



AP003

Paediatric Cardiology & Congenital Heart Disease • Poster Presentation

PREVALENCE OF PREHYPERTENSION AMONG UNDERGRADUATE STUDENTS OF THE COLLEGE OF MEDICAL SCIENCES, AHMADU BELLO UNIVERSITY, ZARIA-NIGERIA.

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Stand: POSTER #AP003 | **Venue:** Poster Exhibition Hall & Gallery - Eko Convention Centre | **Online Ref:** <https://nigeriancardiacsociety.com/abstracts/AP003>

Background: Prehypertension is systolic blood pressure between 120–139 mmHg and diastolic blood pressure between 80–89 mmHg, representing an early stage of hypertension. Its rising prevalence among young adults is of growing concern, yet limited data exists especially among young adults in Northwestern Nigeria. The objective of the study was to determine the prevalence of prehypertension among undergraduate students of the College of Medical Sciences, Ahmadu Bello University, Zaria-Nigeria.

Methodology: A cross-sectional study involving 376 participants was conducted. Data was collected using a structured questionnaire after obtaining written informed consent. Random plasma glucose (RPG) was estimated using Glucose Oxidase-Peroxidase-4-Aminoantipyrine Phenol (GOD-PAP) method. Anthropometric indices (blood pressure, weight, height, waist, hip and neck circumference) were measured using standard methods. Prehypertension diagnostic cutoff was based on the 7th Joint National Committee on Prevention, Detection, Evaluation and Treatment of Hypertension (JNC-7) guidelines, 2003. Data were analysed using IBM SPSS version 27, with statistical significance set at $p \leq 0.05$.

Results: The prevalence of prehypertension and hypertension were 46.8% and 2.4%. Mean body mass index was $21.18 \pm 1.80 \text{ kg/m}^2$ and RPG concentration was $5.43 \pm 0.99 \text{ mmol/L}$ respectively. Regular physical exercise was significantly associated with normal blood pressure ($p < 0.001$), whereas department, academic level, family history, smoking, and alcohol consumption showed no significant association with blood pressure status. **Conclusions:** Prehypertension was highly prevalent among participants despite normal anthropometric and glycaemic profiles. Routine blood pressure screening, health education, and promotion of regular physical activity are recommended to reduce progression to overt hypertension.

Keywords: Prehypertension, Undergraduate students, Zaria, Nigeria