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Original Research Article

Rising Trend of Numbness and Hypertension among Rural Women in Bua Zaakpon Community South-South, Nigeria

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Abstract: Numbness and high blood pressure are on the increase among rural women who are predominantly farmers. This was discovered during a free medical outreach in the community. Numbness and high blood pressure are the most common illness found among these rural women and this is alarming. This could be as a result of nerve and blood vessel effects. Long-standing hypertension damages small blood vessels, which may reduce blood flow to nerves and thus, reduced nerve oxygen, leading to nerve dysfunction, which may show up as numbness, tingling, or pins and needles, especially in hands or feet. Hypertension doesn't usually cause numbness directly, but it raises the risk of nerve damage, stroke, and vascular problems that can cause numbness. Persistent or unexplained numbness should always be evaluated, especially in someone with high blood pressure. This study is aim to evaluate the Rising Trend of Numbness and Hypertension Among Rural Women in Bua Zaakpon Community South-South, Nigeria. This was a cross-sectional study involving 250 women with age between 18 to 47 years. A well-structured questionnaire was administered to participants. The study lasted for a period of 1 month. Statistical analysis was done using SPSS version 25.0 and $p < 0.05$ was significant. The results revealed that majority (40%) of the participants were between 43 to 47 years of age, 68% were married, 68% had secondary level of education, 68% are farmers, 76% belong to nuclear family, 80% work for more than 8 hours, 96% experienced numbness, 96% had high blood pressure on routine check, feet, hands and legs were the most affected by numbness and 76% rarely rest during the day.

Keywords: Rising, Trend, Numbness, Hypertension, Community.

INTRODUCTION

Multiple population health studies have documented the high and rising prevalence of hypertension among rural women globally, especially in low- and middle-income contexts. Singh and Rahman (2025) reported a 23.5% prevalence of hypertension among women of reproductive age in rural Assam, with nearly half (44.5%) in the prehypertensive stage, emphasizing a growing rural burden and poor awareness of hypertensive risk factors (Singh & Rahman, 2025). Similarly, cross-sectional data from rural West Bengal found 24.7% prevalence of hypertension and 40.8% of prehypertension among rural women, with prevalence increasing with age and socioeconomic factors such as household biomass fuel use, BMI, and education level (Chowdhury *et al*., 2012). These findings align with broader systematic reviews showing high rural hypertension rates across West Africa (~27.4%) and comparable prevalence between urban and rural women in some settings, indicating the emergence of rural hypertension as a public health concern (Bosu *et al*., 2022; Ekpu & Adeleye, 2021).

Longitudinal research also supports temporal increases in rural hypertension prevalence over time. For example, a follow-up study in rural North India observed significant increases in hypertension prevalence over eight years (from 34.4% to 40.4%), with treatment and control remaining inadequate, suggesting a mounting

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rural hypertension burden (Roy *et al*., 2023). Hypertension prevalence among rural women is rising in many regions, often accompanied by low awareness and poor control (Singh & Rahman, 2025; Bosu *et al*., 2022).

While direct studies on numbness prevalence in rural women are limited, research on *peripheral neuropathy* — a major clinical cause of numbness among rural populations provides relevant insights. Peripheral neuropathy presents primarily with symptoms such as numbness, tingling, and loss of sensation, which can significantly impact functional health (Smith *et al*., 2023). Epidemiological studies in rural African settings have found high rates of peripheral neuropathy, with some reporting significant prevalence likely influenced by metabolic and vascular risk factors common in these populations.

Further, analyses of non-diabetic peripheral neuropathy in adults found that cardiovascular disease, a condition closely linked to hypertension was significantly associated with peripheral neuropathy prevalence, suggesting that systemic vascular risk factors may underlie numbness beyond classical diabetes-related neuropathy (Johnson *et al*., 2025).

Peripheral neurological symptoms, including numbness, are prevalent where vascular and metabolic risk burdens are high, and cardiovascular disease closely related to hypertension may contribute to neuropathy risk (Smith *et al*., 2023; Johnson *et al*., 2025).

MATERIALS AND METHOD

This was a cross-sectional study involving 250 women with age between 18 to 47 years. A well-structured questionnaire was administered to participants. The study lasted for a period of 1 month. Statistical analysis was done using SPSS version 25.0 and $p < 0.05$ was significant.

RESULTS

The results revealed that majority (40%) of the participants were between 43 to 47 years of age (Table 1), 68% were married (Table 2), 68% had secondary level of education (Table 3), 68% are farmers (Table 4), 76% belong to nuclear family (Table 5), 80% work for more than 8 hours (Table 6), 96% experienced numbness (Table 7), 96% had high blood pressure on routine check (Table 7), 76% has not done routine high blood pressure check (Table 8), feet, hands and legs were the most affected by numbness (Table 9), and 76% rarely rest during the day.

