

ANALYZING THE INFLUENCE OF CULTURE AND INCOME ON THE NUTRITIONAL STATUS OF THE ELDERLY PEOPLE IN AKWA IBOM STATE

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ABSTRACT

*The study analyzed the influence of culture and income on the nutritional status of the elderly people in Akwa Ibom State. A correlational survey design will be used for this study. The study area is Akwa Ibom State. The population of the study comprised of 59,545 elderly men and women. Multi stage sampling technique was used to have a sample size of 400 elderly men and women in three Senatorial Districts in Akwa Ibom State. The measurement for data collection will be structured questionnaire tagged: "Demographic Variables, Cultural Factors and Elderly Nutritional Status Questionnaire (DVCFENSQ). The instrument passed through face validation by experts. The yielded reliability coefficient of .81 indicates that the internal consistency of the item is highly reliable for the study. The data generated for this study was analyzed using mean score rating and standard deviation. Hypotheses were tested using Pearson product moment correlation analysis at 0.05 level of significant. The study indicated that **cultural indices**, to a positive high extent influence the nutritional status of the elderly people in Akwa Ibom State and also showed that that income significantly influence the nutritional status of the elderly people in Akwa Ibom State. On this basis the study concluded that the combination of cultural restrictions and financial constraints may contribute to malnutrition or deficiencies. One of the recommendations made was that families should eat together especially with their elderly to improve their nutritional status for their good health.*

Keywords: Influence of Culture and Income, Nutritional Status, Elderly People and Akwa Ibom State

Introduction

World statistics show that the elderly represent the segment of the population that is growing most rapidly, and as a result it is likely to become the largest demographic group in many countries around the globe in the coming decades (Sharpe & Finke, 2003). Policy-makers are therefore concerned about the quality of life and needs for care of an ageing population which are influenced by many interrelated factors including genetic traits, health status, lifestyle choices, socio-demographic characteristics, economic conditions and the other characteristics of the environment in which the elderly live. Ageing is often accompanied by the occurrence of illness which may increase the risk of nutritional deficiency. Altered nutritional status is associated with the pathogenesis of a number of common diseases of the elderly. Thus, it would appear that nutritional modulation represents one possible approach to successful ageing. A complete assessment of nutritional status, according to Sahyoun & Basiotis (2001) includes determination

of dietary intake, anthropometric assessments, biochemical measurements, hematological measurements, immune function measurements, various functional assessment and clinical assessment.

Good nutrition plays a vital role in the wellbeing and health of elderly people. International demographic statistics shows that the world is experiencing an unprecedented phenomenon in terms of people forming the category of the elderly. The proportion of people aged over 60 is growing faster than any other age group in almost every country of the world, and it is projected to reach 1 billion by 2020 and almost 2 billion by 2050.

Apart from socio-economic factors, other factors like culture also plays important role in our society. According to Dean, Raats & Grunert (2009), culture encompasses the set of beliefs, moral values, traditions, language, and laws (or rules of behavior) held in common by a nation, a community, or other defined group of people. Culturally determined characteristics include: the language spoken at home; religious observances; customs (including marriage customs that often accompany religious and other beliefs); acceptable gender roles and occupations; dietary practices; intellectual, artistic, and leisure-time pursuits; and other aspects of behavior. In some cultural practices in Akwa Ibom state especially among the Ibibios and Annang, elderly people, pregnant women and young children are restricted from taking certain foods. The cultural practices of people in Akwa Ibom State do not only affect their health, but also affect all their affairs including diseases. Man living in an interactive society is affected by what happens in his environment and how he reacts to it. The determinants of nutritional status in a community cannot be completed unless the cultural practices of the people are considered. Many cultural practices in Akwa Ibom State have helped to perpetuate and increase the prevalence of certain diseases and health problems. However, not all cultural practices and beliefs in Akwa Ibom State are bad. Many have withstood centuries and actually promote health.

