The Awareness and Control Measures for Hypertension among the Elderly Population in a South-South Community, Nigeria

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Abstract:- High blood pressure also known as hypertension is the second global risk factor for disease. The study assessed the awareness and control measures of hypertension among elderly individuals in a South-South Community, Nigeria. The study surveyed 92 elderly individuals using a descriptive design, using a self-structured questionnaire, and analyzing data using SPSS version 24. Findings established 60.13± 0.45 as the mean age of the respondents; 49(53.3%) were females and 29(31.5%) were business executives. 85(92.4%) of participants know that hypertension is an increase in one's blood pressure. 60(65.2%) of participants know that regular checking of blood pressure is a preventive strategy against hypertension. 80(87%) of participants understand that adherence to hypertensive drugs as prescribed by the doctor is one of the ways to control blood pressure. 66(71.7%) of the participants agree that taking food low in salt can help to control blood pressure. 69 (75%) of participants agree that the availability of time to go for regular blood pressure check-ups is very important. This study concluded that there is a high level of awareness of hypertension and a cause for concern, as majority of the participants has inadequate practice of control measures of hypertension.

Keywords:- Awareness, Control, Elderly, Hypertension, Measures.

I. INTRODUCTION

Hypertension is non-communicable, but of a global health concern and it referred to as "Silent killer". The symptoms may not be observed until body organs such as kidney might have been damaged, due to the thickening of the arterial wall which may reduce the blood supply to the

body tissue and organ (Gupta, et al., 2024). It affects onethird of adult worldwide (Menti et al., 2024). The people with hypertension have seemed to double since the past 3 decades. Age is an independent risk factor for hypertension and its prevalence among older adults is significantly higher than younger adults (Ramakrishnan et al., 2019; Alhazmi et al., 2023). In the year 2019, hypertension prevalence among older adults aged 60 years and above in India was 63%. (Farron et al., 2020). Close to half of this hypertensive (42.6%) were not detected and the detection rates were poorer in rural areas (Boro & Banerjee, 2022).

A recent study reported that 40% of adults aged 45 years and older were suffering from hypertension, 60% were aware of their hypertensive status, 73% of those who were aware were taking treatment, and only 10.4% achieved adequate control of hypertension (Bhatia, 2021). The prevalence of HBP globally, is very high. Lower than half of the adults all over the world (42%) with hypertension have been detected and treated (WHO, 2021). This implies that the number of undiagnosed and untreated HBP is high and varies among regions of the world. Though, there is improved treatment for hypertension, the diagnosis and treatment is still challenging (Citoni et al., 2022). According to Lawal and Kantaris (2024), hypertension is the most cardiovascular disease and it ranges between 38.1 % to 50% of the total population (Akinlua et al., 2018; Odili et al., 2020). More so, Kadiri et al. (2020) reported that the prevalence of hypertension in Nigeria is projected to increase from 20.8 million in 2021 to 39.1 million by 2030. This is significant as the blood pressure could be associated increase burden of cardiovascular disease and death (Lawal & Kantaris, 2024; Ogungbe et al., 2024). Hence, improving hypertension awareness and control is a healthcare priority (He et al., 2024).

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In some places, awareness and control of hypertension could be low, while treatment may be high. This is confirmed by Lawal and Kantaris (2024) in their scoping review in the awareness, control and treatment of hypertension in Nigeria. They found low rate of awareness on hypertension, but had a high treatment rate. They attributed their findings to the fact that the higher prevalence of the hypertensive cases were not treatment-related but due to lack of awareness and control. However, a study done in the Philippines revealed that 69.1% older Filipinos had hypertension, with 61.6% aware of their hypertension, but, 51.5% were untreated (Abalos et al., 2024). Nonetheless, recorded high awareness of hypertension (Blair et al., 2024; Chang et al., 2024; Sahatqiji et al., 2024), although, a significant gap was discovered in the level of awareness of the disease condition and effective control measures to manage the condition (Camara et al., 2024; Vera-Ponce, et al., 2024)

