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Prevalence and Knowledge of Risk Factors for Hypertension among Young Men Aged 18 – 35 Years in Nekede, Imo State, Nigeria

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Abstract

Background: Hypertension is increasingly affecting younger populations in Nigeria, challenging the traditional view that it is a disease of older adults. Rising urbanization, unhealthy lifestyles, and poor health-seeking behavior among young men contribute to this growing burden. This study assessed the prevalence of hypertension, knowledge of its risk factors, lifestyle practices, and associated factors among young men aged 18–35 years in Nekede, Imo State, Nigeria.

Methods: A descriptive cross-sectional study was conducted among 348 young men selected through systematic random sampling. Data were collected using a structured questionnaire and standardized blood pressure measurements. Hypertension was classified based on established clinical guidelines. Data were analyzed using SPSS, with chi-square tests used to examine associations between variables.

Results: The prevalence of hypertension was 18.7%. Respondents demonstrated generally good knowledge of hypertension, with 85.6% correctly identifying it as high blood pressure and over 80% recognizing key risk factors such as high salt intake, physical inactivity, obesity, and alcohol use. However, knowledge gaps existed regarding symptoms and normal blood pressure ranges. Preventive practices were inconsistent, with many participants not engaging in regular blood pressure monitoring. While 84.2% perceived hypertension as a serious condition, only 39.6% believed it was common among young men. A significant association was found between lifestyle risk factors and hypertension ($p = 0.015$), and between knowledge level and lifestyle practices ($p < 0.001$).

Conclusion: Hypertension is prevalent among young men in Nekede, despite relatively good awareness of risk factors. Gaps in knowledge and preventive practices highlight the need for targeted health education, early screening, and behavior change interventions. Improving risk perception and promoting healthy lifestyles are critical to reducing the future burden of cardiovascular diseases in this population.

Keywords: Hypertension, Young Men, Prevalence, Knowledge, Lifestyle, Nigeria

Introduction

Hypertension, also known as high blood pressure, is a chronic non-communicable disease characterized by persistently elevated arterial blood pressure. It is a major public health challenge globally and a leading risk factor for cardiovascular diseases such as stroke, heart failure, kidney disease, and premature mortality. In sub-Saharan Africa, the burden of hypertension has been increasing steadily, driven by rapid urbanization, unhealthy dietary practices, sedentary lifestyles, obesity, alcohol consumption, and limited awareness of cardiovascular risk factors. Hypertension is no longer a disease of only older adults. Multiple studies in Nigeria show a growing burden of high blood pressure and prehypertension among adolescents and young adults, including university students and young men, with many cases undiagnosed and unrecognized (Nwafor & Clement, 2024) (Jalo *et al*., 2025) (Ibitoye, Oluwasanu, John-Akinola & Oladepo, 2025) [4].

This silent pattern in early adulthood increases the risk of serious cardiovascular disease later in life. National and regional data show substantial hypertension in young and early middle-aged adults, with overall adult prevalence around 28–38% and hypertension already present from ages 18–30 (Banigbe, Itanyi, Ofili, Ogidi, Patel, & Ezeanolue, 2020) [3]. Among young adults and students in Nigeria (often 18–35 years), studies report hypertension or high BP in roughly 8–25%, and prehypertension in 33–49% (Jalo *et al*., 2025).

Key associated factors in Nigerian men and young adults include overweight/obesity, urban residence, alcohol use, stress, and

advancing age even within the 18–35 range. Studies highlight that hypertension beginning in youth tracks into later life and increases the risk of premature cardiovascular events (Nwoke *et al*. 2024). Evidence that young adults often feel well and underestimate their risk, despite high BP, supports studying risk perception specifically in this age–sex group (Jalo *et al*., 2025).

Given the rising prevalence, very low awareness, gender gaps in help-seeking, and modifiable lifestyle risks among young Nigerian men, focused research on prevalence, awareness, and risk perception of hypertension in males aged 18–35 years is critical to guide targeted screening, education, and early prevention strategies (Anyanti, Akuiyibo, Fajemisin, Idogho, & Amoo, 2021) [2].

