

Religiosity and Spirituality: Influence on Quality of Life and Perceived Patient Self- Efficacy among Cardiac Patients and Their Spouses

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ABSTRACT: The purpose of this study was to determine the influence of spirituality, religiosity, and religious coping on quality of life and self-efficacy among couples following a first time cardiac event. There was no significant association between measures for spirituality and religiosity and couples' ratings for quality of life and self-efficacy. Negative forms of religious coping were associated with lower levels of quality of life and decreased confidence in the patient's ability to perform physical tasks. Spouses' measures for quality of life, self-efficacy, spirituality, religiosity, and religious coping were associated with patients' measures for the same study variables.

KEY WORDS: spirituality; religiosity; religious coping; quality of life; self-efficacy.

Introduction

When a sudden cardiac event occurs, both patient and spouse experience emotional and psychological distress that, if prolonged, may affect quality of life (Staples & Jeffrey, 1997). Patients and spouses experience emotional and psychological distress (Al-Hassan & Sagar, 2002; Arefjord, Hallaraker, Havik, & Maeland, 1998; O'Farrell, Murray, & Hotz, 2000). They experience anxiety, fear of recurrence, and uncertainty about the patient's health status (O'Farrell et al., 2000). Spouses, in particular, report emotional turmoil and uncertainty about the future as well as concerns about lack of support and the need to accept changes in lifestyle (Kettunen, Solovieva, Laamanen, & Santavirta,

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1999). Despite these stressors and the potential for diminished quality of life, spouses generally assume a supportive role in fostering adaptation and adherence to lifestyle change among recovering heart patients.

An emerging body of literature suggests that spiritual and religious resources provide strength for patients as they cope with change following an acute cardiac event. Religious involvement and spirituality have been associated with more effective coping and higher levels of health related quality of life among persons with cardiovascular disease (Mueller, Plevak, & Rummans, 2001). Rates of morbidity and mortality are lower among survivors of myocardial infarction who derive comfort or strength from religion (Oxman, Freeman, & Manheimer, 1995). In general, patients describe spirituality as an integral part of life which helps one find meaning and purpose following myocardial infarction (Walton, 2002).

Although findings are limited regarding ways spirituality, religiosity, and forms of religious coping influence the experience of spouses following an acute cardiac event, research addressing benefits derived from strength of religious beliefs and practices for informal caregivers of patients with other health related problems is available. For example, family members caring for cancer victims report higher levels of hope associated with a connection with God (Borneman, Stahl, Ferrell, & Smith, 2002). Greater religious involvement has also been associated with fewer depressive symptoms among family caregivers (Chang, Noonan, & Tennstedt, 1998). Family caregivers of patients with end-stage Alzheimer's disease report that faith helps in the adjustment to the caregiver role (Rabins, Fitting, Eastham, & Fetting, 1990). In a qualitative study, examining the role of spirituality during illness, caregivers and care recipients reported that they found meaning through spirituality through the development of a positive attitude, a sense of inner reward, and connection with God (Theis, Biordi, Coeling, Nalepka, & Miller, 2003). In general, positive forms of religious coping have been associated with less depression, higher self-esteem, and better quality of life among informal caregivers. Negative forms of religious coping have been associated with higher levels of emotional distress, depression, and diminished quality of life.

Given the emotional distress both spouse and patient experience and role the spouse plays in fostering adaptation, it is important to understand if spirituality, religiosity, and forms of religious coping confer similar benefits on patient and spouse as they cope with challenges following a cardiac event. Therefore, the purposes of this study were: (1) to examine the influence of spirituality, religiosity, and forms of religious coping on quality of life and perception of patient self-efficacy among patients and spouses following a first time cardiac event; (2) to determine if spouses' measures for quality of life, perceived patient self-efficacy, spirituality, religiosity, and forms of religious coping are related to patients' measures for the same variables; and (3) to determine if change in reports of spirituality, religiosity, methods of religious coping, quality of life, and perception of patient self-efficacy occurs over time.