The increasing prevalence of hypertension and other non-communicable diseases could be related to the current lifestyle changes, occupation, family history and environmental factors (Brotobor et al., 2029). Jareebi (2024) opined that hypertension has a stronger association and causal link with five particular behaviors which are; tobacco use, excessive use of alcohol, physical inactivity, unhealthy diet (high salt intake and insufficient fruit and vegetable consumption) and obesity which are the consequences of urbanization in developing countries. Thus, increasing a burden (Egwin et al., 2024). Nigeria is a low socioeconomic country. High incidence, low awareness and management of hypertension could significantly affect the country as majority of the areas are occupied by underserved populations. There has been an increasing incidence of hypertension and its complications which has resulted into significant morbidity and mortality. It is important to know the elderly level of awareness of hypertension and its control measures, because the unawareness and uncontrolled blood

pressure pose a great threat to the health of the elderly (Adeloye, et al. 2021). Little is known about the current state of the awareness and control measures of the elderly population of the south-south community in Nigeria. To address this gap in knowledge, this study aimed to examine the awareness and control measures for hypertension among the elderly population of a South-South Community, Nigeria.

II. MATERIALS AND METHODS

This study employed a cross-sectional survey to assess the awareness and control measured for hypertension by elderly population. The setting of this study is Eku community in Delta State, Nigeria. After ethical approval was granted by the Health Ethics and Research Committee (RBC/FBMC/DELSU/23/291), 92 participants recruited for the study using simple random sampling technique. Questionnaires were used to collect data. Validity of the instrument was done using face and content validity. To assess for reliability, test-retest was done with Cronbach's alpha value of 0.927. The questionnaire had three sections: Section A: Contained 4 items on sociodemographic data of respondents, Section B: Contained 8 items on the level of awareness of hypertension, Section C: Contained 5 items on control of blood pressure. The data obtained were analyzed using Statistical Package for Social Science (SPSS) version 24. Findings were presented using frequency distribution tables, and percentages

➤ Main Outcome Measures

Knowledge of hypertension as defined as a blood pressure reading of 140/90 mmHg and above reading. Those taking prescribed antihypertensive drug, not smoking, not drinking of alcohol and observe adequate rest from stressful events are seen, aware of their hypertension was seen to have good control measure for hypertension.

III. RESULTS

Table 1. Socio-Demographic Characteristics of Respondents

| Variables | Frequency (n=92) | Percentage (%) | Mean |
|----------------------------|------------------|----------------|------------------|
| Age of participants(years) | | | |
| 55-59 | 21 | 22.8 | Mean Age |
| 60-64 | 52 | 56.5 | 60.13 ± 0.45 |
| 65 and above | 19 | 20.7 | |
| TOTAL | 92 | 100 | |
| Marital status | | | |
| Single | 3 | 3.3 | |
| Married | 85 | 92.4 | |
| Widower | 3 | 3.3 | |
| Widow | 1 | 1.1 | |
| TOTAL | 92 | 100 | |
| Gender | | | |
| Male | 43 | 46.7 | |
| Female | 49 | 53.3 | |
| TOTAL | 92 | 100 | |
| Occupation | | | |
| Civil servant | 22 | 23.9 | |

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| House wife | 2 | 2.2 | |
|--------------------|----|------|--|
| Retired | 8 | 8.7 | |
| Unemployed | 8 | 8.7 | |
| Self –employed | 9 | 9.8 | |
| Farmer | 9 | 9.8 | |
| Business executive | 29 | 31.5 | |
| Trader | 5 | 5.4 | |
| TOTAL | 92 | 100 | |

(Source: Field survey, 2023)