Rural elders in Akwa Ibom state have lower incomes and poor health than their urban and sub-urban counterparts. On the other hand, certain features of rural environment and characteristics of rural elders may protect against food insecurity (Quandt, 2001).

Statement of Problem

For the past two decades there have been inequalities/imbances between peoples' socio-economic status, income and cultural influence on individual's nutritional status especially of the ageing population. Increase in socio-economic status, income and reduced cultural influence constitute the nervous system of nutritional status among the elderly. There are some of the determinants of nutritional status of the elderly within and outside Akwa Ibom State. There is a belief that the elderly who are of high socio economic status are bound to attain high nutritional status with the help of the accumulated wealth during the earlier stages of life.

Research Objective

1. To examine the level of influence of culture on the nutritional status of the elderly people in Akwa Ibom State.
2. To find out the level of the influence of income on the nutritional status of the elderly people in Akwa Ibom State.

Research Question

1. What are the cultural influences on the nutritional status of the elderly people in Akwa Ibom State?
2. What are the influences of income on the nutritional status of the elderly people in Akwa Ibom State?

Research Hypothesis

H₀₁ There is no significant difference in the mean rating of the respondents with low and high cultural indices on the nutritional status of the elderly people in Akwa Ibom State.

H₀₂ There is no significant difference in the mean rating of the respondents with low and high income on the nutritional status of the elderly people in Akwa Ibom State

CONCEPTUAL REVIEW

Concept of Nutrition

Human nutrition deals with the provision of essential nutrients in foods that are necessary to support human life and health. Generally, people can survive up to 40 days without food, a period largely dependent on the amount of water consumed, stored body fat, muscle mass and genetic factors (Lieberson, 2004). Poor nutrition is a chronic problem often linked to poverty, a poor understanding of nutrition and dietary practices, and deficient sanitation and food security. Malnutrition and its consequences are large contributors to deaths and disabilities worldwide. Good nutrition helps elderly people grow physically, promotes human biological development and helps in the eradication of poverty (Lean, Michael, 2015).

The human body contains chemical compounds, such as water, carbohydrates (sugar, starch, and fiber), amino acids (in proteins), fatty acids (in lipids), and nucleic acids (DNA and RNA). These compounds consist of elements such as carbon, hydrogen, oxygen, nitrogen, phosphorus, calcium, iron, zinc, magnesium, manganese, and so on. All the chemical compounds and elements contained in the human body occur in various forms and combinations such as hormones, vitamins, phospholipids and hydroxyapatite. These compounds may be found in the human body as well as in the various types of organisms that humans consume (WHO, 2004). The seven major classes of nutrients are carbohydrates, fats, fiber, minerals, proteins, vitamins, and water. These nutrient classes are categorized as either macronutrients or micronutrients (needed in small quantities). The macronutrients are carbohydrates, fats, fiber, proteins, and water. The micronutrients are minerals and vitamins. The combination of all this nutrients in the right proportion makes a healthy living for older adults

Nutrition is an important element of health in the older population and it affects the aging process. The prevalence of malnutrition among older adults is overwhelming. Factors such as age, gender, location, income, occupation, marital status which are fundamental to demography, can contribute in one form or the other to the quality of life and nutritional status of the elderly. Ismail's (2004) work on nutritional assessment in Africa, observe that some older people in developing countries enter old age after a lifetime of poverty and deprivation, a diet that is inadequate in quality and quantity and a lifetime of disease and poor access to health care. Nigeria, like other countries in Africa with a similar socioeconomic condition, is not an exception to the poor health of the elderly. Despite this poor situation the statistical projection in Nigeria between 1990 and year 2025 showed an increase in the numbers of elderly people (National Population Commission, 2000). By 2025 there will be an increase of over 80%, with more women at a ratio of 1 to 1.2. Furthermore it was clear from the projection that the elderly population in Nigeria would be double by 2015. In this transition there should be adequate nutrition, healthy ageing and proper functional ability to preserve a minimum quality of life.

