

## Dietary Challenges as Possible Cause of Old Age Diseases and Death among the Elderly in Ukehe, Enugu State, Nigeria

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### ABSTRACT

**Background:** A healthful or balanced diet is a varied diet in which there is no excess or deficiency of any of the nutrients. It includes the six nutrients in adequate amounts to preserve and promote health. A diet that lacks any needed food element may cause certain deficiency diseases. The dietary needs of people vary according to age, body weight, health condition, amount or level of activity among others. The study was carried out to investigate the dietary challenges as possible causes of disease and death among the aged in Ukehe, Enugu State, Nigeria.

**Method:** The study adopted a survey research design. Questionnaires was used to collect relevant data from a random sample of 200 aged people in the area. Mean values were used for data analysis.

**Result:** The study revealed that the diet of the aged people in the area is very poor, comprising mostly carbohydrate rich foods. Six specific causes of poor diet among the aged were identified. Food based dietary guidelines were revealed.

**Conclusion:** The physiological changes that occur with ageing may affect the requirements for several nutrients. The high prevalence of disease and drug administration in older people could also affect their nutritional requirements and nutritional status. All these factors can lead to complications that if not properly handled could lead to decline in their body structure and function, resulting in more new diseases and possibly death among the aged. It was recommended that awareness programme should be organised to educate the aged group and their caregivers on the effect of ageing on the nutrition of the elderly and improvement strategies.

### Keywords

Dietary, Challenge, Old, Aged, Nutrition, Disease, Death, medicine.

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### Introduction

Diet is a range of foods habitually eaten by an individual, families or a group of people. Dietary challenges are those problems that occur as a result of consumption of food with inadequate nutritional composition and or with inhibitory substances. The inhibitory substances in food interfere with other essential nutrients in the

diet which by so doing bind to them and make them unavailable by the system. Lack of vitamin C causes scurvy while lack of iron follate (Vitamin B12) causes anaemia. Other example of such dietary problems include osteomalacia and marasmus.

Ageing is caused by the accumulation of changes in an organism or object over time. It is a normal physiological process accompanied

by a progressive alteration of the body's adaptive responses [1]. It produces observable changes in structure and function. It increases vulnerability to environmental stress and disease [2].

Nutrition interacts with the structures and processes leading to ageing in a number of ways and the risk of nutrition-related health problems increase in later life. Some major biological changes seen among elderly or aged people occur primarily as a result of the biological process of ageing. However, many of the healthy problems and physiological changes experienced by older people attributable to the ageing process are now recognised to be linked to lifestyle factors, such as being physically active and not smoking, are essential to ensure that people may have long and active lives. Some nutritional challenges faced by the aged include osteoporosis, cancer, diabetes mellitus, hypertension and other cardiovascular diseases, obesity, night blindness, ulcer and osteomalacia.

Recently in Nigeria, the incidence of chronic diseases such as diabetes, hypertension and other cardiovascular diseases has been on the increase, in contrast to its near absence in the past [3]. This is probably due to several factors which include change in diet particularly in the methods of their preparation and greater consumption of processed foods and drinks. This rise has presented a critical need to find a way to their prevention, treatment and management using diet.

The aged are categorised into two groups namely, the elderly peoples and the old peoples. The elderly peoples fall within the age group of 65- 74.9 years. The old peoples are those beyond 75 years [4]. Individuals that fall under both age groups experience a number of biological changes such as wrinkles, poor sight, loss of teeth, reduction in sense of taste and smell, and wasting away of hair follicles through lack of nourishment [5]. The diet of the aged should be balanced because there is a direct relationship between nutrition and health. Nutrition is the study of the various food nutrients in relation to their effect upon the human body [6].

The area of the study was Ukehe in Igbo Etiti Local Government Area, Enugu State, Nigeria. It is divided into two zones; namely Ezi-Ukehe which comprises 8 Villages, namely; Ukwaja, Ndiugo, Izama, Nkporogwu, Umurusi, Uwelle-Ukehe, Ndiedo, Ameze; And Amakofia which is comprised of 12 Villages, namely; Uwelle Amakofia, Umuofiaagu, Umuoro, Umualeke, Amàdim, Ndinwara, Amugwu, Umuabaka, Ndiugwuchime, Ndiugwualeke, Amanefi, Ubeju-Eworo.

