ASSESSMENT OF KNOWLEDGE AND PRACTICE OF DETERMINANTS OF HEALTHY LIFESTYLE AMONG GERIATRIC POPULATION IN GWAGWALADAAREA COUNCIL OF FCT, ABUJA

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ABSTRACT
Healthy lifestyle in geriatric (elderly) is a lifelong process of optimizing opportunities for improving and preserving health as knowledge and practice of predictors of healthy lifestyle play essential roles in the lives of the elderly. This cross-sectional descriptive study was carried out to assess the Knowledge and Practice of determinants of healthy lifestyle among geriatric population in Gwagwalada area council, the Federal Capital Territory, Abuja, Nigeria. A total of 384 elderly people ranging from 65 years and above were selected using random sampling technique. The data were collected using structured self-administered questionnaire and were analyzed using statistical package for social sciences (SPSS, Version 20). Out of 384 participants, 55.5% of them had knowledge, while 44.7% practice determinants of healthy lifestyle and 50.1% of the participants in the council has positive inclination towards the predictors (determinants) of healthy lifestyle. The result revealed differences in knowledge and practice among the geriatric age groups studied. The data analysis showed that there were statistical significance association between age, education, occupation and knowledge (P<0.05) as well, medical check-ups, education, gender and practice (P<0.05). It is pertinent to create more awareness among the respondents in the locality and sensitize even the youths. The literacy of the youths plays more roles in their old age, hence, the need not to neglect the education of the youths of the society.

INTRODUCTION

Categorically, old, elderly, aged and aging are neither straightforward nor universally applicable. Old is an individual, culture, country and gender-specific term [1]. A chronological definition of elderly or aged is commonly used, hence, geriatric (elderly) is an adult aged 65 years and above [1 - 4] and Knowledge, attitude and practice play essential roles in their individual lives [5]. With aging, comes a special set of life circumstances, bodies change and become more susceptible to health problems. The American Geriatric Society's Health in Aging Foundation in 2008 estimated that over half of older adults have at least three medical problems which may include heart disease, arthritis, dementia, diabetes, others are cancer, cataracts, falls, hearing loss, incontinence, osteoporosis, stroke and insomnia. As a result, application of appropriate approaches to strengthen the positive factors and adjust the negative factors related to the feelings of lifestyle should always be the focus [6]. Determinants of healthy lifestyle among the elderly has been a pressing public health issue among the public health practitioners and medical field in general and it has been suggested that stimulation of physical activity and adequate nutrition are crucial domain for a well-defined public health policy directed towards healthy aging [7].

Today people are surviving longer and population aging has become universal as it affects, almost every part of the globe. It might be due to this reason that the 21st century is also sometimes referred to as the century of senior citizens, Nigeria is not an exception, hence, it is also witnessing the expansion of life span and enhancement in population of elderly as a result [8]. Knowledge can influence health related behaviours and practices. Therefore, healthy lifestyle in geriatric (elderly) is described as a lifelong process of optimizing opportunities for improving and preserving health, physical, social, and mental wellness, independence, quality of life and enhancing successful life-course transitions. Getting older is a process that everything that has life must undergo, however, there are some factors that can play a role in making aging process interesting. The sustainable development goal highlighted the key factors that can contribute to aging well as diet and lifestyle [9].

According to the United Nations, an advanced aged society, is one where the percentage of the population over 65 years is higher than 7% [10]. Economically, less developed regions have been slower to adopt aging as a major public concern, despite the fact that older populations in many developing countries are growing more rapidly than are those of industrialized nations [8]. Malnutrition among the aged is caused by a number of factors such as condition of the family, illiteracy, poverty, ignorance, superstition, lack of food, frequent infections [11]. Moreover, diet and lifestyle over a whole life influence morbidity and mortality due

