Gender and Race Related Variations in Weight and Cholesterol Control

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Abstract

Background: Gender and race impact risk factor modification, which is often attributed to socioeconomic factors. The effect of these variables in a cardiology clinic setting is unknown.

Objective: To compare the weight (wt), LDL and blood pressure (BP) control among white males (WM), white females (WF), black males (BM) and black females (BF).

Methods: A total of 400 encounters from university-based primary cardiology clinic with a broad referral base were analyzed for wt (lbs), LDL (mg/dl) and BP (mmHg): 100 in each of the categories (WM, WF, BM and BF). Intergroup differences were analyzed using ANOVA, and each group was individually analyzed against other groups using a Student’s t-test.

Results: Wt: WM 222 ± 68, WF 189 ± 52, BM 218 ± 50, BF 208 ± 69 (P < 0.01). Combined subgroup analysis reveals higher wt in men (220 ± 59) versus women (198 ± 61, P <0.01), while no significant difference in whites (205 ± 62) versus blacks (213 ± 60, P = NS). Individual group analysis against other groups combined shows that WM had the highest wt (P < 0.05) while WF had the lowest wt (P < 0.01). LDL levels: WM 83 ± 37, WF 87 ± 39, BM 87 ± 32, BF 90 ± 41 (P = NS). Systolic BPs: WM 129 ± 19, WF 131 ± 18, BM 132 ± 18, BF 135 ± 22 (P = NS). Diastolic BPs: WM 77 ± 9, WF 77 ± 12, BM 79 ± 11, BF 80 ± 13 (P = NS).

More intensive weight loss measures are indicated in white males to optimize cardiovascular health.

Discussion

Weight remains a significant and well established risk factor for coronary disease and the metabolic syndrome. In this cohort, patients were treated aggressively for coronary risk factors. While white males had the highest weight, white females showed the lowest overall weight across gender and race analyses. All patients had insurance and their LDL and blood pressure levels were adequately controlled with medications, without significant difference among the various groups. This observation is important in that it identifies specific groups of patient with need for more intensive lifestyle modification to implement weight loss. Gender and race, with possible underlying socioeconomic factors, may vary perceptions about weight as a significant health risk factor among patient. Improved patient counseling with help from professional dietary or weight-loss clinic consults may help narrow this observed variation.

References