

EFFECTS OF COGNITIVE-MEDIATION AND RELAXATION ON
BLOOD PRESSURE AND STRESS-RELATED VARIABLES IN AFRICAN
AMERICAN WOMEN: A PRELIMINARY STUDY

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Purpose: A major cause of the disproportionate rate of cardiovascular disease in African American women is the high prevalence of hypertension. Evidence suggests that the likelihood of developing hypertension and cardiovascular disease is elevated among individuals who experience continued psychological stress. These findings are of particular significance to African Americans who encounter psychological stressors on a daily basis. The purpose of this preliminary study was to estimate the treatment effect sizes of two nonpharmacologic interventions designed to assist African American women in modifying their cognitive and behavioral response to the stress process.

Methods: A 3 x 3 factorial experimental design was used for this study. Inclusion criteria included (a) self-report of hypertensive medication usage, or (b) systolic blood pressure \geq 130 mm Hg, or (c) diastolic blood pressure \geq 90 mm Hg. Outcome variables included: (a) blood pressure, (b) State-Trait Anger Expression Inventory, (c) Personal Strain Questionnaire, and (d) Personal Resources Questionnaire. Subjects were randomly assigned to one of 3 groups: Cognitive Mediation, Relaxation Therapy, or Delayed Treatment Control Group. Participants assigned to one of the treatment groups met for 6 weeks in groups. Follow-up was done on an individual basis. Participants in the control group had weekly blood pressure monitoring by a registered nurse. Variables were measured at baseline, and 6 and 10 weeks after entry into the study. Multivariate and univariate analyses were used to determine group, time, and group x time effects.

Findings: Thirty-three women, mean age 45 (SD=7.57) completed the study requirements. State anxiety and interpersonal strain were significantly reduced in all three groups. Participants in the cognitive mediation and relaxation group had significant changes in physical strain and self-care. Reduction in physical strain was greater in the cognitive mediation group while the relaxation group had greater improvement in self-care. There were no significant changes in blood pressure.

Discussion: The findings from this study suggest that African American woman can reduce stress and improve coping resources using a combination of group process and individual monitoring. Further study is needed to assist African American women in reducing their blood pressure with non-pharmacological interventions. Findings from this study are being used to develop a larger clinical trial study.