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Determinants of Increase Burden of Noncommunicable Diseases, Morbidity and Mortality Rate among Retirees in Makurdi Benue State, Nigeria

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ABSTRACT

Background: Retirees like every other person in the aging population are vulnerable to develop one form of non-communicable disease (NCDs) or the other. This study aimed to determine the factors perpetuating increase burden of (NCDs), morbidity and mortality rate among the retirees in Makurdi, Benue State.

Method: The descriptive/cross-sectional research design was used for the study. Data was collected from retirees invited to attend a medical outreach held on the World Hypertension Day. A total of 118 retirees made up of 93(78.8%) males and 29(21.2%) females' age 60-89-years old were participants who consented on request to provide the necessary information.

Results: The findings showed retirees have knowledge of family history of NCDs, 42(36.6%), overweight 19(16.1%), and obesity 13(11%) based on their being informed by medical doctors. Lifestyle of smoking of tobacco 14(11.9%), excessive alcohol uses 55(46.6%), inappropriate diet 79(66.9%), family dysfunction/disconnectedness 31(26.5%), nonpayment of retirees' emoluments 61(51.7%), high cost of drugs 69(58.5%) and lack of social support 70(59.3%) are contributing to perpetuate increasing burden of NCDs. morbidity and mortality rate of the retirees

Conclusion: NCDs like diabetes and hypertension are common illness found among people but they can be effectively treated. However, retirees are constantly facing difficulties in the management of these diseases. Thus, government should make efforts subsidize the cost of drugs and as well prioritize the regular payment of retirement's benefits and salaries to this segment of the aging population to help them meet their healthcare needs and reduce the prevailing morbidity and mortality rate from NCDs.

KEYWORDS: Non-communicable diseases, Retirees, Increase burden, Morbidity, Mortality rate

INTRODUCTION

The combination of aging, and retirement factors in Nigeria is chronically and tremendously impacting negatively on peoples' life expectancy of 63.6% estimated by the World Health Organization (2024).[1] This is perhaps largely due to the experience of precarious economic hardship and endemic poverty situation which is depriving many people from living in good physical health

and wellbeing. Globally, the proportion of people 65 years of age or older is growing increasingly. It is predicted that by 2050, this increase will rise to 16 percent, implying that one in six individuals on the planet would be 65 or older (2). Apparently, the increase in the aging population is in part propelled by the yearly disengagement of people from occupational service due to the existing policy on retirement age stipulation of 60-70years depending on profession.

Disengagement from service at the age of 60-to-70years places many people in a precarious situation of livelihood. Older people like children suffering from undernourishment are vulnerable to developing a particular disease. Consequently, the probability of his/her developing some challenging health problems is higher in retirement after working and expending his/her energy throughout their youthful age (3). Economically, retirement from service usually lead to reduction in the financial strength of retirees as they lose several benefits and privileges enjoyed during their time in the service. Since retirement lead to decline in the retiree's financial capacity, many retirees are in many cases exposed to unsolicited hardship. Unfortunately, due to the interaction of hereditary, harsh socioeconomic realities and adoption of unhealthy lifestyle, retirees are often exposed to developing and suffering from a noncommunicable disease (NCD) (4, 5, 6). The global burden from NCDs which include diabetes, heart diseases, stroke, cancer, chronic respiratory disease has been documented to be rapidly increasing and impacting negatively on the social, economic and health status of people (7). A person's development of NCDs has far-reaching negative effect on individuals because it is an existential threat to himself or herself, and the family as well as their financial resources; and successive pressure of demands on the limited resources public healthcare system (8, 9). In fact, the statistics report indicates that 80% of deaths from NCDs occur in low-middle income countries which Nigeria is included (10). Nigeria is a country among the low-and middle-income nations facing a challenge of dealing with several health issues brought on by NCDs and an aging population which retirees too experience (11). Apparently, the negative impact of retirement and suffering with health issues such as NCDs cannot be overemphasized.

Many studies have reported that, Nigeria is undergoing an epidemiological transition with a rising burden of NCDs (12, 13, 14). Untreated NCDs related health issues in many cases leads to disability, and death in later life (8). For Nigeria in particular, the World Health Organization reported that the chances of her people dying prematurely from NCDs is 20% (15). This has been proven from studies that approximately 30% of all deaths in Nigeria are due to NCDs (12, 14). Age wise, available research evidence has showed that NCDs are more commonly found in the older people (15). This is largely ascribed to progressive aging process, unfavourable social and economic factors, family dysfunction or disconnectedness, and maladaptive lifestyle choices (7). Most common risks factors leading to the development of NCDs include smoking tobacco, harmful alcohol intake, poor dietary habits and physical inactivity/sedentary lifestyle (9).