Types of Culture

Culture of Akwa Ibom State

Akwa Ibom has a plethora of cultural displays such as Ekpo masquerade, Ekpe, Uyai-Iban, Ebre, Eka-Ekoon, etc. There are many cultural festivities dotted all over, and the people are well versed with their culture. Some of these cultural heritages are displayed during burial, coronation, marriage, status initiations, land holding, harvesting, etc. The mode of dressing of the people come from the traditional attire of an Ibibio man which is *uwawang ofongisin*, a loins

cloth with *ofonidem*, *ubong*, traditional or chieftaincy shirt, and *itam*, hat and *esang*, a staff to complement.

A. AKWA IBOM STATE

Ibibio culture



Akwa Ibom cultural dancer

Efik culture

Face and body painting

The face and body painting with *Ndom* among the Efik people symbolizes purity and love. In the old days it was a form of self-expression where personal identities or pattern were developed and recorded. These patterns came from various families and have developed into family identities.



Abang dance

The Efik people from the Cross River State in Nigeria perform this "Abang" dance. The word "Abang" means, "pot" symbolizing fertility. Originated from the worshiping of the water goddess (*Ndem*), this dance is also a tribute and celebration of respect and gratitude to the earth

goddess Abasi Isong, who is credited for the abundance resources, fertile land for growing crops and clay for pottery.



Masquerades

Masquerades are one of the oldest traditional and cultural events through out Africa . It is accompanied with chant, songs and dances. This important occasion is very popular among the Efik people in Cross River State as its' roots are deep in the traditional religion. There are different kinds of Masquerades for various events like the coronation of the Obong (king of Calabar), burial, Chieftency and other seasonal celebrations and ceremonies.

Cultural Influence and Nutritional Status of the Elderly

Culture is the way of life at a particular time, though dynamic it has a very strong element of consistency. It involves practice and shared values that are considered the norms among a group of people at that time. These values and practice are learnt through social interactions, and distinguish the group from others. Culture is the single most powerful influence on how we perceive the world and everything in it. Anyone who does not share in our culture will always appear odd, (Drewnowsk 2010). Every society has a culture that carries it social rules. These rules are an unwritten code of conduct which is learnt continuously throughout life. Breaking these rules will normally result in social rejection and isolation. Culture also sets standards for the society, Members of a society will strive to live within the cultural rules and aspire to the cultural standards of their society. Those who are able to quickly adapt and embrace the culture of the society are considered mature.

Culture is the characteristic and knowledge of a particular group of people, defined by everything from language, religion, cuisine, social habit, music, and Arts. It is a shared pattern of behaviours and interactions, cognitive constructs and understanding that are learned by socialization. Thus it can be seen as the growth of a group identity fostered by social patterns unique to the group. The word “culture” is derived from a Latin word “Colere” meaning to tend to the earth and grow, or cultivation and nature. It shares its etymology with a number of other words related to actively fostering growth, (Orimo, 2006). Culture can be defined as the cultivated behaviour that is socially transmitted. It involves the accumulation of knowledge, beliefs, attitudes, experiences, religions, concepts of the universe, values, meanings, roles, notions of time, relations, material possession and objects acquired and a way of life of a group of people throughout the generations. This way of life is accepted by all the individuals in the group without thinking about it and is passed from one generation to another through communication and imitation. It can therefore be considered as a group’s traditional ideas and values that are attached and followed by all the generations.

In addition to ageing and socio-economic factors, the food choices of the elderly are influenced by their traditions, skills, values, social resources (family and friends), psychological state and physical environment. It is well known that cultural factors interact with the eating behavior of the elderly, becoming significant determinants of their food intake. Many individuals living alone abandon cooking their ideal foods because there is too much food to prepare, eat and store. Nevertheless, preparation time is a less important attribute of foods for a healthy and physically active elderly than for the rest of the adult population. Women are better able to deal with widowhood largely because of their perceived greater domestic experience. However, Deeming (2010) documented that women living alone were more likely to simplify cooking and eating and thus being at risk of poor nutrition intakes.

