

# Dimensions of Religiousness and Spirituality as Predictors of Well-Being in Advanced Chronic Heart Failure Patients

Crystal L. Park · Haikel Lim · Max Newlon · D. P. Suresh ·  
Deborah E. Bliss

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**Abstract** We examined relationships between seven dimensions of religion/spirituality (RS) (forgiveness, daily spiritual experiences, belief in afterlife, religious identity, religious support, public practices, and positive RS coping) and three dimensions of well-being (physical, mental, and existential) in a sample of 111 patients with advanced chronic heart failure. Participants completed questionnaires at baseline and 3 months later. Results showed that fairly high levels of RS were reported on all seven dimensions. Furthermore, RS dimensions were differentially related to well-being. No aspect of RS was related to physical well-being, and only a few aspects were related to mental well-being. Forgiveness was related to less subsequent depression, while belief in afterlife was related to poorer mental health. All aspects of RS were related to at least one aspect of existential well-being. In particular, daily spiritual experiences were linked with higher existential well-being and predicted less subsequent spiritual strain. These results are consistent with the view that in advanced disease, RS may not affect physical well-being but may have potent influences on other aspects of well-being, particularly existential aspects.

**Keywords** Spirituality · Religiousness · Heart failure · Existential well-being · Forgiveness

## Introduction

Research regarding the effects of religion/spirituality (RS) on people living with chronic heart failure (CHF) has focused primarily on patients' general well-being or only a specific aspect, such as depression (Karademas 2010); these studies have typically demonstrated positive relationships (Bekelman et al. 2007). Relatively few studies have examined relations between RS and specific domains of well-being, and virtually none have

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C. L. Park (✉) · H. Lim · M. Newlon  
Department of Psychology, University of Connecticut, Storrs, CT 06269-1020, USA  
e-mail: Crystal.park@uconn.edu

D. P. Suresh · D. E. Bliss  
St. Elizabeth's Physicians, Covington, KY, USA

distinguished the effects of different aspects of RS on different domains of well-being. The present study was designed to examine relations between multiple dimensions of RS and well-being.

### Chronic Heart Failure

CHF involves chronic, progressive impairment of the heart's ability to maintain normal blood circulation (McCall 1994) and affects over 6 million people in the United States (Roger et al. 2012). Common symptoms include difficult, painful breathing even during rest, fluid retention, swelling of the lower extremities, and general weakness and fatigue (CDC 2010). Quality of life in CHF is poor and typically increasingly impaired as the disease progresses and physical functioning becomes increasingly compromised (Rector et al. 2006).

CHF is one of the most expensive chronic diseases in the United States: Health care services, medications, and lost productivity due to CHF were estimated to cost the United States \$39.2 billion in 2010 (CDC 2010). CHF is increasing in incidence and prevalence, likely due to the aging of the US population, reduced myocardial infarction death rate, and more effective CHF treatments that improve longevity (Galbreath et al. 2004). Along with these increases comes an increasing need to understand more about CHF and factors that promote well-being in patients living with the disease.

### Psychosocial Determinants of Well-Being in CHF Patients

Research on well-being in CHF patients has demonstrated that psychosocial factors relate to quality of life, often more strongly than do biomedical factors (Moser 2002). The psychosocial factors receiving the most attention in this context are social support and environmental factors (see MacMahon and Lip 2002, for a review). Most research examining well-being in CHF patients has tended to focus on either mental well-being or health-related quality of life (Juenger et al. 2002; Koenig 2002; Bekelman et al. 2007).

The psychosocial factor of religiousness/spirituality (RS) has been receiving increased attention in the context of CHF. CHF patients report fairly high levels of RS (Beery et al. 2002) and, further, typically consider RS as important and helpful to them in dealing with their disease (e.g., Murray et al. 2004). Indeed, a number of studies have demonstrated that RS was related to higher levels of well-being over time (e.g., Karademas 2010; Goebel et al. 2009; Fitchett et al. 2004), although not all research has shown this relationship (e.g., Koenig 2002; Joeke et al. 2007; Chadiha et al. 1997).

