

NUTRITIONAL PRACTICES AND HEALTH STATUS OF THE ELDERLY IN ATEITU AND WINNEBA ZONGO COMMUNITIES IN THE EFFUTU MUNICIPALITY, GHANA

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ABSTRACT

Good nutrition is an important indicator of longevity and good health of the elderly. Hence, this study examined the relationship between the nutritional practices and health status of the elderly in Ateitu and Winneba Zongo communities in the Effutu Municipality, Ghana. Descriptive survey design was adopted for this study. A total of one hundred (100) elderly people aged 60 years and above were selected via snowball and purposive sampling techniques for the study. A pre-tested and contextually prepared structured questionnaire (Cronbach's alpha reliability coefficient =0.78) was used to conduct the survey. The Statistical Package for Social Sciences (SPSS) version 22 was used to analyse the data quantitatively using frequency count, percentage, and independent samples test. The findings indicate that nutritional practices such as eating balanced diet regularly, eating low fat diet, consuming plenty vegetables and fruits are significantly linked to good health of the elderly in Ateitu and Winneba Zongo communities($p < 0.05$). It is, therefore, recommended that the elderly should regularly feed on fresh fruits and vegetables, low fat and calorie diets, diets low in salt and sugar, calcium rich diets and food supplements in order to strengthen their immune system and maintain good health.

KEYWORDS: Nutritional practice, balanced diet, elderly, longevity, health

INTRODUCTION

The National Ageing Policy (2010) of Ghana reported that most often the elderly in society complain of health problems such as heart diseases, bones and joints ailments. The elderly population in the Ateitu and Winneba Zongo communities of the Effutu Municipality is no exemption. It has been said that the onset of old age comes with a number of health challenges (Dundee City Council Directorate of Public Health, 2002; Owusu, 2005). In the views of (Owusu, 2005) the onset of old age comes with various health challenges such as diabetes, high blood pressure and constipation. This suggests that nutrition is one of the major determinants of successful aging and health. Selivanova and Cramm (2014) pointed out that health and longevity of elderly people is associated with good nutritional practices. This implies that poor nutrition can pose a serious challenge to the health of the elderly. Roth (2012) posited that the human body is like a machine, right from birth the organs in the body are used continually and as time passes the body becomes weak and is not able to work efficiently. Therefore as people age, eating well is a key to good health and longevity.

Statement of the problem

Some elderly people in Ateitu and Winneba Zongo communities tend to eat what is available not considering the nutritive value of the food. More so, the nutritional care that the elderly in these communities should be provided with, in some cases remains elusive. Hence, they are nutritionally vulnerable and at risk of diet related health problems such as obesity, type 2 diabetes, hypertension, cardiovascular diseases and some cancers. Accordingly, they are at risk of diet related health problems. Arguably, this phenomenon has been under-researched. More importantly, there is paucity of empirical data on the nutrition and diet-related health problems among the elderly in these communities. This creates a knowledge gap which needs to be filled by the current work.

Purpose of the study

The purpose of this study was to assess the nutritional practices in relation to the health status of the elderly in Ateitu and Winneba Zongo communities in the Effutu Municipality.

Objective of the study

This study investigated nutritional practices in relation to health status of elderly people in Ateitu and Winneba Zongo communities in the Effutu Municipality.

Research hypothesis

H1: There is no statistically significant differences in the nutritional practices and health status of the elderly people in Ateitu and Winneba Zongo communities.

Significance of the study

Theoretically, this research would contribute to the on-going debate about nutritional practices of the elderly to fill the gap in contemporary literature. The study would provide nutritionists and social workers additional information on nutritional care for the elderly.