to the cumulative effect of adverse factors, it is particularly important for aged people to adopt diet and lifestyle habits that minimize the risk of morbidity and maximize the prospects for healthy aging [12]. It is in line with the aforementioned factors that in a study conducted by Victor and Helena [13], 'Psychological health challenges of the elderly in Nigeria, concluded that four primary factors affect psychosocial health status of elderly Nigerians'. They are; changes in family dynamics, increased demand for health care services, increased economic stress and decreased functional independence. While, Olumide [14] posited that socio-demographic factors such as age, household size, household structure and regional locations accounted for significant economic capacity differences among older groups in urban settings. More so, Perpetua and Pelser [15] pointed out that Nigeria has no functional national policy on the care and welfare of older persons, saying that changing demographics in Nigeria, in addition to the breakdown of the family structure and absence of social security system present unique challenges to the elderly in the country, and that the introduction of neoliberal economic policies created a vacuum in policy formulation and execution in which the older persons are not provided for within the social safety nets in the neoliberal state.

Poverty remains a major challenge in Nigeria, elderly persons, who have retired from the economic productive phase are most vulnerable to experiencing economic hardship and are usually faced to cope with the paradox of dwindling financial resources, increased health challenges and geriatric rise in medical expenses, Victor and Helena [13] and Adams *et al*. [9] reported a variation in knowledge and practice among various age groups towards predictors of healthy lifestyle. According to a study, at the second security summit held in Madrid in 2002, it was stipulated that governments should pay attention to known risks of unhealthy diet, physical activity and other inappropriate behaviours such as smoking or excessive drinking of alcohol in health promotion programs, health education and preventions [16]. Moreover, healthy living adds to the importance of the phenomenon of aging and the prevention of the associated problems among the aged, and the lack of policy makers and planners on the physical, psychosocial, social and economic well-being of the aged is a disadvantage on Africans. Hence reliable data are needed to inform policy and budget planners, health and social welfare service providers, furthermore, there is paucity of studies on knowledge and practice of the elderly in Nigeria, especially in Gwagwalada area council. There has so far been limited research on explaining aging issues and their impact on the healthy lifestyle of the elderly in the area, who are among the people that are most overwhelmed by poverty,

depression, loneliness and most importantly no pension. Hence, this study to evaluate the knowledge and practice of the determinants of healthy lifestyle among geriatric (elderly) in the council in order to create more awareness, close the gap as well as help them manage their lives effectively.

## MATERIALS AND METHODS

Study design
This is a descriptive cross-sectional study of 384 elders, aged 65 years and above in Gwagwalada area council, FCT, Abuja.

Study area
Gwagwalada area council is one of the six area councils in the administration of the Federal Capital Territory (FCT). The council is located between 1 attitude 805515211N, 90113411N and longitude 605113611E, 701113511E [18, 19]. It is strategically located close to the heartland of the FCT, within a very fertile agricultural land. It shares boundary with Kwali Area council to the south, Kuje area council to the east, Suleja to North and border town of Izom in the North eastern part. The settlements found within the study area are Gwagwalada town, Kutunku, Dobi, Tunga Gayan, Gwako, Dukpa, Dagiri and Paso, Ibwo, Wumi, Zuba, Tunga Maje, Giyabiri, Kwaita, Gurfata, Ashara, Ledi, Giri, Kaida, Kuturu and few others.

The climate of the area council just like most climate in the tropics have a numbers of climate elements in common, most especially the wet and dry season's characteristics. The temperature in the area ranges from 30° C-37° C yearly with the highest temperature in the month of March and mean total annual rainfall of approximately 1,650 mm per annum. About 60% of the annual rains fall during the months of July to September. The area is drained by River Usma and River Gurara the major rivers within the study area as well as in the FCT. Gwagwalada the largest settlement in the study area has a population of 23,114 people and is one of the largest satellite town and the third largest urban center in the FCT [17, 18]. The area as a whole is located within the northern boundary of the Guinea Savannah. The vegetation shows a slight level of variability comprising shrub savannah vegetation type that covers the Iku-Gurara plains where the study area is located except for the dominance of riparian vegetation on the flood plains of River Gurara and Usma. The vegetation is dominated by species of plants such as *Daniali oliver, Albizia zygia*, Shea butter tree. Agriculture is one of the major economic activities in Gwgwalada area council due to favourable climate and soil characteristics. Most of the indigenous people are

engaged in peasant farming, lumbering, pond fishing, livestock farming among others [18, 19].

