FOOD AND NUTRITION EDUCATION: A PANACEA FOR SUSTAINABLE HEALTH
AMONG RETIREES IN DELTA STATE
Sr. Ogbanu Domitilla Nwabuko
Department of Home Economics
Delta State University, Abraka
Delta State

Abstract
This study assessed food and nutrition education as panacea for sustainable health among retirees in Delta State. The study examined the knowledge level of retirees about food and nutrition; the dietary behaviour of retirees; the influence of food and nutrition education on sustainable health among retirees; and gender difference in knowledge level of retirees about food and nutrition. The descriptive research design of the survey type was adopted in the study. The population consisted of all retirees in Delta State, Nigeria. The sample for this study consisted of 200 retirees who were selected using convenience and purposive sampling techniques. A validated instrument titled “Food, Nutrition and Sustainable health Questionnaire (FNSHQ)” was used to collect relevant data for this study. The data collected through the instruments were analysed using descriptive and inferential statistics. The results show a moderate knowledge of food and nutrition among retirees (56.44%) and that majority (39.5%) were moderately active to good dietary behaviour. In addition, components of food and nutrition education influenced sustainable health among retirees (R = .573, R² = .328, f(2,197) = 5.932, p <0.05) while female retirees have knowledge of food and nutrition than male retirees (t = 4.688, p <0.05). This study concludes that knowledge of food and nutrition among retirees was moderate while they were moderately active to good dietary behaviour. Hence, the need for more aggressive efforts by Home Economics and Food and Nutrition educators to provide dietary information to civil servants who have less years in active service.

Keywords: Senior Citizen, Adequate Feeding, Knowledge, Dietary Behaviour, Sustainability, Gender

Introduction
Retirement is the official disengagement of an employee from a work line in which the public servant has made a livelihood (Ali, Vali & Mahdavi, 2018). Retirement is a method that splits a person from a work role or as the expiry of a specific life’s pattern and a shift that deals with the reconsideration of life subsequent from old age, poor health, pressure from social groups or weariness (Ali, 2014). Garba and Mamman (2014) defined retirement as a change from the job world into a world of less stressful work actions and rest especially with respect to retirement as a result of long years of service or old age. Describing retirement as the phase in life when one is eligible to collecting pension represents the image of civil service in Nigeria as per retirement and some other parts of the globe. Retirement seems to involve fears and worries about the future of the person because of the termination in active working life. Retirement is the era when an employee discontinues working in either public service or private service because of age or several years of service or voluntarily (Garba & Mamman, 2014; Chumbler, Otani, Desai, Muse & Ayamolowo, 2017). Employees in diverse firms whether in government or the organized private firms have a stipulated number of years they can be in active employment.

Retirement is meant to be a stage of fulfilment and actualization after years of laudable service to the nation. It is anticipated that retirees live thankfully as they enjoy their old age with high level of contentment and ensure good health and life free from stress. However, retirement has become scary to a lot of retirees because of the needed nutritional demands (Cadmus et al, 2017). Retirees in Nigeria face diverse health challenges; the most common is the issue of diet and nutrition. Diet is essential to health promotion and to chronic disease management among retirees (Getahun, et al, 2016). Yet, as most civil servants retirees and reach older ages, they tend to eat nutritionally suboptimal diets, decreased variety, and lesser vegetables. Overall, senior citizens are not meeting recommendations for healthy diets, which are linked to those for younger adults (National Council on Aging, 2020). Ingesting well is therefore a necessary focus for public health and policy in tackling chronic disease and in supporting well-being and sustainable health through older age. But, to support eating well, a clear comprehension of food, nutrition, how selections(s)
can be altered and the context of dietary change is fundamental. Promotion of healthy diets and sustainable health can only be achieved through good knowledge of food and nutrition and active dietary behaviour (Aguila, 2018).