Examining the relationship between nutrition and health in the elderly

Longevity and the rate of ageing are associated with health habits such as dietary lifestyle. This means that good nutrition can help people to stay healthy and active for longer periods. On the other hand, poor nutrition can pose a serious threat to the health of people, including the elderly. Owusu (2008) found out that many elderly people in Ghana are afflicted with ailments many of which are diet related such as hypertension, diabetes and constipation. Ogden, Carroll, Kit and Flegal (2012) corroborated this view by pointing out that poor diet coupled with a sedentary lifestyle as risk factors for life threatening chronic diseases such as cardiovascular (heart) diseases, stroke, hypertension, diabetes and some form of cancer. The Directorate of Public Health (2002) provided the following catalogue of health and nutritional problems related to ageing: mouth problems, swallowing difficulties, weight loss, constipation, irritable bowel syndrome, diverticulitis, muscle and bone disorders. The Dundee City Council Directorate of Public Health (2002), pointed out swallowing difficulties or dysphagia as a problem for older people. A report by the New Zealand Ministry of Health (2013) also indicated that most elderly people in the tropics are thin, anaemic and lack

nutrients such as Vitamin A. Moses (2012) also found out that the aged are faced with numerous health related problems such as dementia, sleep disorder, gastrointestinal disorder, joint problems, cardiovascular diseases and many more. Roth (2012) reported that up to 40% of persons over the age of 65 suffer from a chronic illness or disability that limits their daily activities.

According to Culross (2008), as people age multiple changes occur that affect their nutritional status. Therefore, the elderly are encouraged to eat healthy diet. This is because the kind of diet eaten by a person contributes immensely to the nutritional and health status of that particular individual or family (Adigbo & Maddah, 2011). For instance, energy and protein intake must be adequate to allow protein to be used for wound healing and tissue repair rather than energy needs (Wardlaw & Smith, 2011). The elderly are also encouraged to consume adequate quantity of fluid especially water to aid digestion and to control body temperature (Wardlaw & Smith, 2011). Wardlaw and Smith (2011) indicated that the diet of the elderly should contain fiber as well as fruits to reduce constipation. Older people are at risk of certain nutrient deficiencies. These are vitamins C, folic acid, iron and vitamin D Deficiency of vitamin C. These deficiencies relate to a low intake of fruit and vegetables. Therefore, older adults require increased intake of folic acid, vitamins D, B12, and B6 and calcium which can be found in liver, pulses, fortified breakfast cereals bread, green leafy vegetables and citrus fruits. Of these, Culross (2008) recommends B12 exclusively to those over the age of 50 as a supplement because of the decreased absorption rate. Vitamins D supplements should be considered for those who are housebound and in long term care (Sahay & Sahay, 2012).

METHODOLOGY

The research design

The study adopted the descriptive survey design.

Population, sample and sampling techniques

The accessible population for this study was one hundred (100) elderly people aged 60 years and above in Atetitu and Winneba Zongo communities in the Effutu Municipality. Snowball and purposive sampling techniques were used to sample the 100 elderly people. In the first stage, snowball sampling technique was used to identify the 100 elderly people. The National Health Insurance (NHIS) card was used to crosscheck and confirm the ages of the elderly. In the second stage, purposive sampling was used to sample all the 100 male and female elderly persons.

Instrumentation

The data collection technique for this study was administration of questionnaire. Thus, questionnaire was used as data collection tool to gather data for the study. The questionnaire was pilot tested on 10 elderly people at Kojo Bedu, a suburb of Effutu Municipality. The response from the pilot test of the questionnaire was subjected to Cronbach's alpha reliability analysis method via Statistical Package for Social Sciences (SPSS) version 22 which yielded reliability coefficients (r) of 0.78.

Data analysis and presentation

The data were described using descriptive statistics (frequency count and percentage) as well as inferential statistics (independent samples test or t-test statistics) which was computed at a significance level (p-value) of $p \leq 0.05$ (2-tailed) at a Confidence Interval (C.I) of 95% with a margin of error of ± 5 . The data is presented and analysed under three basic themes. These are: demographic information, nutritional practices of the elderly, nutritional practices in relation to health status.

