



Frequency of Fruits and Vegetables Consumption Among Rural Dwellers in Osun State, Nigeria.

O.O Akinola, D.E Enwerem^{*}, O.I Oguntade², I.G Orji

¹ Nutrition and Dietetics Department, Federal Polytechnic, Ede, Osun State, Nigeria.

² Home Science & Hospital Management: Human Nutrition & Dietetics, Olabisi Onabanjo University, Agowoye, Ogun State, Nigeria.

Abstract - World Health Organization (WHO) (2008) estimated that low intake of fruits and vegetables caused about 19% gastro- intestinal cancers, about 31% of ischemic heart disease and 11% of stroke. Of the global burden attributable to low fruit and vegetable consumption, about 85% was from Cardiovascular Diseases (CVD) and 15% from cancers. It estimated that about 2.7 million deaths were recorded yearly arising from these chronic diseases. The implication of the emerging scenario is that 2.7 million lives could be saved each year with sufficient global fruit and vegetable consumption. The main aim of this study is to determine the frequency of fruits and vegetable consumption among rural dwellers. The study design adopted for the study was descriptive survey research to know the frequency of fruits and vegetable consumption among selected rural area dwellers Two hundred rural dwellers in selected rural areas in the state were randomly selected for this study. A total of two hundred rural dwellers were assessed using questionnaire. The Statistical package for Social Science (SPSS version 20.0) was used to analyze the results from the data obtained. The data was also analysed using descriptive statistics such as mean, frequency, standard deviation and percentage. The results shown the occupation of the rural dweller, 12.5% were traders, 42.5% artisans, 37% farmers. Frequency of consumption of fruits and vegetables: few people (8%) taking fruit 3-4 times per day, majority preferred taking carbonated beverages (66%) and fruit juice (21%) per day. Vegetables consumption was equally low (54.5%). Above average (67.5%) followed the bad method of vegetable preparation. Epidemiologic studies from the research investigation supported that fruits and vegetables are linked to reducing micro nutrients deficiency and probably have a role in non -communicable diseases prevention.

Keywords: *fruits, vegetables, consumption, rural dwellers, occupation.*

1. Introduction

Rural dwellers are less vocal, characterized by a culture of poverty, as most people live barely above subsistence level (1). Specifically, rural areas refer to geographical areas that lie outside the densely built-up environment of towns, cities, and the sub-urban villages and whose inhabitants are engaged primarily in agriculture as well as the most basic of rudimentary form of secondary and tertiary activities (2). In rural areas barely there is no family that do not going into agriculture if just to cultivate the land for planting of vegetables and maize to sell.

Vegetables contain high protective substances which are meant for the development and proper functioning of body organs. Leafy vegetables from a wide variety of plants including green vegetables, green or leafy greens are eaten as vegetables, and as well as some fruits can be grown in a home garden for proper consumption so as to reduce most micro nutrient deficiencies FAO (3). Fruit and vegetable consumption are important for the provision of micronutrients to the body, as these food items are a rich source of vitamins and minerals required for the growth, development, and normal functioning of the human body. (1)]vegetables enhance the nutritional quality of diets because of their richness in vitamins and minerals which includes carotene, ascorbic acid, riboflavin, iron, iodine, calcium etc (4,5) in all the attributes or importance of fruits and vegetables coupled with the abundance of vegetables particularly among farming communities most especially rural dwellers in Nigeria, the 1990 World Summit on children identified three micronutrient deficiencies worldwide namely iodine deficiency disorder, iron deficiency anemia and vitamin A deficiency.(7,8)

Many factors have led to rapid changes in diet and lifestyle in the past decade such as globalization, urbanization and as well as technology advancement. (6) The incidence of non-communicable and chronic diseases is of increase all over the world including developing countries most especially cancers and cardiovascular diseases (CVDs) due to life style and dietary changes. (6) Diet-related diseases such as diabetes mellitus, hypertension, CVD, and cancer are also of the increase as well as in Nigeria. (5) The high prevalence of micronutrient deficiencies in developing countries has been attributed to the low level of consumption and knowledge of the nutritional value of these fruits and vegetables, despite their availability especially in rural areas. in spite of dietary guideline recommendation of consuming five servings of vegetables of 80g per day, most people are consistently not reaching even half of this requirement (14,15,16). The World Health Organization (WHO) attributes approximately 3 million deaths a year from non-communicable diseases to inadequate consumption of vegetables [9] World Health Organization (6) estimated that low intake of fruits and vegetables caused about 19% gastro- intestinal cancers, about 31% of ischemic heart disease and 11% of stroke. Of the global burden attributable to low fruit and vegetable consumption, about 85% was from Cardiovascular Diseases (CVD) and 15% from cancers. It estimated that about 2.7 million deaths were recorded yearly arising from these chronic diseases.

The implication of the emerging scenario is that 2.7 million lives could be saved each year with sufficient global fruit and vegetable consumption. According to the WHO/FAO (15), the set population nutrient goals and recommended intake was put at a minimum of 400g for fruits and vegetables per day for the prevention of chronic heart diseases, cancer, diabetes and obesity (4) In 2013, the WHO estimated that approximately 5.2 million deaths worldwide are attributable to low fruit and vegetable consumption. (10,11,12) in view of benefits from fruits and vegetables consumption, more than 75.5% of the global population do not consume sufficient fruits and vegetables (13) this study, aimed to find out the level at which rural dwellers consume fruits and vegetables because larger cultivation come from rural areas.

2. Methodology

The study was carried out in four rural areas of two senatorial district of Osun State, Nigeria, which major occupation of the dwellers is Agriculture.

Sampling technique and sample size

Using a systematic sampling technique, the two senatorial were stratified into four (4) villages and fifty correspondents (50) were randomly selected from each of the four (4) villages. The total of two hundred (200) correspondents as sample size were interviewed.

