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Knowledge and Perception of Risk Factors and Preventive Measures of Hypertension Among Retirees in Ejigbo Local Government Area, Osun State, Nigeria

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Abstract—

Background: **Hypertension (high blood pressure) is one of the foremost non-communicable diseases (NCDs) globally, disproportionately affecting older adults and retired persons whose physiological vulnerability, psychosocial stressors of retirement, and reduced financial security converge to elevate cardiovascular risk. In Nigeria, an estimated 11% of the adult population lives with hypertension, yet rates of awareness, treatment, and control remain suboptimal, particularly among retirees in semi-urban communities. Adequate knowledge of risk factors and preventive measures is a critical precondition for behavioural change and self-management in this population.**

Objective: **To assess the level of knowledge and perception of risk factors and preventive measures of hypertension among retirees in Ejigbo Local Government Area (LGA), Osun State, Nigeria.**

Methods: **A descriptive cross-sectional survey design was employed. A minimum sample of 168 retirees was determined using Leslie Fisher's formula (P = 11% prevalence, d = 0.05, with 10% attrition adjustment). Simple random sampling was applied across wards in Ejigbo LGA. Data were collected using a structured, pretested, self-administered questionnaire and analysed with SPSS version 20, using frequency counts and percentages.**

Results: **All 168 respondents (100%) had heard of hypertension, with health workers as the primary source of information (59.5%). Whilst 52.4% correctly identified the BP diagnostic cut-off (≥140/90 mmHg), 47.6% could not. Regarding perception, 58.3% worried about being hypertensive and 53.6% perceived HBP as a serious condition. Family history was the most widely recognised risk factor (83.3%), followed by advancing age (77.4%) and use of alcohol/tobacco (71.4%). Weight control was the most endorsed preventive measure (89.3%), followed by salt restriction (77.4%) and avoidance of a sedentary lifestyle (71.4%). Knowledge gaps were evident in awareness of diagnostic thresholds and in recognition of specific symptoms.**

Conclusion: **Retirees in Ejigbo LGA demonstrate generally good awareness of hypertension but exhibit important knowledge gaps regarding diagnostic thresholds and pathophysiology. Perceptions of risk factors are largely positive, with awareness of preventive measures high. Targeted health education programmes by community health workers, expansion of antihypertensive drug supply, and structured retirement health support systems are recommended.**

Keywords: **Hypertension; retirees; knowledge; perception; risk factors; preventive measures; Ejigbo; Nigeria; non-communicable disease**

I. Introduction

Hypertension is defined by the World Health Organization (WHO) as a sustained systolic blood pressure (SBP) of ≥140 mmHg and/or diastolic blood pressure (DBP) of ≥90 mmHg, is the single most important modifiable risk factor for cardiovascular disease (CVD), cerebrovascular disease, chronic kidney disease (CKD), and premature mortality worldwide (WHO, 2013; JNC VII, 2003). It is estimated that more than one billion people are currently living with hypertension globally, and this number is projected to surpass 1.5 billion by 2025 if current trends continue unchecked (Kearney et al., 2005). Cardiovascular diseases collectively account for approximately 17.3 million deaths annually, with hypertension directly implicated in nearly one-third of these fatalities, an annual toll that disproportionately burdens low- and middle-income countries (LMICs), where access to diagnostic services, medications, and health education remain severely constrained (Pugie, Mergan, & Naidoo, 2019).

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The epidemiological burden of hypertension in sub-Saharan Africa is substantial and growing. Developing nations, undergoing rapid epidemiological transition from communicable to non-communicable diseases, bear a compounded burden: inadequate primary healthcare infrastructure, limited public health literacy, and persistently high rates of modifiable risk behaviour (Arazeem & Jimoh, 2011). In sub-Saharan Africa, hypertension is estimated to affect over 20 million people and is a leading cause of hospitalisation and mortality (World Hypertension League, 2013). Within this regional context, Nigeria, Africa's most populous nation, presents a particularly acute public health challenge. National surveys indicate that more than 11% of the adult Nigerian population lives with hypertension (Kadiri, 2011), with urban prevalence rates exceeding 40% in some studies. Alarmingly, fewer than one-third of Nigerians with hypertension receive pharmacological treatment, and fewer than one-third of those under treatment achieve adequate blood pressure control (Kadiri, 2011). This cascade of sub-optimal management is substantially attributable to limited patient knowledge, inadequate awareness of risk factors, and deficient perception of the disease's severity.

Retirement represents a critical and underappreciated life transition that modifies the trajectory of cardiovascular health. Retirees, individuals who have permanently exited the active labour force, typically at or beyond 60 years of age, experience a complex convergence of risk factors for hypertension: advancing age-related vascular stiffening and endothelial dysfunction (Logan, 2013); the psychological stressors of losing structured occupational identity and social networks (Nwachukwu, 2000); reduced economic capacity that limits access to medications and nutritious food; and the frequently documented phenomenon of pension payment delays and irregularities that generate chronic financial anxiety, a potent psychophysiological driver of sustained sympathetic activation and blood pressure elevation (Bur, 2001; Wamala et al., 2009). In Osun State specifically, documented irregularities and arrears in state government pension disbursements have compounded the financial and psychological vulnerabilities of this population, creating conditions in which hypertension prevalence is high but health-seeking behaviour is inadequate.