The culture of an individual affects the kind of food he consumes, certain cultures such as in Akwa Ibom state restricts the elderly from taking certain foods as this may affect their health. Drewnowsk (2010) stated that better nutrition conditions of the elderly are attributable to the traditional values and culture of some people. Culture here refers to the total way of life of the people living in a given geographical area. The way an elderly widow lives is quite different from that of the male counterpart especially in the area of cooking. Lack of cooking skills can impact negatively on the choice of healthy diets of the elderly living alone especially when the surviving partner is male. Hughes et al, (2004) tested directly the proposition that cooking skills influenced diet and health status, albeit on a small sample of 39 men. They found that men with good cooking skills reported better physical health and consumed more vegetables than men with poorer cooking skills.

Widowhood and bereavement have been recognized to have potentially negative effect on food intake and compromise nutrition and health (Hughes et. al. 2004). The experience of widowhood can especially push men to rely on luncheon clubs, ready meals, and takeaway foods (Bennett et. al, 2003). However, even if in terms of quantity, the elderly can satisfy their dietary needs in such ways; this does not mean that they are eating healthy foods. For example, Dean et al, (2009) states that socialization and companionship offered during congregate meals was more important than liking food or eating healthy. Most free-living elderly people do not live in isolation and can count on other individuals within or outside of their households. The social network surrounding the elderly households can positively influence their dietary choices providing them support and motivation in relation to food preparation and consumption. Having help from friends and neighbors rather than family can increase the variety of older people's diet as highlighted in a large European Study (Dean et al, 2009).

Income and Nutritional Status of the Elderly

Income levels are strongly associated with dietary intake of the elderly in any geographical setting. The amount of money an individual earn correlates with his nutritional status. This means that the socio-economic status and cultural influences affects the quality, quantity and the general well-being of the ageing population. The social factors which affect food choice and eating patterns and thus nutritional status include: budgeting skills, cultural and religious beliefs, education, nutritional knowledge, cooking facilities, food preference, time, depression and bereavement. These are relevant to older people and have to be considered when devising interventions health problem. The causes in older people are often multi-factorial and may be as a result of biological, psychological or social factors. A number of nutrients have been linked with depression including vitamin B 12. In addition, poor nutritional status has been cited as a cause of depression (Christensen, Dob hammer, Rau et-al. 2009.).

Income levels are strongly associated with other demographic characteristics. For example, higher levels of nutritional adequacy are associated with higher levels of income among single elderly women and for those living in rural areas, economic resources are more important than knowledge in attaining adequate nutrition (Sharpe et al. 2003). Developing a

system of six equations, (one for food expenditure and the remaining five for nutrients demand) they observed that income was found to be significant determinant of total food expenditure and the latter was found to be significant in all nutrient equations, i.e. the higher the food expenditure, the higher the food energy and the values of calcium, iron, magnesium and vitamin B6 in their diet. House ownership and the use of food stamps were also found to have a positive impact on more nutritious foods because indirectly they increased the available income of the elderly households.

According to Lantz (2001), the elderly population is one of the most vulnerable populations in terms of nutrition and health. One of the most related factors to poor nutrition in the elderly is low socioeconomic status. Those with the poorest health status are individuals with high poverty rates. Food insecurity, limited access to medical care, and decreased physical activity contribute to the low health status in the elderly. Those with low socioeconomic status put this vulnerable population at even higher risk of being either over or under nourished.

There has been a great deal of research on the relationship between income and health of the elderly. This relationship, according to Jensen and Richter (2001), is of interest for several reasons; first of all, it is pertinent to note that there is increasing recognition that in assessing living standards and well-being in a society, and its distribution among members, measures such as health may represent more appropriate indicators than income or expenditure. Secondly, understanding the relationship between income and health is important because it can shed light on what may be a self-reinforcing cycle of poverty; low income leads to worse health, which in turn reduces earnings capacity, (Meara, 2001).

