

Racial Differences in Hypercholesterolemia Prevalence: A Cross-sectional Study Using 2017-2018 National Health and Nutrition Examination Survey Data

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Introduction: African Americans (AA) have a 20% higher risk of CVD death than Whites. Treating hypercholesterolemia (HCL) is paramount in CVD primary prevention. Some evidence showed that AA have a lower risk of HCL compared to whites.

Methods: A cross-sectional study using the 2017-18 National Health and Nutrition Examination Survey data. Logistic regression analysis was used to compare the prevalence of diagnosed HCL in AA and whites aged 18-80 years old. Serum total cholesterol (TC) and high-density lipoprotein (HDL) levels were compared by multiple linear regression.

Results: Among 2549 participants, 51.7% were females, and 63.4% were white. The mean (SD) age was 51.6 (19.1) years. AA had a 24 % reduced risk of HCL diagnosis than whites after adjusting for age, Body Mass Index (BMI), diabetes, hypertension, and smoking; OR [95%CI]= 0.767 [0.621, 0.923]. There was no difference in TC level (p=0.7242), while HDL was higher among AA (p<0.0001, β =3.83), adjusting for age, gender, BMI, smoking, diabetes, education level, and use of cholesterol medications.

Conclusion: Consistent with some evidence, AA had a lower prevalence of HCL diagnosis and higher HDL levels.