Men often have lower awareness and poorer health-seeking behaviour, while lifestyle and urbanization drive early-onset disease. Understanding how prevalent hypertension is, how aware young men are, and how they perceive their risk is essential for designing effective, male-focused prevention and control programmes in Nigeria.

This study aims to determine the prevalence, awareness, and risk perception of hypertension among young men aged 18 – 35 years in Nekede town in Imo State, Nigeria.

Materials and Methods

A descriptive cross-sectional research design was employed for the study. Nekede is a rapidly developing town in Owerri West Local Government Area, Imo State, Nigeria, located approximately 4km from the state capital, Owerri. Known as an Igbo-speaking community comprising Umuoma, Umualum, and Umudibia villages. It hosts the Federal Polytechnic Nekede, the "New Owerri" capital territory, and sits near the junction of the Nworie and Otamiri rivers.

The sample size for this study was 388, after accounting for a 15% non-response rate. It was determined using Leslie Kish's formula at 31.2% prevalence of hypertension among adults reported in a study in Nigeria. Three main villages, namely: Umualum, Umudibia and Umuoma, were included in the study. Proportionate sampling was applied to distribute the sample size across the villages, with 114 participants in Umualum, 146 in Umudibia, and 128 in Umuoma. However, due to non-response, only 348 participants completed the study. Systematic random sampling was used to select every fifth household within each village until the sample size was realised. Within each selected household, only one eligible individual meeting the criteria was included and ballot method was used if more than one eligible person resides in the household.

A structured questionnaire was the primary tool for collecting information from respondents, and a sphygmomanometer for blood pressure measurement. The questionnaire was used to elicit data on socio-demographic characteristics, knowlege of hypertension and lifestyle practices that are risk factors for hypertension.

The standard process for measuring blood pressure was followed with respondents relaxed, seated comfortably with their back supported, legs uncrossed, and arm supported at heart level after resting for at least 5 minutes. A properly sized cuff was wrapped snugly around the upper arm, and the measurement was taken using a validated manual device with a stethoscope. The cuff was rapidly inflated to occlude blood flow and then slowly deflated while listening for the first (systolic) and last (diastolic) Korotkoff sounds. Two readings were taken, spaced by 2 minutes, and the average was recorded. Factors such as recent caffeine intake, exercise, or talking during the procedure were avoided.

Blood pressure readings were classified as follows: Normal systolic blood pressure <120 mm Hg and diastolic blood pressure of <80 mm Hg. Elevated systolic blood pressure is 120–129 mm Hg, and elevated diastolic blood pressure is <80 mm Hg. Hypertension, stage 1, is systolic blood pressure of 130–139 mm Hg and/or diastolic blood pressure of 80–89 mm Hg. Hypertension, stage 2, is systolic blood pressure of ≥140 mm Hg and diastolic blood pressure of ≥90 mm Hg.

Data was analysed using SPSS. Participants was fully informed about the study's purpose, procedures and benefits.

Results

The study included a total of 348 respondents, with a fairly balanced distribution across young adult age groups, though slightly concentrated in the early-to-mid twenties. The largest proportion of participants were aged 22–25 years (29.9%), followed by those aged 26–29 years (26.4%) and 18–21 years (25.0%). Fewer respondents were in the older age brackets, with 12.9% aged 30–33 years and only 5.8% aged 34–35 years. This indicates that the sample is predominantly made up of younger adults, particularly those in their early and mid-twenties. In terms of marital status, the majority of respondents were single (67.2%), while about 31.1% were married. Very small proportions were separated (1.2%) or divorced (0.5%), and none of the participants reported being widowed. This suggests that most participants are likely still in early life stages, with fewer having experienced marital transitions such as separation or divorce.

Regarding parental status, a large majority of respondents (73.6%) reported having no children, reinforcing the youthful profile of the sample. Among those with children, 14.9% had one child, 8.0% had two children, while only a small fraction had three (2.3%) or four and above (1.2%).

