Facets of Spirituality as Predictors of Adjustment to Cancer: Relative Contributions of Having Faith and Finding Meaning

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Spirituality is a multidimensional construct, and little is known about how its distinct dimensions jointly affect well-being. In longitudinal studies (Study 1, $n = 418$ breast cancer patients; Study 2, $n = 165$ cancer survivors), the authors examined 2 components of spiritual well-being (i.e., meaning/peace and faith) and their interaction, as well as change scores on those variables, as predictors of psychological adjustment. In Study 1, higher baseline meaning/peace, as well as an increase in meaning/peace over 6 months, predicted a decline in depressive symptoms and an increase in vitality across 12 months in breast cancer patients. Baseline faith predicted an increase in perceived cancer-related growth. Study 2 revealed that an increase in meaning/peace was related to improved mental health and lower cancer-related distress. An increase in faith was related to increased cancer-related growth. Both studies revealed significant interactions between meaning/peace and faith in predicting adjustment. Findings suggest that the ability to find meaning and peace in life is the more influential contributor to favorable adjustment during cancer survivorship, although faith appears to be uniquely related to perceived cancer-related growth.

Keywords: cancer, spirituality, psychological adjustment, chronic disease

Over 90% of American adults cite religion and spirituality as being important in their lives (Gallup & Lindsay, 1999). When individuals confront adverse experiences, religious and spiritual resources can become especially salient, as they are recruited to provide a framework for accepting and attributing meaning to those experiences (Park, 2005a) and are often shown to be helpful. For example, a meta-analysis of 147 studies revealed an inverse relationship between religiosity/spirituality and depressive symptoms in individuals facing stressful events (Smith, McCullough, & Poll, 2003). However, the effects of religiousness and spirituality are complex; religion and spirituality are not invariably linked with better adjustment to stressful experiences (e.g., Park, 2005b; Roff, Durkin, Sun, & Klemmack, 2007; Tix & Frazier, 2005) and may even prompt feelings of anger and disappointment, such as when one experiences events that violate one's views of a loving God (Exline & Rose, 2005; Nelson, Rosenfeld, Breitbart, & Galietta, 2002). The overarching goal in the current set of studies was to investigate whether two specific facets of spirituality (i.e., faith and meaning/peace), as well as their joint effects, predict psychological adjustment in individuals who have faced cancer.

The cancer experience provides a unique opportunity for the study of spirituality and its relation to psychological outcomes in the face of adversity. In addition to experiencing the emotions attendant upon facing a life-threatening disease, cancer patients

often are burdened by additional challenges, such as side effects of arduous treatments and fears of recurrence (Andrykowski, Curran, & Lightner, 1998; Baker, Denniston, Smith, & West, 2005; Cella, Lai, Chang, Peterman, & Slavin, 2002). When confronted with such stressors, many cancer patients find comfort in religion/spirituality; in some cases, this is associated with positive psychological outcomes (e.g., Feher & Maly, 1999; Rippentrop, Altmaier, & Burns, 2006). Overall, however, the literature demonstrates an inconsistent relationship of religion and spirituality with salutary outcomes in individuals with cancer (for reviews, see Stefanek, McDonald, & Hess, 2005; Thuné-Boyle, Stygall, Keshtgar, & Newman, 2006). One reason for disparate findings may be the range of ways in which religion and spirituality have been conceptualized and measured (Stefanek et al., 2005). Researchers have variously assessed religious coping (i.e., how the individual is making use of religion to manage stressors), religious practices (i.e., engagement in faith-related traditions), and spiritual beliefs (e.g., beliefs in a power superior to oneself). Spirituality is a multidimensional construct, and therefore it is important to examine its component parts within the same study.