Healthy eating habits among retirees play a major role in their mental and physical development and also decrease many risks linked with both instant and long-term health problems (Adewara & Visser, 2011; Victor & Helena, 2017). Suitable nutrition is a simple human need that remains unmet for a vast number of retirees; the trend of malnutrition in sub-Saharan Africa is disquieting. For the region as a whole, no progress has been recorded in decreasing the prevalence of malnutrition over the past 15 years (Faronbi et al., 2017), and there are some suggestions that the situation has deteriorated. Ethiopia and Nigeria are countries in the Sub-Saharan Africa with very high rate of malnutrition (Adewara & Visser, 2011). Unfortunately the diet commonly given to retirees are of low quality and often has no variety, which is the pivot to adequacy of specific nutrient (WHO, 2015). They are mostly of lesser energy and nutrient density and could lead to multiple nutrient deficiencies rampant in this age group (Chandola & Matthews, 2015).

Malnutrition has continually become a public health problem in developing countries where the poor socio economic condition has continued to work in synergy with malnutrition (Bertoni, Maggi & Weber, 2018). Malnutrition has been noted to affect the sustainable health of retirees (Ali, 2014; add more recent ref). Apart from the adverse effect of malnutrition on the comfort and welfare of retirees, malnutrition will also lead to low health status which will lead to high death rate (Bertoni, Maggi & Weber, 2018).

On the average, it appears many retirees are uninformed of sound nutrition facts and as a result, are at the beck and call of not only nutritionally ignorant food vendors/pamphlet sellers and companies, but also, that of a growing army of food obsessives, diet mongers, food supplement hawkers and self-styled nutritionists or dieticians. Without comprehending the rudiment of nutrition, many of the selections people do so as to to improve their nutritional well-being are hinged on sweeping generalities, half-baked data, ignorance, prejudice, and superstition (Poterb, 2014; Victor & Helena, 2017).

A suitable diet should therefore ensure that all nutrient demands are met in order to guide present and future health in addition to being palatable. Traditionally, nutrition education interventions have majorly targeted persons to bring about changes in knowledge, attitudes, and skills (Faronbi et al., 2017). Major drawbacks of this strategy are that behavior change is short-term, the interventions do not attain large numbers, and their consequences are not sustained. Understanding of the nutrition requirements of senior citizens has altered and it has become explicit that some of the nutrient needs of elderly are different from those of younger adults. The need to educate elderly to enable them to modify their dietary practices is evident.

This study, therefore, assessed food and nutrition education as panacea for sustainable health among retirees in Delta State. Specifically, the study examined:

i. the knowledge level of retirees about food and nutrition;
ii. the dietary behaviour of retirees;
iii. the influence of food and nutrition education on sustainable health among retirees; and
iv. difference in food and nutrition knowledge level of retirees by gender.

**Research Questions**

The following research questions were raised for the study:

1. What is the knowledge level of retirees about food and nutrition in Delta State?
2. What is the dietary behaviour of retirees in Delta State?
3. All the objectives should be captured under research question

**Research Hypotheses**

The following hypotheses were generated:

1. There is no significant influence of food and nutrition education on sustainable health among retirees.
2. There is no significant difference in food and nutrition knowledge level of retirees by gender.
Methodology

Research Design
The descriptive research design of the survey type was adopted in the study. A survey research involves a small sample from a large population from where inferences would be drawn about the characteristics of the defined population.

Population
The population consisted of all retirees who retired from Delta State Civil Service Commission in the last 10 years.

Sample and Sampling Technique
The sample for this study consisted of 200 retirees who retired from Delta State Civil Service Commission in the last 10 years. The sample was selected using purposive sampling technique. The researcher visited the union office of the retirees at Asaba where the questionnaire was administered on 200 retirees within two weeks. The respondents were selected based on the convenience of the researcher which comprised of 89 male retirees and 111 female retirees.

Research Instrument
An instrument titled “Food, Nutrition and Sustainable Health Questionnaire (FNSRQ)” was used to collect relevant data for this study. The FNSHQ consisted of four sections namely A, B, C and D. Section A sought information on demographic data of the respondents which include gender, grade level and year of experience. Section B consisted of 25 items which sought for information on knowledge of food and nutrition, while section C consisted of 15 items which sought for information on dietary behaviour and section D consisted of 10 items which sought for information on sustainable health.