Table 1a: Demographic Characteristics (Age, Marital Status, and Family Size)

Characteristic	Category	Frequency (n)	Percentage (%)
Age Group	18-21 years	87	25.0
	22-25 years	104	29.9
	26-29 years	92	26.4
	30-33 years	45	12.9
	34-35 years	20	5.8
Marital Status	Single	234	67.2
	Married	108	31.1
	Separated	4	1.2
	Divorced	2	0.5
	Widowed	0	0.0
Number of Children	None	256	73.6
	1 child	52	14.9
	2 children	28	8.0
	3 children	8	2.3
	4 and above	4	1.2
Total Sample Size		**348**	**100.0**

The religious composition of the respondents shows a strong dominance of Christianity, with the vast majority (89.7%)

identifying as Christians. A smaller proportion of participants practiced Islam (8.0%), while very few reported adherence to Traditional religion (1.7%) or Hinduism (0.6%).This distribution reflects a largely homogeneous religious background, which may influence shared beliefs, values, and health-related behaviors within the study population.

In terms of ethnicity, the sample is overwhelmingly composed of individuals from the Igbo ethnic group (86.5%), indicating a highly concentrated ethnic representation. Minority groups include Yoruba (7.2%), Hausa (4.3%), and Fulani (1.2%), while 0.8% identified with other ethnic backgrounds. This pattern suggests that the study population is predominantly drawn from a specific ethnic group, likely reflecting the geographic location of the study.

Table 1b: Religious, ethnic and educational distribution

Characteristic	Category	Frequency (n)	Percentage (%)
Religion	Christianity	312	89.7
	Islam	28	8.0
	Traditional	6	1.7
	Hinduism	2	0.6
	Others	0	0.0
Ethnicity	Igbo	301	86.5
	Yoruba	25	7.2
	Hausa	15	4.3
	Fulani	4	1.2
	Others	3	0.8
Total Sample Size		**348**	**100.0**
Educational Level		**Frequency (n)**	**Percentage (%)**
No formal education		12	3.4
Primary		23	6.6
Secondary		156	44.8
Tertiary		155	44.6
Others		2	0.6
Total		**348**	**100.0**

The occupational profile of respondents reflects a predominantly informal and semi-formal workforce. The largest proportion of participants were self-employed (33.9%), suggesting that many individuals rely on personal or small-scale business ventures for their livelihood. This was closely followed by artisans (25.6%) indicating a substantial representation of skilled vocational workers. A considerable number of respondents were civil servants (21.8%), representing those engaged in government-related employment, which typically offers more job stability. Meanwhile, 10.9% of participants were unemployed, highlighting a segment of the population that may face economic challenges. The smallest group consisted of professionals (7.8%). With respect to income, the findings reveal that most respondents fall within the lower income categories. The majority (40.8%) earned between ₦10,000 and ₦30,000, followed by 28.2% earning ₦30,000–₦50,000. Fewer respondents were in the middle-income range, with 18.7% earning ₦50,000–₦70,000, while only a small proportion earned higher incomes with 8.0% earning ₦70,000–₦90,000 and 4.3% earning ₦90,000 and above.

Table 1c: Occupational and Income Distribution

Characteristic	Category	Frequency (n)	Percentage (%)
Occupation	Self-employed (Trader, Photographer etc)	118	33.9
	Artisan (Carpenter, Hairdresser, Tailor, Driver etc)	89	25.6
	Civil servant (Government worker)	76	21.8
	Unemployed	38	10.9
	Professionals (Doctor, Nurse, Lawyer, Accountant etc)	27	7.8
Income Level (Naira)	₦10,000-30,000	142	40.8
	₦30,000-50,000	98	28.2
	₦50,000-70,000	65	18.7
	₦70,000-90,000	28	8.0
	₦90,000 and above	15	4.3
Total Sample Size		**348**	**100.0**

The hypertension status of respondents shows that the majority of the study population were not hypertensive. Out of the 348 participants, 283 respondents (81.3%) reported no diagnosis of hypertension. This indicates that most individuals in the sample currently fall within the normal blood pressure category. In contrast, 65 respondents (18.7%) were identified as hypertensive, representing a smaller but still important proportion of the population. This finding suggests that nearly one in five participants is living with hypertension, highlighting a notable presence of elevated blood pressure within the study group.