One potentially useful way to conceptualize spirituality is to regard it as independent of commitment to a specific religion or doctrine (Zinnbauer et al., 1997). Peterman, Fitchett, Brady, Hernandez, and Cella (2002) developed a self-report scale designed to measure spirituality in individuals with chronic disease. The Functional Assessment of Chronic Illness Therapy—Spiritual Well-Being Scale (FACIT–Sp) assesses spiritual well-being on the basis of two dimensions: meaning/peace reflects one's sense of meaning and purpose in life, whereas faith involves perceived comfort derived from a connection to something larger than the self. Peterman et al. (2002) found that the Faith subscale of the FACIT–Sp was correlated with existing measures of religiosity and spirituality (e.g., religious activity, intrinsic religiousness). In contrast, the Meaning/Peace subscale was not related to measures of religion but rather to measures that assessed peace and purpose in life. This finding lends support to the argument that the Meaning/Peace subscale captures a facet of spirituality that is not strongly related to religiosity per se. Thus, this measure offers an approach to assessing both the religious and the existential domains of spirituality.

Cross-sectional studies on individuals with cancer have demonstrated that spirituality, and particularly the Meaning/Peace subscale, is associated with better quality of life (Brady, Peterman, Fitchett, Mo, & Cella, 1999; Edmondson, Park, Blank, Fenster, & Mills, 2008). Two studies revealed that overall spirituality was related to fewer depressive symptoms and better quality of life in individuals living with cancer or other illnesses (Krupski et al., 2006; Nelson et al., 2002). Yet, when researchers examined the two domains of spirituality in regression analyses, higher meaning/peace was related to better quality of life, whereas higher faith was unrelated to outcomes (Krupski et al., 2006; Nelson et al., 2002). Thus, it appears that the ability to find and sustain meaning and peace amid major health-related adversity is more protective against maladjustment than is religious faith (Krupski et al., 2006; Nelson et al., 2002). However, longitudinal studies are critical for determining causal priority in the links between specific aspects of spirituality and adaptive outcomes.

Our purpose in the current set of longitudinal studies was to investigate whether specific aspects of spirituality function as a resource for cancer survivors. In line with previous research, which suggests that the existential components of spirituality predict positive outcomes (Krupski et al., 2006; Laubmeier, Zakowski, & Bair, 2004; Nelson et al., 2002), we hypothesized that a sense of meaning and peace would be more strongly linked than faith to improvements in adjustment following cancer. We also sought to extend previous research by examining how meaning/peace and faith may operate jointly to predict adjustment to cancer. Perhaps attaining meaning and peace empowers individuals to transcend the stress associated with cancer and religious faith promotes a reliance on their beliefs to help them through the disease (Bekelman et al., 2007), such that high endorsement of both facets of spirituality would foster favorable outcomes. Another possibility is that a sole reliance on faith when confronting a stressful life event may eventually lead individuals to harbor negative beliefs toward their faith for allowing suffering (Exline & Rose, 2005; Gall, 2004; Gall & Cornblat, 2002) and thus prompt them to experience religious conflict or to feel disenchanted by their faith. Further, if high reliance on faith does not serve as a vehicle for successful attainment of meaning in life, endorsement of faith might represent an unsatisfied search for a sense of meaning and peace (Steger, Frazier, Oishi, & Kaler, 2006); faith may be useful only to the extent that meaning/peace ultimately is achieved. This possibility led us to hypothesize that high meaning/peace or the combination of high meaning/peace and high faith would be more likely to facilitate adjustment than would high faith in the context of low meaning/peace. We also explored whether change over time in meaning/peace or faith would predict change in adjustment and reasoned that an increase in spirituality would carry adaptive utility.

Study 1

In Study 1, we examined spirituality at study entry and change in spirituality across 6 months as predictors of adjustment to cancer over 12 months following completion of cancer treatment. We tested hypotheses in a sample of patients with breast cancer who had recently completed medical treatments and were part of a psychoeducational trial. In that trial (Stanton et al., 2005), relative to a standard print material control, exposure to a preparatory videotape produced increased vitality at 6-month follow-up, particularly for women who felt unprepared for the posttreatment (i.e., reentry) phase, and brief psychoeducational counseling engendered lower cancer-related distress only for those women who felt more prepared for reentry. At 12 months, intervention effects were in the same direction but were not statistically significant. In the present research, those effects were controlled statistically in analyses. We assessed adjustment through general measures (i.e., depressive symptomatology, vitality/fatigue) and cancer-related measures (i.e., distress, perceived positive life change).