RESULTS

Demographic Information

Table 1: Demographic characteristics of respondents (n = 100)

| Variable | Community | | Total |
|-------------------|----------------|-----------------------|--------|
| | Ateitu(n = 55) | Winneba Zongo(n = 45) | |
| Sex | | | |
| Male | 25(45) | 20(44) | 45(45) |
| Female | 30(55) | 25(56) | 55(55) |
| Health status | | | |
| Diabetes mellitus | 5(9) | 4(9) | 9(9) |
| Hypertension | 8(15) | 4(9) | 12(12) |
| Constipation | 4(7) | 2(4) | 6(6) |
| Loss of appetite | 4(7) | 3(7) | 7(7) |
| Jaundice | 2(4) | 3(7) | 5(5) |
| Other | 4(7) | 5(11) | 9(9) |
| None | 28(51) | 24(53) | 52(52) |

Source: Field data (2018).

Note: The figures in parentheses are in percentage

It is observed in Table 1 that more female (55%) than male (45%) elderly persons were used for the study in both Ateitu and Winneba Zongo communities. The majority of the elderly in Ateitu (51%) and Winneba Zongo communities (53%) did not experience any nutrition related and other health challenges during the time of survey. However, a small number of the respondents in Ateitu (31%) and Winneba Zongo communities (22%) suffered nutrition related conditions such as diabetes mellitus, hypertension and constipation. Of this number, more elderly in Ateitu than those resident in Winneba Zongo community suffered these health challenges because most of them are retired lecturers, school teachers and other public servants who regularly engage in sedentary lifestyle. This

finding is in line with the views of the Dundee City Council Directorate of Public Health (2002) and Owusu (2005) who found that the onset of old age comes with a number of health challenges. These ailments are not peculiar to the elderly in the two communities, in terms of Owusu’s (2005) findings that the onset of old age comes with various health challenges. Owusu (2005) further asserts that the elderly usually have poor appetite.

The nutritional practices of the elderly in Ateitu and the Winneba Zongo communities

Table 2: Meal pattern of the elderly in Ateitu and Winneba Zongo communities (n = 100)

| Type of meal | Community | | Total |
|---|----------------|----------------------|-----------|
| | Ateitu(n = 55) | Winnbe Zongo(n = 45) | |
| Breakfast | | | |
| Tea and bread with milk | 21(38) | 5(11) | 26(26) |
| Milo and bread with milk | 19(35) | 0(0) | 19(19) |
| Coffee and bread with milk | 5(9) | 0(0) | 5(5) |
| Hausa <i>koko</i> and bread with milk | 10(18) | 10(22) | 20(20) |
| Hausa <i>koko</i> and <i>koose</i> with milk | 0(0) | 14(31) | 14(14) |
| Hausa <i>koko</i> and <i>masa</i> with milk | 0(0) | 8(18) | 8(8) |
| <i>Waakye</i> and fish | 0(0) | 8(18) | 8(8) |
| Lunch | | | |
| <i>Kenkey</i> and fish | 28(51) | 0(0) | 28(28) |
| <i>Kenkey</i> and stew | 12(22) | 0(0) | 12(12) |
| <i>Banku</i> and fried fish | 10(18) | 5(11) | 15(15) |
| <i>Waakye</i> and fish | 5(9) | 15(33) | 20(20) |
| Rice and vegetable stew | 0(0) | 25(56) | 25(25) |
| *Supper | n = 85 | n = 83 | |
| <i>Fufu</i> and soup | 25(29) | 0(0) | 25 (14.8) |
| <i>Banku</i> and soup | 18(22) | 20(24) | 38(22.6) |
| <i>Banku</i> and okro stew | 22(26) | 0(0) | 22(13.1) |
| <i>Kenkey</i> and fish | 20(23) | 18(22) | 38(22.6) |
| Rice balls (<i>omo tuo</i>)and vegetable soup | 0(0) | 45(54) | 45(26.8) |
| Meal time | | | |

| | | | |
|-----------------------|---------|---------|-------|
| Breakfast (6am – 9am) | 55(100) | 45(100) | 100) |
| Lunch (12 noon – 2pm) | 55(100) | 45(100) | 100) |
| Supper (6pm– 8pm) | 55(100) | 45(100) | (100) |

Source: Field data (2018).

