Abstract 44

Relationship Between Depressive Symptoms and Cardiovascular Risk Factors in Black Individuals

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Background: Cardiovascular disease (CVD) is the leading cause of mortality in the United States. Blacks have a disproportionate burden of death and disability from CVD. Studies have shown that socioeconomic status underlies a substantial portion, but not all, of the higher rate of CVD in blacks. Other factors may explain this disproportionate burden of CVD. Depression is a significant predictor of cardiovascular mortality and there is evidence that depression prevalence and severity may differ in blacks compared with other racial groups. The present investigation examined the prevalence of depression in a group of black individuals and the relationship between depression status and traditional CVD risk factors.

Methods: Participants were recruited by advertisements (N = 253; age 43.7 ± 11.6 years). All of the participants included are Black. The measure of depression used was the Center for Epidemiological Studies Depression Scale (CES-D).

Results: When the traditional CES-D cutoff of 16 or greater was used as an indicator of depression, 38% of the sample reached this level (see **Table** for sample characteristics; data in the table are unadjusted for potential confounding variables). Regression analyses were performed to assess the relationship of depression with traditional cardiovascular risk factors (body-mass index [BMI], waist-to-hip ratio, blood pressure, smoking, and cholesterol) while controlling for potential confounding variables (gender, age, sleep quality, perceived stress level, marital status, educational level, and income). This analysis demonstrated that those with higher levels of depressive symptoms had larger waist-to-hip ratios (r = 0.04) and higher systolic blood pressures (r = 0.05), and were more likely to be smokers (r = 0.06).

Discussion: It is well known that higher levels of depression

TABLE
SAMPLE CHARACTERISTICS

	Total	CES-D ≥ 16	CES-D < 16	*P* value
N	253	96	157	
Male (%)	94 (37%)	32 (34%)	62 (39%)	> .20
Age (yr)	43.7 ± 11.6	44.9 ± 11.0	42.8 ± 11.8	> .20
BMI (kg/m²)	30.3 ± 8.5	30.7 ± 8.3	30.1 ± 8.7	> .20
Waist-to-hip ratio	0.86 ± 0.09	0.87 ± 0.09	0.85 ± 0.08	> .10
Systolic blood pressure (mm Hg)	132 ± 17	132 ± 18	132 ± 16	> .20
Diastolic blood pressure (mm Hg)	82.4 ± 12.8	82.3 ± 12.4	82.4 ± 12.9	> .20
Smoking (%)	93 (36%)	46 (48%)	47 (30%)	< .01
Total cholesterol (mg/dL)	157 ± 37	161 ± 38	155 ± 37	> .20
LDL (mg/dL)	86 ± 31	85 ± 31	86 ± 31	> .10
HDL (mg/dL)	50 ± 15	52 ± 17	49 ± 14	> .10

BMI = body mass index; CES-D = Center for Epidemiological Studies Depression Scale; HDL = high-density lipoprotein; LDL = low-density lipoprotein

are associated with higher CVD risk. However, this evidence is derived primarily from samples of predominantly white men and women. The present investigation demonstrates that not only is there a high prevalence of depression in a relatively healthy black population, but that depression status is related to traditional CVD risk factors in black individuals. As has been previously demonstrated in black samples, cholesterol measurements may not be a strong indicator of cardiovascular risk due to racial differences in lipoprotein lipase activity.