Some recent research has suggested that different dimensions of RS may have different effects on well-being in CHF patients (Bekelman et al. 2007; Karademas 2010; Koenig, 2002). Further, it is becoming clear that spiritual well-being is an important outcome in and of itself, and perhaps, as patients become more ill, as important as (or even moreso than) mental or physical well-being. For example, in a qualitative, interview-based study, Murray et al. (2007) identified distinct trajectories for four different aspects of well-being in CHF patients (psychological, spiritual, social, and physical). For example, social and physical well-being had similar trajectories based on acute exacerbations, while spiritual well-being gradually decreased: Patients increasingly questioned their value and place in the world and searched for meaning. Some participants were comforted by their religious beliefs, while others wondered about judgment or divine indifference. Murray et al. (2007) concluded that different aspects of well-being in CHF patients follow distinctly different, but sometimes related, trajectories.

In the present study, we examined three distinct dimensions of well-being: physical, mental, and existential. Physical well-being in CHF patients consists of physical aspects associated with quality of life and functional limitations. Relevant research in patients with CHF includes studies that have demonstrated links between RS and physical well-being, such as physical functioning (Karademas 2010), pain severity (Goebel et al. 2009), and symptoms of disease (Beery et al. 2002).

Mental well-being is primarily concerned with the psychological wellness of CHF patients, such as their mental health-related quality of life, anxiety, and depression. Relevant research on mental well-being and religion in patients with CHF includes studies that have found positive correlations between RS and depression, anxiety, and hostility (e.g., Bekelman et al. 2007; Fitchett et al. 2004; Whelan-Gales et al. 2009).

Existential well-being is distinct from the former two aspects of well-being in that, it refers to aspects of a more transcendent dimension, such as life satisfaction, death anxiety, and spiritual strain. Relevant here are studies such as Fitchett et al. (2004), who found that religious coping was positively correlated with spiritual struggle, and Park et al. (2009), who found that daily spiritual experience, religious life meaning, and forgiveness all related to lower levels of spiritual struggle.

### Multidimensionality of Religion/Spirituality

RS is increasingly recognized as comprising multiple distinct dimensions, including such aspects as private and public behaviors, beliefs, and coping (Abeles et al. 1999). These different dimensions may have very different relations with aspects of well-being. More research is needed to understand potentially different roles that these various aspects of RS in living with CHF (Selman et al. 2007) to inform the development of interventions that may usefully tap into positive aspects of religiousness and spirituality (Pargament 2007). Most studies of RS and well-being have not examined the differential relations of distinct aspects of RS (cf. Park et al. 2009).

### The Present Study

As reviewed above, RS is important in the lives of CHF patients and has generally been shown to be associated with well-being. Yet, much remains to be learned about these associations. Most studies have examined only a single aspect of religiousness and a single aspect of well-being, precluding comparisons of associations across dimensions. Further, much of this research has been conducted cross-sectionally, precluding the examination of effects over time or any inferences regarding directions of causality.

We therefore undertook the present study to examine the extent to which a broad range of aspects of RS typically found to be positively associated with well-being in the broader RS-well-being literature (e.g., forgiveness, daily spiritual experiences, positive religious coping; Masters and Hooker in press; Park and Slattery in press) were differentially related with three different dimensions of well-being (physical, mental, and existential) in CHF patients nearing the end of their lives. We speculated that the different aspects of RS would be differentially associated with the various domains of well-being. Further, we examined which of these diverse aspects of RS were independently predictive of each domain of well-being when examined together.