Aged people from this area suffer from many diseases such as diabetes, hypertension, cardiovascular diseases, arthritis, ulcer, eye problems, stroke, malaria and typhoid, loss of weight and tooth problems etc. Most of the health challenges of the elderly people in this area could be associated with poor nutrition. This communication therefore questions the nature of the diet of this age group. Also, the rate of death among the elderly is very high, hence the need to investigate the dietary challenges as the possible cause of diseases and death among the aged in Ukehe, Enugu State, Nigeria. It was therefore necessary to wave the challenges faced by the aged in meeting their dietary needs so as to provide possible solutions to these problem.

### Research Question

The following research questions were formulated to guide the

study;

1. What are the nature of the diets of the aged in Ukehe, Enugu State, Nigeria.
2. What are the causes of poor diet among the aged in Ukehe, Enugu State, Nigeria.
3. What are the solutions to the problem of poor diet among the aged in Ukehe, Enugu State, Nigeria.

### Methodology

#### Area of Study

This study was carried out in Ukehe, Igbo-Etiti Local Government Area, Enugu State, Nigeria. Ukehe is within the tropical rain forest region of Nigeria. The area is characterised by two seasons, wet season from April to October and dry season from November to March, with annual rainfall of about 2000cm, mean annual temperature of 24.8°C. The majority of the people in Ukehe are farmers. They have basic amenities like electricity, pipe borne water, schools, few hospitals; also present are streams.

#### Design of the Study

The study adopted a survey research design.

#### Population of the Study

The population for the study consisted of ten thousand aged people (male and female) in the area (National Population Census, 2006).

#### Sample and Sampling Techniques

A sample of 200 aged men and women was drawn from the population. A random sampling technique was used to select and monitor the nature of the diet of the 200 aged people, randomly selected out of the villages that make up the entire population.

#### Instrument for the Study

A validated structured questionnaire was used to collect data from the respondents. The questionnaire was structured in line with the research question for the study.

#### Ethical Consideration

All the participants consented orally. Considering their age bracket, not all the participants were able to sign their signatures, therefore I decided to go for oral consent, in which the participants were well informed on the need and the importance of the research, and they willingly gave their consent.

#### Duration of the Study

The study lasted for 18 months, September 2020 to February 2022.

#### Data Analysis

The researcher collected data by asking the respondents questions as shown on the questionnaire and ticking their responses on the space provided on the questionnaire. Data collected were analysed using frequency and mean. A criterion mean of 2.50 were used as acceptable level, that's all items with mean rating of 2.50 and above were rated good/agreed; those with mean rating of 2.0-2.49 were rated poor, and the ones below 2.00 were rated very poor.

#### Results

Table 1 reveals that the diet of the aged in the area is generally very poor in nature. They feed mainly on food rich in carbohydrates but deficient in protein, minerals and vitamins.

**Table 1:** The nature of the diet of the aged people in Ukehe, Igbo-Etiti L.G.A, Enugu State, Nigeria.

S/n	Diet	Mean	Remark
1	Animal products (meat mainly pork meat, egg)	2.13	Poor
2	Dairy (milk, yoghurt, soy milk)	1.36	Very Poor
3	Cereals/Grains (rice, wheat, maize, millet, semovita)	3.12	Good
4	Food supplements	0.38	Very Poor
5	Fish	2.03	Poor
6	Fruits	2.15	Poor
7	Legumes (Beans, cowpea)	2.03	Poor
8	Tubers (yam, potatoes, cocoyam, cassava products; gari, fufu, abacha)	4.03	Good
9	Water/drinks (sweetened beverages, palm wine)	3.82	GOOD
10	Vegetables	2.25	Poor
11	Fried and processed food like can tomatoes, spaghetti,	2.86	GOOD

Table 2 shows the responses to all the items had a mean value above 2.50 which was the criterion level of acceptance. It is therefore revealed that all the items listed above were identified by the respondents as the causes of poor diet among the aged people in the area.