Figure 1. Map of Gwagwalada Area Council Showing The study Sites
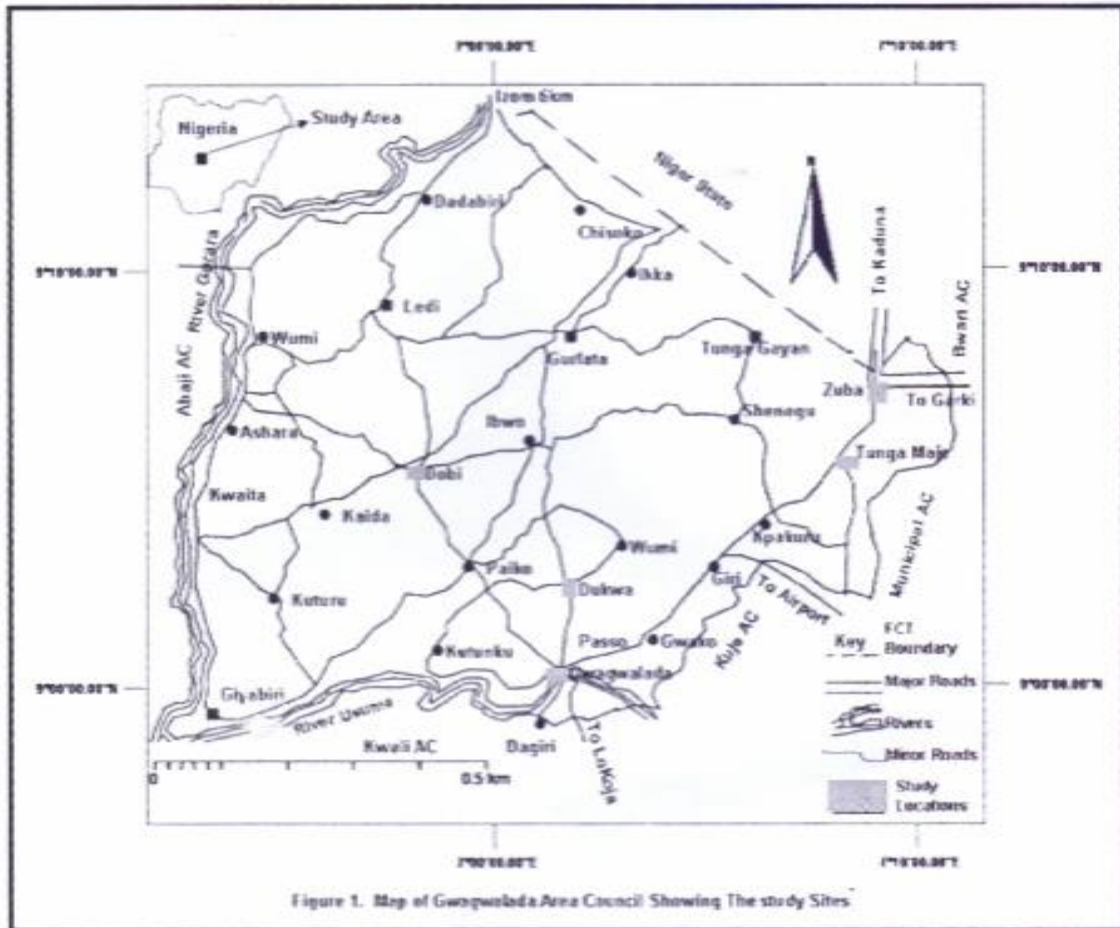
Map of Gwagwalada Area Council [18, 19]

Study population
The study population comprises of 384 Geriatric (Elderly) of both male and female of 65 years and above living in Gwagwalada Area Council of FCT, Abuja, Nigeria.

