

RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND NUTRITIONAL PROBLEMS OF ELDERLY PEOPLE IN ILORIN SOUTH LOCAL GOVERNMENT AREA, KWARA STATE

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Abstract

The study examined the relationship between demographic factors and nutritional problems among elderly people in Ilorin South Local Government Area of Kwara State. The objective of the study was to investigate the relationship between gender, age, household composition and nutritional problems among elderly women in Ilorin South Local Government Area of Kwara State. A descriptive research design of survey type was adopted. The population for the study consisted all elderly people living in Ilorin South Local Government Area of Kwara State. A sample of two hundred (200) respondents was randomly selected using multistage sampling technique. Researchers' developed questionnaire which was validated by three experts in related fields and tested for reliability using the split- half method was used for data collection. A reliability coefficient of 0.74r was obtained. Pearson Product Moment Correlation was used to analyze the hypotheses for the study at

0.05 alpha level of significance. The results revealed that age and gender had significant relationships with nutritional problems of elderly people in Ilorin South Local Government Area (.303r>.195, .313r>.195) while household composition does not influence nutritional problems (.89r<.195) among elderly people in Ilorin South Local Government Area of Kwara State. The researchers concluded that age and gender have significant relationships with nutritional problems while household composition have no significant relationship with nutritional problems among elderly people in Ilorin South Local Government Area of Kwara State. The researchers recommended that elderly people in Ilorin South Local Government Area should be given more enlightenment on the causes, effects and prevention of nutritional problems as this will reduce cases of nutritional problems among them.

Keywords: Relationship, Demographic factors, Nutritional problems, Elderly women, Nutrition

Introduction

It is a sad truth but, several nutritional problems are prevalent everywhere in the world and these problems vary from country to country and continent to continent. However, the greatest presence is almost certain in the third world countries where these problems naturally manifest themselves either as food shortage or lack of varieties and essential nutrients.

Nutrition is the science that interprets the interaction of nutrients and other substances in food in relation to maintenance, growth, reproduction, health and disease of an organism. It includes food intake, absorption, assimilation, biosynthesis, catabolism and excretion. The diet of an organism is what it eats, which is largely determined by the availability, processing and palatability of foods. A healthy diet includes preparation of food and storage methods that preserve nutrients from oxidation, heat and reduce risk of food-borne diseases (National Institutes of Health, Joint Collection Development Policy, The National Agricultural Library, The National Library of Medicine & The Library of Congress, 2014).

According to Encyclopaedia Britannica, (2015) nutritional problems are any of the nutrient-related diseases and conditions that causes illness in human. Nutritional problems also include developmental abnormalities that can be prevented by diet such as osteoporosis, weight loss or gain, foliate deficiencies and so on. The Law Dictionary, (2015) defined demographic factors as Characteristics assigned to age, sex, education, income, marital status, job, religion, birth rate, death rate, family size, and marriage age.

British Dietetic Association, (2012) opined that globally, malnutrition is the most

important risk factor for illness and death. The principal nutritional problems in developing countries like Nigeria include protein energy malnutrition, disorder linked with iodine deficiency, vitamin A deficiency, iron deficiency anaemia, diabetes and cancer.

According to Nelson (2009), a strong relationship exists between age and nutritional problems. This group of factors are related to the multiple physical and physiological changes determined by the process of ageing. As well as weakening the health status of the elderly, some aspects of the process such as physical limitations, oral health sensory changes, problems of cognition and diseases, also lead to people's involuntary limitation of food choice. Physical limitations and frailty can negatively influence people's ability to shop, cook and eat and as a consequence their food choices and nutritional status are affected (Shatenstein, 2009).

One of the most common nutritional problems related to ageing in Nigeria is Osteoporosis. The Dairy Council, (2007) opined that osteoporosis is a major problem in older people, especially women, after the menopause. Osteoporosis results when age-related bone loss proceeds to such an extent that bones become very fragile and fracture easily. Hormone replacement therapy has been proven to effectively slow bone loss among menopausal women, although questions have been raised about the suitability of long term therapy for all women. The Dairy Council, (2007) further said that diet is also important in the management of osteoporosis. Although an increased calcium intake cannot replace lost bone, studies have shown that adequate calcium can reduce the rate of bone loss in older people and together with vitamin D, reduce the risk of fractures. In addition, an adequate intake of calcium enhances the effectiveness of hormonal and pharmacological methods to treat osteoporosis.

With increasing age appetite declines and food consumption declines. Healthy older people are less hungry and are fuller before meals. They also consume smaller meals, eat more slowly, have fewer snacks between meals and become satisfied after meals more rapidly after eating a standard meal than younger people. Most of the age-related decrease in energy is a response to the decline in energy expenditure with age.

