A COMMUNITY BASED INTERVENTIONAL STUDY ON HEALTH STATUS OF AGED PEOPLE IN A SEMI-URBAN COMMUNITY IN SOUTH-SOUTH NIGERIA

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ABSTRACT

This study was undertaken to investigate the health status of aged people living in Ekpoma. In this study, a descriptive cross-sectional survey was conducted in adults aged 50 years and above. Data were collected by direct interview and questionnaire. Health screening activities include history taking, physical examination, blood pressure measurement and fasting blood sugar testing. The mean age of the participants was 67.55 ± 16.61 years with a BMI of 27.12 ± 5.11 kg/m^2. This was observed to be higher in males. In general, 11.12% and 88.02% of the study population had a good and fair health status respectively. The reported medical conditions were hypertension (35.8%), type 2 diabetes mellitus (15.0%), hypertensive-diabetic co-morbidities (14.0%), generalized body pain (54.5%) and febrile conditions (40.5%). Comparatively, medical conditions such as hypertension, generalized body pain, respiratory and ocular problems affected the males more than females, while the reverse was the case for the other health conditions reported. Based on the result, one can therefore conclude that the aged population is vulnerable to adverse health conditions and as such require continued health surveillance and adequate precautionary measures.

**Keywords*: Health status, Medical condition, Aged people, Surveillance.*

INTRODUCTION

The proportion of individuals suffering from many chronic diseases has long been reported to increase with age (martin and Coleman, 2007; Hawthorne et al., 1974). Similarly, older people often have multiple concurrent illnesses (Hajjar et al., 2007; Masoodi, 2008). However, the findings from the National Health Interview Survey (NHIS 2002-2005), National Health and Nutrition Examination Survey (NHANES 1999 – 2004) and Compressed Mortality File (CMF 2003) report in Pfizer Fact (2007), observed that there was an increase in the aged population. This observation reflects an improvement in human health condition which may be due to advancement in education, health technology, better hygiene and dieting.

The Global Ministerial Forum on Research for Health in Bamako, Mali in 2008 affirmed the importance of health research for Africa, particularly in non-communicable diseases (Stuckler et al., 2008). Although, developments over the past decade have raised the profile of health research in Africa (McCarthy et al., 2010), the health status of the elderly has received little attention in Nigeria compared with the adolescent, pregnant women and young adult population. Worrisome is the available fact that the elderly population in Nigeria will be doubled by 2015 (ACC/SCN, 1999). Yet, health surveillance in the elderly has received little or no attention.

Hence, the need to conduct an evaluation of the health status of the elderly in Ekpoma, a semi-urban community situated in Edo State, Nigeria.

MATERIALS AND METHODS

Study Area: The study was conducted in Ekpoma Esan West Local Government Area of Edo State, Nigeria. The area lies between latitude 60 40^0 N 60 45^0 N and longitude 60 05^0 E 60 10^0 E (Obabori et al., 2006).

Of interest is the aged population living in Ekpoma, the administrative headquarter of Esan West Local Government Area of Edo State, Nigeria. Since it's inception as the Local Government Headquarter and host to the State owned Ambrose Alli University, the town has grown into an urban center with a

significant rise in population (Aziegbe, 2006). With only 8.62Km^2 of the total 62Km^2 of land used in 1979 (Ufuah 1993), physical growth and expansion have increased to 29.28 Km^2 by 2003 (Aziegbe, 2006). According to the 2006 census figure, the population in Ekpoma is approximately 125,842 (63,785 males and 62,057 females) (NPC, 2006).

Sampling method: The target population consists of 300 aged adults, 50 years and above. They were enrolled in the study after clustering of a heterogeneous population of church attendants following repeated advertisement of health screening exercise.

Study duration: The study was conducted between August and October, 2012.

Inclusion criteria: Participants must be above 50 years and resident in the community for at least 50 years.

Exclusion criteria: Participants who do not meet the inclusion criteria were excluded.

Ethical consideration: The study was part of a community based development service by the principal investigator. Before enrolment for the study, informed consent was obtained. The principle of the declaration of Helsinki on the right of the subject was employed. Approval was obtained from the leaders (Pastors, Deacons and Elders) of the local assemblies.

Method of data collection: Data was obtained using questionnaire and direct interviewer method. The instruments were translated into the local language and pilot tested before the actual study. Where the respondent is not fluent in English, the translated version was employed with the help of Esan speaking interpreters. The principal investigator pre-checked all data to ensure quality control.

