

COLLEGE STUDENTS AT HIGH RISK FOR CARDIAC DISEASE: A PILOT INTERVENTION PROGRAM

Irene Gilliland, MSN, RN; Maureen Rauschhuber, PhD, RN; Marveen Mahon, BSN, RN;
David Allwein, BSN, RN; Jennifer Cook, MSN, RN;

Mary Elaine Jones, PhD, RN

University of the Incarnate Word School of Nursing & Health Professions

4301 Broadway Box 300

San Antonio, TX 78209

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Background: Hypertension is a major risk factor for cardiac disease. Anger and hostility are also associated with cardiac disease. High levels of spirituality have been linked with positive health outcomes. Most studies of cardiac risk have excluded women, ethnically and socially diverse individuals; spiritual well being assessment has not been a part of assessment protocols for cardiac prevention.

Purpose: The purpose of the study was to determine whether college students who learn anger management skills and participate in targeted spirituality exercises will have lower objective indices of cardiac risk and improved scores on anger management and spiritual well being measures compared to students who participate in a traditional wellness curriculum.

Method: A quasi-experimental design was used to describe cardiac risk factors among a sample of 44 college students participating in a one-semester wellness course, which included a robust exercise component. Twenty-four students in the study group received nine hours of anger management and spirituality classes; twenty students in the comparison group received standard wellness education. Physical risk assessment included total blood pressure, fasting blood lipids and glucose, BMI and waist circumference. Other measures included the State-Trait Anger Expression Inventory (Spielberger, 1999), the Spiritual Well-Being Scale (Ellison, 1983), and the CDC Self Assessment of Health Risk Profile, short-form (Texas Department of Health, 1996).

Findings: The majority of subjects were single females, of Hispanic background, first semester freshmen, born in the United States, with a median age of 19 years. Forty-two percent of subjects had a BMI in the overweight or obese range; almost one fourth of the sample had blood pressures greater than 120/80; twenty-six percent of students had cholesterol levels greater than 200. Groups did not differ at post measurement on anger management or spiritual well being scores. A one-way between-groups multivariate analysis of variance was performed to investigate group differences in cardiac risk. Three dependent variables were used: systolic blood pressure, spiritual well being, and anger expression index scores. The independent variable was group membership. There were no statistically significant differences between groups on the combined dependent variables. However, for the total sample, diastolic blood pressures, total cholesterol, and glucose levels decreased significantly over the two measurement periods.

Conclusions: College wellness classes may be a mechanism to influence the cascade of specific risk indices of cardiac disease such as blood pressure, cholesterol and glucose levels; more study is needed to determine the interaction of anger and spiritual well being as influences on cardiac risk.