## Method

### Participants

Participants, obtained from a large cardiology practice in Cincinnati, OH, consisted of 111 participants (67 men, 44 women; 39 % African-American, 5 % Native American, 56 % Caucasian; 10 % Latino) with severe CHF (Levels III and IV) who were ineligible for transplantation based on the New York Heart Association Classification scheme, which ranges from Class I (minimal limitations in activities) to Class IV (confinement to rest and discomfort and symptoms even at rest). All participants were stable and receiving optimal standard of care treatment for their CHF. The mean length of CHF diagnosis was 6.5 years ( $SD = 5.6$  years). The participants' mean ejection fraction, an index of CHF severity, was 26.8 ( $SD = 9.5$ ), and mean number of co-morbidities was 4.20 ( $SD = 2.12$ ). The average age was of 66.7 ( $SD = 11.0$ ). Most participants (67 %) identified as being of a Protestant Christian denomination; 16 % reported Catholic, 1 % Jewish, and 9 % reported no religious affiliation.

All level III and IV patients were informed about the study by nurses at their medical appointment and were offered a \$10 incentive per measurement time point. Those who elected to participate were assessed at baseline (Time 1) and again at a 3 months interval (Time 2). Self-addressed envelopes along with questionnaires were provided to the participants.

### Measures for Dimensions of Well-Being

Heart failure-related physical impairment was assessed with the Minnesota Living with Heart Failure Questionnaire (MLWHFQ; Rector et al. 1987) physical impairment subscale in which participants rate the extent to which their CHF kept them “from living as you wanted during the last month by” on 8 items (e.g., “making you tired, fatigued, or low on energy?”) from 0 (not at all) to 5 (very much). The physical impairment subscale has a potential range of 0–40. The MLWHFQ is psychometrically sound (Rector 2005); internal consistency reliability in the present study was 0.81 and 0.87 at Times 1 and 2, respectively.

Mental and physical health-related quality of life (HRQOL) were assessed with the SF-12 (Ware et al. 1996), which assesses HRQOL by asking participants to rate whether their mental or emotional health status had limited their daily activities in the past month (yes/no) as well as perceptions of their physical or mental health status (e.g., “In general, would you say your health is” rated on a scale of 1 “poor” to 5 “excellent” “How much of the time have you felt downhearted and blue?” rated as 6 “all of the time” to 1 “none of the time”). The SF-12 yields two scores, physical HRQOL (which encompasses pain, fatigue, and functional limitations due to physical problems) and mental HRQOL (which encompasses vitality, mood, and functional limitations due to mental problems). The SF-12 subscales are normed on the general adult US population to produce a mean of 50 and a standard deviation of 10, with higher scores indicates better HRQOL. The SF-12 has excellent psychometrics (Ware et al. 1996), and in the present sample, internal consistency for the mental and physical HRQOL subscales was 0.83 and 0.92 at Time 1, respectively, and 0.84 and 0.90 at Time 2, respectively.

Depression was assessed with the CES-D (Radloff 1977), a 20-item scale assessing the frequency with which respondents experienced depressive symptoms in the past week, each rated on a scale from 0 (rarely or none of the time) to 3 (most or all of the time). Four items are reverse-scored, and the summary depression score ranges from 0 to 60. The CES-D has very good psychometric properties (Radloff 1977); in the present sample, internal consistency reliabilities at Times 1 and 2 were 0.88 and 0.90, respectively.

Life satisfaction was assessed with the Satisfaction with Life Scale (SWLS; Diener et al. 1985), 5 items (e.g., “I am satisfied with my life”) that participants rated from 1 (absolutely untrue) to 7 (absolutely true). The SWLS has demonstrated good psychometric properties in previous research (e.g., Diener 1994) and good internal consistency in the present sample ( $\alpha = 0.79$  and  $0.81$ , at Times 1 and 2, respectively).

*Death anxiety* was assessed with the three-item Death and Dying subscale of the World Health Organization Quality of Life measure (Harper and Power 1998). Individuals rated the degree to which they worried about (a) death, (b) “the thought of not being able to die the way you would want to,” and (c) “how and where you will die,” using scales from 0 (not at all) to 4 (extremely). Internal consistency reliabilities were  $0.83$  and  $0.85$  at Times 1 and 2, respectively.

