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RELATIONSHIP BETWEEN LIFESTYLE BEHAVIOURS AND BLOOD PRESSURE CONTROL AMONG TREATED HYPERTENSIVE PATIENTS IN NIGERIA: A PILOT STUDY

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Background: Optimal blood pressure control remains suboptimal despite effective antihypertensive therapy. We investigated the association between lifestyle behaviours, medication adherence, and blood pressure control among treated hypertensive patients in Nigeria

Methodology: This cross-sectional pilot analysis included 99 treated hypertensive patients with complete repeat blood pressure readings. Controlled blood pressure was defined as mean systolic <140 mmHg and diastolic <90 mmHg. Lifestyle behaviours (discretionary salt use, fruit and vegetable intake, physical activity, alcohol use, stress, diet quality) and a four-item medication-adherence score were assessed by structured questionnaire. Multivariable linear and logistic regression identified factors independently associated with blood pressure control.

Results: Participants with complete repeat blood pressure measurements were analysed (mean age 61.5±10.3 years; 74.7% female). Blood pressure was controlled in 58.6% of participants. In multivariable linear regression, increasing medication adherence was independently associated with lower systolic ($\beta=-4.71$ mmHg per point, $p=0.013$) and diastolic blood pressure ($\beta=-4.56$ mmHg, $p=0.001$), while older age predicted higher systolic blood pressure ($\beta=0.40$ mmHg/year, $p=0.028$). Logistic regression showed female sex (adjusted OR 3.51, 95% CI 1.13–10.88), higher medication adherence (adjusted OR 1.89, 95% CI 1.14–3.15), and self-rated diet quality were independently associated with blood pressure control.

Conclusion: Medication adherence emerged as the strongest modifiable determinant of blood pressure control, independently predicting lower systolic and diastolic blood pressure and higher odds of achieving treatment targets. Interventions that strengthen adherence, particularly among older adults and men, may substantially improve hypertension control in Nigerian clinical practice.

Keywords: Hypertension, Blood Pressure Control, Medication Adherence, Healthy Lifestyle, Risk Factors, Nigeria