**Table 2:** Causes of poor judgemental diet among the aged in Ukehe.

S/n	Item statement	Mean	Remarks
1	Inadequate or lack of finance to embark on the right diet	2.86	Agreed
2	Lack of nutritional knowledge or basic information on the right diet for the aged	2.76	Agreed
3	High level of illiteracy/ignorance among the aged and their caregivers on the proper diet for the aged.	2.64	Agreed
4	Health challenges such as ulcer, diabetes, hypertension, tooth problem which can hinder the intake of certain food items.	2.73	
5	Inadequate intake of the right diet.	3.22	Agreed
6	Inability to follow feeding instructions as written down by their health caregiver for those suffering from health challenges that can hinder intake of certain food items	3.51	Agreed

**Table 3:** Possible solutions to the problem of poor diet among the aged in Ukehe.

S/n	Possible Solutions	Mean	Remarks
1	The government at her different level can ensure constant payment of pension to the aged who are pensioners and also provide some financial allowance (aged allowance) and food items to them	3.12	Agreed
2	Nutritionist and even Home Economics Extension agents can create nutrition awareness through holding of conferences, workshops and seminars for the aged and their caregivers.	3.26	Agreed
3	Government may provide free medical services for the aged to improve their health, reduce the speed of ageing, diseases and death.	3.45	Agreed

4	Counselling services can be given to the aged as avenue to provide professional help to them in those common area of life that border the elderly such as adjustment to retirement, nutrition, income, housing, loneliness, loss of spouse and friends.	2.80	Agreed
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(Table 3) revealed that all the respondents agreed to all the items listed. All the items had mean ratings above 2.50. This implies that all the items can be ways of providing solution to the problems of poor diet among the aged in the area.

## Discussion

Foods termed 'functional food' are foods that have potential positive effect on health beyond basic nutrition. They satisfy basic nutritional needs as well as therapeutic needs. Thus, food items that constitute the major part of the diet in the past when the incidences of chronic diseases were much lower [3]; are ways to finding solution to the management of these diseases. This approach towards linking increased occurrence of certain diseases to change from traditional diet is the recent trend among scientists.

The findings in Table 1 revealed that the diet of the aged in Ukehe, Enugu State, Nigeria, is generally very poor, below 2.50. Food rich in important nutrients like vitamins and minerals are lacking in their diet. Their diet is mainly rich in energy giving foods such as cassava products (Gari, Fufu, Abacha), maize, rich, semovita, yam, refined wheat, potatoes, millet, plantain, and sweetened beverages, palm wine and meat, mainly pig meat that contains excess fat and oil. These poor diets or excessive accumulation of starch have led to an increase in the number of diabetic patients among the elderly ones in the area. However, this result may also be seen in a positive light since excessive weight gain is a risk factor in chronic diseases, such as diabetes, arthritis and hypertension. Considerations from food- based dietary guidelines.

In addition to dietary requirements for total fat and fatty acids, food- based dietary guidelines are essential for promoting health and preventing disease. However, general recommendation is to follow a dietary pattern predominantly based on whole foods (i.e, fruits and vegetables, whole grains, nuts, seeds, legumes, other dietary fibre sources, LCPUFA- rich sea food) with a relatively lower intake of energy dense processed and fried foods, and sugar-sweetened beverages; and to avoid consumption of large portion sizes. Moderate consumption of dairy products and lean meats and poultry can also be an important part of recommended dietary patterns, appropriate energy intake and adequate physical activity levels are critical to prevent unhealthy weight levels (i.e overweight and obesity) and to ensure optimal health for those predispose to insulin resistance.

There is convincing evidence that trans fatty acid (TFA) from commercial partially hydrogenated vegetable oils (PHVO) increase CHD risk factors and CHD events- more than had been thought in the past [7]. There also is probable evidence of an increased risk of fatal CHD and sudden cardiac death in addition to an increased risk of metabolic syndrome components and diabetes. In promoting the removal of TFA, which are predominantly a by- product of industrial processing (partial hydrogenation) usually in the form of PHVO, particular attention must be given to what would be their

replacement; this is a challenge for the food industry. It should be noted that among adults, the estimated average daily ruminant TFA intake in most societies is low. Also, the current recommendation of a mean population intake of TFA of less than 1%E may need to be revised in light of the fact that it does not fully take into account the distribution of intakes and thus the need to protect substantial subgroups from having dangerously high intakes. This could lead to the need to remove partially hydrogenated fats and oils from the human food supply.