Note: The figures in parentheses are in percentage; *Multiple response for supper n= supper > 55 and 45 due to multiple responses.

Hausa koko - local porridge prepared from millet and maize; Koose – local doughnut prepared from fermented millet and beans.

It is evident from the results that the elderly in Ateitu and Winneba Zongo communities regularly consumed tea and bread with milk, Hausa koko and breadwith, milo and bread with milk as breakfast meals between 6.00 am and 9.00 am. The composition of these breakfast meals is balanced with elements from the five food groups. Kenkey and fish, rice and vegetable stew, waakye and fish were also regularly consumed as lunch meals between 12.00 noon and 2.00 pm by the elderly in both communities. With regard to their nutritional value, these lunch meals satisfactorily meet the requirements of a balanced meal. Rice balls (omo tuo) and vegetable soup, banku with palm nut, groundnut or light soup, kenkey and fish were regularly eaten as meals for supper between 6.00 pm and 8.00 pm by the elderly in both communities. The study found that the elderly in these communities mostly ate supper. It is crystal clear from the findings that the elderly in both communities regularly ate nutritious and balanced meals for breakfast, lunch and supper at specified times for serving these meals. This is a good nutritional practice for positive health outcomes and longevity. These findings are congruent with a recommendation by which indicate that Dundee City Council Directorate of Public Health (2002) that serving and eating breakfast regularly and early or timely for the elderly is a healthy nutritional practice. This finding also buttresses the views of experts in the New Zealand Ministry of Health (2013) which indicate that every meal of the elderly must be balanced with elements from the five food groups. This finding further substantiate the recommendation by Owusu (2005) that eating supper before 8.00 pm allows food enough time to digest properly.

Nutritional practices in relation to health of the elderly

Table 3: Nutritional practices in relation to health of the elderly in Ateitu and Winneba Zongo communities (n = 100)

| Statement | Mean scores percommunity | | | |
|---|--------------------------|--------------|-----------------------------|--------------|
| | Ateitu (n = 55) | Decisi on | Winnbe Zongo (n = 45) | Decisi on |
| I eat a well-balanced diet regularly to maintain good health | 4.8 | A | 3.2 | A |
| I also eat adequate diet regularly to maintain good health | 4.0 | A | *2.3 | D |
| I eat diet that contain adequate high fibre regularly | 3.2 | A | *2.8 | D |
| I eat diet that contain low fat regularly for good health | 3.6 | A | *1.8 | D |
| I eat diet that contain plenty of vegetables and fruits regularly | 4.0 | A | 4.5 | A |
| My daily energy intake is equal to the energy expended | *1.2 | D | 3.2 | A |
| I take diet that reduces the risk of obesity | *1.1 | D | *1.2 | D |
| I take diet that reduces the risk of overweight | *1.5 | D | 4.4 | A |
| I take diet that reduces the risk of bone diseases | *2.8 | D | 3.9 | A |
| I take diets that makes me recover from illness & infections | 4.1 | A | 3.2 | A |
| Adequate nutritional standards are crucial to my well-being | 4.5 | A | 4.2 | A |
| Overall mean | 3.1 | | 3.1 | |

Key: **A** –Agree; **D** – Disagree; Dec– Decision.

Note: The figures in parentheses are in percentage; *Mean weights/scores for disagreed responses.

The following mean (M) values were used as guideline for the interpretation of the results: $M \leq 3.0$ – disagreed; $M \geq 3.0$ – agreed.