Ethical clearance
Permission to carry on with this was obtained from Gwagwalada area council Health Department while oral consent was obtained from the participants after explaining the details of the study to them and benefits derivable from their participation

Sampling technique
Random sampling procedure was used in order to ensure a good representation of the target population of the study population.

Inclusion and exclusion criteria
Elderly people above 65 years of age living in the Gwagwalada Area Council were included and all others below the or living outside the Area Council were excluded.

Sample size determination
A suitable sample size of 384 elderly people of 65 years and above was chosen using the formula by [20], $n = Z^2P(1-P)/d^2$ with a confidence interval of 95% and marginal error or precision of 5%.

Hence, sample size was calculated using $n = Z^2P(1-P)/d^2$

A prevalence rate of 50.0% was chosen, margin of sampling error or precision was set at 5% with 95% confidence interval.

Using n = $Z^2P(1-P)/d^2$; n = $(1.96)^2$ X 0.5(1-0.5)/ $(0.05)^2$ = 3.8416 X 0.5 X 0.5/ 0.0025 = 384.16

Instrument for data collection

A structured self-administered questionnaire divided into three sections A, B and C; it sought information on: Socio-demographic data, Knowledge and Practice of geriatric population being studied.

Validity and reliability of instrument used

The validity and reliability of the instrument used, a draft questionnaire was prepared and was tested in all the possible areas, and all the information were found to be reliable and valid.

Data analysis

The data collected was analyzed using Statistical Package for Social Sciences (SPSS version 20), ANOVA, tables and simple percentages were also used.

RESULTS

In this study, a total of three hundred and eighty-four (384) questionnaires were distributed to the randomly selected geriatric (elderly) in Gwagwalada Area Council. Out of this number, 171(45.0%) were male while 213(55.0%) of them were females. The findings revealed that their level of education showed that 71(18.0%) of them attended primary school, 187(49.0%) had secondary school level of education, 99(26.0%) acquired high level (tertiary) education while 27(7.0%) of them had none. On frequency of medical check-ups, 65(17.0%) of them had theirs annually, 103(23.0%) quarterly, 84(22.0%) monthly while 132(34.0%) did not (see Table 1).

A breakdown of the knowledge and practice among the elderly in the study showed that 67.7% of the ages between 65-69 had knowledge and 60.8% practice the determinants toward healthy lifestyle; 69.3% of the ages in the range of 70-79 years had knowledge, 61.1% of them practice it. More so, among the age bracket 80-90 years, the study showed that 51.8% had the knowledge while 31.5% of them practice the predictors of healthy lifestyle. 32.8% of the elderly in the age range of 90-100 years had the knowledge as 25.5% of them practice them (Table 1).

In all, the result showed that 55.5% of the geriatric had knowledge while 44.7% of them practice the determinants of healthy lifestyle. However, 50.1% of the elderly in Gwagwalada Area Council has positive inclination towards the determinants (predictors) of healthy lifestyle. More so, the results of the study showed that there are differences in knowledge and practice among the different geriatric age groups studied.

Table 1: Socio-demographic characteristics of the participants/respondents

Variables	Items	Frequency (%)
Age (Years)		
	65-69	158(41.0)
	70-79	181(47.0)
	80-89	31 (8.0)
	90-100	14(4.0)
Gender		
	Male	171(45.0)
	Female	213(55.0)
Occupation		
	Retirees	131(34.1)
	Farmers	157(40.9)
	Traders	42(10.9)
	Fishermen	23(6.0)
	Laborer	21(5.0)
	Others	10(2.6)
Level of Education		
	None	27(7.0)
	Primary	71(18)
	Secondary	187(49.0)
	Tertiary	99(26.0)

Frequency of medical checkup

None	132(34.0)
Monthly	84(22.0)
Quarterly	103(27.0)
Annually	65(17.0)