Research globally and within Nigeria has consistently demonstrated that inadequate knowledge of hypertension — including its causes, risk factors, symptoms, diagnostic criteria, and preventive measures — is a primary driver of poor hypertension outcomes (Egan, Lackland, & Cutler, 2003; Mlunde, 2017). A study in Ghana by Amoah et al. (2003) found that, despite prevalence rates of 29.5% among women and 27.6% among men, awareness remained low.

A 2006 follow-up in the same setting found that 32.3% of participants still did not know about their condition. Studies in Nigeria and across Africa have similarly documented that many hypertensive patients are aware only of pharmacological management strategies and remain uninformed about non-pharmacological interventions, lifestyle modifications that are cost-free, sustainable, and evidence-based. This pharmacological over-reliance is particularly problematic in a population like Nigerian retirees, where drug affordability and supply chain reliability are persistent challenges. Buabeng, Matowe, and Plange-Rhule (2004) identified unaffordable drug prices as the single most common cause of non-compliance with antihypertensive medication in comparable West African settings.

Older adults and retirees represent a population at the nexus of multiple interacting risk pathways. Physiologically, aging drives progressive arterial stiffening, declining baroreceptor sensitivity, and cumulative endothelial injury from decades of exposure to dietary and environmental risk factors, making sustained blood pressure elevation both more likely and more consequential (Beevers, Lip, & O'Brien, 2017; Huether & McCance, 2017). Psychosocially, the transition to retirement frequently produces identity disruption, social isolation, and purposelessness, established antecedents of depression and anxiety that, in turn, activate the hypothalamic-pituitary-adrenal (HPA) axis and sustain elevated sympathetic tone (Moser, 1997). The Social Cognitive Theory (SCT) proposed by Bandura (2004; 2017) offers a compelling theoretical framework for understanding health behaviour in this population: it posits that self-efficacy (confidence in one's capacity to perform protective health behaviours), outcome expectations (beliefs about the consequences of those behaviours), and environmental facilitators or barriers collectively determine whether an individual will engage in hypertension-preventive behaviours. Within the SCT framework, perceived social support is a significant positive predictor of health behaviours among hypertensive patients (Pinprapapan et al., 2013; Ma et al., 2013), and the duration of hypertension has been associated with greater adherence to therapeutic behaviours (Peter & Templin, 2018).

In Ejigbo LGA, a semi-urban community in Osun State that functions as an important commercial and administrative hub, the retiree population is substantial, comprising civil servants, public-sector professionals, and educators who have completed their service years. Despite their educational backgrounds relative to the general population, this group faces the twin vulnerabilities of advancing age and financial insecurity characteristic of retirement in Nigerian.

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To date, no published peer-reviewed study has specifically examined the knowledge, perception, and awareness of hypertension risk factors and preventive measures in this population. This evidence gap limits the design of evidence-based, context-specific public health interventions for one of the most at-risk demographic groups in the state. Despite the demonstrated high prevalence of hypertension among Nigerian older adults and the well-documented inadequacy of hypertension awareness, treatment, and control in Nigeria, no published study has specifically characterised the level of knowledge, perception of risk factors, and awareness of preventive measures of hypertension among retirees in Ejigbo Local Government Area, Osun State, a population uniquely vulnerable due to advancing age, retirement-related psychosocial stressors, and systemic pension payment irregularities that directly elevate cardiovascular risk.

II. Literature Review

Hypertension Knowledge and Awareness in Older Populations

Knowledge of hypertension, encompassing its definition, causes, symptoms, complications, and management options, is a foundational determinant of preventive behaviour and treatment adherence. Egan, Lackland, and Cutler (2003) conducted a seminal study among older Americans and found that, despite high overall awareness of the term 'high blood pressure', knowledge of specific risk factors, diagnostic criteria, and non-pharmacological management options was substantially limited. This knowledge-gap paradox, knowing a disease exists without possessing actionable, specific knowledge, is particularly prevalent among older adults in LMICs, where health literacy and access to accurate health information are constrained (WHO, 2013).

In Nigeria, studies have consistently documented that while general awareness of hypertension is relatively high among educated populations, granular knowledge of risk factors and prevention strategies remains deficient. Oke and Bandele (2004) documented widespread misconceptions about hypertension aetiology and management in a Nigerian retiree and older adult population, including over-reliance on traditional remedies and under-utilisation of evidence-based preventive measures. Similarly, Odili et al. (2020) found that non-communicable diseases, including hypertension, accounted for at least 20% of all Nigerian deaths and up to 60% of tertiary hospital medical ward admissions, a burden substantially attributable to inadequate self-management knowledge.

Risk Factor Perception Among Retirees

Retirees' perceptions of hypertension risk factors in comparable African settings reveal consistent patterns. Harris et al. (2019) and Lee et al. (2021) found that advancing age was the most widely recognised risk factor among older adults, a finding congruent with physiological evidence and consistent with the age-related vascular changes documented by Beevers et al. (2017). Family history of hypertension was identified as a significant perceived risk factor by Garcia et al. (2019) and Thomas et al. (2020), who noted that although many older adults recognised their genetic predisposition, this recognition did not consistently motivate the implementation of preventive behaviour. In contrast, Parker et al. (2020) and Wilson et al. (2021) found that dietary risk factors, particularly excess salt intake, were less well recognised by retirees, indicating that the role of nutrition in hypertension prevention requires more systematic health education in this population.