Method

Participants

Participants were part of the Moving Beyond Cancer (MBC) psychoeducational intervention trial ($N = 558$) conducted during the reentry transition after completion of primary medical treatments for nonmetastatic breast cancer (Stanton et al., 2005). Par-

ticipants who completed baseline and 6-month ($n = 418$) or 12-month ($n = 399$) assessments were included in analyses. For those who completed baseline and 6-month assessments, the average age was 58.05 years ($SD = 11.16$). Women were predominantly White (87%), married (69%), and well educated (87% had at least some college). The majority of the women had breast-conserving surgery, and one third had mastectomy; average time between surgery and study entry was 5.6 months. In addition, 48% had undergone chemotherapy, 69% had received radiation, and 58% were taking tamoxifen. Other results and a full sample description are reported elsewhere (Ganz et al., 2004; Low, Stanton, Thompson, Kwan, & Ganz, 2006; Sears et al., 2003; Stanton et al., 2005).

Participants in the original MBC trial did not differ from nonparticipants on initial self-reported physical function or mental health status, presence of comorbid conditions, employment status, cancer history, or cancer treatment plan (Sears et al., 2003). Women who were younger, White, married, or more educated were more likely to participate through randomization. After randomization, completers of the final follow-up did not differ from noncompleters on trial arm and most demographic variables (i.e., race, marital status, education) and treatment-related variables (i.e., receipt of radiation, chemotherapy, reconstruction, type of surgery), as well as baseline vitality/fatigue and cancer-related perceived growth (Stanton et al., 2005). Women who remained in the trial through the final follow-up were more likely to be older, employed, and taking tamoxifen and to show lower baseline depressive symptoms and cancer-related distress.

Procedure

After approval by the institutional review boards of participating institutions, medical and surgical oncologists from three sites (Los Angeles, CA; Washington, DC; Kansas City/Lawrence, KS) referred participants. Potentially eligible women with nonmetastatic breast cancer were contacted via an introductory letter and then by telephone to complete a screening interview and to obtain verbal consent for periodic contact during treatment. Within 4 weeks after completion of treatment (surgery, radiation therapy, or chemotherapy), women provided written informed consent and completed baseline questionnaires. Participants were then randomized to one of three study arms: standard print information only (National Cancer Institute, 1994, booklet, *Facing Forward*); standard information and a videotape developed for the trial that modeled realistic expectations and effective coping during the transition period; or standard information, the MBC videotape, and a two-session counseling intervention and educational workbook designed for the study. Participants also completed mailed questionnaires at 6 months and 12 months postrandomization. They were not compensated for participation.

Measures

Prior to randomization and at 6-month and 12-month follow-up assessments, women completed psychosocial measures. Measures relevant to this report are described below.

FACIT–Sp. We used the FACIT–Sp (Peterman et al., 2002) to measure the extent to which participants experienced aspects of spiritual well-being in the past 7 days ($0 = $ *not at all* to $4 = $ *very*

much). It was administered at study entry and 6 months. The FACIT–Sp has two subscales, Meaning/Peace, which contains eight items (e.g., "I feel a sense of purpose in my life"), and Faith, which contains four items ("I find comfort in my faith or spiritual beliefs"). Peterman et al. (2002) demonstrated the psychometric adequacy of the FACIT–Sp scales. In the current study, internal consistency reliability at baseline was $\alpha = .86$ for Meaning/Peace and $\alpha = .86$ for Faith. The Meaning/Peace and Faith subscales were moderately correlated both at study entry ($r = .46$, $p < .0001$) and at 6 months ($r = .39$, $p < .0001$). In addition, we calculated change scores by subtracting each subscale score at study entry from the 6-month score, such that positive scores represented an increase in the subscale scores and negative scores indicated a decline in the subscale scores.

