

Effects of Faith Matters on Short-term and Long-term Psychosocial Adjustment of Older and Mid-aged Patients Undergoing Open-heart Surgery

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Background: Cardiac events are on the rise due to the aging of the Baby Boom generation, longer life expectancies, and increases in traditional risk factors associated with age. From 1979 to 2000, the number of cardiac procedures increased by 470%, making this a common crisis in middle and late life. Preoperative mental health comorbidities predict poorer postoperative outcomes, spotlighting the need to identify new protectors. Based on evidence, an *American Psychologist* (AP) special issue (2003) named the faith-health area as “a true frontier” of research, “one with high public interest,” and identified two major methodological gaps, assessment issues and underlying mechanisms. To meet these gaps and to explore the precise faith role in postoperative adjustment, this interdisciplinary multi-wave survey followed a cohort of older and middle-aged patients. **Methods:** Subjects were recruited for sequential interviews (1999 – 2002) at the University of Michigan Heart Center. Of the approached, 481 (61%) completed the first interview by trained interviewers two weeks prior to surgery for faith-based and psychosocial information. Attritional analyses found no difference in demographics between consenters and nonconsenters. The majority was male (58%), Caucasian (90%), married with spouse present (72%), and Christian (83%). The average age was 62.4 (33 – 89). The average education was 14 years. Most were. About two days prior to surgery, the second telephone interview assessed mechanism factors. Approximately 36 days post surgery, the third interview assessed short-term outcomes. No statistical differences were found between those who completed the third wave and those who did not. The long-term follow-up was conducted later. Multiple standardized instruments were employed for assessment. **Preliminary Results of the First Three-Wave Survey Outcomes:** The first analysis showed the direct, favorable longitudinal faith effect (positive coping styles) on short-term postoperative global functioning (SPGF), an under-investigated yet important outcome because of the current recommendation for early discharge, controlling for risk factors (e.g., depression, age, pre-operative illness impact, and other chronic conditions). Cross-sectionally assessed prayer coping, however, was positively related to poor SPGF, suggesting crisis-mobilized faith-based acts. No effects were found concerning perceived social support or the interaction terms “age X faith” or “depression X faith” on SPGF. A similar pattern was shown on short-term postoperative physical fatigue but not mental fatigue. Positive tendency (i.e., optimism, hope) did not explain any faith effects. The second theory-based analysis (modeling) demonstrated the indirect, desirable faith effect on short-term postoperative adjustment (low distress), mediated through mechanism factors (hope and social support). Positive and negative religious coping styles had opposite effects on both these psychosocial pathways controlling for preoperative distress, gender, and education. Further analysis showed that “petitional” prayer, used by older, sicker, and less educated patients, had an indirect desirable effect on adjustment mediated through optimism, whereas other types of prayer did not. Finally, additional analysis found the link between distress factors and plasma interleukin-6 and also the high prevalence of using complementary and integrative medicine among these patients.

Conclusion: Consistent with AP, certain faith factors have potential protective effects on short-term postoperative outcomes and deserve clinical attention. However, these effects tend to be complex and need further investigation on the long-term roles and differential influence on varied outcomes. (Funded by National Institute on Aging Grant 1 RO3 AGO 15686-01, National Center for Complementary and Alternative Medicine Grant P50 AT00011, a grant from the John Templeton Foundation, and the Hartford Geriatric Faculty Scholarship).