The questionnaire used was designed to elicit information on socio-demographic and health status of the study population. Screening activities include history taking, physical examination (arranged into scale ranging from high to low), blood pressure recording, weight and height measurement and fasting blood sugar screening. This was conducted using standard procedure.

Data collection: The data collection was performed in the early hours of the day between 7:30am and 10.00am. The history taking and physical

examination were performed by a team of doctors in the local assembly.

Sample collection and analysis: Fasting blood sugar was determined using Accu-chek^R glucometer and test strip (Roche Diagnostics, Germany).

Data analysis: Data collected was analyzed for descriptive statistics using SPSS version 10 statistical soft ware package.

RESULTS

Table 1 shows the demographic characteristics of the population. The mean age was 67.55±16.61 years. Those within 61 and 70 years (39.0%) were most represented. Eighty percent (80.0%) of the sampled population had one form of occupation or the other. The self-employed were most highly represented. Interestingly, no female engaged in smoking habit of any kind. However, 24.0% of sampled male were reported to have smoking habits graded as low (21.0%), moderate (16.0%) and high (11.0%). The alcohol consumption status of the population revealed that 88.5% were currently consuming varying concentration of alcohol. However, the male population was more represented than females according to the grading into low, moderate and high consumption level (Table 1).

Table 2 reveals the health status of the sampled aged population. 23.5% (18% male and 29% female) of the participants were classified as having a good general health status. The male participants (29.0%) were more ably represented with poor health condition when compared to females (14.0%). The mean BMI was 27.12±5.11 kg/m^2. While none of the participants were under-weight, majority (43.0%) were within the normal BMI range (< 24.5 kg/m^2). However, more males were overweight when compared to females (57.0% versus 16.0%). The female population was more obese than males (22.0% versus 19.0%). Similarly, fever was noted in 40.5% of the elderly population and was more frequent in females (48.0%) when compared to males (33.0%). Hypertension was more pronounced among the male population (58.0%) when compared to females (35.0%). However, this was not the case with diabetes mellitus. This was more frequent in females (19.0%) when compared to males (13.0%). Amazingly, 14.0% (11.0% of males and 17.0% of females) of the population were diagnosed to be diabetic-hypertensive.

Table 3 indicates other health complaints reported by the sampled elderly population. Generalized body

pain was predominantly reported by 51.0% of the sampled elderly population. This was observed to be more frequent in males (59.0%) when compared to females (53.0%). Similarly, respiratory and ocular problems were more frequent in males (13.0% and 37.0% respectively) when compared to females (9.0% and 11.0% respectively). Additionally, gastrointestinal and endocrine problems were more frequently reported by females (51.0% and 62.0% respectively) when compared to males (22.0% and 13.0% respectively).

Table 1: Demographic characteristics of the population

Demographic characters	Variables	Male (%)	Female (%)	Total (%)
Age	50 – 60	31	44	37.5
	61 – 70	37	41	39
(67.55±16.61 years)	71 – 80	21	7	14
	81 +	11	8	9.5
Occupation	Employed	35	16	25.5
	Self employed	44	66	55
80.5%	Unemployed	21	18	19.5
Smoking status	High	11	0	5.5
	Moderate	16	0	8
24%	Low	21	0	10.5
Alcohol drinking status	High	6	2	4
	Moderate	30	7	18.5
80.5%	Low	41	13	27

Table 2: Health status of the population

Health status	Variables	Male (%)	Female (%)	Total (%)
General health status	Good	18	29	23.5
(M=18%, F=29%, B=23.5%)	Fair	53	57	55.0
	Poor	29	14	21.5
BMI	Normal	24	62	43
	Overweight	57	16	36
(27.12±5.11 Kg/M^2)	Obese	19	22	20
Fever	Severe	4	4	4.0
	Moderate	29	44	36.5
(M=33%, F=48%, B=40.5%)	Normal	67	52	59.5
Hypertension	Severe	12	21	16.5
(M=58%, F=35%, B=46.5%)	Moderate	46	14	30.0
	Normal	42	65	53.5
Diabetes	Severe	7	13	10.0
(M=13%, F=19%, B=16%)	Moderate	6	6	6.0
	Normal	87	81	84.0
Hypertension and diabetes	Severe	4	11	7.5
(M=11%, F=17%, B=14%)	Moderate	7	6	6.5
	Normal	89	83	86