For some people, these risk factors are an accumulation from childhood behaviours through to adulthood which later triggers the disease in their old age. In recent years, there is an observed increase in the population of people retiring from private and public service in many sectors in Nigeria. Evidently, studies have shown that the practice of harmful behaviors is directly correlated with urbanization (11). Thus, many people who are retiring and settling back in the towns and cities are also not immune to exposure to these risky health behaviours. This unequivocally makes NCDs risk higher making multimorbidity equally higher in urban residents (12). The correlates of NCDs in this population may well be different than other age groups. However, many studies carried out in Nigeria have found that genetic, socioeconomic factors and unhealthy behavioural lifestyles are risk factors could lead to the development of NCDs. Extrapolating from the concerns about increasing morbidity and mortality rate of the aging population, this study seeks to investigate and determine the factors perpetuating the burden of NCDs, increasing morbidity and mortality rate among people who have retired for private and public services in Benue State.

Aim of the Study

The purpose of study was to determine the physical, lifestyles and socioeconomic related factors that are eventually perpetuating the burden of NCDs, increase morbidity and mortality rate of retirees in Benue State. The objectives are to:

Research Questions

1. Do retirees have knowledge of the diseases and their vulnerability to the risk factors associated with development of non-communicable diseases?
2. What are the common lifestyles perpetuating the increase in morbidity and mortality rate from non-communicable diseases among retirees'?
3. What are the socioeconomic related factors hindering retirees from effective management of their diseases for improved wellness and quality of life?

METHODS

Research Design

This study employed a descriptive/cross-sectional research design. The participants comprised of retirees' that are residents in Makurdi Local Government. They were invited under their umbrella of Association of Pensioners, Benue State chapter to attend and benefit from the organized medical outreach on the day of celebration of the World Hypertensive Day in 2021 where an on-the-spot medical care was provided and after which the data was collect for the study.

Sample/Sampling

A total of 118 comprising of males and females' retirees were sample drawn for the study. The participants' socio-demographic characteristics included age, sex, marital status, education, occupation, religion, ethnic group. All participants involved in the study gave their consent as they understood and were satisfied with the explanation provided regarding the purpose of the study. A convenience sampling technique was used for the sample selection.

Data Collection

The participants responded to World Health Organization Stepwise Questionnaire which is a standardized instrument designed for the assessment of NCDs risk factors. A face-to-face interview was employed to obtain additional information on the various problems impeding the retirees from satisfactory management of their NCDs related illnesses.

Data analysis

Data analysis was with the use of the SPSS version 20. Descriptive analyses were performed to determine the distribution of demographic variables of the participants, social and economic factors influencing the increasing burden of NCDs, morbidity and mortality among the retirees. The significance level was set at $p>0.05$.

RESULTS

The results obtained are presented in tables and bar charts, and each result is described briefly to augment clarity and comprehension

Table 1: Distribution of participants' socio-demographic characteristics

Variables	Frequency	Percentages (%)
Age		
60-67	62	52.5
68-75	36	30
78-80	13	11.0
84>	7	5.9
Sex		
Males	93	78.8
Females	25	21.2
Edu. qualification		
Primary edu.	25	24.6
Secondary edu.	15	12.7
Tertiary edu.	71	60.2
Religion		
Christianity	116	98.3
Islam	2	11.7
Ethnicity		
Tiv	87	73.7
Idoma	16	13.6
Igede	5	4.2
Others	10	8.5
Marital status		
Married	98	83.1
Widowed	15	12.7
Divorce/Separation	5	4.2

The table above shows a descriptive statistics of the participants' sociodemographic variables which include their age, sex, educational qualifications, marital status, religion, and ethnicity background. The retirees who were participants are people from Tiv, Idoma, Igede; the three major ethnic groups and others were minority groups resident in Benue State