Table 1 showed the socio-demographic distribution of respondents/participants who participated in the study. 41.0% of the respondents were from the age group of 65-69 years; 47% were from 70-79 years; 8% were from 89-90 age cohorts while 4% were from 90-100 years age group. The proportion of gender that participated is in the ratio of male 45% and female 55%. Occupationally, 34.1% of retirees participated, Farmers 40.9%; Traders 10.9%; Fishermen 6.0%; Laborers 5.0% while 2.6% of others participated. On the level of education, 7.0% of those who had no formal education participated, 18.0% of those who attended primary respondent while secondary and tertiary participants were 49.0% and 26.0% respectively. 34.0% of the participants never had their medical checkups; 22.0% of them did theirs monthly, while 27.0% and 17.0% did theirs quarterly and annually.

Table 2: Mean and standard deviation of knowledge on determinants of healthy lifestyle

AGE (YEAR)	YES		NO	
	Mean	Std. Deviation	Mean	Std. Deviation
65-69	107.1333	41.40888	37.5333	35.13629
70-79	125.2000	39.52793	55.8000	39.52793
80-89	16.0667	6.43058	13.1333	5.97455
90-100	4.6000	2.06328	9.4000	2.06328

Table 2 showed that the mean and standard deviation score of knowledge between the ages of 65-69 years were 107.1333 and 41.40888 while 37.5333 and 35.13629 did not. That of 70-79 were 125.2000 and 39.52.793 while 55.8000 and 39.52793 did not. For ages between 80-89, 16.0667 and 6.43058 had knowledge, however, 13.1333 and 5.97455 did not, while, 90-100 years age bracket had 4.6000 and 2.06328 knowledge, 8.4000 and 2.06328 do not.

Table 3: Practice towards the determinant of healthy lifestyle

AGE (YRS)	YES		NO	
	Mean	Std deviation	Mean	Std deviation
65-69	96.1250	36.84540	61.8750	36.84540
70-79	112.3750	49.79274	70.5000	47.12819
80-89	9.7500	5.11859	21.2500	5.11859
90-100	3.5000	2.50333	10.4375	2.47572

The above table showed the mean and standard deviation of practice of determinants of healthy lifestyle. It showed that the mean and standard deviation scores of practices between the ages of 65-69 were 96.1250 and 36.84540, while 61.8750 and 36.84540 did not. For the age groups between 76-79, the result showed that 112.3750 and 49.7927 practiced, while 70.5000 and 47.12819 did not. Further, it showed that for the age cohorts between 80-89,

the result was 9.7500 and 5.11859 practiced, while 21.2500 and 5.11859 did not. It also showed that for the ages between 90-100, the result was 3.5000 and 2.50333 practiced, while 10.4375 and 2.47572 did not.

Table 4: Level of knowledge and practice towards determinants healthy lifestyle

Age(Years)	Knowledge(%)	Practice(%)
65-69	67.7	60.8
70-79	69.3	61.1
80-89	51.8	31.5
90-100	32.8	25.5
Total	55.5	44.7

The above table showed that 67.7% of the ages between 65-69 had knowledge, while 60.8% practiced, 69.3% of ages in the range of 70-79 had knowledge as 61.1% practiced. Furthermore, 51.8% of age group between 89-89 showed knowledge while 31.5% practiced. 32.8% of 90-100 age cohort had the knowledge, as 25.5% practiced.

Table 5: Multivariable analysis of predictors of healthy lifestyle

Variables		SS	df	MS	F	P-value
Age	Between groups	14.920	3	4.973	48.571	0.002
	Within groups	9.830	96	0.102		
Occupation	Between groups	24.060	7	3.437	351.352	0.001
	Within groups	0.900	92	0.010		
Level of	Between groups	13.117	3	4.372	36.084	0.001
Education	Within groups	11.633	96	0.121		
Frequency	Between groups	23.795	3	7.932	797.714	0.001
Of Medical	Within groups	0.955	96	0.010		
Checkup						

P<0.05

Table 5 is the multivariable analysis of predictors of Healthy Lifestyle among the Geriatric studied and showed that Age (P = 0.002); Occupation (P = 0.001); Level of Education (P = 0.001); Frequency of Medical Checkup (P = 0.001) are predictors of healthy lifestyle among the elders.