The intra family gender inequalities in food distribution and nutritional status has been reiterated in several studies. For instance, in Bangladesh, 54percent of malnourished children are females and have a likelihood of 1.44 times greater to be malnourished than males. In households which are vulnerable to food insecurity, women are at greater risk of malnutrition than men (FAO, 2015). Malnutrition in mothers, especially those who are pregnant or breastfeeding can set up a cycle of deprivation that increases the likelihood of low birth weight, child mortality, serious

disease, poor classroom performance and low work productivity while vulnerable women and girls are more likely to die of malnutrition than men and boys (FAO, 2015). Social and economic inequalities between men and women often stand in the way of good nutrition. This condition is seen in South Asian and African communities, where boys and men are culturally selected to eat more nutritive foods such as eggs (FAO, 2015). Locher (2009) stated that gender as it relate to social factors is a significant barrier to proper nutritional intake in people and today's cohort of males is less likely than females to have proficiency in food preparation. Older women who are widows may be less likely to prepare nutritious meals when they are cooking only for themselves.

The elderly people living alone shows a lower rate of consumption of healthy food than elderly individuals living together with men eating less healthily than women. For example, Hughes, Bennett and Hetherington (2009) found that men living alone have low intakes of fruits and vegetables, with very few achieving 5-a-day. However, elderly women living alone (widowed or never married) are more likely to belong to the lowest categories of income levels and, as a result, the most disadvantaged groups and less likely to be able to buy sufficient food and to have a nutritious diet (Green, 2009).

The researchers observed through personal interactions with elderly women in the study area that most of them are suffering from one nutrition related problems or the other, especially diabetes, osteoporosis, scurvy, iron deficiency anaemia and so on. Most of these elderly women do not know the actual cause of the problems and how to manage them effectively probably because of their low economic status, level of education, lack of knowledge about nutrition and other related factors. This research therefore seeks to enlighten elderly women in Ilorin South Local Government Area on the relationship between age, gender, household composition and nutritional problems.

Statement of the Problem

According to Karen, (2012) the nutrition transition in Africa is associated with increasing urbanization and will be accompanied by an increase in chronic diseases in present and future cohorts. It is no gain saying that the prevalence of nutritional diseases such as diabetes, hypertension, cancer, obesity and many others among Nigerian adults cannot be overemphasized.

The researchers observed through literature review that most of the studies on nutritional problems focused majorly on children, giving little recognition to nutritional problems of the elderly people especially, women in Nigeria. Whereas, this target group suffer greatly from nutritional diseases and this may be attributed to a lot of factors including lack of knowledge on the causes, effects and prevention

of nutritional diseases. In view of these, the researchers were prompted to carry out a study on the relationship between demographic factors and nutritional problems of elderly women in Ilorin South Local Government Area, Kwara State.

Research Questions

The followings were the research questions for this study:

1. Is there any relationship between age and bone health problems suffered by elderly people in Ilorin South Local Government Area of Kwara State?
2. Is there any relationship between gender and iron deficiency anaemia suffered by elderly people in Ilorin South Local Government Area of Kwara State?
3. Is there any relationship between household composition and malnutrition suffered by elderly in Ilorin South Local Government Area of Kwara State?

Research Hypotheses

The following hypotheses were formulated to guide the study:

1. Age will not have a significant relationship with bone health problems suffered by elderly people in Ilorin South Local Government Area of Kwara State.
2. Gender will not have a significant relationship with iron deficiency anaemia suffered by elderly people in Ilorin South Local Government Area of Kwara State.
3. Household composition will not have a significant relationship with malnutrition suffered by elderly people in Ilorin South Local Government Area of Kwara State.

Purpose of the Study

1. To examine the relationship between age and bone health problems suffered by elderly people in Ilorin South Local Government Area of Kwara State.
2. To assess the relationship between gender and bone health problems suffered by elderly people in Ilorin South Local Government Area of Kwara State.
3. To investigate the relationship between household composition and malnutrition suffered by elderly people in Ilorin South Local Government Area of Kwara State.

Methodology

A descriptive research design of survey type was used for the study. The population for the study comprised all the people in Ilorin South Local Government Area, while the target population comprised all elderly men and women in the study area. Ilorin South Local Government has a total population of 209,251 people, out of which 103,606 are males and 105,645 are females.

A sample of two hundred (200) consisting of one hundred and fifteen (115) elderly females and eighty five (85) elderly males was used for the study. The age range of people selected for the study was between (55-65). The sample comprised 43 teachers, 34 Staff of Ilorin South Local Government, 47 road side traders and 76 market women. A cluster sampling was used to divide the respondents into 4 clusters which include Ministry of education staff, traders, market women and teachers while a proportionate random sampling was used to select elderly people in each cluster. The selection was based on twenty percent (2%) of the population of respondents met at the Local Government office, market places (Ipata & Kulende markets), Government Day Secondary School, Muhideen Arabic and Islamic Junior Secondary School, Zango, and Kulende as at the time of administration of the instrument used for the study.