*Religious strain* was assessed with the brief version of the Religious Strain Scale (Exline et al. 2000). Participants rated their agreement with six items reflecting anger toward and alienation from God [“feel angry at God,” “feel abandoned by God,” “see God’s actions as unfair,” “feel that God has let you down,” “view God as unkind,” and “believe that God disapproves of you” from 0 (not at all) to 10 (extremely)]. Internal consistency reliability in the present sample was  $0.84$ . Previous research has demonstrated good internal consistency reliability and construct validity (Wood et al. 2010). Internal consistency reliabilities were  $0.91$  and  $0.87$  at Times 1 and 2, respectively.

#### Dimensions of Religiousness/Spirituality

All aspects of RS were assessed with the Brief Multidimensional Measure of Religion/Spirituality (BMMR/S; Abeles et al. 1999). This is a widely used instrument designed to provide careful assessment of differentiated dimensions of RS. The BMMR/S has established fairly good psychometrics (Idler et al. 2003). RS dimensions assessed included:

1. *Forgiveness* was measured with 3 items related to three aspects of forgiveness: forgiveness by God, forgiving others, and forgiving oneself, each answered from 1 to 4. This measure has demonstrated good psychometrics in previous research. Internal consistency reliability in the present sample was  $0.93$ .
2. *Daily spiritual experiences* were measured by asking participants how often they had each of eight spiritual experiences (e.g., felt the presence of God, found strength, or comfort in their religion) from 8 (many times a day) to 1 (never or almost never). Internal consistency reliability in the present sample was  $0.84$ .
3. *Belief in afterlife* was measured by asking participants if they “believe[d] there is life after death?” Response options were 0 (no), 1 (undecided), and 2 (yes).
4. *Religious identity* was measured with the item, “To what extent do you consider yourself a religious person?”, rated from 0 (not at all) to 4 (extremely).
5. *Religious support* was assessed with two items regarding the extent to which one’s congregation would help in the event of illness or other problems rated on a scale from 1 (none) to 4 (a great deal). In this sample, internal consistency reliability was  $0.91$ .
6. *Public practices* were assessed with the short form of the Public Religious Participation Scale, which consists of two items assessing frequency of attendance at religious services and other activities at one’s place of worship. Items were rated on a scale from 1 (never) to 8 (several times a week). In this sample, internal consistency reliability was  $0.81$ .
7. *Positive RS coping* was assessed with four items (e.g., “I work with God as partners”) regarding their CHF. Both items were rated from 1 (not at all) to 4 (a great deal). In this sample, internal consistency reliability was  $0.85$ .

## Results

### Attrition

Across the 3 months from baseline (Time 1) to follow-up (Time 2), 10 participants were lost to the study (2 participants died, 3 participants reported being too ill to participate, 1 participant was lost due to relocation, and 4 participants were lost because the study ended before they could be recontacted). To determine whether there were systematic differences between participants who completed the study and those who did not,  $\chi^2$  and  $t$  tests were conducted on all study variables. Results indicated no significant differences (all  $ps > .10$ ).

### Religion and Spirituality in the Sample

Participants reported fairly high levels of religiousness and spirituality on all seven of the RS variables (see Table 1). Most of the RS variables were intercorrelated at moderately strong levels. Daily spiritual experiences appeared to be most strongly and consistently related with other aspects of RS, while forgiveness appeared to be least strongly and consistently related to other RS variables.