Table 6: Cross tabulation of differences in knowledge and practice among the elders (geriatric)

Model	SS	df	MS	F	P-value
KNOWLEDGED:					
Between groups	1353.314	1	1353.314	36.726	0.016
Within groups	73.698	2	36.849		
PRACTICE:					
Between groups	2601.457	1	2601.457	181.018	0.005
Within groups	28.743	2	14.371		

P<0.05

Table 6 is the analysis of variance revealing that there are differences in Knowledge (P = 0.016) and Practice (P = 0.005) among the age groups studied.

DISCUSSION

The aging process is, of course a biological fact which has its own dynamic, largely further than human control [20] and efforts to maintain elderly people active have been done by investigating all possible factors that may affect their live [21, 22]. This study assessed the Knowledge and Practice (KP) of the determinants (predictors) of healthy lifestyle among the geriatric (elderly) in Gwagwalada area council and shown that a total level of KP of 50.1% of the elderly in the area council has positive inclination towards the predictors. This result when compared with a work, which reported a total level of KP of 76.2% among the elderly in Iran, it is quite low [23]. This variation may be as a result of increase in knowledge of the determinants of the Geriatric and medical advances in Iran coupled with good health facilities and human personnel.

The level of knowledge (55.5%) of predictors reported in this study corroborates the revelations of [9] who reported 50.5% of knowledge in their study. 'KAP of Geriatric patients towards predictors of healthy living at a Tertiary Health Institution in Abuja' but disagrees with the report that revealed 46.6% of knowledge of predictors among the Geriatric population in China [24]. Factors related to healthy behaviour of knowledge among the elderly in China were educational attainment, past occupations and location of residence. It is also noted that the revelation of this survey did not buttress the work of [25] who discovered 70.0% positive knowledge among the elderly in Iran.

On practice, the study has on record that 44.7% of the geriatric population studied practice the determinants of healthy lifestyle. This low level of practice among the geriatric in the council may be attributed to poverty, non-challant attitude of the government towards the elderly, lack of care and proper guidance. This result is in accordance with the works of [26 - 29]. It has been observed that stigma associated with mental illness can negatively affect the frequency of how elders seek medical attention and without appropriate identification of mental health condition including substance abuse, elders may experience poor quality of life or health outcome due to disability, co-morbidities or chronic disease progression, increased stressed of self-worth that may lead to suicide ideation or lack of will for survival [29]. More so, poverty remains a major challenge in Nigeria, an elderly person who has retired from the economic productive phase is most vulnerable to experiencing economic hardship [30].

This assessment established Age, Occupation, Level of education and Frequency of medical checkup as significant determinants of healthy lifestyle among the elderly in the council and this in line with previous works of [9, 13, 33,]. Moreover, this survey showed that there are differences in knowledge and practice among the various age groups of the aged.

It is therefore, highly pertinent to create more awareness among the geriatric population in the locality, since the knowledge which is more or less education is power. This will add more to the practice of determinants of healthy lifestyle among the population. It is also a well-known fact that literacy of the youth plays more role in their old age, hence, the need not to neglect the education of the youths in the society as it prepares them for their elderly period. With all these

facts, it is recommended that government authorities and other stakeholders should collectively make efforts to sensitize and establish geriatric centers to raise and create more awareness about healthy lifestyles appropriate to them, mount more educational programs to make sure that the elderly receive all the necessary care required to reduce their burden.

In conclusion, this study has shown that there are differences in knowledge and practice towards determinants of healthy lifestyle among the various age groups of the geriatric assessed. It has also buttressed the facts that age, occupation, level of education and frequent medical checkup are significantly associated with healthy lifestyle of the elderly, hence, acquired knowledge will go a long way to reduce the burden of the aged in the Council area as well as in Nigeria as a whole.

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