General adjustment. The Center for Epidemiologic Studies Depression Scale (CES-D) is a psychometrically sound, 20-item scale that assesses frequency of depressive symptoms over the past week (Radloff, 1977). Scores range from 0 to 60. The 4-item SF-36 Vitality subscale from the Medical Outcomes Study Short Form (SF-36) is a reliable measure of energy and fatigue that is related to physical and mental health (J. E. Ware, 1993).

Cancer-related adjustment. The Revised Impact of Events Scale (IES–R; Horowitz, Wilner, & Alvarez, 1979; Weiss & Marmar, 1997) is a 22-item instrument that asks participants to rate how distressing cancer-related intrusive thoughts, avoidance, and hyperarousal have been for them over the past week. The Intrusive Thoughts subscale was of interest in this study as a measure of cancer-related distress. Because responses were skewed toward lower scores, analyses were conducted with a log-transformed score ($\log[\text{IES–R-Intrusion} + 1]$).

A second cancer-related outcome was the Post-Traumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996), which assesses perceived positive life changes following stressful experiences (e.g., enhanced relationships, greater life appreciation). In completing the 21 items, women responded on a scale from 0 (*I did NOT experience this change as a result of my experience with cancer*) to 5 (*I experienced this change to a VERY GREAT degree . . .*). Because the PTGI Spiritual Change subscale has substantial conceptual overlap with the FACIT–Sp, it was not included in computations of the total PTGI score.

Perceived preparedness for reentry after treatment completion. Examined as a moderator variable in the intervention trial and included as a covariate in analyses, perceived preparedness for reentry was assessed at baseline with two author-constructed items (e.g., "Overall, I feel very well-prepared for what to expect during my recovery"). These highly correlated items ($r = .84$, $p < .0001$, $n = 415$) were averaged.

Data Analytic Plan

Descriptive statistics for the FACIT–Sp subscales were examined (descriptive data on the dependent variables are presented elsewhere; Low et al., 2006), and zero-order correlations were computed to assess relations of baseline FACIT–Sp Meaning/Peace and Faith subscales, as well as change scores on the subscales, with dependent variables at 6 and 12 months.

Primary analyses were multiple regressions performed to evaluate the predictive utilities of Meaning/Peace and Faith subscales and their interaction on the four outcomes at the 6-month and

12-month follow-ups. The baseline value on the relevant dependent variable was entered first to allow evaluation of the predictors on change in the dependent variables. Because data were from a randomized intervention trial and perceived preparedness for the reentry phase moderated the effects of the intervention on outcomes, we included as covariates dummy-coded variables for the interventions (education sessions vs. print material control, MBC videotape vs. print material control), perceived preparedness, and their interactions in the regression equations. We identified demographic and cancer-related variables for inclusion as covariates by assessing their relations with the four dependent variables at 6 and 12 months. Variables that were significantly associated with a dependent variable were included in the regression equations for that variable.

Regression equations for each of the four dependent variables included baseline values on the relevant dependent variable, psychoeducational intervention and perceived preparedness variables, significant demographic and cancer-related covariates, the Meaning/Peace and Faith scores, and their interaction (entered at a second step to provide a significance test for the interaction; Keith, 2006). Meaning/Peace and Faith scores were centered around their means (i.e., scale mean was subtracted from each participant's score) prior to entry in the equation. An identical set of multiple regressions was conducted to examine the predictive utilities of change in Meaning/Peace and Faith from study entry to 6 months (centered change scores), as well as their interaction, on the dependent variables. To provide some control for Type I error, we assessed significance of individual predictors at $p < .012$ (.05/4 for four dependent variables). Beta weights reported are for the unique predictive utility of the variable over and above all other predictors in the equation (i.e., simultaneous predictor entry). Significant interactions were analyzed via the method of Aiken and West (1991) for continuous variables. Regression analyses were conducted on all cases available at each assessment point.