Definitions

The terms, spirituality and religiosity, are often used interchangeably. However, it is important to recognize characteristics which distinguish the terms and lend clarity to related research. Koenig, McCullough, and Larson (2001) describe spirituality as belief in a higher being and the quest for meaning in life. According to Zinnbauer, Pargament, and Scott (1999), spirituality involves a search for the sacred that leads to different paths as one strives to find meaning in life's events. Koenig et al. (2001) describe religiosity as a system of beliefs and practices that may include both internal and external forms of religious activity, such as prayer or attendance at religious services. Such practices are designed to foster closeness to the sacred and an understanding of one's relationships.

Religious coping, on the other hand, involves the extent to which people turn to matters of religion or spirituality to cope with stressful life events. Koenig et al. (2001) suggest that religious coping increases as the severity of illness or the degree of distress increases. Pargament et al. (1990) describe ways religion can be involved in coping with stressful life events. Religion can be part of the appraisal process thus serving as a form of explanation for life events. Religion can also contribute to the coping process through facilitation of adaptation and be a product of the coping process leading to both positive and negative outcomes. Positive religious coping involves a sense of spirituality, a secure relationship with God, a belief that life holds meaning, and a sense of connectedness with others. Negative religious coping represents a less secure relationship with God, a tenuous or threatening view of the world, and a religious or spiritual struggle in the search for meaning. Positive forms of religious coping are most often linked to positive outcomes whereas negative forms of religious coping have been associated with negative outcomes (Pargament, Smith, Koenig, & Perez, 1998).

Method

Sample and procedures

Participants included 44 dyads. Patients were first-time referrals to a 12-week cardiac rehabilitation program. Patients were recruited within two weeks of initiating cardiac rehabilitation and included men and women between 49 and 73 years of age. Patient inclusion was restricted to those who had suffered a confirmed uncomplicated first time myocardial infarction or coronary artery revascularization surgery. Spouses were recruited at the time of patient enrollment in cardiac rehabilitation and included men and women between 47 and 71 years of age. Criteria for selection of spouses included: (a) spouse of a patient who had experienced an uncomplicated first time myocardial infarction or coronary artery revascularization surgery who enrolled in cardiac rehabilitation, and (b) willingness to participate in the study. All participants

read and signed an institutionally approved informed consent. The cardiac rehabilitation program consisted of one-hour exercise sessions offered three times each week.

Measures

Questionnaires were completed by both spouses and patients at the beginning (Test 1) and completion of cardiac rehabilitation (Test 2). Several instruments were included to represent the following domains: (1) spirituality and religiosity; (2) religious coping; (3) quality of life; and (4) self-efficacy.

Spiritual and religious concerns questionnaire. The Spiritual and Religious Concerns (SRC) questionnaire is an 11-item questionnaire that measures spiritual and religious beliefs, attitudes, needs, and behaviors (Silber & Reilly, 1985). When first developed, Silber and Reilly (1985) established face validity only. To establish reliability and validity, McConnell and Boyatzis (2000) administered an adapted form of the SRC to nine subjects who had experienced a sudden cardiac event. Participants completed the questionnaires twice within a two-week interval. Test-re-test reliability yielded a correlation coefficient of $r = .96$ ($p < .001$). Analysis of responses to individual items from first to second test administration yielded a correlation coefficient of $r = .84$ ($p < .001$). Evaluation for internal consistency yielded a standardized alpha of .79.

Religiosity measure. The Religiosity Measure (RM) assesses the impact of religion on the respondent's daily life and the extent of individual participation in ritual practices (Rohrbaugh & Jessor, 1975). No particular religious affiliation or denomination is assumed in the measurement of general religiosity. The Religiosity Measure is an eight-item multiple-choice questionnaire. The instrument consists of four two-item subscales measuring four dimensions of religiosity: (a) ritual; (b) consequential; (c) theological; and (d) experiential. Items pertaining to ritual religiosity refer to frequency of participation in religious services and prayer or meditation. Consequential religiosity addresses the influence of religiosity on coping with personal problems. Items pertaining to theological religiosity address beliefs while those addressing experiential religiosity pertain to feelings of religious reverence or comfort. Responses are coded on a scale from 0 (least religiosity) to 4 (greatest religiosity). Certain items are reverse scored to minimize obvious systematic scoring. This measure has demonstrated adequate internal consistency (Cronbach coefficient alpha of .90).