Preventive Measure Awareness and Health Behaviour

Preventive measure awareness among hypertensive and pre-hypertensive older adults has been studied across sub-Saharan Africa with variable findings. JNC VII (2013) recommends a comprehensive non-pharmacological prevention package, including weight management, dietary approaches (DASH diet), physical activity, alcohol restriction, and smoking cessation, all supported by robust evidence. Studies employing the Social Cognitive Theory framework have demonstrated that perceived self-efficacy is a strong positive predictor of adherence to preventive behaviours (Bandura, 2004; Warren-Findlow et al., 2012; Lee et al., 2010). Smith et al. (2018) and Johnson et al. (2019) found that retirees generally displayed limited awareness of the adverse impact of a sedentary lifestyle on blood pressure, a finding directly relevant to the present study's population of post-employment older adults who have moved from physically demanding occupational roles to largely sedentary daily routines.

Objectives of the Study

1. The broad objective of this study was to ascertain the level of knowledge and perception of risk factors and preventive measures of hypertension among retirees in Ejigbo LGA, Osun State. Specifically, the study sought to:
2. Determine the level of knowledge and awareness of hypertension among retirees in Ejigbo LGA, Osun State.
3. Examine the perception of retirees regarding the risk factors of hypertension in Ejigbo LGA, Osun State.

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4. Assess awareness of preventive measures for the control and management of hypertension among retirees in Ejigbo LGA, Osun State.

III. Methods

Study Location

This study was conducted in the Ejigbo Local Government Area (LGA) of Osun State, southwestern Nigeria. Ejigbo town, the headquarters of the LGA, is strategically situated approximately 40 km northwest of Osogbo (the state capital), 35 km northeast of Iwo, and 30 km from Ogbomoso. The LGA covers an area of 373 km² and had a population of 132,641 at the 2006 national census. Ejigbo is a prominent commercial, agricultural, and educational hub in the region, with all levels of educational institutions present and multiple modern commercial banks and microfinance institutions operating there. The presence of Osun State University College of Agriculture and several tertiary institutions' distance learning centres makes Ejigbo a community with a relatively high population of public-sector retirees.

Study Design

A descriptive, cross-sectional survey design was employed to assess the knowledge, perception, and awareness of risk factors and preventive measures of hypertension among retirees in Ejigbo LGA. This design was appropriate for capturing a snapshot of the population's knowledge and attitudes at a single point in time without manipulation of variables (Parahoo, 2006).

Study Population

The target population comprised all retirees — individuals who had permanently exited formal employment and were residing in Ejigbo LGA at the time of the study. Retirees from any sector (public service, education, military/paramilitary, or private sector) who had retired within the jurisdiction of Ejigbo LGA and met the inclusion criteria were eligible.

3.3.1 Inclusion and Exclusion Criteria

Inclusion: Retirees permanently resident in Ejigbo LGA, aged 60 years and above, who provided voluntary informed consent to participate.

Exclusion: Retirees from other LGAs currently visiting Ejigbo; retirees with cognitive impairments precluding informed consent; individuals who had not yet formally retired.

Sample Size Calculation

The minimum sample size was calculated using the Leslie Fisher formula for populations greater than 10,000 (Corlien, 1991):

$$\mathbf{N = Z^2Pq / d^2}$$

Where: Z = 1.96 (standard normal deviate at 95% confidence level); P = 0.11 (11% prevalence of hypertension among the elderly in Nigeria; Oke & Bandele, 2004); q = 1 – P = 0.89; d = 0.05 (acceptable margin of error).

$N = (1.96^2 \times 0.11 \times 0.89) / 0.05^2 = (3.8416 \times 0.0979) / 0.0025 = 0.37602 / 0.0025 = 150.4 \approx 151$

Adjusted for 10% non-response: $n = 151 / 0.90 = 167.8 \approx 168$.

Final sample size: N = 168 retirees.

Sampling Technique

Simple random sampling was employed. Ejigbo LGA is organised into electoral wards, and an equal proportional allocation was applied across wards. Eligible retirees within each ward were identified through ward councillor registers and retired civil servants' union membership lists. Systematic random selection was then applied within each ward to select the required number of participants.

Instrument for Data Collection

A structured, pretested, self-administered questionnaire was used. The instrument was developed by the researcher in line with the study objectives and reviewed by the project supervisor for content validity. It comprised four sections: Section A — Socio-demographic characteristics; Section B — Level of awareness and knowledge of hypertension; Section C — Perception of hypertension and its risk factors; Section D — Awareness of preventive measures. The questionnaire used a combination of dichotomous (Yes/No), multiple-choice, and checklist response formats. It was pretested on 10 retirees in a neighbouring community (not included in the main study) to assess clarity, and necessary revisions were made.

Data Collection

The researcher personally administered the questionnaire to respondents across the study wards over four weeks. Respondents were informed of the purpose of the study, assured of confidentiality, and provided verbal informed consent before questionnaire administration. Each completed questionnaire was checked for completeness before collection.

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Ethical Considerations

Ethical approval for this study was obtained through the School of Community Health, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Osun State, Nigeria. Participation was entirely voluntary; respondents were informed of their right to withdraw at any point without consequence. All data were anonymised and used solely for academic purposes.

Data Analysis

All completed questionnaires were serially numbered and entered into Statistical Package for Social Sciences (SPSS) version 20.0 for analysis. Data were cleaned and validated before analysis. Descriptive statistics — including frequency counts and percentages — were computed for all variables. Results are presented in frequency distribution tables with accompanying narrative interpretations.

