Unfortunately, it is observed that at junior secondary school level the emphasis is more on the cognitive than affective or psychomotor domains. Students do not do enough practicals in food for modification of dietary behavior. Thus, many writers claim that nutrition education is concerned itself solely with knowledge and that importing knowledge is insufficient (Ukpore, 1992).

### **Factors Affecting Implementation of Nutrition Education in Senior Secondary Schools in Nigeria**

The barriers are obstacle which could be resistances, opposition or constraints to modification of dietary behavior. Studies show that the factors which are barriers to nutrition education include attitude, limitation of human and material resources, lack of contact with professionals and too much focus on examinations.

#### **Attitude**

Okorodudu (1999) posited that attitude begins in childhood and they are often acquired through verbal contacts rather than from personal experience. Effective nutrition education requires the co-operation of those concerned namely parents, pupils and staff. When the reverse is the case, implementation is hindered. Bartels (1980) observed that a UNESCO survey on the position of nutrition within the educational system revealed that one category of difficulties that hinder the implementation of nutrition is unwillingness of teachers to make the change (30%), public resistance to new or different subject-matter (25%) and students (children and adults) lack of interest (20%). A problem facing teachers raised is the ability to develop in children proper attitudes towards food that would enable them to become healthy adults who in turn could educate their own offspring, (Turner 1979). This problem arises because there are many sources of information on food and there is difficulty of converting good nutrition theory into practice.

(Thomson 1980). The mass media and practitioners disseminate information apart from schools.

Again an individual has a preconceived notion of what good nutrition is and has a set of beliefs, values and preferences which relate to his food habits. Thus if the reason for modifying these habits is uncertain and the culture, traditions, and lifestyle of the students are not considered in planning for change, resistance to change is inevitable, (Caliendo 1979).

Students are unenthusiastic about nutrition education because it, started too late in many schools and was often taught in terms of nutrients--an abstract concept defying the comprehension of young children rather than in terms of food. Even when nutrition was taught by means of a Food Group System, the curriculum often did not provide the means to answer the simple questions; what is food? Where does it come from, this indicates teachers lack of communication which limits the support of any change program. The Schools Council (1974) attributed student's negative attitude to the lack of a cohesive policy towards health education for boys and girls in secondary schools, where the foundation of successful nutrition learning is laid down. In Nigeria, the teaching of nutrition in home economics is often restricted to girls and the 'less able' students because it is not popular. It is considered a female and expensive subject and it involves only cooking and sewing and so it is a subject for academic dwarf (Ukpore, 1998).

### **Limitations of Resources**

To implement nutrition education effectively, materials, staff, time and facilities are needed. These resources involve provision of funds. In Nigeria, the federal institutions are directly administered, financed and funded by the Federal Ministry of Education while the state owned institutions look forward to receiving subvention from the Federal Government. This leads to inadequate funding and non-uniformity in policy implementation. The heads of institutions even when they receive the fund have difficulty in appropriating money to vocational and technical subjects because they consider them to be too expensive to run.

Bartels (1980) added that the UNESCO survey also revealed the difficulties which hinder the implementation of nutrition education are lack of adequately prepared teachers in terms of subject matter mentioned by 83% of responding countries, teaching facilities (67%), materials and equipment (68%) and adequate government support (40%).

Turner (1979) postulated that many teachers are ignorant about many aspects of food and nutrition because of inadequacies in their own training course. The schools council (1974) cited that, there is insufficient opportunity for the practicing teacher to consider developments within nutrition research and pressures of time discourage worthwhile evaluation of pupil attainment within learning situations. Teachers centre and in- service program provide valuable support but many teachers remain dependent upon a range of textbook materials that frequently afford conflicting information. As a result many of them lack the characteristics associated with the communicator namely credibility, expertise, trustworthiness, status and so on. When these source variables are lacking in the communicator change is hindered.

Caliendo (1979) also perceived that, the cost of change in terms of material, time, or economic resources, seems to be greater than anticipated benefits. The benefits of modified food habits are often deferred –most people respond much better to an appeal which provides immediate and instant action.