Table 2 Awareness and Control Measures for Hypertension n=92

| S/N | ITEMS | Yes (%) | No (%) |
|-----|---|-----------|-----------|
| 1 | Hypertension is an increase in one's blood pressure | 85 (92.4) | 7 (7.6) |
| 2 | Regular checking of blood pressure is a preventive strategy against hypertension. | | 32 (34.8) |
| 3 | Adherence to hypertensive drugs as prescribed by the doctor is one of the way to | 80 (87) | 12 (13) |
| | control blood pressure | | |
| 4 | Cessation of smoking will help reduce blood pressure and some heart problems. | 57 (62) | 35 (38) |
| 5 | Reduced alcohol intake will help to control blood pressure | 62 (67.4) | 30 (32.6) |
| 6 | Taking food low in salt can help to control blood pressure | 66 (71.7) | 27 (29.3) |
| 7 | Regular exercise is important to health and will help control blood pressure | 62 (67.4) | 30 (32.6) |
| 8 | Reduction of stressful activities e.g. over work, or family problem can help to lower | 77 (83.7) | 15 (16.3) |
| | blood pressure | | |

(Source: Field Survey, 2023)

Table 2 above showed that 7(7.6%) of the participants do not understand that hypertension is an increase in one's blood pressure while 85(92.4%) of participants know that hypertension is an increase in one's blood pressure. Thus, 60(65.2%) of respondent know that regular checking of blood pressure is a preventive strategy against hypertension as against 32 (34.8%) of participants that do not know that regular checking of blood pressure is a preventive strategy against hypertension.

Also from table 2, 80(87%) of participants understand that adherence to hypertensive drugs as prescribed by the doctor is one of the way to control blood pressure, while 12(13%) are not aware that adherence to hypertensive drugs as prescribed by the doctor is one of the way to control blood pressure. Among the respondents, 57(62%) agree that cessation of smoking will help reduce blood pressure and some heart problems, while 35(38%) do not agree that cessation of smoking will help reduce blood pressure and

some heart problems. It also revealed that 62(67.4%) of participants agree that reduced alcohol intake will help to control blood pressure and 30 (32.6%) of participants do not agree that reduced alcohol intake will help to control blood pressure. The table also showed that 66(71.7%) of the participants agree that taking food low in salt can help to control blood pressure, while 27(29.3%) do not agree that taking food low in salt can help to control blood pressure.

Furthermore, 62(67.4%) of participants are of the opinion that regular exercise is important to health and will help control blood pressure, while 30(32.6%) of participants do not have the opinion that regular exercise is important to health and will help control blood pressure. Also, 77(83.7%) of participants agreed that reduction of stressful activities such as over work, or family problem can help to lower blood pressure as against 15(16.3%) of participants who do not agree that reduction of stressful activities such as over work, or family problem can help to lower blood pressure.

Table 3 Participants Practice of Control Measures of Hypertension n=92

| S/N | ITEMS | ALWAYS | SOMETIMES | RARELY | NEVER |
|-----|---|-----------|-----------|-----------|-----------|
| | | (%) | (%) | (%) | (%) |
| 1 | How often do you go for regular | 25 (27.2) | 23 (25.0) | 27 (29.3) | 17 (18.5) |
| | checking of blood pressure | | | | |
| 2 | Do you usually take drugs prescribed by | 16 (17.4) | 8 (8.7) | 7 (7.6) | 61 (66.3) |
| | a doctor to lower your blood pressure | | | | |
| 3 | Do you smoke | 1 (1.1) | 3 (3.3) | 1 (1.1) | 87 (94.6) |
| 4 | Do you take alcohol | 16 (17.4) | 13 (14.1) | 8 (8.7) | 55 (59.8) |
| 5 | How often do you usually rest | 50 (54.3) | 24 (26.1) | 14 (15.20 | 4 (4.3) |

From Table 3, it was observed that the 66.3% of the participants had never taken drugs prescribed by the doctor for blood pressure control. Though, 94.6% reported to have never smoked and 59.8% revealed never to have taken

alcohol, 31.5% either took alcohol always or sometimes. But, a little above average reported to practice rest as a means to control hypertension.