Table 1: Age Distribution of Participants

Age Group	Frequency	Percentage (%)
18-22 years	10	4.00
23-27 years	20	8.00
28-32 years	20	8.00
33-37 years	70	28.00
38-42 years	30	12.00
43-47 years	100	40.00
Total	**250**	**100**

Table 2: Marital Distribution of Respondents

Marital Status	Frequency	Percentage (%)
Married	170	68.00
Single	20	8.00
Widowed	50	20.00
Divorced	10	8.00
Total	**250**	**100.00**

Table 3: Educational Distribution of Respondents

Education	Frequency	Percentage (%)
No formal education	20	8.00
Primary	50	20.00
Secondary	170	68.00
Higher	10	4.00
Total	**250**	**100.00**

Table 4: Occupational Distribution of Respondents

Occupation	Frequency	Percentage (%)
House wife	20	8.00
Farmer	170	68.00
Laborer	50	20.00
Other	10	4.00
Total	**250**	**100.00**

Table 5: Type of family

Occupation	Frequency	Percentage (%)
Nuclear	190	76.00
Extended	60	24.00
Total	**250**	**100.00**

Table 6: Average daily working hours

Response	Frequency	Percentage (%)
Less than 6	45	18.00
6-8	5	2.00
More than 8	200	80.00
Total	**250**	**100.0**

Table 7: Participants who experienced numbness and had high blood pressure on routine check

Response	Frequency	Percentage (%)
Participants who experienced numbness and had high blood pressure	240	96.00
Participants who do not experienced numbness and had high blood pressure	10	4.00
Total	**250**	**100.0**

Table 8:

Response	Frequency	Percentage (%)
Participants who have not done routine high blood pressure check	190	76.00
Participants who have done routine high blood pressure check	60	24.00
Total	**250**	**100.00**

Table 9: Parts of the body mostly are affected

Response	Frequency	Percentage (%)
hand	70	28.00
legs	50	20.00
Feet	50	20.00
Arms	40	16.00
Face	30	12.00
Others	10	4.00
Total	**250**	**100.0**

Table 10: Duration of numbness

Response	Frequency	Percentage (%)
Less than 6 months	10	400
6-12 months	30	12.00
More than one year	210	84.00
Total	**250**	**100.0**

DISCUSSION

Numbness and high blood pressure are on the increase among rural women who are predominantly farmers. This was discovered during a free medical outreach in the community. Numbness and high blood pressure are the most common illness found among these rural women and this is alarming. This could be as a result of nerve and blood vessel effects. Long-standing hypertension damages small blood vessels, which may reduce blood flow to nerves and thus, reduced nerve oxygen, leading to nerve dysfunction, which may show up as numbness, tingling, or pins and needles, especially in hands or feet. Hypertension doesn't usually cause numbness directly, but it raises the risk of nerve damage, stroke, and vascular problems that can cause numbness. Persistent or unexplained numbness should always be evaluated, especially in someone with high blood pressure.

The study revealed that majority of the participants were between 43 to 47 years of age and this implies that as age increases, numbness becomes more common due to changes in nerves, blood vessels, and metabolism and also high blood pressure rises after 40 years. Blood pressure rises with age, especially systolic BP. Again, most of the participants were married and this could lure them into more struggle to in order to maintain the family. Again, 68% of the participants had secondary level of education and are predominantly farmers. These participants who are predominantly farmers may not have any awareness on routine check on their blood pressure. Most of the participants runs nuclear family and as such work for long hour (more than 8 hours)

before getting stipends. This long hours of working may exposed them to numbness and high blood pressure.

Again, the study shows that 96% of the participants has experienced numbness and high blood pressure. This rising trend in the number of the participants that developed numbness and high blood pressure could be due to the fact that most of them are farmers and work for long hours before earning a living. Also, most of them may not take their breakfast and thus, may not have enough nutrients in their body. This could lead to vitamins complex deficiency and as such lead to numbness. Nutrient deficiencies may impair myelin formation, axonal metabolism, or nerve excitability, leading to numbness. The high blood pressure in these participants was found on routine check during the free medical outreach organized by two indigenes of the community. The study also revealed that majority of the participants have not check their blood pressure and were informed for the first time. Long-standing hypertension damages small blood vessels, which may reduce blood flow to nerves and thus, reduced nerve oxygen, leading to nerve dysfunction, which may show up as numbness, tingling, or pins and needles, especially in hands or feet. The study shows that the numbness affected the participant´s feet, hands and legs.

The research also revealed that some of the participants have co-existing health conditions such as diabetes mellitus, anaemia, high blood pressure and thyroid disorder. Again, majority of the participants had repeated manual work to earn a living. Repeated manual work led to repeated stress on nerves, muscles, and blood vessels and so numbness comes from mechanical plus ischemic plus inflammatory effects. Again, 76% of the participants rarely rest and this could affect their health status. Majority (80%) of the participants had poor diet and as such are taking good food.

Again, 76% of the participants are not aware that numbness can be related to health problems and have not consulted a healthcare provider for numbness due to the following reasons: financial issues, distance, lack of awareness, and negligence. However, majority (76%) of the participants usually sort their treatment from the traditional healer. This numbness prevents the participants from carrying out their daily duty or work.

CONCLUSION

These findings indicate that numbness and high blood pressure in rural women is on the increased, and this may partly due to lifestyle changes, ageing, and limited access to preventive healthcare

Although not specific to rural women, these studies highlight that neurological symptoms like numbness are common where vascular and metabolic risk burdens are high, and that these burdens often *co-occur* with hypertension and age-related risk profiles.

The study revealed that majority of the participants have numbness and high blood pressure.

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