Data Collection

The self-structured questionnaire sought information on the pattern of vegetable consumption, the frequency of vegetables consumption the type of food preparation for which it was used and methods of preparation. the information was also gathered on fruit consumption and frequency of consuming them.

Methods of Data Analysis

Data collected were subjected to analysis by simple percentage

3. Results

Table 1 shown the occupation the correspondent engaged with and from the study majority of correspondents are peasant farmers (42.5%), artisan (37%) is second largest population in those communities, traders (12%) and students (8%). Table 2 Forms in which vegetable is consumed and frequency of consuming, some consider taking vegetable as salad (7%), while some prefer it as steam vegetable (13.5%) eating as are complement for rice, yam etc but large population of the correspondent consume vegetable as efo riro (61%) and (18.5%) prepare it with melon as melon soup. The frequency of consuming vegetable per week are stated as follows: once weekly (3%), twice (42.5%), thrice (49.5%) fewer correspondents (5%) take it more than three times per week.

This table shows the no of respondents that prefer taking fruit juice to whole fruit, in which 26% said they prefer taking fruit juice, while 74% prefer taking whole fruit shows the no. of times the respondents eat fruit in a day, which 59.5% says once, 32.5% said 1-2 times while 8% said 3-4 times in a day. Table 4 shows the preparation processes of leafy vegetables the respondents adopted, item A 17%, item B 50.5%, item C 27% while 5.5% adopted item D.

Table 1. Occupation of respondents

Occupation	Frequency	Percentage	Cum. Percentage
Students	16	8	8
Traders	25	12.5	20.5
Artisan	74	37	57.5
Farmers	85	42.5	100

Table 2. Forms and frequency of vegetable consumption

Forms	Frequency	Percentage	Cum. Percentage
As salad	14	7	7
Steam Veg	27	13.5	20.5
Efo riro	122	61	81.5
Melon sauce	37	18.5	100
Consumption (weekly)	Frequency	Percentage	Cum. Percentage
Once	6	3	3
Twice	85	42.5	45.5
Thrice	99	49.5	95
More than thrice	10	3	100

Table 3. Frequency of consumption of fruit juice and carbonated beverages to whole fruit.

Fruit	Frequency	Percentage	Cum. Percentage
Fruit juice	52	26	26
Whole fruit	148	74	100
Consumption (day)	Frequency	Percentage	Cum. Percentage
Once	119	59.5	59.5
1-2	65	32.5	92
3-4	16	8	100

Table 4. Awareness of fruits and vegetables consumption and Processing of vegetable

Awareness	Frequency	Percentage	Cum. Percentage
Yes	141	70.5	70.5
No	59	29.5	100
Processing of vegetable	Frequency	Percentage	Cum. Percentage
S-C-W-B-C	34	17	17
S-R-C-B-C	101	50.5	67.5
S-R-C-S-C	54	27	94.5
S-R-S-C-C	11	5.5	100

4. Discussion

According to WHO 2008: World Bank, 1994,) some of their studies indicated that mainly children and pregnant women particularly those in poor households suffer micronutrients malnutrition mainly as a result of inadequacy of fruit and vegetable consumption. Some of the rural dwellers claimed that the cost of these fruits and vegetables is high and besides they regarded it as a very expensive source of energy. Because of the level of poverty among some of the rural dwellers, the amount allocated for fruits and vegetables is relatively low, which also go in line with (17) report, that the demand for fruits and vegetables increases with higher incomes, although the share of total income/expenditure allocated to fruits and vegetables tends to decline, this implies that at low-income levels, the demand for fruits and vegetables is small.

In most of the rural area visited, it was observed that one of the major problems facing them, is the problem of bad road to evacuate their products to the urban area for sale, which deteriorate the nutritive value of fruits and vegetables before getting to the final consumers. It was observed in this study that adequate intake of fruits and vegetables among aged people in rural areas is associated with reduction in the risk of chronic diseases such as cardiovascular diseases, cancer and eye problems, with help them to stay healthier and also increases their nutritional status. This study finds that very high percentage (70.5%) o acknowledged of having good knowledge of importance of fruit and vegetable consumption. Respondent show to have knowledge of importance of consumption of fruits and vegetables but shallow knowledge on the nutritional value of fruits and vegetable consumption. This high proportion of adequate practice is different from findings in other developing countries.

Some method of vegetables preparation has been found to reduce uptake of adequate nutrients by increasing loss of nutrients and preventing availability of water soluble nutrient i.e water soluble vitamins. However, the item D is the proper handling method of vegetables preparation is sorting, rinsing, cutting to bigger sizes, no boiling but steaming for few minutes then cooking. This proper method was illustrated in item D and fewer respondents adopted the method (5.5%) (12), the most respondents prepared vegetable as efo riro but not on ideal method than can preserve the nutrients. the method closest to the recommended or best method was adopted by most (50.5%) of the respondents, that is cutting and boiling for few minutes, this may be due to people's preference for vegetables being eaten in smaller pieces rather than for nutritional value. It can be implied from these results that there was inadequate knowledge about how best to prepare vegetables for minimum loss of water-soluble nutrients, in spite of the high literacy level suggesting a tendency for the people to be knowledgeable about the importance of consuming leafy vegetables. The fruits consumption is very low because majority of the respondent (59.5%) consume fruit just once per day while those who are taking it close to recommended amount is (8%).

Conclusion

The result of this study indicated that majority of the rural dwellers were actually aware of benefits of fruits and vegetable consumption never the less the rate of consumption through the information gathered was very low and also majority of them still using the old and bad process of preparing vegetables, which always result to loss of nutrient after processing.

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