Table 2: Retirees' knowledge of disease and risk factors to development of NCDs

Variables	Frequency	Percentages (%)
Are you ever told you have diabetes?		
Yes	61	51.7
No	57	48.3
Are you ever told you have hypertension?		
Yes	79	66.9
No	39	33.1
How long now you have hypertension?		
< 1 year	27	22.8
1-5 years	46	35.0
6-10 years	27	22.9
>10 years	18	15.3
Family history of NCDs		
Yes	42	35.6
No	76	64.4
BMI		
Underweight		
Yes	4	3.4
No	3	2.5
Normal weight		
Yes	25	21.2
No	27	22.9
Overweight		
Yes	19	16.1
No	20	16.9
Obese		
Yes	13	11.0
No	7	5.0

Table 2 shows the knowledge of retirees regarding NCDs such as diabetes mellitus, hypertension disease and their vulnerability to risk factors such as family history and Body Mass Index factors associated with the development of these diseases.

Table 3: Social lifestyles perpetuating retirees' morbidity and mortality rate from NCDs

Variables	Frequency	Percentages (%)
Habit of smoking tobacco		
Yes	14	11.9
No	104	88.2
Excessive alcohol use habit		
Yes	55	46.6
No	63	53.4

Inappropriate food consumption		
Yes	79	66.9
No	39	33.1

Table 3 described in percentages the unhealthy lifestyles of many retirees that are associated with the increase burden of NCDs, morbidity and mortality rate of the aging population in Benue State. There include the habit of smoking tobacco; excessive alcohol uses and inappropriate dieting.

Table 4: Socioeconomic related factors hindering retirees' effective management of their NCDs

Variables	Frequency	Percentages (%)
Family dysfunction/disconnectedness		
Yes	31	26.3
No	87	73.7
Nonpayment of retirees' emoluments and pension salary		
Yes	61	51.7
No	57	57.3
High cost drugs		
Yes	69	58.5
No	49	41.5
Lack of social support		
Yes	70	59.3
No	47	40.7

Table 4 represents description in percentages of the socioeconomic related factors that are perpetuating the increase burden, morbidity and mortality rate of retirees as another set of people that comprises of the aging population in Benue State.

DISCUSSION

The incidence of frequently hospitalization of diabetic and hypertensive patients and prevalent death from these diseases has become very disturbing. Medically, these types of noncommunicable diseases are actually health problems that can be manage effectively to achieve a desirable outcome that would enable the patient live long with improve quality of life. But this is rather observed to be contrary to the expected usual goal of treatment. Thus, the purpose of the study was to identify the factors responsible for the an observed prevailing increase burden of non-communicable diseases, morbidity and mortality rate among retirees who constitute a reasonable fraction of the aging population in Benue State. Dwelling on the objectives of the study, three research questions were formulated to be answered. These questions formed the nucleus of the discussion section based on the findings presented in the tables.

Question one: 1. Do retirees have knowledge of diseases and their vulnerability to the risk factors associated with development of non-communicable diseases?

The findings on this question showed that the retirees do not lack knowledge of disease such as diabetes mellitus, hypertension which are NCDs and their vulnerability to risk factors such as family history and Body Mass Index factors associated with the development of these diseases. From the findings, the 118 retirees who were involved in the study, 61(51.7%) has diabetes and 69(66.9) had hypertension disease. Those who have family of these diseases were 35.6% and body mass index (BMI) accounted for 48.7% for overweight and obesity 68% respectively. The findings are consistent with the evidence from previous studies that both genes and environmental and adult lifestyles factors play a role in human disease etiology (5). Overweight/obesity (17), physical inactivity (2012), and sedentary lifestyle (18) are among the leading risk factors for development of non-communicable diseases (4).

Question two: 2. What are the common lifestyles perpetuating the increase burden of morbidity and mortality rate from non-communicable diseases among retirees?

The findings on this question revealed common unhealthy lifestyles many retirees indulges by statistics were 11% of 118 retirees studied smoke tobacco, 46% drinks alcohol excessively, while 66% consume inappropriate diet. These findings evidently corresponded with previous reports from researcher that unhealthy lifestyles such as, consumption of unhealthy foods and from poor quality food sources, excessive use of alcohol and tobacco use exposes people to the risk of development of NCDs and by extension perpetuate increasing morbidity leading to early deaths (19, 20, 21).

Question three: What are the socioeconomic related factors hindering retirees from effective management of their diseases for improved wellness and quality of life?

