ABSTRACT:
The purpose of the present study was to examine the ability of body mass index (BMI) and waist circumference to predict cardiovascular reactivity to stress. BMI and waist circumference were measured in one hundred and five African American college students (21 men and 84 women) between the ages of 18-27. In addition, heart rate, cardiac output, stroke volume, and systolic and diastolic blood pressure were measured in the participants as they viewed a racially noxious scene on videotape. BMI was a significant predictor of stroke volume, cardiac output, systolic and diastolic blood pressure. These positive associations showed that heavier participants had higher systolic blood pressure and their hearts pumped out greater blood volume compared to their thinner counterparts. BMI also completely mediated the relationship between waist circumference and cardiovascular activity. Body mass index was a better predictor of cardiovascular reactivity than waist circumference. The findings may be attributed to the premise that the waist circumference standards are different for African Americans than for Whites. Future research should establish waist circumference thresholds that are better predictors of cardiovascular disease in African Americans.