### **Lack of Contact with Professionals**

Oddy (1976) stated that nutrition education face problems of contact with professionals. This problem arises because nutrition education lacks a co-ordinated approach by many professionals who have a part to play in it. Furthermore, many of these people are unaware of the contribution that is made, or could be made, by others. Food producers and health professionals do not consult teachers before disseminating information and vice versa. This result in scanty flow of meaningful information to the general public and especially to children, hence implementation is hindered. The author added that Egbikuadje and Thomson's reports on the health of the school child, showed there has been little help to the school's food vendors and cooks in the preparation and sanitation of the food served to school children in Nigeria

### **Too Much Focus on Examinations**

In the United Kingdom, the report of the Schools Council (1974) reveals that public examinations discourage teachers from reconsidering their approach towards nutrition education. They tend to teach specific parts of the syllabus in preparation for anticipated questions. Recent research findings in Nigeria confirm poor implementation of the 6-3-3-4 program as it affects vocational and technical education including Home Economics (Morah, 1995). For example, even though vocational and technical education is practice biased, many teachers continue to concentrate on assessing the cognitive aspects of learning, leaving out the affective and psychomotor aspects. Continuous

assessment is also not being fully implemented because not all teachers and principals know what this means. It is observed that in many schools in Nigeria, Home Economics teachers do practical's in foods only when external examinations such as Senior School certificate examinations are approaching. Such attitude does not give room for proper modification of food habits.

Finch (1978) stated that some public examinations demand for elaborately prepared fatty and sugary foods made from refined ingredients in preference to quick easy nutritious dishes perhaps made by short-cut methods and giving some times to a slightly less finished appearance. Thus, examinations inhibit proper assessment of the students for effective nutrition education.

The above barriers are summarized in the statement which formed the basis of the Nutrition and Communication report (1974): Teaching of nutrition in schools at all levels has suffered from the lack of imagination which renders it uninteresting to teachers and children alike.

### **Solution to the Problems Affecting Nutrition Education in Secondary Schools**

To solve the problem of attitude PeÂrez-Rodrigo and Aranceta (2000), gave the following suggestions:

- Environmental intervention is important components of intervention programs that should be considered as they contribute to the creation of opportunities for action by removing barriers to following a healthy diet.
- School meals should be part of the educational process, providing a valuable opportunity to practice what children learn in the school. School meals should provide high quality foods that meet dietary guidelines and positive nutrition experience
- Carry out process evaluation which focuses on program implementation, quality control and monetary that explains study out comes. It also emphasizes the extent of implementation fidelity to the program, research, use of materials, (environmental mediation e.g. teacher training).
- Carry out family involvement (i.e. family component) which enhances the effectiveness of programs for younger children. This could be done through Parent Teacher Association (P.T.A.) meetings, community involvement of partnership, like collaboration between education and

health sectors, industry support, and partnership with catering companies. The PTA meetings will motivate parents to cooperate fully with the school by providing necessary requirements for their children.

Barclay et al, (2003) also suggested that nutrition education should be taught to students at an early age and continue the education throughout their schooling, because safe food handling practices, for instance, diminish with age restriction.

To solve the problem of limitations of resources, more funds with government support is required. However Ukpore (2000) argued that Home Economics, like other vocational subjects, is capital intensive and cannot be left for the government alone to finance. Home Economics Teachers should involve the community to raise fund to purchase adequate infrastructural materials. Nutrition educators are also advised to adopt “indigenous technology” to alleviate the exigencies of poverty as such equipment and tools will be cheaper than the imported ones (Badmus, 1999). Regular in-service training within and outside the schools for all teachers is necessary. Nutrition educators should be encouraged to produce more recipe and theory books related to the Nigerian life style. More Home Economics and Agricultural staff should be provided for teaching of Home Economics, especially in the rural areas as they are understaffed. More time should also be given for practical activities for these subjects.

To solve the problem of lack of contact, Peterson (1980) suggested that nutrition educators should encourage a true spirit of co-operation to enhance greater institutional interest in nutrition without paying bureaucratic price of empire building, contact could be made with social workers, health visitors, school dentist, and cooks and so on. This is necessary because, students often accept information readily from a visitor with specialist knowledge than from the teacher of Home Economics or textbooks.

To solve the problem of examination Mitchell (1980) suggested that in order to improve the health of future generations, today’s children must be given a broader nutrition education not only the cognitive aspects. School heads should be persuaded to give more time for practical work in nutrition. External examiner should encourage preparation of more balanced meals than confectionaries.



### Conclusion/Implication

This paper revealed that nutrition education is an important instrument for improving individual and family health. But nutrition educators are faced with the problems of poor attitude, lack of contact with professionals, limitation of human and material resources and over focus on examinations. The implication of this is that all stakeholders should be involved in the improvement of individual and family health. They should also consider the barriers to effective implementation of nutrition education in Nigeria and the solutions for overcoming them as mentioned in this paper will go a long way for national development.