Much of the literature has focused on adults (especially those of working- age), though there has recently been increasing attention paid to children (Case et al. 2002) and the elderly. For the elderly, the health income relationship is particularly important because of increasing life expectancies, increasing fragility of many pension and social security systems throughout the world, and declines in extended families and traditional systems of support for the elderly, (Jensen and Richter 2001).

But the most interesting questions in the study of the relationship between health and income, and the biggest challenges, involve trying to decompose the health differentials into the root causes. As others have noted, there are numerous channels through which the two could be linked; first, income could affect health through the purchase of inputs that produce health (medical services, nutrition, safe and clean living environment, for example).

Kabir et al (2003) reported that population aging in any country carries great social, economic and public health implications, which include larger expenditures on pensions and health care, need for social security reforms, shrinking of the workforce and hence shortage of active persons that are able to support dependent older adults. The impact of socio-economic factors on nutrition has been investigated in many older adult populations all over the world. According to recent studies conducted across various nations and populations, there seems to be a consistent inverse relationship between socio-economic status and mortality, morbidity and disability (Kabir et. al., 2003; Liang, Von dem Knesebeck, Luschen; Zimmer & Amornsirisomboon, 2001). While such an inverse association is well-documented, its mechanism of action is not quite clear, especially among older adults. A recent explanatory paradigm proposed by Cockerham, & Siegrist (2003) states that social class health gradients can result from an artifact or measurement error, social selection, differential access to material goods, and class differences in health behavior. It is important therefore to distinguish two main mediators between socio-economic status and health indicators. The first one is economic in nature and comprises access to better living and working conditions (Marmot, Theorell, & Siegrist, 2002) as well as high quality health care, both of which lead to greater wellbeing. Other mediating factors are more of a psychosocial nature whereby higher socioeconomic status may lead to a

greater understanding of behaviors that promote better health, including diet, physical exercise and avoidance of risky behaviors such as smoking and use of alcohol (Lynch et al., 2006). In addition, other psychosocial factors include levels of stress, social support, self-efficacy and likelihood to seek medical attention (Zimmer, Chayovan, Lin, & Natividad, 2003). Consequently, there is a need to assess whether socio-economic status is directly affecting the functional status of older adult populations rather than working through other intermediary health related and socio-demographic factors.

The poor may also have more stress due to, say, greater economic volatility and uncertainty, and this greater stress could lead to worse health directly or through changes in health-related behaviors. It is also quite possible that causality runs in the opposite direction, where health affects earnings capacity and thus SES. Finally, it could also be that there are factors which cause both low SES and poor health (for example, rates of time preference or attitudes towards risk), (Ogunmefun, 2008).

Most elderly people (60+) are prone to the consumption of fatty and sugary foods because they are most affordable and tasty (Canon, 2001). They are also vulnerable to abuse and neglect from family members and caregivers (Ogunmefun and Schatz, 2009). Income is another major hindrance for the elderly people to eat well and have normal nutrition (Bohmanet al., 2007; Ferreira, 2004). Therefore, the great role of nutrition in the maintenance of the health and functional rehabilitation of the elderly has awakened public interest and research. While only little information is available about them in literature in Nigeria (Ojofeitimi et al, 2002).

Methodology

A correlational survey design will be used for this study. The study area is Akwa Ibom State. The population of the study comprised of 59,545 elderly men and women. Multi stage sampling technique was used to have a sample size of 400 elderly men and women in the three Senatorial District in Akwa Ibom State. The measurement for data collection will be structured questionnaire tagged: “Demographic Variables, Cultural Factors and Elderly Nutritional Status Questionnaire (DVCFENSQ). The instrument passed through face validation by experts. The yielded reliability coefficient of .81 indicates that the internal consistency of the item is highly reliable for the study. The data generated for this study was analyzed using mean score rating and standard deviation. Hypotheses were tested using Pearson product moment correlation analysis at 0.05 level of significant.

