Dietary Practices and Dyslipidemia in Child Bearing Women in Nairobi City County Kenya: A Cross-Sectional Study - Matilda Makungu Obimbo

Abstract

INTRODUCTION: Cardiovascular disease was one of the leading causes of mortality globally, more so in developing countries. The documentation on determinants and predictors for the cardiovascular disease biomarkers among childbearing women in Sub-Saharan Africa was wanting. Despite the growing burden of Non -Communicable Diseases, Dietary Practices and Dyslipidemia seemed to be a major factor of the disease. OBJECTIVE: The study aimed at establishing the association between determinants and predictors for cardiovascular disease biomarkers particularly Dietary Practices and Dyslipidemia in Child Bearing Women in Nairobi City County, Kenya. MATERIALS AND METHODOLOGY: A household-based cross-sectional study was conducted among 252 women of age 15-49 years. In Two-stage cluster sampling 252 households in 18 clusters (estates) of Mugumoini ward Langata sub-county, Nairobi County were recruited. In the first stage, 252 households were divided into 18 clusters. In the second, random sampling was used to select 14 households per cluster. Kish grid method was used to select the eligible participant to be interviewed in each household. Those eligible had been residents of Mugumoini ward in the previous 12 months. Excluded were pregnant, lactating women, those in school and others with documented medical conditions including cardiovascular disease. A pretested researcher - administered questionnaire was used to collect information on socio-economic characteristics, saturated fat intake and determinants of food choice. A researcher administered questionnaire collected data for three months from 42 women. Fasting venous blood collection was done using 21 gauge needle then transferred into a coded vacutainer tube for transportation to the laboratory in three hours at room temperature. Blood was allowed to clot and separated into serum or cells. Lipid profile assays; total cholesterol, HDL- C, LDL-C and triglycerides were analyzed from serum in automated spectrophotometer Dirui CS 4000 validated by WHO. The participants in the pre-testing did not participate in the main study. Quantitative data collected was analysed using Statistical Package for Social Sciences version 22.0. Logistical regression, Chi-square and Odds –ratio were performed. RESULTS : Lipid profile level; total cholesterol below 4 mmol/L, LDL-C below 1.80 mmol/L, HDL- C above 1.49 mmol/L and triglycerides below 1.70 mmol/L were all considered normal [53, 13] A third (34%) of the respondents was employed in offices and 60.8% accessed food from supermarkets and fast food outlets. While 41.2% were of the upper- middle class, thus increasing the risk to cardiovascular disease. Respondents consumed more energy-dense nutrient-poor diets characterized by saturated fat intake. Drivers of food choice were; Sensory appeal (95.6%), Emotional reasons (mood) (97.2%) and Convenience (77.2%). CONCLUSION: Almost half of the participants had high LDL-C and low HDL-C. Transitional diets were significantly associated with biomarkers for elevated LDL-C. Socio-economic characteristics (level of education, Occupation, Source of food, Upper-middle-class, Office work and Bachelor's degree education level) were significantly associated with transitional diets. The odds of determinants for cardiovascular disease were four times (OR 3.66, 95% CI) likely as a predictor of dyslipidemia among childbearing women.

RECOMMENDATION: We recommend all the stakeholders, Ministry of Health, both at county and national level to enact a law in support of interventions that promote low-fat foods and physical activities to improve cardiometabolic health. Individually 'Control Poor Dietary Practices avoid Dyslipidemia' Keywords: Dietary Practices, Dyslipidemia, Drivers of Food Choice, Socio-Economic Characteristics, Childbearing Women