### References

- Alyward F. (1980); Food and nutrition education and training; an introduction to the Theme in Sinclair H.M. and Howat G.r. (Eds) (1980) *World Nutrition and Nutrition Education*, Oxford University press UNESCO Paris
- Badmus, M. M. O. (1999), Problems of implementation of the national home economics curriculum at junior secondary school level in Nigeria and their remedial measurement. *International Journal of Women's Studies*. 1 (2), 57-64
- Barclay, M., Greathouse, K., Swishier, Tellefson, S., Cale, L., & Koukol, B. (2003). Food safety knowledge, practices, and educational needs of students in grades 3 to 10. *Journal of Child Nutrition and Management*. Retrieved December 30, 2003, from <http://www.Afsa.org/childnutrition/jcnm/03spring/Barclay/>
- Brown, K. Mcllveen, H. & Strugneell. C. (2000). Nutritional awareness and food preferences of young consumer. Nutritional and Food Science, 30(5), 230- 235
- Caliendo, M.A. (1979); *Nutrition and the world Food crisis*, Macmillan New York
- Finch, I. (1978); Teaching nutrition in schools in *Nutrition and Food Science* (May/June 1978) Forbes London 17-18.
- Morah C. P. (1995). Control of vocational technical education in Nigerian secondary schools. In Eyibe S. C (Ed). *Educational Adminstration, Planning and Supervision*. 112-118.

- National Planning Commission, (2000), National Policy of Food and Nutrition in Nigeria Federal Secretariat Complex, Abuja.
- National Planning Commission, (2005), *National Economic Empowerment and Development Strategy NEEDS*. Central Bank, Abuja Nigeria.
- Oddy, J. (1976); Perspectives and Strategies for effective nutrition Education. *Report of Proceedings of Nutrition Society*, Lamport Gilbert England.
- Okonkwo, E. N. (1995). Vocational technical education in Nigeria: Trends problems and prospects. In Eyibe, S. C. (Ed). *Educational Administration, Planning and Supervision* 141-147. Oke: Polytechnic Press Ltd.
- Okorodudu R. I. (1999), "Selected Personality Traits and Motivational indices as correlates of work attitude of teachers". Unpublished Ph.D Dissertation, University of Benin, Benin City.
- Oogarah- Pratap B., Bholah R., Cyparsade M., Mathoor K., (2003). Differentiated exposure and its impact on the nutritional knowledge and habits of young male adolescents. *Proceedings of the 11<sup>th</sup> International GASAT 11 Conference* 6<sup>th</sup>- 11<sup>th</sup> July, Mauritius 237-242.
- Pawan, E.A. (1979); Nutrition education- The dietician in nutrition education, *Nutrition and food science* (March/ April 1978) p.18.
- PeÁrez-Rodrigo, C. and Aranceta, J. *Public Health Nutrition for (1A)* 131—139 DoI; 1079/PHCN 2000108.
- Robinson, C. H. and Lawler, N.R. (1982); *Normal and Therapeutic Nutrition*, Macmillan publishing Co.; Inc. New York.
- Seymour M. Hoerr, S. L., and Huang Y.L.(1997). Inappropriate dieting behaviors and related lifestyle factors in young adults: are college students different? *Journal of Nutrition* 29 (1). 21-26
- Schools council (1974); *Approaches to Nutrition Education*, schools council London P.8
- Thomson, A. (1980) A personal view of teaching nutrition. *Nutrition and Food Science*, (September/October) Forbes London p.14.

- Truswell, A.S (1977); Changing concepts of healthy diets in prosperous communities *Housecraft* (November/December 1977) ATDS London P.278.
- Ukpore, B.A. (1988). *A comprehensive analysis of questions in home economics(foods and nutrition) for secondary schools*. Jodus Publishing Enterprises, Benin City, Nigeria.
- Ukpore, B.A. (1992), Perspectives on different approaches to the teaching of Nutrition in secondary schools in Delta State. *Uyono- A Multi-Disciplinary*. Journal of the Faculty of Education, Delta State University, Abraka. 1(1); 73-80.
- Ukpore B.A. (2006): *Fundamentals of Consumer Education*. Ibadan: Spectrum Books Limited.
- Ukpore B. A, (2000), Factors that influence effective classroom management in Home Economics. *Journal of Teachers and Teaching* (1) march, 108-115
- Umoh, P.A. The potbelly, *Guardian Life*; February 2006, 12-18. USDA: Glossary of Terms in the MyPyramid Food Guidance Systems. Retrieved on 4<sup>th</sup> August 2008 from:  
[http://www.cnpp.usda.gov/Publications/MyPyramid/Development/NEB\\_glossary](http://www.cnpp.usda.gov/Publications/MyPyramid/Development/NEB_glossary).
- Wheeler. (1980); Nutrition Education; A personal view, *Nutrition and food Science* (may-June 1980)