Analyses examining the extent to which demographic variables (gender and age) were related to RS were conducted. Independent samples  $t$  tests comparing men versus women in the sample indicated that gender was unrelated to any RS variables (all  $ts < 1.14$ ,  $ps > .09$ ) or RS variable (all  $ts < 1.22$ ,  $ps > .11$ ). Bivariate correlations indicated that age was unrelated to any RS variable ( $rs < 0.14$ ,  $ps > .09$ ) and was significantly related to only one Time 2 well-being variable, life satisfaction ( $r = 0.29$ ,  $p < .01$ ; all other  $rs < 0.13$  and  $ps > .14$ ). Because neither of these demographic variables were statistically significantly related to both a RS variable and a well-being variable, these were not controlled in the analyses.

**Table 1** Descriptives and bivariate correlations among Time 1 dimensions of religion and spirituality

	Item mean (standard deviation)	Bivariate correlations					
		Forgiveness	Daily spiritual experiences	Belief in afterlife	Religious intensity	Religious social support	Public practices
Forgiveness	2.54 (0.43)	1					
Daily spiritual experience	4.53 (1.04)	0.35**	1				
Belief in afterlife	1.74 (0.55)	0.12	0.55**	1			
Religious identity	3.02 (0.73)	0.31**	0.62**	0.54**	1		
Religious support	2.91 (1.07)	0.15	0.44**	0.34**	0.41**	1	
Public practices	3.15 (1.58)	0.17	0.49**	0.37**	0.46**	0.48**	1
Positive religious/ spiritual coping	3.15 (0.61)	0.27**	0.73**	0.458**	0.61**	0.52**	0.51**

\*\*  $p < .01$

Correlational Analyses of RS and Well-Being

We conducted a correlational analysis to examine the relations of the different dimensions of Time 1 RS and dimensions of well-being at Time 2 (see Table 2). Results showed that for physical well-being, only one dimension of RS had a statistically significant relationship: Time 1 scores on daily spiritual experiences were related to lower Time 2 functional limitations. In terms of mental well-being, Time 1 belief in afterlife was negatively related to Time 2 mental HRQOL, and forgiveness was positively related to depression. Dimensions of existential well-being were more diversely linked with spirituality. Specifically, Time 1 scores on forgiveness were inversely related to Time 2 spiritual strain, daily spiritual experiences were related to more Time 2 life satisfaction and less death anxiety and spiritual strain, and belief in an afterlife was negatively related to spiritual strain. Both religious identity and religious social support were positively related to Time 2 life satisfaction and negatively to spiritual strain. Finally, public religious practices were negatively related to spiritual strain.

Religion/Spirituality as Predictors of Different Dimensions of Well-Being

To determine which RS dimensions had unique relations with our measures of well-being, hierarchical regressions were conducted longitudinally to examine which aspects of RS uniquely predicted well-being when examined with other RS dimensions, and then prospectively, in which we also controlled for Time 1 well-being to ascertain the extent to which baseline RS predicted change in well-being across the 3 months period. To conduct these analyses, we conducted one hierarchical linear regression analysis for each of the seven well-being variables. We included age, gender, income, and education as a first step,

**Table 2** Bivariate correlations of different dimensions of Time 1 religion/spirituality with Time 2 well-being

	Physical well-being		Mental well-being		Existential well-being		
	Physical HRQOL	CHF functional limitations	Mental HRQOL	Depression	Life satisfaction	Death anxiety	Spiritual strain
Forgiveness	0.02	-0.08	-0.15	-0.27**	0.00	-0.16	-0.21*
Daily spiritual experiences	0.01	-0.29*	-0.12	-0.16	0.23*	-0.26**	-0.51**
Belief in afterlife	0.06	-0.02	-0.21*	-0.08	0.03	-0.01	-0.27**
Religious identity	0.06	-0.05	-0.08	-0.20	0.20*	-0.05	-0.39**
Religious social support	0.01	0.08	-0.05	-0.12	0.25*	-0.13	-0.31**
Public religious practices	0.14	0.00	-0.15	-0.13	0.14	-0.14	-0.23*
Positive religious coping	-0.01	0.01	-0.05	-0.05	0.17	-0.20	-0.38**

\*  $p < .05$ , \*\*  $p < .01$

then entered all of the RS variables that were statistically significantly correlated with that well-being variable at the bivariate level. Finally, to examine whether RS predicted change in that well-being variable over time, we entered the Time 1 level of that well-being variable as a third step.