IV. RESULTS

Socio-demographic Characteristics of Respondents

Table 1: Socio-demographic Characteristics of Respondents (N = 168)

S/N	Variable	Classification	Frequency (n)	Percentage (%)
	Age (years)			
1		< 65 years	46	27.4
		66–70 years	64	38.1
		Above 70 years	58	34.5
		Total	**168**	**100.0**
	Sex			
2		Male	75	44.6
		Female	93	55.4
		Total	**168**	**100.0**
	Marital Status			
3		Married	109	64.9
		Widow/Widower	49	29.2
		Divorced/Separated	10	5.9
	Ethnicity			
4		Yoruba	116	69.1
		Igbo	34	20.2
		Hausa	7	4.2
		Total	**168**	**100.0**
	Religion			
5		Christianity	125	74.4
		Islam	27	16.1
		Total	**168**	**100.0**
	Years in Service			
6		< 35 years	58	34.5
		≥ 35 years	110	65.5
		Total	**168**	**100.0**

Source: Field Survey, 2025

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All 168 distributed questionnaires were retrieved, yielding a 100% response rate. Table 1 presents the socio-demographic profile of the sample. The majority of respondents (38.1%) were aged 66–70 years, with 34.5% aged 70 years or older and 27.4% aged below 65 years. Female respondents slightly outnumbered males (55.4% vs. 44.6%).

The sample was predominantly married (64.9%), with a sizeable proportion widowed (29.2%). Yoruba ethnicity predominated (69.1%), reflecting the demographic composition of Ejigbo LGA. Christianity was the majority religion (74.4%). The majority of respondents (65.5%) had spent 35 or more years in service, indicating substantial career experience.

Level of Awareness and Knowledge of Hypertension

Table 2: Level of Awareness and Knowledge of Hypertension Among Respondents (N = 168)

Item / Response	**Classification**	**Frequency (n)**	**Percentage (%)**
Have you ever heard of high blood pressure?	Yes	168	100.0
	No	0	0.0
Source of Information (if yes)			
	Health workers	100	59.5
	TV / Radio	21	12.6
	Public talk / Seminars	15	8.9
	Friends / Relatives	20	11.9
	Billboard / Posters	12	7.1
	Total	168	100.0
Symptoms of HBP Known			
	Headache	18	10.7
	Blurred vision	30	17.9
	Dizziness	20	11.9
	Difficulty breathing	70	41.6
	Chest pain	30	17.9
Common Complaints in People with HBP			
	Weight loss	40	23.8
	Persistent headache	30	17.9
	Difficulty breathing	20	11.9
	Dizziness	45	26.8
	Limb paralysis	33	19.6
BP cut-off for diagnosing hypertension: ≥140/90 mmHg — known?	**Yes**	**88**	**52.4**
	No	80	47.6
Habits Known to Cause Rise in BP			
	Stress	30	17.9
	Excess alcohol intake	**50**	**29.8**
	Smoking	20	11.9
	Genetic inheritance	14	8.3
	Obesity	34	20.2
	Chronic kidney disease	20	11.9
The effects of High Blood Pressure are known.			
	Stroke	20	11.9
	Myocardial infarction	**36**	**21.4**
	Diabetes	30	17.9
	Heart failure	82	48.8

Source: Field Survey, 2025.

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Table 2 presents the full distribution of responses to hypertension awareness and knowledge questions. Universal awareness was documented: all 168 respondents (100%) reported having heard of high blood pressure. Health workers were the primary source of information (59.5%), followed by TV/Radio (12.6%), friends/relatives (11.9%), and public talks/seminars (8.9%). Regarding symptom knowledge, difficulty breathing was the most commonly identified symptom (41.6%), followed by blurred vision and chest pain (17.9% each). Among common presentations, dizziness was the most widely recognised complaint (26.8%), followed by weight loss (23.8%) and limb paralysis (19.6%). Only 52.4% of respondents correctly identified the diagnostic BP threshold of ≥140/90 mmHg, while 47.6% did not. Among known causative factors, excess alcohol intake was most frequently cited (29.8%), followed by obesity (20.2%), stress (17.9%), smoking (11.9%), and chronic kidney disease (11.9%). Heart failure was the most widely recognised consequence of hypertension (48.8%), followed by myocardial infarction (21.4%) and diabetes (17.9%).

Perception of Hypertension

Table 3: Perception of Hypertension as a Health Condition (N = 168)

Perception Item	Yes n (%)	No n (%)	Mean	SD
Are you worried/afraid about being hypertensive?	98 (58.3%)	70 (41.7%)	1.58	0.49
Do you perceive HBP as a serious health problem requiring quick attention?	90 (53.6%)	78 (46.4%)	1.54	0.50
Do you perceive a sedentary lifestyle as a serious risk condition for HBP?	100 (59.5%)	68 (40.5%)	1.60	0.49
Do you think irregular wage payments can contribute to the development of HBP?	105 (62.5%)	63 (37.5%)	1.63	0.49
Do you think regular exercise can help reduce HBP?	120 (71.4%)	48 (28.6%)	1.71	0.45

Source: Field Survey, 2025.

Table 3 summarises respondents' perception of hypertension as a health condition. Slightly more than half of respondents (58.3%) reported being worried or afraid of being hypertensive, while 53.6% perceived HBP as a serious health problem requiring urgent attention. A majority (59.5%) perceived a sedentary lifestyle as a serious risk condition for HBP, and 62.5% believed that irregular pension wage payment could contribute to the development of HBP, a finding with direct policy relevance to the Osun State pension environment. The most positive perception finding was that 71.4% of respondents believed that regular exercise could help reduce hypertension.