Validity of the Instrument
The face and content validity was ascertained by giving the designed questionnaire to experts of Home Economics, Adult Education and Tests and Measurement for vetting before distributing it to the respondents. The experts helped to determine the face value of the appropriateness of the instrument and also checked the items and ascertain that the items represent the factors specified in this study. In so doing, all irrelevances and ambiguous items were eliminated.

Reliability of the Instrument
The reliability of the instrument was determined through the test re-test method which was carried out outside the sampled population. The instrument was administered twice on thirty respondents within a period of two weeks. The data collected on the two tests were correlated using Pearson’s Product Moment Correlation statistics which yielded a coefficient of 0.817. The internal consistency of the instrument was also ascertained using Cronbach’s Alpha which also yielded a co-efficient value of 0.782.

Administration of the Instrument
The researcher personally administered the instrument at the union office of the retirees. The researcher was responsible for the administration and collection of the instrument from the respondents.

Data Analysis
The data collected through the instruments were analyzed using descriptive and inferential statistics. The research questions were answered using frequency counts, means, standard deviation and percentages. Hypothesis 1 was tested using inferential statistics of multiple regression while hypothesis 2 was tested using t-test. All hypotheses were tested at 0.05 level of significance.
Results

Research Question 1: What is the knowledge level of retirees about food and nutrition in Delta State?

Table 1: Descriptive results of the knowledge level of retirees about food and nutrition

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and Nutrition</td>
<td>200</td>
<td>4</td>
<td>25.00</td>
<td>14.11</td>
<td>4.91</td>
<td>56.44</td>
</tr>
</tbody>
</table>

Table 1 reveals the knowledge level of retirees about food and nutrition in Delta State. The retirees had a mean score of 14.11 which is equivalent to 56.44%. It could be said that the retirees’ knowledge of food and nutrition is average. Table 2 below further revealed the summary of knowledge level of retirees about food and nutrition.

Table 2: Summary of the knowledge level of retirees about food and nutrition

<table>
<thead>
<tr>
<th>Category</th>
<th>Criteria</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-25</td>
<td>High</td>
<td>19</td>
<td>9.5</td>
</tr>
<tr>
<td>12-18</td>
<td>Moderate</td>
<td>103</td>
<td>51.5</td>
</tr>
<tr>
<td>1-11</td>
<td>Low</td>
<td>78</td>
<td>39.0</td>
</tr>
</tbody>
</table>

Mean =14.11, Std. Dev = 4.91

The result presents the knowledge level of retirees about food and nutrition. Their knowledge was categorized as high (19-25), moderate/average (12-18) and low (1-11). It was revealed that 103 (51.5%) respondents had moderate knowledge level of food and nutrition, 78 (39.0%) had low knowledge level and 19 (9.5%) had low knowledge of food and nutrition. The knowledge level of the retirees about food and nutrition could be said to be moderate.

Research Question 2: What is the dietary behaviour of retirees in Delta State?

Table 3: Distribution of the dietary behaviour of retirees

<table>
<thead>
<tr>
<th>Category</th>
<th>Criteria</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>46-60</td>
<td>Highly active</td>
<td>72</td>
<td>36.0</td>
</tr>
<tr>
<td>31-45</td>
<td>Moderately active</td>
<td>79</td>
<td>39.5</td>
</tr>
<tr>
<td>1–30</td>
<td>Not/less active</td>
<td>49</td>
<td>24.5</td>
</tr>
</tbody>
</table>

Remark
Number of retirees who are highly active to dietary behaviour
Number of retirees who are moderately active to dietary behaviour
Number of retirees who are not or less active to dietary behaviour