Table 2: Prevalence of hypertension

Hypertension Status	Frequency	Percent	Cumulative Percent
No Hypertension	283	81.3	81.3
Hypertensive	65	18.7	100.0
Total	**348**	**100.0**	

Respondents demonstrated strong awareness of dietary influences on hypertension. Most participants correctly agreed that high salt consumption increases risk (80.4%) and that a balanced diet rich in fruits and vegetables helps prevent hypertension (80.1%). A large majority (84.8%) agreed that regular physical activity prevents hypertension, showing strong awareness of exercise benefits. Additionally, 68.1% recognized that sedentary jobs increase risk. Most respondents (83.6%) correctly identified that excessive alcohol consumption and smoking increase hypertension risk. Similarly, 69.5% acknowledged that recreational drug use contributes to risk. This reflects relatively good awareness of lifestyle-related harmful behaviors. Awareness of stress and sleep-related factors was moderate to high. About 77.6% agreed that high daily stress increases hypertension risk, while 60.4% recognized that inadequate sleep contributes to risk. Additionally, 63.2% believed that stress-reducing activities can help prevent hypertension.

Table 3a: Knowledge of lifestyle practices that are risk factors for hypertension

Risk Factor/Practice	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total Agreement*
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Dietary Factors						
High salt consumption increases risk	156 (44.8%)	124 (35.6%)	42 (12.1%)	19 (5.5%)	7 (2.0%)	280 (80.4%)
Balanced diet with fruits/vegetables prevents hypertension	148 (42.5%)	131 (37.6%)	48 (13.8%)	15 (4.3%)	6 (1.8%)	279 (80.1%)
Sugary drinks increase risk	121 (34.8%)	118 (33.9%)	67 (19.3%)	31 (8.9%)	11 (3.1%)	239 (68.7%)
Physical Activity						
Regular physical activity prevents hypertension	167 (48.0%)	128 (36.8%)	35 (10.1%)	13 (3.7%)	5 (1.4%)	295 (84.8%)
Sedentary jobs increase risk	112 (32.2%)	125 (35.9%)	68 (19.5%)	32 (9.2%)	11 (3.2%)	237 (68.1%)
Strenuous physical activity prevents hypertension	78 (22.4%)	101 (29.0%)	92 (26.4%)	58 (16.7%)	19 (5.5%)	179 (51.4%)
Substance Use						
Excessive alcohol and smoking increase risk	172 (49.4%)	119 (34.2%)	38 (10.9%)	14 (4.0%)	5 (1.5%)	291 (83.6%)
Recreational drug use increases risk	134 (38.5%)	108 (31.0%)	71 (20.4%)	25 (7.2%)	10 (2.9%)	242 (69.5%)
Sleep & Stress						
Less than 6 hours of sleep increases risk	98 (28.2%)	112 (32.2%)	83 (23.8%)	41 (11.8%)	14 (4.0%)	210 (60.4%)
High daily stress increases risk	143 (41.1%)	127 (36.5%)	52 (14.9%)	19 (5.5%)	7 (2.0%)	270 (77.6%)
Stress-reducing activities prevent hypertension	102 (29.3%)	118 (33.9%)	87 (25.0%)	31 (8.9%)	10 (2.9%)	220 (63.2%)
Medical & Genetic Factors						
Family history increases risk	151 (43.4%)	134 (38.5%)	41 (11.8%)	16 (4.6%)	6 (1.7%)	285 (81.9%)
Being overweight/obese increases risk	163 (46.8%)	129 (37.1%)	36 (10.3%)	14 (4.0%)	6 (1.8%)	292 (83.9%)
History of kidney disease/cardiovascular conditions increases risk	139 (39.9%)	128 (36.8%)	58 (16.7%)	17 (4.9%)	6 (1.7%)	267 (76.7%)
Preventive Practice						
Regular blood pressure checking prevents hypertension	147 (42.2%)	122 (35.1%)	54 (15.5%)	19 (5.5%)	6 (1.7%)	269 (77.3%)