Religious coping activities scale. The Religious Coping Activities scale measures the extent to which people turn to religion to cope with stressful life events (Pargament et al., 1990). This 29-item scale assesses six types of religious coping: (a) Spiritually Based Coping; (b) Good Deeds; (c) Discontent;

(d) Interpersonal Religious Support; (e) Plead; and (f) Religious Avoidance. For each item there are four response options, ranging from “not at all” to “a great deal.” Spiritually Based Coping records an individual’s reliance on a loving relationship with God in stressful situations, taking the form of emotional reassurance and positive appraisal of situations. Good Deeds reveal attempts to cope by leading a good life and providing help to others. Discontent represents an angry and alienated reaction to God and to the church. Interpersonal Religious Support measures tendencies to rely on the support of clergy and church members. Plead reveals tendencies to question and bargain with God in hopes of obtaining a miraculous solution to personal problems. Religious Avoidance examines attempts to divert attention from stressful circumstances through religious practices, such as reading the Bible, or relying on God to solve personal problems. Discontent and Plead coping and are generally considered negative forms of religious coping (Pargament, Koenig, & Perez, 2000). Spiritually Based Coping, Good Deeds, Religious Avoidance, and Interpersonal Religious Support are viewed as positive forms of religious coping.

Quality of life. Health-related quality of life (QOL) was estimated from a heart disease specific QOL questionnaire developed as an instrument to measure QOL following acute myocardial infarction (QOLMI) (Oldridge et al, 1991). The 26-item QOLMI measures two dimensions of quality of life: (a) limitations; and (b) emotions. The limitations dimension includes items addressing symptoms and restrictions. The emotions section includes questions addressing indicators of emotional function, such as confidence and self-esteem. For each of the 26 items in the scale, there are seven response options ranging from one, “all of the time” to seven, “none of the time.” An adapted form of the QOLMI instrument was used to assess the spouse’s perception of his or her own quality of life following a mate’s first time cardiac event.

Self-efficacy. The Self-efficacy tool measures the patient’s confidence in his or her ability to perform certain physical activities categorized in two domains: ambulatory and muscular (Ewart, Taylor, Reese, & DeBusk, 1983). Patients rate their confidence in their ability to perform each task listed for each domain using a scale ranging from zero (not at all confident) to 100 (extremely confident). The domain score is the sum of the task scores for the respective domain. For this study, revisions in the Self-efficacy tool were made to reflect the spouse’s confidence in the patient’s ability to perform physical tasks following a first time cardiac event.

Statistical analysis

Pearson product-moment correlation coefficients were calculated: (1) to examine relationships between spirituality, religiosity, and religious coping and quality of life and self-efficacy among patients and spouses; and (2) to examine relationships between spouses’ and patients’ measures for each

study variable. All correlations were calculated at the start of cardiac rehabilitation (Test 1) and upon completion of a 12-week cardiac rehabilitation program (Test 2). Two-way repeated measures analysis of variance (ANOVA) was used to assess group (spouse versus patient) and time (Test 1 versus Test 2) main effects and potential main effect interactions for each variable. Paired *t*-tests were used as post hoc analyses. Statistical significance was set at $p \leq .05$.

Results

Characteristics of the sample

A total of 44 couples participated in this study. The mean age (\pm SD) of the spouses was 59.1 ± 12.6 years. The mean age of patients was 61.6 ± 11.8 years. Thirty-five of the spouses were female and nine were male. Twenty seven percent of the patients had a myocardial infarction and 73% had coronary artery vascular bypass surgery. None of the patients suffered an adverse cardiac event during the 12-week rehabilitation program. The patients attended an average of 31.3 ± 8.3 of the 36 available rehabilitation sessions.

Correlations between spirituality, religiosity, and religious coping and quality of life and self-efficacy for spouses and patients

Global measures for spirituality and religiosity, as measured by the Spiritual and Religious Concerns and Religiosity measures, did not relate significantly to quality of life or perception of patient self-efficacy among couples. In terms of religious coping, greater use of Discontent Coping was related to lower levels of quality of life among spouses at Test 1 ($r = -.34$; $p = .05$). At Test 2, Discontent Coping was related to lower self-reported levels of physical self-efficacy among patients ($r = -.39$; $p = .02$).