The elderly people of Ateitu (n = 55; M = 4.8) and Winneba Zongo community (n = 45; M = 3.2) corroborated that they ate balanced diet regularly to maintain good health. This result suggests that eating balanced diet is linked to good health and longevity. Similarly, the elderly people of Ateitu (n = 55; M = 4.0) agreed while their counterparts in Winneba Zongo community (n = 45; M = 2.3) disagreed with the statement that eating adequate diet regularly maintains good health. This result

reflects a mixed opinion. With regard to eating diet that contain adequate high fibre regularly to maintain good health, the elderly people of Ateitu (n = 55; M = 3.2) admitted the statement. Conversely, the elderly of Winneba Zongo community (n = 45; M = 2.8) disagreed with the statement. This result signifies low consumption of dietary fibre among the elderly in Winneba Zongo. Also, the elderly people of Ateitu (n = 55; M = 3.6) confirmed while their counterparts in Winneba Zongo (n = 45; M = 1.8) disagreed that they eat diet that contain low fat regularly for good health. This result signifies a low fat consumption by the elderly in Ateitu; this is a good nutritional practice.

In terms of eating diet that contain plenty of vegetables and fruits regularly, all the elderly people of Ateitu (n = 55; M = 4.0) and Winneba Zongo community (n = 45; M = 4.5) agreed to the assertion. This result is indicative of a high level of knowledge and consumption of vegetables and fruits. Moreover, the elderly people of Ateitu (n = 55; M = 1.2) disagreed while their counterparts in Winneba Zongo community (n = 45; M = 3.2) admitted that their daily energy intake is equal to the energy expended. This result is indicative of low physical activity level (sedentary lifestyle) among the elderly of Ateitu. All the sampled elderly people of Ateitu (n = 55; M = 1.1) and Winneba Zongo community (n = 45; M = 1.2) disagreed that they eat diet that reduces the risk of obesity. This result is indicative of consumption of high-calorie and energy-dense foods by the elderly in both communities. Similarly, the elderly people in Ateitu (n = 55; M = 1.5) disagreed while their counterparts in Winneba Zongo community (n = 45; M = 4.4) agreed that they eat diet that reduces the risk of overweight. This result is indicative of consumption of high-calorie and energy-dense foods by the elderly in Ateitu community.

Also, the elderly people in Ateitu (n = 55; M = 2.8) disagreed while their counterparts in Winneba Zongo community (n = 45; M = 3.9) agreed that they eat diet that reduces the risk of bone diseases. This result suggests the consumption of calcium rich foods by the elderly of Winneba Zongo community. All the sampled elderly people in Ateitu (n = 55; M = 4.1) and Winneba Zongo community (n = 45; M = 3.2) agreed that they eat diet that makes them recover from illness and infections. This result is indicative of consumption of high-calorie and energy-dense foods by the elderly in both communities. Lastly, all the elderly people in Ateitu (n = 55; M = 4.5) and Winneba Zongo community (n = 45; M = 4.2) agreed that adequate nutritional standards are crucial for their well-being.

It could be concluded from the result of this study that most of the respondents linked good nutritional practices such as eating balanced diet regularly, eating diet that contain low fat, plenty of vegetables and fruits regularly to good health since individual mean scores were above 3.0. This finding buttresses the findings of several studies by the New Zealand Ministry of Health (2013), King and Burgess (1993) which found positive relationship between good nutrition and health. The finding of this study led to the formulation of the hypothesis that, "There is no statistically significant

differences in the nutritional practices and health status of the elderly people in Ateitu and Winneba Zongo communities.”

Table 4: Independent samples t-test of gender differences in the nutritional practices and health of the elderly people in Ateitu and Winneba Zongo communities(n = 100)

| Community | Sample (N) | Mean | Std. Deviation | t | df | p-value |
|---------------|------------|------|----------------|------|----|---------|
| Ateitu | 55 | 32.8 | 2.3 | 1.46 | 98 | 0.000 |
| Winneba Zongo | 45 | 41.1 | 5.9 | | | |

*Test variables - Dependent variable (health status) and independent variable (nutritional practices).