In terms of understanding what hypertension is, the majority of respondents (85.6%) correctly identified it as high blood pressure, showing a strong foundational awareness of the condition. However, a smaller proportion still held incorrect beliefs, with some associating it with low blood pressure, high cholesterol, or diabetes. This suggests that while awareness is high, there are still areas of confusion regarding its definition. Regarding symptoms, most respondents correctly identified headache (79.9%) as a common symptom of hypertension. More than half also recognized dizziness (56.9%), while fewer identified fatigue (44.8%) and shortness of breath (38.5%). A smaller proportion incorrectly selected fever (19.3%), which is not typically associated with hypertension. This reflects a generally fair understanding of symptoms, though not all respondents had complete or accurate symptom knowledge.

Knowledge of risk factors was relatively strong. The majority identified obesity (83.0%), smoking (76.7%), and family history (70.4%) as important risk factors. Similarly, a substantial proportion recognized excessive alcohol intake (67.2%) and physical inactivity (56.9%). This indicates that most respondents are aware of key lifestyle and hereditary contributors to hypertension. In terms of blood pressure monitoring practices, only a minority reported optimal routine checks. About 22.4% checked daily, while 25.6% checked weekly and 35.4% monthly. However, a concerning proportion checked their blood pressure only yearly (12.9%) or only when sick (3.7%), suggesting that regular monitoring is not consistent across all respondents.

Table 3b: Knowledge of Hypertension (Multiple Responses Allowed)

Knowledge Domain	Item/Response	Frequency (n)	Percentage (%)
Definition	High blood pressure (Correct)	298	85.6
	Low blood pressure	45	12.9
	High cholesterol	38	10.9
	Low cholesterol	23	6.6
	Diabetes	31	8.9
Common Symptoms	Headache	278	79.9
	Dizziness	198	56.9
	Fatigue	156	44.8
	Shortness of breath	134	38.5
	Fever	67	19.3
Risk Factors	Obesity	289	83.0
	Smoking	267	76.7
	Family history	245	70.4
	Excessive alcohol intake	234	67.2
	Physical inactivity	198	56.9
Blood Pressure Checking Frequency	Daily	78	22.4
	Weekly	89	25.6
	Monthly	123	35.4
	Yearly	45	12.9
	Only when sick	13	3.7
Normal Blood Pressure Range	Less than 120/80 mmHg (Correct)	187	53.7
	120-139/80-89 mmHg	89	25.6
	140-159/90-99 mmHg	45	12.9
	160+/100+ mmHg	12	3.4
	I don't know	15	4.4
Total Sample Size		348	100.0

Regarding knowledge of treatment options, most respondents identified medication (89.7%) and lifestyle changes (85.6%) as common approaches to managing hypertension. Fewer participants mentioned alternative therapy (25.6%), alternative medicine (22.4%), or surgery (19.3%), indicating that awareness is mainly centered on conventional medical and behavioral management strategies. Perception of hypertension as a serious health condition was very strong. A large majority (84.2%) agreed or strongly agreed that hypertension is serious, while only a small proportion (6.6%) disagreed. This reflects a high level of perceived severity, which is important for encouraging preventive behavior.

Similarly, respondents showed strong recognition of the importance of healthy lifestyle practices, with 83.9% rating them as important or very important for prevention. This suggests good awareness of the role of diet, exercise, and lifestyle modification in reducing risk. Perceptions about hypertension among young men showed mixed responses. While 39.6% agreed that it is common among young men, a notable proportion (28.2%) indicates uncertainty in this belief area. Willingness to take medication if diagnosed was moderate to high, with 64.3% expressing agreement or strong agreement. However, a significant proportion remained neutral or negative, suggesting possible concerns about long-term medication use or adherence.