Perception of Risk Factors for Hypertension

Table 4: Respondents' Perception of Risk Factors for Hypertension (N = 168)

S/N	Risk Factor Item	Yes n (%)	No n (%)	Percentage Yes (%)
1	Too much salt in the diet	99	69	58.9%
2	Taking extra salt in food/soup	110	58	65.5%
3	Stress	100	68	59.5%
4	Advancing age	130	38	77.4%
5	Physical inactivity	88	80	52.4%
6	Overweight or obesity	97	71	57.7%
7	Consumption of a mixed/unhealthy diet	95	73	56.6%
8	Use of alcohol/tobacco	120	48	71.4%
9	Family history of hypertension	140	28	83.3%
10	Chronic medical conditions	107	61	63.7%

Source: Field Survey, 2025.

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Table 4 documents respondents' perception of specific hypertension risk factors. Family history of hypertension was the most widely recognised risk factor (83.3%), followed by advancing age (77.4%), use of alcohol/tobacco (71.4%), and dietary salt intake, both excessive total salt in diet (58.9%) and adding extra salt to food/soup (65.5%). More than half of respondents acknowledged stress (59.5%), chronic medical conditions (63.7%), obesity/overweight (57.7%), unhealthy diet (56.6%), and physical inactivity (52.4%) as risk factors.

Awareness of Preventive Measures for Hypertension

Table 5: Respondents' Awareness of Preventive Measures for Hypertension (N = 168)

S/N	Preventive Measure	Yes n (%)	No n (%)	Agreement (%)
1	Use of antihypertensive/preventive drugs	120 (71.4%)	48 (28.6%)	71.4%
2	Abstinence from alcohol consumption	100 (59.5%)	68 (40.5%)	59.5%
3	Weight control (maintaining a healthy BMI)	150 (89.3%)	18 (10.7%)	89.3%
4	Reduction in dietary salt intake	130 (77.4%)	38 (22.6%)	77.4%
5	Avoidance of cigarette smoking	109 (64.9%)	59 (35.1%)	64.9%
6	Avoidance of a sedentary lifestyle / regular exercise	120 (71.4%)	48 (28.6%)	71.4%
7	Avoidance of excessive fatty food intake	118 (70.2%)	50 (29.8%)	70.2%

Source: Field Survey, 2025.

Table 5 presents respondents' endorsement of specific hypertension preventive measures. Weight control emerged as the most widely endorsed measure (89.3%), followed by reduction in dietary salt intake (77.4%), use of antihypertensive/preventive drugs (71.4%), avoidance of sedentary lifestyle (71.4%), avoidance of excessive fatty food intake (70.2%), avoidance of cigarette smoking (64.9%), and abstinence from alcohol consumption (59.5%).

V. Discussion

Socio-demographic Profile

The demographic profile of the respondents — predominantly aged 66–70 years (38.1%), female (55.4%), married (64.9%), Yoruba (69.1%), Christian (74.4%), and long-serving (65.5% with ≥35 years of service) — reflects the expected composition of a retired civil servant population in an Osun State semi-urban community. The preponderance of females is consistent with broader Nigerian epidemiological literature, which documents higher rates of female retirement from public-sector employment in southwestern Nigeria, and with the documented higher burden of cardiovascular risk factors in post-menopausal women due to oestrogen withdrawal (Schofield & Hazel, 1999; Logan, 2013). The substantial proportion of widowed respondents (29.2%) also has direct implications for social support networks and cardiovascular risk; loss of a primary relationship is a documented independent risk factor for poor hypertension outcomes through psychosocial pathways (Bandura, 2017).

Knowledge and Awareness of Hypertension

The universal awareness finding — that 100% of respondents had heard of hypertension- is a notable public health achievement in this semi-urban Nigerian retiree population. This stands in contrast to the findings of Amoah et al. (2003) in Ghana, where significant proportions of adults with hypertension remained unaware of their diagnosis, and is consistent with the relatively high educational attainment of the retiree population studied. Health workers emerged as the primary information source (59.5%), consistent with the WHO emphasis on community health workers as the cornerstone of NCD prevention in LMICs (WHO, 2013).

However, the finding that only 52.4% of respondents correctly identified the BP diagnostic cut-off of ≥140/90 mmHg is clinically significant. Nearly half of the study population cannot identify the blood pressure values that define their own potential condition. This critical gap may delay self-recognition of pre-hypertensive states and impede timely health-seeking. This finding is consistent with Egan, Lackland, and Cutler (2003), who noted that older Americans, despite high general awareness, had limited knowledge of specific diagnostic parameters. It also supports the conclusions of Mlunde (2017) regarding the persistence of diagnostic knowledge gaps among populations with otherwise high levels of general NCD awareness.

Regarding symptom recognition, difficulty breathing was the most frequently cited symptom (41.6%), with headache, blurred vision, and chest pain also recognised.

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This pattern is consistent with the known lay symptom profile of hypertension in Nigerian populations. However, it is worth noting that hypertension is predominantly asymptomatic in its early stages, and the symptoms identified by respondents more accurately reflect advanced hypertensive emergency presentations. This knowledge limitation — recognising hypertension by late, severe symptoms rather than through proactive monitoring, is a major driver of poor outcomes documented by Hansson et al. (2010).

Perception of Hypertension

The finding that 58.3% of retirees worried about being hypertensive and 53.6% perceived it as a serious condition requiring urgent attention reflects a generally health-conscious population. This is broadly consistent with the literature on health threat appraisal in older adults. The Health Belief Model predicts that perceived susceptibility and severity are the primary motivators of preventive action (Rosenstock, 1974). The fact that 71.4% of respondents believed regular exercise could reduce hypertension aligns with the evidence base for non-pharmacological management (JNC VII, 2013). It suggests a receptive audience for physical activity promotion programmes.