Correlations between spouses' and patients' measures for quality of life, self-efficacy, spiritual and religious concerns, religiosity, and religious coping

Correlations between spouses' and patients' measures for study variables are presented in Table 1. Significant positive correlations were found at Test 1 and Test 2 between the spouse's confidence in the patient's ability to perform physical tasks and the patient's rating of his her own physical self-efficacy. Also at Test 1, significant positive correlations were found between patients' and the spouses' measures for spiritual and religious concerns, religiosity, and forms of religious coping, with the exception of Religious Avoidance. At Test 2, significant positive correlations were found between patients' and spouses' measures for emotional and overall quality of life, spiritual and religious concerns, religiosity, and forms of religious coping, with the exception of: (1) Experiential Religiosity; (2) Plead Coping; and (3) Discontent Coping.

TABLE 1
Correlations between Subscales for Spouses and Patients
at Test 1 and Test 2

	Test 1		Test 2	
	<i>R</i>	<i>p</i>	<i>r</i>	<i>p</i>
Quality of Life				
Emotional	.29	.09	.44	.01
Limitations	.16	.37	.31	.08
Overall	.26	.15	.43	.01
Self-Efficacy				
Ambulatory	.65	.00	.74	.00
Muscular	.67	.00	.78	.00
Overall	.68	.00	.78	.00
Spiritual and Religious Concerns	.57	.00	.52	.00
Religiosity				
Ritual	.69	.00	.75	.00
Consequential	.38	.03	.56	.00
Theological	.68	.00	.54	.00
Experiential	.40	.02	.09	.63
Overall	.64	.00	.61	.00
Religious Coping				
Spiritual Based	.56	.00	.31	.08
Good Deeds	.66	.00	.56	.00
Discontent	.39	.02	-.22	.22
Interpersonal	.45	.01	.68	.00
Pleading	.39	.03	.06	.73
Avoidance	.33	.06	.41	.02

Spouses (*n* = 44). Patients (*n* = 44).

Two-way analysis of variance (ANOVA) for spouses' and patients' measures
 Results of two-way ANOVA for measures of spirituality, religiosity, and religious coping are presented in Table 2. Although no changes occurred from Test 1 to Test 2, spouses overall had higher scores for: (1) Ritual Religiosity; (2) Consequential Religiosity; and (3) Spiritually Based Religious Coping. Good Deeds Coping decreased from baseline to completion of study for spouses but increased for patients. Although no change occurred from Test 1 to Test 2, patients overall had higher overall scores for Discontent Coping. Religious Avoidance decreased for both patients and spouses from baseline to completion of study. Based on time main effects, limitations quality of life

TABLE 2

**Two-Way ANOVA [Mean (SD)] for Spirituality, Religiosity,
and Religious Coping**

	Spouse (<i>n</i> = 44)		Patient (<i>n</i> = 44)	
	Test 1	Test 2	Test 1	Test 2
Spiritual and Religious Concerns	6.9 (1.3)	7.0 (1.2)	6.3 (1.4)	6.4(1.5)
Religiosity				
Ritual*	5.5 (1.3)	5.6 (1.4)	4.9(1.7)	4.8 (1.8)
Consequential*	5.9 (1.7)	5.9(1.7)	5.1 (1.7)	4.7 (1.7)
Theological	6.8 (1.6)	6.9 (1.7)	6.4 (1.8)	6.5 (1.9)
Experiential	6.2 (1.7)	6.3 (1.7)	5.8(1.8)	5.7 (2.1)
Overall	24.5 (5.3)	24.7 (5.7)	22.2 (6.1)	21.8 (6.2)
Religious Coping				
Spiritual Based*	3.4 (1.0)	3.1 (.6)	2.9 (.8)	2.9 (.9)
Good Deeds**	2.5 (.9)	2.4 (.7)	2.4 (.9)	2.5 (.8)
Discontent*	1.1 (.2)	1.0 (.1)	1.2 (.4)	1.2 (.4)
Interpersonal	2.7 (1.1)	2.8 (1.4)	2.6 (1.1)	2.5 (1.2)
Pleading	1.8 (.8)	1.8 (.7)	1.7 (.8)	1.7 (.8)
Avoidance*	2.6 (.9)	2.4 (.9)	2.4 (.9)	2.3 (.9)