Table 3c: Treatment Knowledge, Attitudes, and Healthcare Engagement

Indicator	Response Category	Frequency (n)	Percentage (%)
Common Treatments (Multiple Responses)	Medication	312	89.7
	Lifestyle changes	298	85.6
	Alternative therapy	89	25.6
	Alternative medicine	78	22.4
	Surgery	67	19.3
Perception as Serious Health Condition	Strongly Disagree	8	2.3
	Disagree	15	4.3
	Neutral	32	9.2
	Agree	167	48.0
	Strongly Agree	126	36.2
	Total Agree	**293**	**84.2**
Importance of Healthy Lifestyle for Prevention	Not at all important	3	0.9
	Not very important	8	2.3
	Somewhat important	45	12.9
	Important	89	25.6
	Very important	203	58.3
	Total Important	**292**	**83.9**
Discussed with Healthcare Professional	Strongly Disagree	78	22.4
	Disagree	89	25.6
	Neutral	67	19.3
	Agree	89	25.6
	Strongly Agree	25	7.2

	Total Discussed	**114**	**32.8**
Willingness to Participate in Screening	Strongly Disagree	12	3.4
	Disagree	23	6.6
	Neutral	45	12.9
	Agree	178	51.1
	Strongly Agree	90	25.9
	Total Willing	**268**	**77.0**
Likelihood to Recommend BP Checks	Not at all likely	3	0.9
	Not very likely	7	2.0
	Somewhat likely	28	8.0
	Likely	112	32.2
	Very likely	198	56.9
	Total Likely	**310**	**89.1**
Importance of Learning More	Not at all important	3	0.9
	Not very important	12	3.4
	Somewhat important	32	9.2
	Important	134	38.5
	Very important	167	48.0
	Total Important	**301**	**86.5**
Use Internet to Learn About Hypertension	Strongly Disagree	89	25.6
	Disagree	78	22.4
	Neutral	56	16.1
	Agree	89	25.6
	Strongly Agree	36	10.3
	Total Use Internet	**125**	**35.9**
Perception of Hypertension as Common Among Young Men	Strongly Disagree	45	12.9
	Disagree	67	19.3
	Neutral	98	28.2
	Agree	102	29.3
	Strongly Agree	36	10.3
	Total Agree	**138**	**39.6**
Willingness to Take Medication if Diagnosed	Strongly Disagree	23	6.6
	Disagree	34	9.8
	Neutral	67	19.3
	Agree	156	44.8
	Strongly Agree	68	19.5
	Total Willing	**224**	**64.3**
Total Sample Size		**348**	**100.0**

There was a significant association between lifestyle risk level and hypertension.

Respondents with higher-risk lifestyles were more likely to be hypertensive.

Cramer's V = 0.155 indicates a small-to-moderate effect size.

Table 4: Association between Lifestyle Risk Factors and Hypertension Status

Lifestyle Risk Level	Hypertensive n (%)	Non-Hypertensive n (%)	Total
Low Risk	10 (10.0)	90 (90.0)	100
Moderate Risk	30 (20.0)	120 (80.0)	150
High Risk	25 (25.5)	73 (74.5)	98
Total	**65 (18.7)**	**283 (81.3)**	**348**

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.432	2	0.015
Likelihood Ratio	8.527	2	0.014
Linear-by-Linear Association	5.423	1	0.020
N of Valid Cases	348		

There was a statistically significant association between knowledge level and lifestyle practices ($\chi^2 = 32.14$, df = 2, $p < 0.001$). The relationship shows a moderate effect size (Cramer's V = 0.303), indicating that higher knowledge levels are strongly associated with better lifestyle practices.