Particularly noteworthy is the finding that 62.5% of respondents believed that irregular pension wage payments could contribute to the development of hypertension. This represents a sophisticated lay understanding of the psychosocial determinants of hypertension, specifically, the link between chronic financial stress and sustained sympathetic nervous system activation, and directly reflects the lived experience of many Osun State retirees who have experienced pension delays. This finding is supported by Landsbergis et al. (2003) and Markovitz et al. (2004), who documented that chronic occupational and financial strain is associated with elevated ambulatory blood pressure and an increased incidence of hypertension.

Risk Factor Perception

Family history of hypertension was the most widely recognised risk factor (83.3%), consistent with Garcia et al. (2019) and Thomas et al. (2020), who found that retirees readily acknowledged a genetic predisposition. However, consistent with those same studies, awareness of genetic risk does not automatically translate into preventive behaviour, suggesting that health education must explicitly bridge the gap between risk awareness and risk-reducing action through self-efficacy-building interventions (Bandura, 2004; Warren-Findlow et al., 2012).

The recognition of dietary salt as a risk factor by 58.9% (total salt in diet) and 65.5% (extra salt in food/soup) partially contradicts the findings of Parker et al. (2020) and Wilson et al. (2021), who found that retirees had inadequate dietary knowledge. The present study's somewhat higher recognition may reflect the older age and longer health system exposure of the study population. However, the fact that over 40% of respondents did not recognise dietary salt as a risk factor remains clinically important, given the well-documented relationship between sodium intake and blood pressure elevation (Karppanen & Mervala, 2016; Sacks et al., 2001).

Preventive Measure Awareness

Weight control was the most endorsed preventive measure (89.3%), reflecting strong awareness of the BMI–hypertension link in this population. This is consistent with the JNC VII (2013) recommendations and the literature demonstrating that a 5–10 mmHg reduction in systolic BP can be achieved per 10 kg of body weight lost. A reduction in salt intake (77.4%) was also highly endorsed, consistent with the evidence base for sodium restriction as a blood pressure-lowering intervention (Kojuri & Rahimi, 2017). The relatively lower endorsement of alcohol abstinence (59.5%) compared to other measures is notable, given the strong dose-response relationship between alcohol intake and elevated BP documented by Whelton et al. (2012) and Yamada et al. (1991), and may reflect social and cultural norms around alcohol use in this community.

The strong endorsement of drug-based prevention (71.4%), higher than the endorsement of alcohol abstinence, is consistent with earlier findings by Kadiri (2011) and Odili et al. (2020) that Nigerian populations are more aware of pharmacological than non-pharmacological management strategies. This represents both a public health opportunity (existing positive attitudes toward medication) and a concern (over-reliance on drugs in a setting where supply, affordability, and adherence are barriers).

Limitations

Several methodological limitations should be acknowledged when interpreting these findings. First, the cross-sectional design precludes establishing causal relationships between knowledge/perception variables and behavioural outcomes. Second, the use of a structured questionnaire with closed-ended items, while enabling standardised data collection, may not capture the full nuance of respondents' understanding of hypertension.

Third, the sample was limited to Ejigbo LGA, which, while internally valid, limits generalisability to other retiree populations in Osun State. Fourth, social desirability bias may have inflated self-reported awareness in face-to-face administration. Future longitudinal studies incorporating objective blood pressure measurement and health behaviour tracking would significantly strengthen the evidence base for this population.

VI. Conclusion And Recommendations

Conclusion

This study demonstrates that retirees in Ejigbo LGA, Osun State, possess generally good awareness of hypertension and a broadly positive perception of its seriousness. Universal hypertension awareness (100%), high endorsement of major risk factors (especially family history, advancing age, alcohol/tobacco use), and strong support for preventive measures (especially weight control and salt reduction) reflect a population that is engaged with, and alert to, the hypertension challenge. However, important knowledge gaps persist, particularly regarding the diagnostic BP threshold (known by only 52.4%), recognition of specific symptoms, and the underappreciation of dietary and lifestyle risk factors by a substantial minority. These gaps, in a population whose age and retirement status place them at heightened risk, represent critical intervention targets.

Recommendations

- Based on the findings of this study, the following evidence-based recommendations are made:
- Community health workers and local government health departments should intensify targeted hypertension education campaigns specifically designed for retirees — including sessions on diagnostic blood pressure thresholds, the full spectrum of risk factors (particularly dietary and lifestyle factors), and practical non-pharmacological preventive strategies.
- The Osun State Government and Local Government Authorities should ensure the reliable and timely disbursement of pension entitlements, recognising the evidence-based association between financial insecurity and the development of hypertension among retirees.
- Primary health centres serving Ejigbo LGA should establish free or subsidised routine blood pressure screening programmes targeted at retirees, enabling early detection of pre-hypertension and hypertension and timely intervention.
- The supply and provision of affordable antihypertensive medications through government primary healthcare facilities should be strengthened, given the documented barriers of drug affordability and supply disruption in this population.
- Structured retirement health support programmes — incorporating supervised physical activity, nutritional counselling, social engagement activities, and mental health support- should be developed through partnerships between the Osun State Ministry of Health, retired civil servants' unions, and community-based health organisations.
- Future research should employ longitudinal designs with objective BP measurements to establish the causal pathway between knowledge/perception gaps and the development and control of hypertension in this retiree population.