** df (98) - degrees of freedom

*** t-test is significant at the .05 level (2-tailed).

The result in Table 4 shows that there is statistically significant differences in nutritional practices and health status of the elderly in Ateitu and Winneba Zongo communities. A comparison of the mean differences indicate a higher mean score for elderly people in Winneba Zongo (M= 41.1, N= 45, SD= 5.9) as compared with their counterparts in Ateitu (M= 32.8, N= 55, SD= 2.3). The t-test output indicates that the observed difference in the means is statistically significant; [t (98) = 1.46, p = 0.000, 2-tailed] at a confidence interval (C.I) of 95%. This finding suggests that the elderly people of Winneba adopt good nutritional practices and this has significantly contributed to their health status. The finding validates the views of King and Burgess (1986) and the New Zealand Ministry of Health (2013) which found positive relationship between good nutrition and health.

KEY FINDING

The finding of this study shows that most elderly people of Ateitu and Winneba Zongo consumed nutritious breakfast, lunch and supper regularly at specified times for these meals. The finding also reveals that good nutritional practices such as eating balanced diet regularly, eating low fat diet, consuming plenty of vegetables and fruits are linked to good health (p < 0.05).

CONCLUSION

The evidence gathered from this study indicates that only a small percentage (27%) of the elderly were afflicted with nutrition related ailments such as diabetes, high blood pressure and constipation. This signifies that most of them adopt good nutritional practices. Evidently, there is a positive link between good nutritional practices and positive health status as well as longevity.

RECOMMENDATIONS

In view of the above findings, the study makes the following recommendations:

Caretaker family members and other social support networks should feed the elderly with nutritious and balanced three square meals regularly at the right time.

Caretaker family members should regularly feed the elderly with fresh fruits and vegetables, low fat and calorie diets, diets low in salt and sugar, calcium rich diets and food supplement in order to strengthen their immune system and maintaining good health.

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APPENDIX A: QUESTIONNAIRE FOR ELDERLY PEOPLE

SECTION A: Demographic data

Instruction: Please tick [√] as applicable per item.

- 1. Community: Ateitu [] Winneba Zongo []
2. Sex: Male [] Female []
3. Have you any of the following health conditions for the past 6 months?
(a) Diabetes mellitus: Yes [] No []
(b) Hypertension: Yes [] No []
(c) Constipation: Yes [] No []
(d) Loss of appetite: Yes [] No []
(e) Other health condition: Yes [] No []
(f) No health condition: Yes [] No []

SECTION B: Types of meals consumed for breakfast and lunch

Instruction: Please tick [√] or write as applicable per the Likert scale items

- 4. Do you usually eat breakfast Yes [] No []
5. If no why?.....
6. If yes, what food items do you normally eat?.....
7. Do you usually eat lunch? Yes [] No []
8. If Yes what food items do you take?.....
9. If no, please explain why?.....
10. Do you usually eat supper (evening meal)? Yes [] No []
11. If yes, what food items do you normally eat?.....
12. If no, please explain why?.....
13. At what time do you usually take:
a. Breakfast
b. Lunch
c. Supper.....

SECTION C: Nutritional practices in relation to health of the elderly

| Statement | Agree | Disagree |
|---|-------|----------|
| I eat a well-balanced diet regularly to maintain good health | | |
| I also eat adequate diet regularly to maintain good health | | |
| I eat diet that contain adequate high fibre regularly | | |
| I eat diet that contain low fat regularly for good health | | |
| I eat diet that contain plenty of vegetables and fruits regularly | | |
| My daily energy intake is equal to the energy expended | | |
| I take diet that reduces the risk of obesity | | |
| I take diet that reduces the risk of overweight | | |
| I take diet that reduces the risk of bone diseases | | |
| I take diets that makes me recover from illness & infections | | |
| Adequate nutritional standards are crucial to my well-being | | |