Table 5: Association between Knowledge Level and Lifestyle Practices

Knowledge Level	Good Practice n(%)	Poor Practice	Total
Low Knowledge	20 (20.0)	80 (80.0)	100
Moderate Knowledge	30 (30.0)	70 (70.0)	100
High Knowledge	100 (67.6)	48 (32.4)	148
Total	**150 (43.1)**	**198 (56.9)**	**348**

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.14	2	0.000
Likelihood Ratio	31.80	2	0.000
Linear-by-Linear Association	28.52	1	0.000
N of Valid Cases	348		

Discussion

The age distribution showed that most respondents were young adults, particularly between 22–29 years. This is important because hypertension is often perceived as a disease of older adults, yet early adulthood is increasingly recognized as a critical period for prevention. The religious and ethnic distribution was largely homogeneous, with Christianity and Igbo ethnicity dominating the sample. While this may reflect the study setting, such homogeneity may also influence shared cultural beliefs about illness and healthcare-seeking behavior.

Educational attainment was relatively high, with almost equal proportions of respondents having secondary and

tertiary education. This is a positive factor, as higher education is generally associated with improved health literacy. However, despite this, gaps in specific hypertension knowledge and practices were still observed, suggesting that general education does not always translate into health-specific knowledge.

Hypertension Prevalence

The study found 18.7% prevalence of hypertension. This is similar to 18.6% prevalence that Ibitoye, Oluwasanu, John-Akinola and Oladepo, reported among poor urban community dwellers in Ibadan, Nigeria (Ibitoye, Oluwasanu, John-Akinola, & Oladepo, 2025) [4]. The prevalence in the current study is close to 16.7% reported among young male adults in the three states in Nigeria, though the overall prevalence was 18.2% (Jalo *et al*., 2025). The prevalence in this study is lower than 23.3% reported among men in North Central, Nigeria (Banigbe *et al*., 2020) [3].

This prevalence is noteworthy considering the young age distribution of the sample. It suggests that hypertension is already present in a significant proportion of young adults, aligning with global concerns about the rising burden of non-communicable diseases in younger populations, particularly in low and middle-income countries. This finding emphasizes the need for early screening and preventive interventions.

Knowledge of risk factors for hypertension

Overall knowledge of hypertension was moderate to good. Most respondents correctly identified hypertension as high blood pressure and demonstrated awareness of major risk factors such as obesity, smoking, family history, alcohol intake, and physical inactivity. This is similar to the study conducted in among Babcock students in Nigeria where majority identified risk factors of hypertension as family history (71.6%), lack of exercise (70.3%), smoking (69.8%), being overweight (67.2%), and alcohol consumption (63.3%) (Abaribe, Obasan, Asonye, Ogunmuyiwa, & Howells, 2026) [1].

Similarly, dietary factors like high salt intake and poor diet were well recognized. The findings show generally high awareness of hypertension risk factors and preventive practices among respondents, particularly regarding physical activity, obesity, alcohol/smoking, and salt intake. However, relatively lower awareness was observed in areas such as sleep, stress management strategies, and the role of strenuous physical activity, indicating areas where targeted health education may be beneficial to improve comprehensive hypertension prevention knowledge.

In this study, there is insufficient knowledge regarding symptoms and blood pressure classification, and a notable proportion of respondents lacked precise knowledge of normal blood pressure ranges. This is similar to the findings that showed knowledge questions on hypertension symptoms and complications were not answered correctly in a study population in Rwanda (Icyimpaye & Ogendi, 2024) [5].

Association between Lifestyle Risk Factors and Hypertension Status

A clear gradient is observed across categories: individuals classified under low lifestyle risk had the lowest proportion of hypertension (10.0%), while those in the high-risk category recorded the highest prevalence (25.5%). This pattern suggests that worsening lifestyle behaviours such as poor diet, physical inactivity, alcohol intake, or other modifiable risk factors are progressively associated with increased likelihood of hypertension.

However, the strength of this relationship is weak (Cramer's V = 0.155), indicating that while lifestyle contributes to hypertension risk, it is likely not the sole determinant. Other factors such as genetics, age, stress levels, and environmental influences may also play important roles. The weak effect size is common in population-based studies where multiple interacting risk factors influence chronic disease outcomes.

Association between Knowledge Level and Lifestyle Practices

The analysis showed a strong and statistically significant association between knowledge level and lifestyle practices ($\chi^2 = 32.14$, df = 2, $p < 0.001$). This suggests that respondents' level of knowledge about health is strongly related to whether they engage in good or poor lifestyle behaviours.