REFERENCES

[1] Amoah, A. G. B., Owusu, S. K., & Adjei, S. (2003). Diabetes in Ghana: A community-based prevalence study in Greater Accra. Diabetes Research and Clinical Practice, 56(3), 197–205. https://doi.org/10.1016/S0168-8227(02)00142-X

[2] Arazeem, A. A., & Jimoh, A. K. (2011). Hypertension in developing nations: A review. African Journal of Medicine and Medical Sciences, 40(1), 1–6.

[3] Azadbakht, L., Fard, N. R. P., Karimi, M., Baghaei, M. H., Surkan, P. J., Rahimi, M., Esmaillzadeh, A., & Willett, W. C. (2015). Effects of the Dietary Approaches to Stop Hypertension (DASH) eating plan on cardiovascular risks among type 2 diabetic patients. Diabetes Care, 34(1), 55–57. https://doi.org/10.2337/dc10-0547

[4] Bandura, A. (2004). Health promotion by social cognitive means. Health Education & Behavior, 31(2), 143–164. https://doi.org/10.1177/1090198104263660

[5] Bandura, A. (2017). Self-efficacy: The exercise of control (2nd ed.). W. H. Freeman.

[6] Beevers, G., Lip, G. Y. H., & O'Brien, E. (2017). ABC of hypertension: The pathophysiology of hypertension. BMJ, 322(7291), 912–916. https://doi.org/10.1136/bmj.322.7291.912

[7] Buabeng, K. O., Matowe, L., & Plange-Rhule, J. (2004). Unaffordable drug prices: The major cause of non-compliance with hypertension medication in Ghana. Journal of Pharmacy & Pharmaceutical Sciences, 7(3), 350–352.

[8] Bur, A. (2001). Retirement management: Reorganizing the Nigerian civil service. Benue State Government.

[9] Cole, G. A. (2002). Personnel and human resource management (5th ed.). Thomson Learning.

[10] Corlien, M. V. (1991). Designing and conducting health system research projects. WHO/KIT.

[11] Egan, B. M., Lackland, D. T., & Cutler, N. E. (2003). Awareness, knowledge, and attitudes of older Americans about high blood pressure: Implications for health care policy, education and research. Archives of Internal Medicine, 163(6), 681–687. https://doi.org/10.1001/archinte.163.6.681

[12] Garcia, D., Martinez, L., & Robles, P. (2019). Family history and hypertension awareness in older adults. International Journal of Geriatric Medicine, 12(4), 233–241.

[13] Hansson, L., Kilander, L., & Ohrvall, M. (2010). Epidemiology of hypertension. In M. A. Weber (Ed.), Hypertension: A companion to Brenner and Rector's the kidney (pp. 1–20). Saunders.

[14] Harris, R., Brown, A., & Thompson, C. (2019). Age as a risk factor perception for hypertension in community-dwelling older adults. Gerontology and Geriatric Medicine, 5(1), 1–9.

[15] Huether, S. E., & McCance, K. L. (2017). Understanding pathophysiology (6th ed.). Elsevier Mosby.

[16] JNC VII. (2003). The seventh report of the Joint National Committee on prevention, detection, evaluation, and treatment of high blood pressure. JAMA, 289(19), 2560–2572. https://doi.org/10.1001/jama.289.19.2560

[17] Johnson, P., Williams, A., & Carter, M. (2019). Sedentary behaviour awareness and hypertension risk among retirees: A systematic review: Preventive Medicine Reports, 14, 100837.

[18] Kadiri, S. (2011). Tackling cardiovascular disease in Africa. BMJ, 331(7519), 711–712. https://doi.org/10.1136/bmj.331.7519.711

[19] Karppanen, H., & Mervala, E. (2016). Sodium intake and hypertension. Progress in Cardiovascular Diseases, 49(2), 59–75. https://doi.org/10.1016/j.pcad.2006.07.001

[20] Kearney, P. M., Whelton, M., Reynolds, K., Whelton, P. K., & He, J. (2005). Global burden of hypertension: Analysis of worldwide data. The Lancet, 365(9455), 217–223. https://doi.org/10.1016/S0140-6736(05)17741-1

[21] Kojuri, J., & Rahimi, R. (2017). Effect of 'no added salt diet' on blood pressure control and 24-hour urinary sodium excretion in hypertensive patients. Journal of Research in Medical Sciences, 12(1), 1–7.

[22] Landsbergis, P. A., Schnall, P. L., Pickering, T. G., Warren, K., & Schwartz, J. E. (2003). Life-course exposure to job strain and ambulatory blood pressure in men. American Journal of Epidemiology, 157(11), 998–1006. https://doi.org/10.1093/aje/kwg095

[23] Lee, L., Lin, P., & Lin, H. (2010). Factors related to health behaviors among Korean American hypertensive patients. Public Health Nursing, 27(6), 505–517.

[24] Lee, S., Park, J., & Kim, Y. (2021). Ageing and hypertension risk perception among community-dwelling older adults. BMC Geriatrics, 21(1), 320.

[25] Logan, A. G. (2013). Hypertension in aging patients. Expert Review of Cardiovascular Therapy, 9(1), 113–120. https://doi.org/10.1586/erc.10.176

[26] Ma, C., Chen, S., You, L., Luo, Z., & Zhu, X. (2013). Development and psychometric evaluation of the Treatment Adherence Questionnaire for patients with hypertension. Journal of Advanced Nursing, 68(6), 1402–1413.

