Clinical and Demographic Profile of People Living with Cardiovascular diseases and HIV Comorbidities in Abuja, Nigeria

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Background: Cardiovascular diseases (CVDs) are the **leading global cause of death**, accounting for about 18 million deaths annually. People living with HIV (PLHIV) face higher risks of stroke and heart failure. Although life expectancy among PLHIV in Nigeria has improved with effective antiretroviral therapy, the burden of age-related conditions such as CVDs is likely increasing. Knowledge of HIV-associated cardiovascular risk has advanced over the past two decades, largely from studies in Europe and North America, while evidence from sub-Saharan Africa remains limited. To address this gap, we examined the prevalence and clinical characteristics of HIV among patients with CVD in Abuja, Nigeria. This study stemmed from a broader investigation of CVDs and behavioural risk factors, including harmful alcohol use, in Abuja. It explored the relationship between drinking status and CVD occurrence, and during data collection, many participants reported living with HIV, far exceeding reports of other comorbidities.
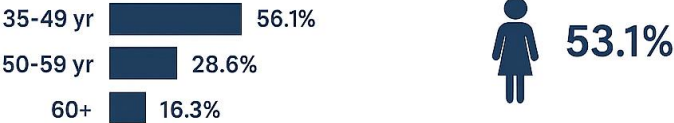
Methods: Data from 596 participants were analyzed. Demographic variables including age, gender, education, marital status, employment, ethnicity, and alcohol use were obtained via structured questionnaires. HIV status (positive vs. negative) served as the primary outcome. Descriptive statistics summarized demographics, and chi-square (χ^2) tests assessed bivariate associations with HIV status. Results were reported as frequencies and percentages, with *p*-values. All statistical analyses were conducted using **Stata MP version 17 (StataCorp, College Station, TX, USA)**. A significance threshold of $p < .05$ was used to determine statistical significance.

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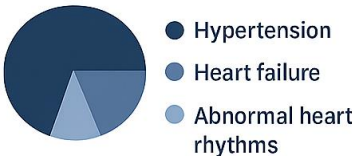
Results

HIV PREVALENCE

8.2%
49/596

DEMOGRAPHICS

- 35-49 yr 56.1%
- 50-59 yr 28.6%
- 60+ 16.3%

53.1%

EDUCATION
- Hypertension
- Heart failure
- Abnormal heart rhythms

MARITAL
- Married
- Unmarried/Single/Divorced

CARDIOVASCULAR CONDITIONS

30.6%
- Hypertension
- Heart failure
- Abnormal heart rhythms

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DIETARY HABITS & BMI

Low intake of quality diet	30.6%	Normal	20%
Moderate intake	69.4%	Overweight	49.9%
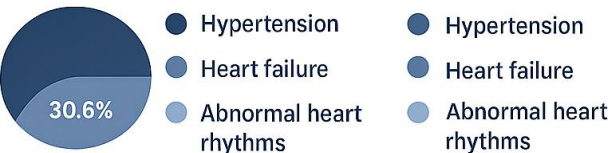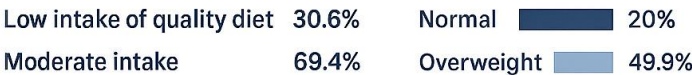
* 30.6% of those overweight were obese.

POTENTIAL ALCOHOL ABUSE 71%

FAMILY HISTORY OF CARDIOVASCULAR DISEASE 46.9%

BMI
- Normal 20.4%
- Overweight 49.0%
- Obese 30.6%

DIET QUALITY 30.6% Moderate intake diet
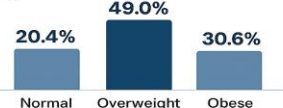
HIV-RELATED HEART CONDITIONS
- Heart attack or stroke in past 3 months 28.6%
- Heart pain in past 3 monnths 46.9%

LDL AND HDL LEVELS
- Low (<40 mg/dL) 2.2%
- High (160–189 mg/dL) 2.2%
- Borderline high (130–159 mg/dL) 31.1%
- Low (<40 mg/dL) 60.0%
- Desirable (>60 mg/mg/dL) 31.1%
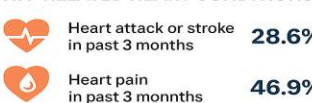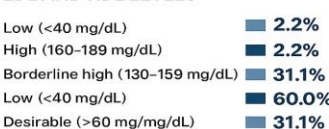
Conclusion: The findings reveal clustering of lifestyle, clinical, and sociodemographic risk factors among people living with CVD and HIV. Although the study's descriptive design limits causal interpretation, it emphasizes the importance of prioritizing cardiovascular health in the care of people living with HIV in Nigeria.

References:
1. Feinstein MJ. HIV and Cardiovascular Disease: From Insights to Interventions. Top Antivir Med. 2021 Oct-Nov;29(4):407-411. PMID: 34856094; PMCID: PMC8670825.
2. Ntsekhe M, Baker J V. Cardiovascular Disease Among Persons Living With HIV: New Insights Into Pathogenesis and Clinical Manifestations in a Global Context. Circulation [Internet]. 2023 Jan 3;147(1):83–100. Available from:https://doi.org/10.1161/CIRCULATIONAHA.122.057443