Results

Descriptive Statistics

On the FACIT–Sp, mean scores at baseline ($n = 418$) were 24.16 ($SD = 5.85$) for Meaning/Peace and 9.44 ($SD = 4.72$) for Faith. At 6 months ($n = 385$), mean scores were 24.65 ($SD = 5.57$) for Meaning/Peace and 9.20 ($SD = 4.92$) for Faith. The Meaning/Peace mean is slightly lower than those found by Peterman et al. (2002) in two samples of patients with cancer (Sample 1, $M = 25.2$; Sample 2, $M = 25.0$), and the Faith mean is lower than those in Peterman et al.'s samples (Sample 1, $M = 13.3$; Sample 2, $M = 11.8$). On average, participants increased slightly in Meaning/Peace from study entry to 6 months (M change score $= 0.51$, $SD = 4.33$), and they decreased slightly in Faith (M change score $= -0.24$, $SD = 2.49$). Few background variables were associated significantly with FACIT–Sp scores. Younger women reported lower meaning/peace than did older women ($r = .17$, $p < .001$). College-educated women ($M = 8.86$, $SD = 4.73$) reported significantly lower faith, $t(416) = -3.23$, $p < .01$, than did less educated women ($M = 10.38$, $SD = 4.57$). White women ($M = 9.51$, $SD = 4.69$) reported lower faith, $t(415) = -4.55$, $p < .0001$, than did women in other ethnic groups ($M = 12.11$, $SD = 4.02$).

As reported previously (Low et al., 2006), repeated-measures analyses of variance revealed significant change in the dependent variables from study entry to 1 year. Depressive symptoms decreased significantly from study entry to 12-month follow-up, and cancer-related distress decreased significantly from study entry to 6 months and from 6 months to 12 months. Vitality increased significantly from study entry to 6-month follow-up, as did reports of cancer-related growth. Outcomes were significantly intercorrelated and at Time 1 ranged from an absolute value of .25 to .51 ($p < .0001$), except for the PTGI, which was related to cancer-related distress ($r = .28$, $p < .0001$) but was uncorrelated with the other outcomes.

Correlations of FACIT–Sp Meaning/Peace and Faith Scores With Dependent Variables

Table 1 contains bivariate correlations between the predictors and dependent variables. Baseline FACIT–Sp Meaning/Peace scores were significantly associated with better adjustment on all dependent variables at 6 and 12 months, with the exception of cancer-related growth, with which they evidenced weak relations. An increase in Meaning/Peace from baseline to 6 months was also

Table 1
Study 1 Zero-Order Correlations of Baseline Values and Change Scores (6 Months − Baseline) on the FACIT–Sp Meaning/Peace and Faith Subscales With Outcomes at 6 and 12 Months

| | Dependent variable | | | | | | | |
| | Depressive symptoms (CES-D) | | Energy/fatigue (SF-36 Vitality) | | Cancer-related distress (IES–R) | | Cancer-related perceived growth (PTGI) | |
Predictor	6 months	12 months	6 months	12 months	6 months	12 months	6 months	12 months
FACIT–Sp Meaning/Peace baseline	−.38***	−.42***	.27***	.32***	−.21***	−.20***	.07	.12
FACIT–Sp Meaning/Peace change	−.23***	.01	.16**	.09	−.09	−.05	.05	.01
FACIT–Sp Faith baseline	−.06	−.13**	.01	.07	−.04	−.09	.28***	.27***
FACIT–Sp Faith change	−.07	.02	.01	−.02	−.05	−.00	.06	.03

Note. n at 6 months $= 415$–418. n at 12 months $= 383$–399. FACIT–Sp = Functional Assessment of Chronic Illness Therapy—Spiritual Well-Being Scale; CES-D = Center for Epidemiologic Studies Depression Scale; SF-36 Vitality = Vitality subscale from the Medical Outcomes Study Short Form; IES–R = Revised Impact of Events scale; PTGI = Post-Traumatic Growth Inventory.
** $p < .012$.   *** $p < .0001$.

significantly related to lower depressive symptoms and higher vitality at 6 months but not at 12 months. By contrast, baseline FACIT–Sp Faith was related consistently only to the PTGI, such that higher baseline Faith was associated with greater cancer-related growth at 6 and 12 months. Change in Faith was not significantly related to any dependent variable.