Table 3 above presents the baseline dietary behaviour of retirees into three (3) different domains. The domain was categorized as not or less active (1-30), moderately active (31-45) and highly active (46-60). Majority 79 (39.5%) of the retirees are moderately active to dietary behaviour, 72 (36.0%) retirees are highly active, and the remaining 49 (24.5%) retirees are not or less active. It could be said that the retirees are moderately active to good dietary behaviour. Figure ii further revealed the dietary behaviour of retirees at a glance.
Figure 1: Distribution of the dietary behaviour of retirees

Test of Hypotheses

Hypothesis 1: There is no significant influence of food and nutrition education on sustainable health among retirees

Table 4: The multiple regression on the influence of food and nutrition education on sustainable health

The results on Table 4 revealed a significant influence of food and nutrition education on sustainable health among retirees \(R = .573; \quad R^2 = .328, \quad R^2 (Adjusted) = .314\). This shows that 32.8% of the total variance in sustainable health is accounted for by the knowledge and behaviour. The two components of food and nutrition education were predictors of sustainable health among the respondents. These are: Knowledge (beta = .513, t = 7.439) and dietary behaviour (beta = .407, t = 4.547).
Hypothesis 2: There is no significant difference in food and nutrition knowledge level of retirees by gender

Table 5: *t*-test of difference in food and nutrition knowledge level of retirees by gender

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Df</th>
<th>t-value</th>
<th>P</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>89</td>
<td>12.91</td>
<td>4.02</td>
<td>198</td>
<td>4.688*</td>
<td>.000</td>
<td>S</td>
</tr>
<tr>
<td>Female</td>
<td>111</td>
<td>15.31</td>
<td>2.99</td>
<td></td>
<td></td>
<td>*p&lt;0.05</td>
<td></td>
</tr>
</tbody>
</table>

The results presented in Table 5 on the differences between male and female retirees' knowledge level of food and nutrition revealed significant difference between male (mean = 12.91, SD = 4.02) and female (mean = 15.31, SD = 2.99) as (t = 4.688, p = .000<0.05). The implication of this is that the female retirees have knowledge of food and nutrition than male retirees.

Discussion
The study revealed that the knowledge level of the retirees about food and nutrition was moderate. The retirees had a mean score of 14.11 which is equivalent to 56.44%. It implies that the retirees’ knowledge of food and nutrition is average. This finding is in consonance with the findings of Ali (2014) and Garba and Mamman (2014) as they concluded that most retirees have average knowledge of their dietary needs. It was revealed that the retirees were moderately active to good dietary behaviour. Majority 79 (39.5%) of the retirees were moderately active to dietary behaviour, 72 (36.0%) retirees were highly active, and the remaining 49 (24.5%) retirees are not or less active. This implies that only few of the respondents were not or less active to good dietary behaviour. This is in line with the findings of Aguila (2018) and Bertoni, Maggi and Weber (2018) as they concluded that most retirees exhibit appropriate dietary behaviour but were sometimes financially constraint to put such behaviour into regular practice.
It was also revealed that there was significant influence of food and nutrition education on sustainable health among retirees. The two components of food and nutrition education, knowledge and dietary behaviour were predictors of sustainable health among the respondents. It was further revealed that there was significant gender difference in knowledge level of retirees on food and nutrition. It implies that the female retirees have knowledge of food and nutrition than male retirees.

It seems that retirement has no effect on their diet and very little effect on their obesity. This result suggests that retirement has more far reaching consequences for men than for women, possibly due to differences in daily activities.

Conclusion
Moderate knowledge of food and nutrition among retirees existed and they were moderately active in good dietary behaviour. In addition, components of food and nutrition education influenced sustainable health among retirees while female retirees have knowledge of food and nutrition than male retirees.

Recommendations
The following recommendations were made.
1. There is need for more aggressive efforts by home economics and food and nutritionist educators to provide dietary information to civil servants who have less years in service.
2. Health talks, symposia, seminars could provide avenue for retirees to have access to information on food and nutrition that could affect their knowledge and dietary behaviour.
3. Preventive programs promoting good dietary behaviour rather than curative approaches will yield sustainable health.
References