Note: *df* = 1, 86. *Refers to significant group effect (Spouse vs. Patient), $p < .05$. **Refers to significant interaction effect (Group vs. Test), $p < .05$. Test 1 occurred at the start of cardiac rehabilitation. Test 2 occurred at the completion of cardiac rehabilitation.

($F[1,86] = 5.9$, $p = .02$) and overall quality of life ($F[1,86] = 5.8$, $p = .02$) increased more for patients from Test 1 to Test 2 than it did for spouses. Also based on time main effects, self-reported ambulatory self-efficacy ($F[1,86] = 7.4$, $p = .01$) and overall self-efficacy ($F[1,86] = 4.9$, $p = .03$) increased more for patients from Test 1 to Test 2. There was no significant increase in spouses' perceptions of the patient's ability to perform physical tasks from Test 1 at the start of cardiac rehabilitation to Test 2 at the completion of the 12-week rehabilitation program.

Discussion

The first objective of this study was to determine if measures of spirituality, religiosity, and religious coping were related to quality of life and perception of patient physical self-efficacy among couples following a first time cardiac event. This study found no association between dimensions of spirituality and

religiosity addressed in the SRC and Religiosity questionnaires and quality of life and perception of the patient's physical self-efficacy among couples following a cardiac event. These indices measure what Pargament et al. (1990) refer to as global indicators of spirituality and religiosity including the impact of religion on the respondent's daily life, the extent of individual participation in ritual practices, and strength derived from religious beliefs, attitudes, needs, and behaviors. There is mixed support for this finding. In studies addressing the experiences of informal caregivers, Shah, Snow, and Kunik (2001) also found no association between organizational religiosity, non-organizational religiosity, and intrinsic religiosity and dimensions of well-being. However, other investigators have demonstrated a positive association between strength of religious beliefs and informal caregiver well-being (Burgener, 1994; Rabins et al., 1990; Rammohan, Rao, & Subbakrishna, 2002). In studies addressing outcomes for patients, religious beliefs and greater religious involvement have generally been associated with improvement in quality of life and functional well-being (Bussing, Ostermann, & Matthiessen, 2005; Mueller et al., 2001; Tarakeshwar et al., 2006). To capture the complexity of the role religion plays in coping with health-related problems, Pargament et al. (1990) and Pearce (2005) recommend using measuring more specific forms of religious coping.

Analysis of religious coping data in the current study revealed that greater use of Discontent Coping was associated with lower levels of quality of life among spouses at the start of cardiac rehabilitation and lower levels of physical self-efficacy among patients upon completion of cardiac rehabilitation. Discontent Coping, which represents a sense of anger with or distance from God, is considered a negative form of coping often associated with higher levels of distress (Pargament et al., 1998). In other studies, religious discontent has been associated with higher levels of depression and burden among informal caregivers (Shah et al., 2001) and a diminished sense of well-being and negative mental health states among patients (Belavich & Pargament, 2002; Koenig et al., 2001; Pargament et al., 1988; Pargament et al., 2000).

Use of Discontent Coping in this population of patients and spouses may reflect the distress associated with early recovery following a cardiac event (Al-Hassan & Sagr, 2002; Arefjord et al., 1998; Dunn, Corser, Stommel, & Holmes-Rovner, 2006; O'Farrell et al., 2000). Patients and spouses may have felt resentful or betrayed by God, making them more vulnerable to expressions of religious discontent. Butter and Pargament (2003) refer to expressions of discontent as 'red flags' that are neither intrinsically right nor wrong. Signs of discontent may be part of the adaptation process. Following a cardiac event, patients and spouses are in the midst of crisis and, as Butter and Pargament (2003) point out, seemingly poor coping while in the midst of turmoil may eventually lead to positive outcomes. Health professionals and clergy are challenged to assess the efficacy of forms of religious coping within the context of the illness situation.