To provide sufficient and adequate information on dietary fatty acid intakes, it is strongly recommended that countries monitor food consumption patterns of their population groups; data on country-specific fatty acid composition of foods, on bioavailability of fatty acids from sources and supplements, and on biomarker levels in specific populations are also required for designing and monitoring the impacts of national dietary guidelines and programmes that are aiming to improve nutrition, including the promotion of approximate intakes of different dietary fats and oils.

The findings on Table 2 revealed the causes of poor diet among the aged in the area. The point about lack of finance to embark on the right diet can agree with the opinion of [8] who in referring to the financial status of the aged noted that retirement marks a major change in the second half of life and is usually accompanied by a new economic status and may mean severely restricted budget or even financial disaster if one does not plan ahead.

As regards to health challenges due to old age as one of the causes of poor diet [9], stated that the aged clearly have more severe health problems than other age groups because the structures and functions of the body are altered in old age, and this can affect their diet. In support of this [10], stated that considerable evidence indicates that ageing is associated with altered regulation of the immune system and this contributes to increased incidence of infections observed in older people.

As regard to inadequate intake of the right diet [11], noted that studies on sensitivity to taste among older people show gradual decline with age. This situation can make the aged to develop dislike for certain foods. This is also in line with [12] who pointed that at old age there is generally alteration in the structure and function of the body. According to [13], it is believed that the efficiency of the digestive and absorptive functions of the gastrointestinal tract decline with age.

According to [14] ageing affects the requirement for certain micronutrients but it is difficult to distinguish changes in nutrient needs resulting from the ageing process alone, in contrast to those resulting from disorders prevalent in older people.

The finding in Table 3 revealed that all the item listed were accepted by the respondents as possible solutions to the problem of poor diet among the aged in the area. This is in line with the opinion of [15] who noted that pensions have historically been very important in preventing poverty in old age. This will improve their financial status so that they can afford the right diet needed by their body. Another solution revealed by the study is that nutritionist and Home Economics extension agents can create nutrition awareness through conferences, workshops and seminars for the aged and their care givers.

The aged need the special knowledge of nutritionist. Many aged persons have impaired taste buds, teeth and digestion. Many have special dietary needs especially those suffering from hypertension, diabetes mellitus, and stringent budgets.

Many live alone and have no one with whom to share the normal sociability of meals or to care for them. Eating alone can make proper eating and good nutrition difficult for the aged. This situation can result to stress, overthinking and loneliness, which among others are the root causes of high blood pressure. While some live with little children that know nothing about nutrition. This gives light to the need for extended families to live together in close proximity.

Nutritionists can help the aged meet their dietary, nutritional and budget needs, be instrumental in setting up meals on wheels Programmes and nutrition centres, and also supervise food preparation in institutions. They can mount nutrition awareness programmes to sensitise the general public on the nutritional needs of the aged. People like Home Economists, Nutritionists who work to improve the quality of life must of necessity feel concerned for the problems of the aged. All these put together will help to reduce diseases/sicknesses and possibly the number of death among the aged in Ukehe, Enugu State, Nigeria.

## Conclusion

This study has appraised the dietary challenge of the aged in Ukehe, Enugu State, Nigeria. Results from the study showed that the diet of the aged in the area is very poor, comprising mainly carbohydrates. The physiological changes that occur with ageing may affect the requirements for several nutrients. The high prevalence of disease and drug administration in older people may also affect their nutritional requirements and nutritional status. All these factors can lead to complications that if not properly handled, could result to decline in the body structure and functions, resulting in more new diseases and possibly death among the aged.

Some methods were agreed upon as possible solutions to the problem of poor diet among the aged. The adoption of these methods can help to improve the diet of the aged in the area, and these may possibly reduce the number of diseases and possibly death among the aged.

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