

1A.3. Prevalence of Risk Factors for Cardiovascular Disease among Nigerian Youth

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Background/ Significance: Globally, the prevalence of chronic, non communicable diseases (NCD) is increasing at an alarming rate, with about 18 million deaths yearly from cardiovascular disease (CVD); Diabetes Mellitus (DM) and hypertension remain major predisposing factors. Propelling the upsurge in cases of DM and hypertension is the growing prevalence of overweight and obesity. Recently, obesity and overweight have become major health problems threatening the developing world and one of the greatest health challenges and risk factor for chronic NCD worldwide. Recent surveys have demonstrated an alarming increase in the prevalence of obesity in children and adolescents in many countries; attributed to increased consumption of refined foods, snacks and decreased physical activity. This has important implications for the physical and emotional health of adolescents, and it also increases the risk of continuing obesity and the development of chronic diseases in adulthood.

This study of youths from different backgrounds provides an insight into the prevalence of obesity and its predisposing factor in this environment. It also provides baseline data for the development of interventions on obesity for Nigerian youths.

Objective: To determine prevalence of obesity and hypertension among Nigerian youths, and identify risk factors for being overweight or obese.

Methodology: A cross-sectional study of 213 undergraduate students of University of Ibadan, Nigeria, conducted in August/September 2007, at halls of residence using a multistage sampling method.

Data was generated via a 33-item structured questionnaire (after informed consent): socio-demographic characteristics, dietary habits, and relevant medical histories. Physical measurements included weight and height (to derive body mass index [BMI]), waist and hip circumferences, (to derive waist/hip ratio), and blood pressure. Data was entered and analyzed using SPSS version 12.0.

Findings: Mean age of respondents was 20.9 ± 1.9 ; range, 17 - 24 years. Male to female ratio was 1.24: 1. 1.9% reported cigarette smoking; median duration of smoking=5 years, average number of sticks of cigarette smoked per day = 3.8 ± 2.2 , while 8.5% reported alcohol consumption; median of 2 beer bottles consumed per week.

Dietary habit revealed high rate of consumption of solid starchy meals throughout the day: breakfast 34.5%; lunch 37.2%; dinner 17.6%, compared with cereals and grains: 6.2%, 4.9%, and 7.4% or bread 14.7, 4.5, and 7.8% respectively ($p=0.99$).

Snacking pattern revealed a high intake of baked foods (like cake, chinchin), 12.7% and biscuits, 7.6% compared with fruits, 2.3% or nuts, 0.3% respectively ($p= 0.75$). Frequency of fast food and sugared beverage drink consumption (more than once per week) was 28.1 and 33.5% respectively.

85.5% of respondents engage in physical activity viz: walking for 30-45 minutes daily, 29.1%; and small tasks of daily living like taking the stairs, 24.4%. Only 8.9% and 1.9% respectively engage in competitive sports and regular jogging activities, the rest engage in less strenuous forms of physical activity like skipping, household chores etc ($p= 0.182$).

Mean BMI was $22.1 \pm 3.4 \text{ kg/m}^2$ with a pattern that revealed BMI $<18 \text{ kg/m}^2$ (underweight) in 1.1%; BMI 18 - 24.9 kg/m^2 (normal weight) in 82.2%; BMI 25 - 29.9 kg/m^2 (overweight) in 13.2%; and BMI $\geq 30 \text{ kg/m}^2$ (obese) in 3.4% of respondents respectively. Mean systolic and diastolic blood pressures (BP) were $110.4 \pm 9.9 \text{ mmHg}$ and $70.8 \pm 10.1 \text{ mmHg}$ respectively; 3.8% had BP $\geq 140/90 \text{ mmHg}$ (hypertension, WHO/JNC VII).

Knowledge Contribution: Prevalence of risk factors for CVD in the study group is unacceptably high and calls for efforts to reverse the trend. Identified risk factors include inappropriate dietary habit and low level of high calorie expenditure physical activity.

We need to emphasize lifestyle education, including appropriate diet and physical exercise, during formal and informal teaching sessions, so as to ensure a healthy adult population for the country.