The findings showed that social and economic factors perpetuating and hindering retirees from accessing healthcare for proper management of their NCDs related illnesses by statistics indicates that 23.3% of the participants are experience emotional sabotage from family dysfunction/disconnectedness, 51.7% are experiencing nonpayment of retirement benefits and monthly pension allowances. Whereas, 58.5% is due to high cost of drugs and 59.3% are experiencing lack of social support. Invariably, the harsh socioeconomic realities in a country like Nigeria can have a significant negative impact on the lives of the people. For a protracted period of years now, the Nigerian poverty rate index shows that 40.1% of people in the country are precariously poor (National Monetary Poverty Line, 2018/2019) as cited in (22). 63% of persons living within Nigeria (133 million people) are multi-dimensionally poor according to the National MPI is 0.257 (22).

This means that poor people in Nigeria experience just over one-quarter of all possible deprivations. Poverty headcount rate in Nigeria by State shows that 32.9% of people are in deep poverty in Benue State (23). Extrapolating from unfavourable economic situation for the aging people like retirees, are vulnerable to experience the problem of managing their diseases effectively to maintain good state of health and wellbeing. Consequently, the increase in morbidity becomes a burden cum frequent hospitalization and subsequent death as many retirees have financial constraints and are unable to afford buying drugs worsen high inflation rate, nonpayment or delayed payment of their emoluments. For others lack of social support is due having family members that are equally precariously poor. Another reason is the unemployment situation faced by their children that have graduate from school but have jobs to earn income and support them. Finally, is the force of displacement of many by incessant herdsmen attacks which forced people out of farming and commercial activities they were involved in doing to earn income and sustain their living.

CONCLUSION

This study was able to examine and identified the prevailing factors that are causing the increase burden of non-communicable diseases, morbidity and mortality rate among retirees in Benue State. The factors found were high cost of drugs, nonpayment of retirement benefits, lack of social support system or network, family dysfunctions/disconnectedness. These are worsened by the retirees' helpless feeling and engagement in unhealthy social lifestyles like harmful alcohol consumption, use of tobacco, and inappropriate diet which consequently leads to aggravation of their medical conditions. Based on these findings, it is pertinent that the government should put in place policies that will promote the subsidization of the cost of drugs to benefit the poor sick people and to ensure that people disengaged from public and private service are paid their retirements benefits timely and pension allowances to help them to constantly meet their medical health needs.

RECOMMENDATIONS

1. Well to do individuals, groups are encouraged to use their resources earmarked for philanthropic and community service project to partner with healthcare professional in the Benue State to be organizing medical outreach to give free medical care to benefit people in the communities.
2. Companies and other cooperate organizations in Benue State should extend their policy of cooperate social responsibilities services to organizing medical outreach to offer to the people in the communities they are established opportunities to access free medical care occasionally.
3. The ministry of health and NGOs in Benue should occasionally collaborate with health professionals to increase community-based campaign to educate the people and discourage them from tobacco use and total abstinence from alcohol use or drinking moderately where if necessary.

4. The governments at all levels should endeavor to develop, establish or strengthen their social support system and policy under the ministry of health and social welfare in order to benefit the less privilege population in the state and the country at large.