Identification of Covariates for Inclusion in Multiple Regression Analyses

We identified covariates by assessing relations of demographic variables (i.e., age, marital status [yes/no], education [college degree/no college degree], ethnicity [European American/other ethnicity], employment [at least part-time/no employment], study site [Los Angeles, Washington, Kansas City/Lawrence]) and cancer-related variables (i.e., days from surgery to baseline assessment, chemotherapy receipt [yes/no], radiotherapy [yes/no], surgery [mastectomy/breast conservation], tamoxifen receipt [yes/no]) with the four dependent variables at 6 and 12 months. As detailed in Low et al. (2006), patient age was associated significantly with all dependent variables at 6 and 12 months, with older women reporting better adjustment than did younger women. Age was included as a covariate in regression analyses. No other demographic or cancer-related variables were significantly associated with the IES–R Intrusive Thoughts, CES-D, or SF-36 Vitality scales. Four additional variables were associated with PTGI scores (Low et al., 2006). Women reported greater cancer-related growth at 6 and 12 months when they had longer time since surgery at baseline, had undergone chemotherapy, or had had mastectomy. Women who had no college degree reported more cancer-related growth at 6 but not 12 months than did women with a degree. In analyses on the PTGI, covariates included age, education, time since surgery, chemotherapy receipt, and mastectomy receipt.

Multiple Regression Analyses on General Adjustment Measures

CES-D. The regression models with baseline scores predicting depressive symptoms accounted for 28% of the variance in depressive symptoms at 6-month follow-up, $F(10, 402) = 15.93$, $p < .0001$, and 33% of the variance at 12-month follow-up, $F(10, 386) = 18.95$, $p < .0001$. As shown in Table 2, after controlling for baseline depressive symptoms, patient age, and the block of MBC intervention variables, higher Meaning/Peace and lower Faith significantly predicted a decline in depressive symptoms at 6 months. Main effects were qualified by a significant Meaning/Peace × Faith interaction. Plotted in Figure 1a, the interaction revealed that, when Meaning/Peace was relatively high at baseline, depressive symptoms were low across time regardless of level of Faith. However, when Meaning/Peace was relatively low at baseline, high Faith predicted an increase in depressive symptoms, with a predicted CES-D score approaching 14. Thus, women who reported high faith in the context of low meaning/peace appeared more at risk for depressive symptoms across 6 months. At 12 months, FACIT–Sp Meaning/Peace was the only significant predictor ($\beta = -.26$, $p < .0001$), with women who reported high meaning/peace at baseline evidencing diminished depressive symptoms at 12 months.

For analyses with FACIT–Sp change scores as predictors of dependent variables, an increase in Meaning/Peace from baseline to 6 months significantly predicted a decline in depressive symptoms at 6 months, full model, $F(10, 401) = 21.55$, $p < .0001$, $R^2 = .35$, β for Meaning/Peace change $= -.33$, $p < .0001$, and at 12 months, $F(10, 372) = 16.14$, $p < .0001$, $R^2 = .30$, β for Meaning/Peace change $= -.12$, $p < .012$. Change in Faith scores and the interaction were not significant.

SF-36 Vitality. As displayed in Table 2, a similar pattern emerged for the prediction of SF-36 Vitality over time. Baseline

Table 2

Study 1 Results From Multiple Regression Analyses for Baseline Values on Covariates, Baseline FACIT–Sp Meaning/Peace, Faith, and Meaning/Peace × Faith Interactions Predicting Depressive Symptoms and Energy/Fatigue at 6 Months

Predictor	Depressive symptoms (CES-D)				Energy/fatigue (SF-36 Vitality)			
	ΔR^2	B	$SE(B)$	β (final)	ΔR^2	B	$SE(B)$	β (final)
Step 1	.26***				.42***			
Baseline DV		0.34	0.05	.35***		0.60	0.04	.61***
Age		−0.02	0.03	−.03		0.03	0.07	.02
Video vs. CTL		−0.11	0.85	−.01		3.60	2.02	.08
Counseling vs. CTL		1.19	0.85	.07		0.11	2.01	.00
Prepared		0.09	0.54	.01		2.64	1.28	.15*
Prepared × Video		−0.22	0.69	−.02		−2.07	1.65	−.08
Prepared × Counseling		−0.84	0.71	−.08		−0.44	1.69	−.01
Meaning/Peace		−0.39	0.08	−.28***		0.39	0.18	.11*
Faith		0.21	0.08	.12**		−0.36	0.19	−.08
Step 2	.02**				.02***			
Meaning/Peace × Faith		−0.04	0.01	−.12**		0.08	0.03	.11**
Total R^2	.28***				.44**			