The second objective of this study was to determine if spouses' measures for quality of life, perceived patient self-efficacy, spirituality, religiosity, and forms of religious coping were related to patients' measures for the same variables. Correlations emerged between spouses' and patients' perceptions of patient physical self-efficacy at both the start and completion of cardiac rehabilitation. This is an important finding because partners play an important role in patients' adherence to rehabilitation programs (Daly et al., 2002). According to Bandura's (1986) theory of self-efficacy, verbal persuasion is one source of information for self-efficacy. Spouses serve as sources of verbal persuasion and help shape patients' appraisals of their physical self-efficacy. Research is needed to evaluate ways spouse and patient appraisals of the illness and recovery influence outcomes. In a study examining the influence of congruence between the patient's and the partner's appraisals of myocardial infarction on outcomes for the patient, Figueiras and Weinman (2003) found that similar positive perceptions of illness and recovery were associated with positive patient outcomes. Similar negative perceptions were associated with negative outcomes. Not as expected, conflicting perceptions of the myocardial infarction and recovery were associated with fewer negative outcomes indicating that it may be important that at least one member of the dyad has a positive perception of the patient's status. There is need for greater understanding of ways outcomes may differ for patient and spouse depending on which member of the dyad, patient or spouse, possesses the positive or negative appraisal.

There was no relationship between spouses' and patients' ratings for their quality of life at baseline. However, after cardiac rehabilitation there was a significant positive correlation. Lack of a relationship during the early stages of recovery may reflect differences in experiences for spouses and patients at that time. According to Yates and Booton-Hiser (1992), spouses experience feelings of uncertainty and concerns about increased demands in the marital relationship, and role changes. Patients, on the other hand, experience fear of recurrence, distress over not being able to resume work or retirement routines, and lack of confidence in being able to adhere to dietary recommendations. Unique experiences and perceptions of the illness experience may lead to different perceptions of quality of life during the acute phase of recovery. Perceptions of quality of life did correlate among couples in this study upon completion of cardiac rehabilitation. The nature of this finding remains unclear. Spouses were encouraged to attend rehabilitation sessions. Although not assessed in this study, previous research has demonstrated that spousal participation in cardiac rehabilitation is associated with enhanced coping and greater satisfaction with the marital relationship (Stewart, Davidsson, Meade, Hirth, & Weld-Viscount, 2001). Additional research is needed to understand more clearly factors that influence perceptions of quality of life for patients and spouses following a cardiac event.

Spouses had higher scores for Ritual Religiosity (frequency participation in religious services and prayer or meditation), Consequential Religiosity (influence of religiosity on coping with personal problems) and Spiritually Based Coping (reliance on a loving relationship with God in stressful situations). These are considered positive forms of religious coping representing a more secure relationship with God (Pargament et al., 1990). Spouses in this study may have utilized these forms of religious coping as a means of support as they struggled with the challenges associated with an acute cardiac event. Following a mate's cardiac event, spouses are particularly vulnerable. They experience concerns about their own health status and fears related to the patient's recovery, overprotection, and recurrence (Kettunen et al., 1999). As Pargament et al. (1990) point out, religious coping often increases as distress increases.

Patients had higher scores for Discontent Coping (expressions of anger or distance from God). Feelings of anger or distance from God have been associated with poor outcomes and a threatened sense of meaning during stressful life events (Pargament et al., 1990). Although Butter and Pargament (2003) suggest that, "no one coping activity is always effective" (p. 190), health professionals are challenged to assess the efficacy of coping mechanisms as they occur. Anxiety and depression frequently occur among patients during hospitalization and extend for periods of time following discharge from the hospital (Brink, Karlson, & Hallberg, 2006). These stressors can delay recovery. Assessment for signs of anxiety, depression, and spiritual struggle is important for patients and their spouses following a cardiac event.