REFERENCES

1) United Nations Department of Economic and Social Affairs. World Population Ageing 2019 [Internet]. World Population Ageing 2019. 2019. 64 p. Available from: http://link.springer.com/chapter/10.1007/978-94-007-5204-7_6
2) World Health Organization. Tobacco use causes noncommunicable diseases. 2024 https://www.emro.who.int
3) Phaswama-Mafuya N, Peltzer K, Chirinda W, Museka A, Kose Z, Hossian E, Davids A. Factors among older adults in SouthAfrica. Global Heal Actions. 2024; 6(1): 1-7
4) Downing KL, Hesketh KD, Timperio A, Salmon J, Moss K, Mishra G. Family history of non-communicable diseases and associations with weight and movement behaviours in Australian school-aged children: a prospective study. BMJ Open. 2020 3;10(11): e038789. doi: 10.1136/bmjopen-2020-038789.
5) Farhud DD. Hypothetical Strategies of Gene and Environmental Influence on Life Expectancy: A Brief Review. Iran J Public Health. 2022 Nov;51(11):2382-2387. doi: 10.18502/ijph. v51i11.11156
6) Hanson M, Peter G, developmental origins of noncommunicable disease, population and public health complication. American Journal of Clinical Nutrition; Volume 94; supplement 6: p 51754-51758 https://doi.org/ 10.3945/ajcn.110.001206
7) Riley L, Guthold R, Cowan M, Savin S, Bhatti L, Armstrong, Bonita R. The World Health Organization StepWise approval to noncommunicable disease risk factors surveilance: methods, challenges and opportunities. AMJ Public health; 2016; 106(1): 74-79 doi:10.2015/AJPH.2015.302962
8) Chob M, Chobe S, Dayama, Singh A, Metri K, Basa JR et al. Prevalence of noncommunicable diseases and its associated factors among urban elderly of six India States. Cureus; 2022. 14(10)
9) Thuy Duyen N, Van MH, Van HN, Bao GK, Thu NT, Xuan LN, et al. Pattern of behavioural risk factors for noncommunicable: a scoping review focus on the context of Ind. J Educ. Heal Promot 2023; 28:1-6
10) World Health Organization. Noncommunicable diseases. 2023 https://www.emro.who.int
11) Bayode T, Siegmund A. Tripartite relationship of urban planning, city growth and health for sustanaible developlement in Akure, Nigeria front sustain cities 2023; 5:1-13
12) Odunyemi A, Rahman T, Alam K. Economic burden of non-communicable diseases on households in Nigeria: evidence from the Nigeria living standard survey 2018-19 BMC Public Health 2023; 23:1563 https://doi.org/10.1186/s12889-023-16498-7
13) Idris IO, Oguntade AS, Mensah EA, Kitamura N. Prevalence of non-communicable diseases and its risk factors among Ijegun-Isheri Osun residents in Lagos State, Nigeria: a community based cross-sectional study BMC Public Health 2020; 20:1258. https://doi.org/10.1186/s12889-020-09349-2
14) Adeshina MA, Oladele RI, Olufadewa II, Ogheneruona FO, Oladipo DR,Iyiola OP, Ekott MB, Nwachukwu PC, Baru A, Akinloye SJ addressing the high burden of noncommunicable diseases in Nigeria: a commentary. Journal of Health Research 16 https://www.emeral.com/insight/2586-940X.htm DOI: 10.1108/jhr-02-2020-0039
15) Boakye H, Ataliba A, Hinneh T, Ackah M, Ojo-Benys F, Bello AI. The prevalence of and secondary healthcare level. PLOs One 2023; 18(2):1-14 https://dx.doi.org/10.1371//journalpone
16) Bello-Ovosi BO, Asuke S, Abdulrahman SO, Ibrahim MS, Ovosi JO, Ogunsina MA, Anumah FO. Prevalence and correlates of hypertension and diabetes mellitus in an urban community in North-Western Nigeria. Pan African Med J 2018; 29: 97. doi: 10.11604/pamj.2018.29.97.14191
17) Ng M, Fleming T, Robinson M, et al. Global, regional, and national prevalence of overweight and obesity in children and adults during 1980-2013: a systematic analysis for the global burden of disease study 2013. Lancet 2014; 384:766–81. 10.1016/S0140-6736(14)60460-8
18) Lee I-M, Shiroma EJ, Lobelo F, et al.. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. Lancet 2012;380:219–29. 10.1016/S0140-6736(12)61031-9 [PMC free article] [PubMed] [CrossRef] [Google Scholar]

19) Wu BW, Skidmore PM, Orta OR, Faulkner J, Lambrick D, Signal L, Williams MA, Stoner L. Genotype vs. Phenotype and the Rise of Non-Communicable Diseases: The Importance of Lifestyle Behaviors During Childhood. Cureus. 2016 Jan 13;8(1): e458. doi: 10.7759/cureus.458. PMID: 26918226; PMCID: PMC4752369).
20) Biswas A, Oh PI, Faulkner GE, Bajah RR,Silver MA, Mitchell MSAlter DA. Sedentary time and its association with risk for disease incidence, mortality, and hospitalization in adults: a systematic review and meta-analysis. Ann Intern Med 2015;162:123–32. https://www.unm.edu
21) Campaign for tobacco free kids. Tobacco and noncommunicable diseases. 2013. https://www.globaltobaccofreekids.org
22) National Bureau of Statistics. Nigeria launches its most extensive national measurement of multidimensional poverty. 2022; https://nigeriastat.gov.ng
23) Sasu DD. Poverty headcount rate in Nigeria as of 2019 by State. https://www.statista.com/statistics/1121438/poverty-headcount-rate-in-nigieria-by-state