Note. Italicized values represent the amount of change in R^2 due to the corresponding step. Estimates displayed are for the final multiple regression models (CES-D, $df = 10, 402$; SF-36 Vitality, $df = 10, 404$). FACIT–Sp = Functional Assessment of Chronic Illness Therapy—Spiritual Well-Being Scale; CES-D = Center for Epidemiologic Studies Depression Scale; SF-36 Vitality = Vitality subscale from the Medical Outcomes Study Short Form; DV = dependent variable; CTL = print material control.
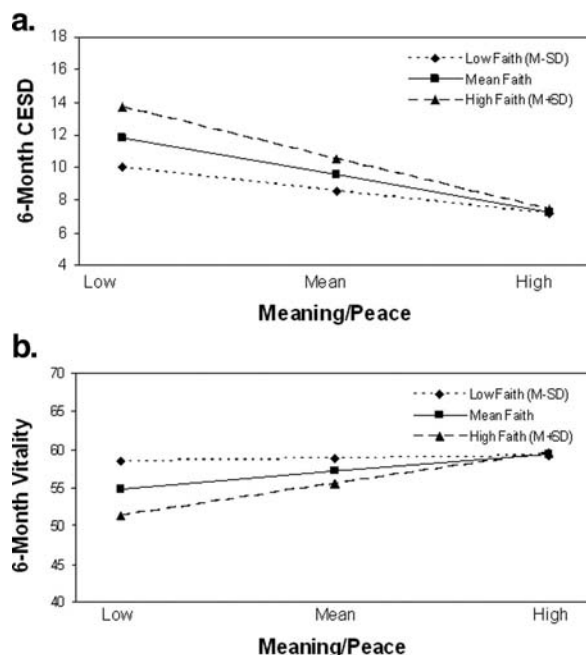* $p < .05$.   ** $p < .012$.   *** $p < .0001$.

Figure 1. (a) Study 1 interaction of baseline Meaning/Peace with Faith on 6-month depressive symptoms (CES-D). (b) Study 1 interaction of baseline Meaning/Peace with Faith on 6-month SF-36 Vitality. CES-D = Center for Epidemiologic Studies Depression Scale; SF-36 Vitality = Vitality scale from the Medical Outcomes Study Short Form.

scores were significant predictors of Vitality at 6 and 12 months, with full regression models accounting for 44% of the variance in energy at 6 months, $F(10, 404) = 31.38$, $p < .0001$, and 45% of the variance at 12 months, $F(10, 387) = 31.99$, $p < .0001$. At 6 months, no Meaning/Peace or Faith main effects were significant at $p < .012$; however, the Meaning/Peace × Faith interaction was a significant unique predictor of vitality. As displayed in Figure 1b, women who reported high meaning/peace at baseline had higher energy across time, regardless of their level of faith. At 12 months, baseline FACIT–Sp Meaning/Peace was the only significant predictor of Vitality ($\beta = .13$, $p < .01$), with women who reported high meaning/peace at baseline evidencing an increase in energy at 12 months.

In FACIT–Sp change score analyses, an increase in Meaning/Peace predicted an increase in Vitality at 6 months, full model, $F(10, 403) = 35.00$, $p < .0001$, $R^2 = .46$, β for Meaning/Peace change = .20, $p < .0001$, and at 12 months, $F(10, 373) = 30.93$, $p < .0001$, $R^2 = .45$, β for Meaning/Peace change = .13, $p < .005$. Change in Faith and the interaction were not significant.

