Poster #18

Research Study

Title: "The Association Between Race/Ethnicity and Vitamin K Intake Among Adults in the United States in 2015-2016"

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Introduction and Objective. Differences in vitamin levels have been found amongst racial/ethnic groups because of unique traditions and preferences within diet that may lead to micronutrient disparities. Current literature shows the significance of Vitamin K deficiency on physiological processes, however, little evidence is available on Vitamin K levels according to race/ethnicity

Methods. This cross-sectional study looks at how self-identified race/ethnicity is associated with Vitamin K nutrient levels in US adults 20 years and older using information from the 2015-2016 NHANES database. Age, sex, education, food security, body mass index, level of physical activity (moderate or vigorous) and poverty income ratio were added as covariates. Unadjusted and adjusted logistic regression analysis were used to calculate odds ratios (OR) and their corresponding 95% confidence intervals (CI).

Results. The prevalence of Vitamin K deficiency was 62% in non-Hispanic Whites, 69% in non-Hispanic Blacks, 49% in non-Hispanic Asians, 71% in Hispanics, and 66.5% in Other. Race/ethnicity was statistically associated with Vitamin K deficiency for non-Hispanic Asians (OR 0.62; 95% CI 0.47-0.83). In contrast, neither non-Hispanic Black (OR 1.10; 95% CI 0.82-1.48) or Hispanic (OR 1.01; 95% CI 0.69-1.49) race/ethnicity was associated with Vitamin K deficient levels compared to non-Hispanic White. Other variables independently associated with Vitamin K deficiency were respondents with less than a high school degree (OR 2.44, 95% CI 1.75-3.40), a high school degree (OR 1.80, 95% CI 1.37-2.37), obese respondents (OR 1.43, 95% CI 1.08-1.89), and those with a poverty income ratio of <1.3 (OR 1.39, 95% CI: 1.03-1.87)

Conclusions-Implications. Interventions should include increased patient screening for Vitamin K related conditions based on risk factors such as race/ethnicity, education, BMI, and poverty income level to address the prevalence of Vitamin K deficiency. Additionally, interventions such as patient education on Vitamin K rich foods can be made readily available to at-risk patients as a strategy for increasing daily intake. Future studies should look at Vitamin K levels in child and adolescent populations.