Researchers' structured and developed questionnaire tagged Questionnaire On Demographic Factors And Nutritional Problems (QDFANP) was used for data collection. The validity of the instrument was ascertained by subjecting it to thorough scrutiny by three experts in related fields. The reliability of the instrument was ascertained using a split-half method on twenty respondents outside the area of study and a Spearman Rank Order statistical tool was used to compare the results. A reliability coefficient of .74r obtained clearly showed that the instrument was very reliable.

Researchers administered the instrument with the aid of three trained research assistants. Consent of the respondents was sought before they were recruited for the study. The research assistants helped the researchers in translating the contents of the questionnaire to the illiterate respondents. The data collected was collated, coded and analyzed using a descriptive statistical analysis of frequency counts and percentages for the demographic data of respondents while an inferential statistics of Pearson Product Moment Correlation was used to analyze the hypotheses set for the study at 0.05 alpha level of significance.

Test of Hypotheses

Results:

H₀₁: Age will not have a significant relationship with bone health problems suffered by elderly women in Ilorin south Local Government Area of Kwara State.

Table 1: Respondents' responses on relationship between age and bone health problems of elderly women.

Item	SA (%)	A (%)	D (%)	SD (%)
With increasing age, food consumption declines and this may hinder elderly people from getting enough calcium to improve their bone health.	85 (42.5)	61 (30.5)	28 (14)	26 (13)
People with reduced teeth as a result of old age eat less nutritious food which can lead to bone health problems like osteoporosis.	75 (37.5)	56 (28)	28 (14)	41 (20.5)
Physical limitations due to ageing can negatively influence people's ability to shop, cook and eat and as a consequence their food choices and bone health may be affected.	92 (46)	89 (44.5)	7 (3.5)	12 (6)
Old age may result in age-related bone loss which may make bones become very fragile and fracture easily.	95 (47.5)	65 (32.5)	25 (12.5)	15 (7.5)

Table 2: PPMC Analysis on the relationship between age and bone health problems of elderly women in Ilorin South Local Government Area of Kwara State.

PPMC analysis of relationship between gender and nutritional problems

	Mean	N	SD	df	Cal r-value	Critical r-value	Decision
Age	2.97	200	1.43	198	.303	.195	H ₀ rejected
Bone health problems	18.59	200	2.58				

Significant at 0.05 alpha level

Table 1 shows the calculated r-value of 0.303 and the critical r-value of 0.195 with degree of freedom 198 at 0.05 alpha level of significance. Since the calculated r-value of 0.303 is greater than the critical value 0.195, the hypothesis therefore is rejected. This implies that age has a significant relationship with nutritional problems of elderly women in Ilorin South Local Government Area of Kwara State.

As it was reported that ageing has contributed immensely to the nutritional status of elderly people especially women.

H₀₂: Gender will not have a significant relationship with iron-deficiency anaemia suffered by elderly people in Ilorin South Local Government Area of Kwara State.

Table 3: Respondents' responses on relationship between age and bone health problems of elderly women.

Item	SA (%)	A (%)	D (%)	SD (%)
Females are more vulnerable to iron-deficiency anaemia than males	85 (42.5)	61 (30.5)	28 (14)	26 (13)
During pregnancy and delivery, women tend to lose much blood which may make them to have iron- deficiency anaemia	75 (37.5)	56 (28)	28 (14)	41 (20.5)
Elderly women who live alone may not be feeding well and therefore may have insufficient iron which may lead to iron-deficiency anaemia	92 (46)	89 (44.5)	7 (3.5)	12 (6)
Most elderly men seem to eat healthier foods than women and eat more iron giving foods than women, this may make them to be less prone to iron- deficiency anaemia	95 (47.5)	65 (32.5)	25 (12.5)	15 (7.5)

Table 4: PPMC analysis of relationship between gender and nutritional problems

	Mean	N	SD	df	Cal r-value	Critical r-value	Decision
Gender	1.43	200	.5	198	.313	.195	H ₀ rejected
Nutritional Problems	18.59	200	2.58				

significant @0.05 alpha level

Table 2 shows the calculated value of 0.313 and a critical value of 0.195 with degree of freedom 198 at 0.05 alpha level of significance. Since the calculated value of 0.313 is greater than the critical value of 0.195 the hypotheses is therefore rejected. This implies that gender have a significant relationship with nutritional problems of elderly people in Ilorin South Local Government Area of Kwara Str

As it was reported that women usually do all the domestic work and eat less nutritious meals among the family members.