The third objective of this study was to determine if changes occurred in patients' and spouses' reports of spirituality, religiosity, religious coping, quality of life, and perception of patient self-efficacy from baseline to completion of study. Good Deeds coping decreased from baseline to completion of study for spouses but increased for patients. Although no change occurred from Test 1 to Test 2, patients overall had higher scores for Discontent coping. Religious Avoidance decreased for both patients and spouses from baseline to completion of study. Good Deeds coping represents a shift from focus on the life event (in this case, the cardiac event) to living a better, more integrated religious life through greater participation in church-related activity and helping others. Emotional and physical distress may have limited the capacity of patients in this study to attend church services, participate in religious rituals, or reach out to others. Emotional distress is critical during early recovery and often predictive of later adjustment (Melamed, Heruti, Shiloh, Zeidan, & David, 1999). Patients reported increased use of Good Deeds coping, as time progressed. This may reflect an improvement in well-being. In fact, as patients progressed through cardiac rehabilitation, they reported an increase in limitations quality of life ($F[1,86] = 5.9, p = .02$) and overall quality of life ($F[1,86] = 5.8, p = .02$) as well as self-reported ambulatory

self-efficacy ($F[1,86] = 7.4, p = .01$) and overall self-efficacy ($F[1,86] = 4.9, p = .03$).

Despite reports of improvement among patients, spouses did not demonstrate a significant increase in their quality of life or confidence in the patient's ability to perform physical tasks over time. Distress among spouses, perhaps more emotional than physical, may continue beyond the 12-week duration of this study, thus delaying improvement. Distress among spouses following a mate's cardiac event has been well documented (Kettunen et al., 1999; O'Farrell et al., 2000). Pearce (2005) emphasizes the need to understand better ways religious coping influences outcomes for informal caregivers.

Limitations

This study has a number of limitations. First, the sample was small, non-random, and derived from one setting only. Most patients were male ($n = 35$). Failure to capture data related to the female patient and the male caregiver limits generalization of the results of the study. In addition, all patients were enrolled in a cardiac rehabilitation program. In previous studies, greater religiousness has been associated with regular exercise and adherence to healthy lifestyle behaviors (Koenig et al. 2001). Failure to compare outcomes for participants and non-participants in cardiac rehabilitation may also limit generalization of results. Second, several factors associated with quality of life and self-efficacy were not measured. Psychological factors, such as depression and anxiety, have a negative impact on quality of life for spouses and patients and such factors may have confounded the results of this study (Connery, Shapiro, McLaughlin, Bagiella, & Sloan, 2001). Third, social support mediates well-being among cardiac patients. Perception of social support has been shown to buffer reaction to stress following a cardiac event (Craig, Lynch, & Quartner, 2000). Failure to measure perceived adequacy of social support limits interpretation of quality of life outcomes for spouses and patients. Fourth, the care giving and care receiving experience holds different meanings for persons in a dyadic relationship. Quantitative measures alone may not reveal the meaning ascribed to care giving and care receiving by the spouse and patient. A combination of qualitative and quantitative methods may provide greater insight into the relationship between spirituality and religiosity and quality of life and self-efficacy following a first-time cardiac event.

Despite these limitations, this study did demonstrate that discontent coping, or feeling anger or distance from God, was associated with lower levels of quality of life among spouses and lower self-reported levels of physical self-efficacy among patients. This study also demonstrated congruence among patients' and caregivers' use of some types of religious coping and their reports of some dimensions of spirituality and religiosity.

Additional research is needed to understand ways similarities and dissimilarities in religious coping may influence outcomes for patients and spouses following a cardiac event.

Conclusion

Both patients and spouses experience distress following a cardiac event and draw support from their religious behaviors and spiritual beliefs. Those with lower perceptions of quality of life and self-efficacy are more likely to employ negative forms of religious coping and may be at risk for spiritual distress and delayed recovery thus requiring supportive interventions during the recuperative process. Greater improvement in quality of life and self-efficacy for patients may suggest their improved physical state and the need for more intensive recuperative interventions for spouses, primarily emotional ones. Additional research is needed to explore the extent to which other variables, such as depression, anxiety, and social support, interact with religious variables to influence adaptation among patients and spouses following a cardiac event. Additional research is also needed to clarify whether or not the degree of congruence between patients' and spouses' perceptions of quality of life, self-efficacy, and methods for religious coping influences outcomes for patients and spouses following a first-time cardiac event.

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