Results showed that no RS variables predicted either dimension of physical well-being in either longitudinal or prospective regression analyses. No RS variables predicted mental HRQOL in the longitudinal analyses, but in the prospective analyses, controlling for Time 1 level of mental HRQOL, beliefs in afterlife emerged as a marginally significant predictor of Time 2 mental HRQOL ( $B = -0.699$ ,  $SEB = 1.651$ ,  $\beta = 0.212$ ,  $p < .10$ ). Time 1 forgiveness predicted Time 2 depression when controlling for the demographic factors ( $B = -1.871$ ,  $SEB = 0.780$ ,  $\beta = -0.258$ ,  $p < .05$ ) but was no longer predictive when Time 1 depression was added to the model. Time 1 daily spiritual experiences predicted lower levels of both Time 2 death anxiety ( $B = -0.699$ ,  $SEB = 0.260$ ,  $\beta = -0.284$ ,  $p < .01$ ) and spiritual strain ( $B = -0.484$ ,  $SEB = 0.154$ ,  $\beta = -.572$ ,  $p < .01$ ), and remained a significant predictor of Time 2 spiritual strain when Time 1 levels of spiritual strain were added to the model ( $B = -0.349$ ,  $SEB = 0.145$ ,  $\beta = -0.377$ ,  $p < .05$ ). No RS variables predicted life satisfaction in either the longitudinal or prospective analyses.

## Discussion

By including a range of dimensions of RS that have typically been found to be positively associated with well-being in other populations, we were able to examine their unique and collective roles in the well-being of those living with advanced CHF. This is a group dealing with a great deal of physical symptoms and suffering and which has not received a great deal of attention in terms of their RS lives. We found this group to have high levels of all dimensions of RS. Our findings are consistent with previous work with healthier CHF patients that has demonstrated high levels of religiousness (e.g., Bekelman et al. 2007). Interestingly, these RS dimensions were only moderately strongly intercorrelated, suggesting that, while related, each is a unique aspect of RS. The distinct nature of each of these dimensions of RS raises interesting questions about the distinct roles that each may play in terms of affecting patients' well-being.

In addition, the inclusion of three distinct domains of well-being allowed us to examine the differential effects of RS on mental, physical, and existential well-being. We speculated that the different aspects of RS would differentially affect these various domains of well-being. The results provide us with insight into the relationships between religion/spirituality and well-being, supporting our hypotheses that different aspects of religion/spirituality are differentially related to the three domains of well-being.

We examined the relations between gender and age with both RS and well-being variables. Surprisingly, gender was not significantly related to any aspect of RS, which is not consistent with a great deal of research showing that women score higher in many aspects of RS than do men (e.g., Francis 1997), including studies of people living with heart failure (e.g., Park et al. 2009). This lack of gender difference may be due to the increasing RS of this group (e.g., Park 2008), creating ceiling effects in this group with advanced illness. Similarly, age was unrelated to RS, unlike other work showing that many aspects of RS are positively correlated with age (e.g., McFadden 2010), again perhaps due to the truncated age range in this sample along with the relatively high levels of RS. Age was also unrelated to well-being with the exception that older age was associated with higher life satisfaction, consistent with other research (e.g., Diener et al. 2009).



The domain of physical well-being was not significantly related to any aspects of RS, even at the bivariate level. This lack of relationship could be due to the fact that patients with advanced CHF have a rigid biological trajectory. As the disease advances, patients' physical well-being progressively deteriorates (Rector et al. 2006), and psychosocial factors such as RS may not have predictive significance. This lack of relationship is consistent with past research with CHF patients (e.g., Beery et al. 2002; Chadiha et al. 1997; Karademas 2010).