H₀₃: Household Composition will not have a significant relationship with malnutrition suffered by the elderly people in Ilorin South Local Government Area of Kwara State.

Table:5 Respondents Responses on Relationship between Household composition and nutritional problems

Item	SA (%)	A (%)	D (%)	SD (%)
The number of people in the house can determine the quality of food you eat which may lead to malnutrition in elderly people	128 (64)	54 (27)	11 (5.5)	7 (3.5)
Married elderly people eat less nutritious foods because of their spouses which may increase the cases of malnutrition among elderly people	118 (59)	34 (17)	21 (10.5)	27 (13.5)
Widowed and divorced elderly people who have more children eat less nutritious food due to their level of income which lead to malnutrition	68 (34)	94 (47)	19 (9.5)	19 (9.5)
Elderly women who live in a polygamous family may eat less nutritious foods which may cause malnutrition.	144 (72)	27 (13.5)	5 (2.5)	24 (12)

Table 6: PPMC analysis of relationship between Household composition and nutritional problems

	Mean	N	SD	df	Cal r-value	Critical r-value	Decision
Household composition	2.12	200	.89	198	.089	.195	H ₀ accepted
Nutritional Problems	18.59	200	2.58				

not significant at 0.05 alpha level

Table 3 shows the calculated r-value of 0.089 and the critical value of 0.195 with degree of freedom of 198 at 0.05 alpha level of significance. Since the calculated r-value 0.089 is less than the critical value 0.195, the hypothesis is therefore accepted. This implies that household composition have no significant relationship with nutritional problems of elderly people in Ilorin South Local

Government Area of Kwara State.

Discussion of Findings

The findings of Hypothesis one revealed that a significant relationship exist between age and bone health problems suffered by elderly people in Ilorin South Local Government Area of Kwara State. This implies that elderly people in Ilorin South Local Government Area believe that decrease in strength as a result of old age can cause some nutritional problems and that people with reduced teeth as a result of old age eat less nutritious food which can lead to bone health problems like osteoporosis. This finding is in line with Nelson (2009) who asserted that a strong relationship exists between age and nutritional problems. This group of factors is related to the multiple physical and physiological changes determined by the process of ageing, as well as weakening of the health status of the elderly. Some aspects of the process such as physical limitations, oral health sensory changes, problems of cognition and diseases, also lead to people's involuntary limitation of food choice.

There existed a significant relationship between gender and iron-deficiency anaemia suffered by elderly people in Ilorin South Local Government Area of Kwara State. This implies that the elderly people in Ilorin South Local Government Area of Kwara State believe that During pregnancy and delivery, women tend to lose much blood which may make them to have iron- deficiency anaemia and that most elderly men seem to eat more iron giving foods than the women and this may make them to be less prone to iron- deficiency anaemia. This finding is in line with the submission of Locher (2009) stated that gender as it relates to social factors is a significant barrier to proper nutritional intake in people and today's cohort of males is less likely than females to have proficiency in food preparation. Older women who are widows may be less likely to prepare nutritious meals when they are cooking only for themselves.

The findings also revealed that there existed no significant relationship between household composition and nutritional problems of elderly people in Ilorin South Local Government Area of Kwara State. This implies that elderly people in Ilorin South Local Government Area are of the opinion that the number of people in the house cannot determine the quality of food people eat. This revelation disagrees with Hughes, Bennett and Hetherington (2009) who found that men living alone have low intakes of fruits and vegetables, with very few achieving 5-a-day. Green (2009) noted however, that elderly women living alone (widowed or never married) are more likely to belong to the lowest categories of income levels and, as a result, the most disadvantaged groups and less likely to be able to buy sufficient food and to have a nutritious diet.

Conclusions

Based on the findings of this study, the following conclusions were drawn:

1. Some aspects of ageing including physical and oral health problems have increased bone health problems among elderly people in Ilorin South Local Government Area of Kwara State.
2. Gender has contributed to increase in iron-deficiency anaemia among elderly people in Ilorin South Local Government Area of Kwara State.
3. The number of people living in a house has not influenced malnutrition among elderly people in Ilorin South Local Government Area of Kwara State.

Recommendations

Based on the conclusion drawn from this study, the researchers recommended that:

1. Elderly people in Ilorin South Local Government Area should be given more enlightenment on the causes, effect and prevention of bone health problems, this will reduce cases of nutritional problems among them.
2. Support of the non- governmental organization should also be solicited in mobilizing, educating, and sensitizing the elderly people in Ilorin South Local Government Area on the value of nutritious food intake.
3. Enlightenment programmes that will be organized for the elderly people in Ilorin South Local Government Area should focus on the influence of household composition on nutritional problems since they do not perceive any relationship between household composition and nutrition problems.

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