Religious Orientation and Aging: Effects on Reactivity
Andrea Knestel, B.A. and Kevin S. Masters, Ph.D.

INTRODUCTION

The American population is aging (He, Sengupta, Velkoff, & DeBarros, 2004). Prolonged life \(\rightarrow\) decline in general health status. Cardiovascular disease may be a marker for the development of cardiovascular disease (Krantz & Manuck, 1984). Emotional stress may be a marker for the development of cardiovascular disease (Schwartz et al., 2003). The American population, and more specifically the older population, is quite religious (Gallup Poll, 2005). Research suggests a relationship between religion and health. If religion influences health, then how is this accomplished? Religion serves to help individuals understand, predict, and control events by providing them with a sense of meaning. A person’s religious belief system may lead to an increased ability to cope with stressful life events. Religious Orientation \(\rightarrow\) intrinsic, extrinsic, pro-religious, non-religious. The effects of an intrinsic religious orientation on cardiovascular responding may be more salient in situations that involve stressors that are interpersonal in nature. The current research was designed to advance the literature on religious orientation and cardiovascular health by examining more fully the association between religious orientation and cardiovascular reactivity.

METHODS

Participants

131 adults (ages 40–70)

Recruitment via media outlets

Exclusion criteria

Ischemic heart attack, myocardial infarction, or cerebrovascular accident (stroke) within the past 5 years

Distributed across the intrinsic, pro-religious, and non-religious groups

Procedures

Participants were mailed a survey packet

Additional measures were completed after arrival to the lab

Participants engaged in two stressor tasks

Mental arithmetic (subtraction)

Interpersonal stressor (role-playing a confrontation with an insurance adjuster)

Blood pressure and heart rate were measured

Self-report mood measure (PANAS)

Aims of Study

Determine if a relationship between religious orientation and cardiovascular reactivity exists

Test the hypotheses that individuals with intrinsic and non-religious orientation styles show reduced cardiovascular reactivity to psychological stressors as compared to the pro-religious group

RESULTS

Baseline Comparisons

One-way ANOVA

No initial baseline differences among the three religious groups (intrinsic, pro-religious, non-religious) on measures of BP, HR, and PANAS

Cardiovascular Reactivity Outcomes

3 (Religious Orientation) \(\times\) 3 (Type of Stressor) Mixed-Model ANOVA

No interaction effects \(\rightarrow\) aggregation across stressors

Main effect for Religious Orientation (SBP) \(\rightarrow\) \(F(2, 124) = 6.66, p < .005\)

Mean score of pro-religious orientation was significantly different from the intrinsic and non-religious groups

Covariates

ANCOVA

Personality and hostility factors did not emerge as influencing scores on measures of SBP

Post-Stress Measures

Interaction effect for PA

Mean score for intrinsic religiousness during the role-play preparation task was significantly different from the role-play preparation task of the pro-religious group, but not the non-religious group

No interaction effect for NA

Intrinsic group \(\rightarrow\) largest emotional discomfort immediately following the role-play preparation and the role-play tasks

Pro-religious group \(\rightarrow\) lowest levels of negative affect across all stressor conditions

DISCUSSION

Relationship between Religious Orientation and Cardiovascular Reactivity

Findings suggest that older adults who vary in their religious orientation styles show significantly different SBP reactivity to laboratory stressors

These differences remained significant after statistically controlling for the effects of personality and hostility variables

Specifically, adults who were pro-religious were found to have reduced SBP reactivity across all stressor conditions compared to those in the intrinsic and non-religious groups

The intrinsic and non-religious groups did not differ from each other

Large percent of this study’s participants were Catholic

Religious denomination effect?

Attachment bonds?

Study Limitations and Directions for Future Research

No extrinsic group

Potential age effects

Lack of proportionate recruitment of men and women

Did not measure specific beliefs of study participants

Role of religious affiliation

Naturalistic settings