RS was not strongly related to measures of mental well-being in our sample, consistent with previous work that found that public and private spirituality were unrelated to depression in CHF patients (Koenig 2002; Whelan-Gales et al. 2009). In fact, at the bivariate level, only one RS dimension, forgiveness, was favorably related to one dimension of mental well-being, depression. Recent research with a general population sample found similar results linking only forgiveness (out of many RS factors) and mental health (Johnstone et al. 2012). This link in our sample persisted in the longitudinal multivariate analyses but not in the prospective analyses, suggesting that those higher in forgiveness persistently have lower levels of depression rather than predicting changes in depression over time. This finding for forgiveness is consistent with past research with CHF patients (e.g., Park 2008) and suggests that forgiveness may be important in maintaining a positive mental state as the illness progresses.

A relationship between higher afterlife belief and poorer mental HRQOL was noted in bivariate analyses, and a marginally statistically significant finding for beliefs in afterlife remained in the prospective analyses as well, in that higher afterlife beliefs predicted worsened mental HRQOL across the 3 months of the study. This finding was unexpected. Previous research has shown that afterlife beliefs are related to lower levels of psychiatric symptomatology in the general population (e.g., Flannelly et al. 2006). Some research has suggested that the specific content of afterlife beliefs is more important than simply having them; for example, negative views of life after death are associated with higher levels of distress (Flannelly et al. 2008). We did not ask about the content of these beliefs, so the possibility that participants held negative afterlife beliefs may explain this finding, although afterlife beliefs were inversely related to spiritual strain, suggesting that holding these beliefs did not indicate particular spiritual distress.

Relative to the findings for physical and mental well-being, we found that RS was fairly consistently related to existential well-being, particularly spiritual strain, and, to a lesser extent, life satisfaction. In fact, all dimensions of RS were related to lower spiritual strain at the bivariate level. Daily spiritual experiences appeared to have the strongest relationships with existential well-being, and this was, in fact, the only RS dimension related to death worry. Curiously, strength of belief in the afterlife was unrelated to death worry. Many of these effects did not hold in the multivariate analyses. For example, when all dimensions of RS were entered in the regression analysis, daily spiritual experiences was the only dimension that significantly predicted spiritual strain, an effect that held in the prospective step; thus, daily spiritual experiences are persistently inversely related to spiritual strain and predict reductions in strain over time in advanced CHF patients. As patients have more frequent daily spiritual experiences, they may increase their thoughts about God and transcendence, resulting in less worry about death and more security in their situation (Peterman et al. 2002).

While the findings are intriguing, the limitations of our study must be acknowledged. Although the design of this study allowed prospective analysis, it was conducted across a relatively short time span in patients who were already quite ill at baseline. Extending the timeframe would lead to better insights into the relationships between RS and multiple

dimensions of well-being. We focused on a fairly understudied group, advanced CHF patients, but our sample, consisting of mostly white patients with good financial backgrounds, lacked diversity, limiting generalization of our findings. Many of our results are based on correlational findings; given the exploratory nature of the study, we did not use statistical techniques to correct for multiple analyses. Future research with larger sample sizes may be able to better tease apart the effects of different but overlapping RS dimensions.

These results may have important implications for clinical and spiritual care. Although religion and spirituality were essentially unrelated to physical well-being and only modestly related to mental well-being, they were consistently related to existential well-being, which may be the most important dimension of well-being as patients near death. A focus on forgiveness may ease depressive symptoms and improve patients' relationships with others (Chochinov and Cann 2005). Further, daily spiritual experiences appear to be highly beneficial for these patients. Interventions that help patients to tap into their spiritual resources, especially those that lead to increased experience of transcendence and spiritual connection, may be a powerful way to ease existential concerns and improve overall quality of life for people nearing the end of life. In particular, enhancing these positive aspects of spirituality may reduce aspects of spiritual struggle and increase general life satisfaction (Lo et al. 2002).

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