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IV. DISCUSSION

In recent times, improved strategies have been developed in healthcare to reduce the prevalence of hypertension, but in practice, is level of awareness in alignment with control measures for hypertension? Hypertension could be said to have potential risk factor for cardiovascular diseases, thus, awareness and preventive practices are necessary to mitigate the effect of hypertension (Bayaraa et al., 2023; Sakboonyarat et al., 2023). This study was done to assess the awareness and control measures for hypertension control. In this study, the mean age of participants was 60.13± 0.45. On awareness of hypertension, the findings in this study revealed that majority of the participants (92.4%) were aware that hypertension is a blood pressure of 140mmHg and above. Furthermore, results showed that 65.2% of participants know that regular checking of blood pressure is a preventive strategy against hypertension, though, 34.8% of participants that do not know that regular checking of blood pressure is a preventive strategy against hypertension. This was in contrast with previous a study by Zhang et al. (2023), found low awareness and control of hypertension, while Sakboonyarat et al. (2023) discovered that their participants low awareness level but related it to behavioral factors such as smoking, alcohol consumption and sedentary lifestyle.

The study also revealed in table 2 that 67.4% of participants agree that reduced alcohol intake will help to control blood pressure. This is in line with the study by Maniyara et al. (2023) on the prevalence, awareness, treatment, control and correlates of prevalence and control of hypertension among older adults in Kerala where results showed that hypertension prevalence was 72.3% (95% CI = 67.1-77.2), 68.2% (CI = 61.8-74.2) were aware. Inadequate physical activity [(adjusted odds ratio (AOR)] = 2.34; CI = 1.19-4.59) and current alcohol use (AOR = 2.28; CI = 1.06-4.91). The study was in contrast with a study carried out by Cisse et al. (2021) aimed at reporting the prevalence of the awareness, treatment, and control of hypertension among the adult population in Burkina Faso which showed that the prevalence of awareness was 17.5% (95% CI: 14.4%-21.1%), and nearly one-third (29.3% (95% CI: 25.3%of people with hypertension antihypertensive drug treatment. There was a poor level of awareness, treatment, and control of hypertension among adults in Burkina Faso.

Further findings also revealed that the participants engaged in healthy lifestyle and were aware that lifestyle modifications help in controlling hypertension. This, majority of the respondents, 87(94.6%) said they never smoked. Among the respondents, 55(59.8%) said they never took alcohol. This is in alignment with the study by Kimani et al. (2019) on the association of lifestyle modification and pharmacological adherence on blood pressure control among patients with hypertension at Kenyatta National Hospital, Kenya. Kimani et al. opined that higher blood pressure were observed in smokers and drinkers (p<0.05), and intake of foods high in saturated fat and cholesterol were associated with raised HR (p<0.05). Participants on antihypertensive

medication, those engaged in healthy lifestyle and took their prescribed medications had lower mean blood pressure than those on medication only.

This study also revealed that majority 87% of participants understand that adherence to hypertensive drugs as prescribed by the doctor is one of the way to control blood pressure, however, 66.3% reported to have never taken anti-hypertensive drugs prescribed for blood pressure control. There seem to be a gap in the level of awareness of antihypertensive drugs for blood pressure control and practice of taking antihypertensive drugs for blood pressure control. This is consistent with Yang et al. (2023) who reported disparities in the prevalence, awareness and control of hypertension. Hypertension is often unnoticed and undiagnosed because it is usually asymptomatic, despite the high burden of hypertension, most affected persons are not aware of its presence. It is therefore important that nurses carry out appropriate and adequate health education on high blood pressure and emphasize the need for regular checking of blood pressure, adherence to prescribed medication and lifestyle modifications associated with control of blood pressure in order to reduce the morbidity and mortality rate due to high blood pressure.

V. CONCLUSION

The study examined awareness of hypertension and its control measures among the elderly population in south-south Nigeria. The study concluded that there is no significant relationship between awareness of hypertension and control measures of blood pressure among elderly people in Eku community. Sequel to the findings of this study, the researcher concluded that the awareness of hypertension among the participants in the study was high and a cause for concern, as majority of the participants have inadequate practice of control measures of hypertension.

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