Results and Discussion

Research Question 1

To what extent do cultural indices influence the nutritional status of the elderly people in Akwa Ibom State?

Table 1: Correlation analysis of cultural indices influence on the nutritional status of the elderly people in Akwa Ibom State

Variables	XY_r
Culture	
	.74
nutritional status	

Table 1 presents a correlation coefficient of .74 which is positive and within .70 to 1.00 correlation coefficient of Creswel (2008), showing moderately high relationship between the two variables. This indicates that **cultural indices** to a positive, high extent influence the nutritional status of the elderly people in Akwa Ibom State.

Research Question 2

To what extent does income influence the nutritional status of the elderly people in Akwa Ibom State?

Table 2: Correlation analysis of income influence on the nutritional status of the elderly people in Akwa Ibom State

Variables	XY_r
Income	
	.84
nutritional status	

Table 2 presents a correlation coefficient of .84 which is positive and within .70 to 1.00 correlation coefficient of Creswel (2008), showing moderately high relationship between the two variables. This indicates that **income** to a positive, high extent influence the nutritional status of the elderly people in Akwa Ibom State.

Hypothesis Testing

Hypothesis 1

Cultural indices significantly influence the nutritional status of the elderly people in Akwa Ibom State.

Table 3: Correlation Matrix of cultural indices influence on the nutritional status of the elderly people in Akwa Ibom State

		culture	nutritional status
Culture	Pearson Correlation	1	.735 [*]
	Sig. (2-tailed)		.009
	N	30	30
Nutritional status	Pearson Correlation	.735 [*]	1
	Sig. (2-tailed)	.009	
	N	30	30

*. Correlation is significant at the 0.05 level (2-tailed).

The Table also shows a p-value of .01 which is less than the alpha value of .05. This means that cultural indices significantly influence the nutritional status of the elderly people in Akwa Ibom State. Therefore, the hypothesis that cultural indices significantly influence the nutritional status of the elderly people in Akwa Ibom State was upheld. This is in line with the assertion of Drewnowsk (2010) that better nutrition conditions of the elderly are attributable to the traditional values and culture of some people.

Hypothesis 2

Income does not significantly influence the nutritional status of the elderly people in Akwa Ibom State.

Table 4: Correlation Matrix of income influence on the nutritional status of the elderly people in Akwa Ibom State

		Income	nutritional status
Income	Pearson Correlation	1	.837 [*]
	Sig. (2-tailed)		.028
	N	30	30
nutritional status	Pearson Correlation	.837 [*]	1
	Sig. (2-tailed)	.028	
	N	30	30

*. Correlation is significant at the 0.05 level (2-tailed).

The Table also shows a p-value of .03 which is less than the alpha value of .05. This means that income significantly influence the nutritional status of the elderly people in Akwa Ibom State. Therefore, the hypothesis that income does not significantly influence the nutritional status of the elderly people in Akwa Ibom State was rejected. This result is in agreement with the observation of Ferreira (2004) and Bohman et al. (2007) that income is another major hindrance for the elderly people to eat well and have normal nutrition.

Conclusion

In analyzing the influence of culture and income on the nutritional status of elderly people in Akwa Ibom State, it is evident that traditional dietary practices play a significant role in food choices. Cultural beliefs and preferences shape meal patterns, sometimes limiting dietary diversity. Additionally, income levels directly impact access to nutritious foods, with lower-income elderly individuals often facing food insecurity. The combination of cultural restrictions and financial constraints may contribute to malnutrition or deficiencies. However, those with better income sources can afford a more balanced diet. Government and community interventions are essential to improve elderly nutrition through financial support and health education. Encouraging culturally acceptable yet nutritious meal adaptations is crucial. Overall, both culture and income are strong determinants of the elderly's nutritional well-being in Akwa Ibom State.

Recommendations

1. Families should eat together especially with their elderly to improve their nutritional status for their good health.
2. Communities should amend their marital requirement to encourage both mature male and female marry easily to enhance their nutritional status and good health.

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