Key: M= male, F= female, B= both sexes

DISCUSSION

The findings of the present study indicate that the health status of the elderly in the study area is poor despite the observed development in infrastructure and health care delivery system. This observation of health status in the elderly is in keeping with the fact that chronic diseases increases with age and that older people often have multiple concurrent illnesses (Hawthorne et al., 1974; Hajjar et al., 2007; Masoodi,

2008). In addition, old age has been reported to be associated with health problems and decreasing functional capacity which may affect the sense of well-being of the individual (Gureje et al., 2008). Hence, the goal of health for the elderly may not be that of freedom from diseases but the possibility of having a good life despite illness and decreasing capacity (Lawton, 1991; Sarvimaki and Stenbock-Hult, 2000).

Although feelings about life and health status are subjective, improvement in elderly health have been reported to be accelerating (Costa, 2005; Freeman, et al., 2002). This was said to be one of the major achievements of man kind in the modern era (Hornchi and Robire, 2005) and was hinged on several factors such as decline in fertility,

improvement in public health, medical technology, reduced infectious disease rates, reduced occupational stress, improved nutritional intake, life style changes, rising income and rising education (Costa, 2005). These may explain the increasing population of aged people in developing countries and in Nigeria in particular. In line with this assertion, rapid declines in fertility and mortality rates along with substantial improvement in health care system have resulted in the growth of older populations around the world, particularly in Europe, United States and parts of Asia (Giang and Wade, 2009). Ageing is therefore becoming a feature of human population worldwide because of general improvement in sanitation and elimination of life threatening diseases.

Table 3: Other health complaints reported by the population

Health complaints	Variables	Male (%)	Female (%)	Total (%)
General body pain	Severe	13	10	11.5
	Moderate	55	31	43.0
(M=68%, F=41%, B=54.5%)	Normal	32	59	45.5
Respiratory problems	Severe	6	3	4.5
(M=13%, F=9%, B=11%)	Moderate	7	6	6.5
	Normal	87	91	89.0
Ocular problems	Severe	26	2	14.0
(M=37%, F=11%, B=24%)	Moderate	11	9	10.0
	Normal	63	89	76.0
Gastrointestinal problems	Severe	11	19	15.0
(M=22%, F=51%, B=36.5%)	Moderate	11	32	21.5
	Normal	78	49	63.5
Endocrine problems	Severe	3	20	11.5
(M=13%, F=62%, B=37.5%)	Moderate	10	42	26.0
	Normal	87	38	62.5

Key: M= male, F= female, B= both sexes

However, from the present study, it was observed that an aged population is an ill population considering the observed prevalence of chronic diseases and the co-existence of metabolic syndrome. In this regard, the ageing population presents a challenge to all regions of the world. This may be the reason why the National and International Organizations expressed concern on the elderly worldwide and suggested measures for improving their health status and overall well-being within the framework of sustainable environment and development (WHO, 2011; Ajiboye, 2011). According to Ajiboye (2011), in spite of the significance of the health and well-being of older persons in Nigeria, they have continued to experience

deterioration and this may not be unconnected with the general lack of affordable housing, substandard conditions of living and shortage or absence of social services.

The present findings suggest also that except for hypertension, generalized body pain, respiratory and ocular problems, females were more affected by the other conditions reported. This observation may be connected to the changes in female hormonal levels. This suggestion is based on the relationship between menopause and hormonal changes (Guyton and Hall, 2006) and menopause and changes in quality of Life (Matthews and Bromberger, 2005). Moreover, it has been reported that more than 80% of women

experience physical or psychological symptoms in the year approaching menopause with various distress, leading to decrease in quality of life (Whelan et al., 2005). Similarly, lack of estrogen in woman which is a factor of menopause has been linked to decrease physical and mental well being and has been said to be the reason why postmenopausal women are considered a high risk population (Fuh et al., 2003; Sulak, 1996). Hence, human care should not only be about living long lives but also about living healthy lives free of disability, disease, and unpleasant symptoms that prevent the enjoyment of and involvement in meaningful relationships, work, and recreation.

Conclusively, this study has further shown that ageing is associated with a period of ill health; hence there is need for support and continued health surveillance. Unfortunately, the Government is not doing enough for the elderly living in Nigeria. Hence, the need to draw the attention of the Governments and non-governmental agencies to the health need of the elderly population in Nigeria.

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AUTHOR'S CONTRIBUTION

The author is responsible for the design and development of the conceptual frame work of the study. Data analysis and manuscript preparation was done by the author.