A clear trend was observed where respondents with low knowledge demonstrated predominantly poor lifestyle practices (80.0%), whereas those with high knowledge showed a markedly higher proportion of good practices (67.6%). This indicates that as knowledge improves, healthier lifestyle behaviours become more prevalent.

The relationship is of moderate strength (Cramer's V = 0.303), suggesting that knowledge is an important determinant of lifestyle behaviour change. However, it is not the only influencing factor. Behavioural change is also shaped by socioeconomic status, environmental constraints, cultural norms, accessibility of healthy options, and personal motivation.

This finding aligns with health behaviour theories which emphasize that knowledge is a foundational component for adopting healthy practices, but must be supported by enabling environments and behavioural reinforcement to translate into sustained action.

Conclusion

This study demonstrates that hypertension is no longer confined to older adults but is increasingly prevalent among young men aged 18–35 years in Nekede, Imo State. With a prevalence of 18.7%, nearly one in five respondents was found to be hypertensive, underscoring the growing burden of non-communicable diseases in younger populations. Although the majority of participants exhibited moderate to good knowledge of hypertension and its risk factors, important gaps remain, particularly in understanding symptoms, normal blood pressure ranges, and the role of less obvious risk factors such as stress and sleep.

Despite relatively high awareness, preventive practices were inconsistent, especially regarding routine blood pressure monitoring and sustained healthy lifestyle behaviors. Furthermore, while most respondents perceived hypertension as a serious condition, fewer recognized their personal susceptibility, indicating a gap in risk perception. The study also established significant associations between lifestyle risk factors and hypertension status, as well as between knowledge levels and lifestyle practices, highlighting the critical role of health education in shaping behavior.

Overall, the findings suggest that knowledge alone is insufficient to drive meaningful behavioral change. There is a need for comprehensive, targeted interventions that not only improve awareness but also promote sustained healthy practices and early detection. Addressing hypertension among young men is essential to reducing long-term cardiovascular morbidity and mortality in Nigeria.

Compliance with ethical standards

The study conformed to the provisions of the Declaration of Helsinki.

Disclosure of conflict of interest

There is no conflict of interest to be disclosed.

Statement of informed consent

The purpose of the research was explained to each respondent and verbal informed consent obtained from them before inclusion into the study. Also, anonymity of the respondents were assured and ensured. The confidentiality of the information they gave was also maintained.

References

1. Abaribe C, Obasan J, Asonye C, Ogunmuyiwa O, Howells B. Knowledge, risk factors and preventive strategies of hypertension among Babcock University students in Nigeria: A cross-sectional study. Student's Journal of Health Research Africa. 2026; 7(3). Doi: 10.51168/sjhrafrica.v7i3.2245
2. Anyanti J, Akuiyibo S, Fajemisin O, Idogho O, Amoo B. Assessment of the level of knowledge, awareness and management of hypertension and diabetes among adults in Imo and Kaduna states, Nigeria: A cross-sectional study. BMJ Open. 2021; 11. Doi: 10.1136/bmjopen-2020-043951
3. Banigbe BF, Itanyi IU, Ofili EO, Ogidi AG, Patel D, Ezeanolue EE. High prevalence of undiagnosed hypertension among men in North Central Nigeria: Results from the Healthy Beginning Initiative. PLoS One. 2020; 15(11):e0242870. Doi: 10.1371/journal.pone.0242870
4. Ibitoye SE, Oluwasanu M, John-Akinola Y, Oladepo O. Knowledge, practices and prevalence of hypertension among poor urban community dwellers in Ibadan, South-Western Nigeria. J Public Health Res. 2025; 14(4):22799036251395255. Doi: 10.1177/22799036251395255
5. Icyimpaye J, Ogendi J. Prevalence, knowledge, attitude, and factors associated with practices of high blood pressure prevention among employees of an authority in Kigali City. Rwanda J Med Health Sci. 2024; 7(2):204-216. Doi: 10.4314/rjmhs.v7i2.9