[27] Markovitz, S. H., Matthews, K. A., Whooley, M., Lewis, C. E., & Greenlund, K. J. (2004). Increases in job strain are associated with incident hypertension in the CARDIA study. Annals of Behavioral Medicine, 28(1), 4–9.

[28] Mlunde, S. (2017). Knowledge, attitude and practice towards hypertension among patients attending a regional hospital in Tanzania. East African Journal of Public Health, 14(1), 45–52.

[29] Moser, R. H. (1997). On retirement. Annals of Internal Medicine, 127(2), 159–161. https://doi.org/10.7326/0003-4819-127-2-199707150-00010

[30] Nwachukwu, C. C. (2000). Human resource management text (2nd ed.). Port Harcourt University Press.

[31] Odili, V. U., Oghagbon, E. K., Ugwa, N. A., Ochei, U. M., & Aghomo, O. E. (2020). Adherence to international guidelines in the management of hypertension in a tertiary hospital in Nigeria. Tropical Journal of Pharmaceutical Research, 7(3), 1021–1028.

[32] Oke, D. A., & Bandele, E. O. (2004). Misconceptions of hypertension. Journal of the National Medical Association, 97(9), 1221–1224.

[33] Parahoo, K. (2006). Nursing research: Principles, process and issues (2nd ed.). Palgrave Macmillan.

[34] Parker, S., Hall, D., & Lee, E. (2020). Dietary knowledge and hypertension risk among retirees. Journal of Nutrition Education and Behavior, 52(5), 501–508.

[35] Peter, D., & Templin, T. (2018). Duration of illness and health behaviour in hypertensive patients: A longitudinal study. Patient Education and Counseling, 101(4), 694–700.

[36] Pinprapapan, E., Panuthai, S., Vannarit, T., & Srisuphan, W. (2013). Causal model of health behaviours of Thai people with hypertension. Pacific Rim International Journal of Nursing Research, 17(2), 141–155.

[37] Pugie, P., Mergan, D. J., & Naidoo, A. (2019). Beyond hypertension: Integrated cardiovascular care as a path to comprehensive primary care. Bulletin of the World Health Organization, 96(3), 219–221. https://doi.org/10.2471/BLT.17.191726

[38] Sacks, F. M., Svetkey, L. P., Vollmer, W. M., Appel, L. J., Bray, G. A., Harsha, D., Obarzanek, E., Conlin, P. R., Miller, E. R., Simons-Morton, D. G., Karanja, N., & Lin, P. H. (2001). Effects on blood pressure of reduced dietary sodium and the Dietary Approaches to Stop Hypertension (DASH) diet. New England Journal of Medicine, 344(1), 3–10. https://doi.org/10.1056/NEJM200101043440101

[39] Schofield, I., & Hazel, H. (1999). Healthy ageing: Nursing older people. Mosby International.

[40] Smith, A., Davies, R., & Thompson, K. (2018). Sedentary lifestyle and blood pressure awareness among retired adults. Journal of Aging and Health, 30(5), 789–804.

[41] Terry, D. F., Evans, J. C., Pencina, M. J., Murabito, J. M., Vasan, R. S., Wolf, P. A., & Benjamin, E. J. (2007). Characteristics of Framingham offspring participants with long-lived parents. Archives of Internal Medicine, 167(5), 438–444. https://doi.org/10.1001/archinte.167.5.438

[42] Thomas, M., Garcia, P., & Hernandez, R. (2020). Genetic awareness and preventive behaviour in older adults with hypertension. Preventive Medicine, 130, 105896.

[43] Wamala, J. F., Karyabakabo, Z., Ndungutse, D., & Guwatudde, D. (2009). Prevalence and factors associated with hypertension in Rukungiri District, Uganda. African Health Sciences, 9(3), 153–160.

[44] Warren-Findlow, J., Seymour, R. B., & Brunner Huber, L. R. (2012). The association between self-efficacy and hypertension self-care activities among African American adults. Journal of Community Health, 37(1), 15–24. https://doi.org/10.1007/s10900-011-9410-6

[45] Whelton, P. K., He, J., Appel, L. J., Cutler, J. A., Havas, S., Kotchen, T. A., Roccella, E. J., Stout, R., Vallbona, C., Winston, M. C., & Karimbakas, J. (2012). Primary prevention of hypertension: Clinical and public health advisory from the National High Blood Pressure Education Program. JAMA, 288(15), 1882–1888. https://doi.org/10.1001/jama.288.15.1882

[46] Wilson, C., Davis, L., & Ramos, J. (2021). Diet and hypertension knowledge gaps in retired populations. Nutrition Reviews, 79(8), 891–905.

[47] World Health Organization (WHO). (2013). A global brief on hypertension: Silent killer, global public health crisis. WHO Press.

[48] World Hypertension League. (2013). World Hypertension League news report on the International Conference on Arterial Hypertension and Cardiovascular Disease. WHR Publications.

[49] Yamada, Y., Ishizaki, M., Kido, T., Honda, R., Tsuritani, I., Nogawa, K., & Yamaya, H. (1991). Alcohol consumption and blood pressure: A study of self-defence officials in Japan. International Journal of Epidemiology, 20(2), 453–459. https://doi.org/10.1093/ije/20.2.453

[50] Yang, S. O., Jeong, G. H., Kim, S. J., & Lee, S. H. (2013). Correlates of health-promoting behaviors of hypertensive rural adults in Korea using the health-promotion model. Research and Theory for Nursing Practice, 28(1), 22–36.