Multiple Regression Analyses on Cancer-Related Adjustment Measures

IES–R Intrusive Thoughts. With one exception, baseline FACIT–Sp Meaning/Peace, Faith, and their interaction, as well as change scores on the predictors, did not significantly predict change in IES–R intrusive thought scores at 6 or 12 months (data not shown). The exception was that an increase in Meaning/Peace from baseline to 6 months predicted a decline in

cancer-related distress at 6 months (β for Meaning/Peace change = −.11, $p < .01$).

PTGI. When all other variables were controlled, only higher baseline Faith was a significant predictor of an increase in cancer-related growth at 6 months, for the full model, $F(16, 397) = 40.78$, $p < .0001$, $R^2 = .62$, β for Faith = .10, $p < .01$, and at 12 months, for the full model, $F(16, 378) = 31.43$, $p < .0001$, $R^2 = .57$, β for Faith = .10, $p < .012$. Standardized estimates (β) for the unique predictive utility of baseline Faith on cancer-related growth were $\beta = .10$ ($p < .012$) at both 6 and 12 months. FACIT–Sp change scores were not significant predictors of PTGI scores.

Discussion

In this study of women who had recently completed medical treatment for breast cancer, one dimension of spirituality (having a sense of meaning and peace in life) predicted a decrease in depressive symptoms and an increase in vitality during the early phase of cancer survivorship, whereas reliance on faith predicted a temporary increase in depressive symptoms, as well as a decrease in vitality at 6 months in the context of low meaning/peace. These findings support the hypothesis that meaning/peace is more likely than faith to facilitate adjustment. It is likely that women who have found purpose and peace in their lives are not as emotionally perturbed by the experience of cancer as those who lack existential well-being. Meaning and peace may promote transcendence of the physical sequelae of cancer treatment, as suggested by Brady et al. (1999) in a study of individuals living with cancer or HIV. In that study, higher meaning/peace scores were related to better quality of life. Moreover, the majority (66.2%) of those endorsing high levels of both fatigue and meaning/peace reported that they were able to enjoy life very much compared to only 10.7% of those with high fatigue but low meaning/peace.

The finding that high faith, independently and in the context of low meaning/peace, predicted compromised adjustment is consistent with other evidence for negative (albeit nonsignificant) associations between faith and adjustment (Krupski et al., 2006; Nelson et al., 2002). High scorers on faith report being able to find comfort and strength in their set of beliefs and thus may have relied on their beliefs to assuage the negative concomitants of cancer. However, reliance on faith alone, without a sense of purpose and contentment in life, may have left women feeling conflicted about their faith and abandoned by guiding principles. In line with this interpretation, previous research has demonstrated that feeling punished or abandoned by one's faith is related to depressive symptoms (for a review, see Ano & Vasconcelles, 2005; Pargament, Smith, Koenig, & Perez, 1998). A compatible interpretation is that searching for meaning through reliance on faith without actually finding meaning (i.e., searching without solving; Segerstrom, Stanton, Alden, & Shortridge, 2003) is likely to prompt distress (Bower, Kemeny, Taylor, & Fahey, 1998). In light of the findings that the interactions involving baseline faith had relatively modest effect sizes and were evident only at 6 months and not at 1 year, it may be that a struggle with faith is life-disrupting early on, when the cancer experience is salient, but not during longer term adjustment, when cancer survivors might have resolved any faith-related conflicts.

Another major finding is that baseline faith predicted an increase in perceived posttraumatic growth at 6 and 12 months. This

finding is not a reflection of item overlap between the Faith subscale and the PTGI Spiritual Change subscale, because that PTGI subscale was not included in analyses. Rather, the finding might reflect concordance of a common religious tenet that suffering provides a pathway to growth with endorsement of the PTGI items, which also emphasize growth after adversity. We were surprised to find no association between the Meaning/Peace subscale and the PTGI. From a theoretical perspective, finding meaning in traumatic events is a critical component of posttraumatic growth (Janoff-Bulman & Frieze, 1983; Taylor, 1983). However, it is important to note that the PTGI is designed to measure perceptions of growth following a specific experience. Perhaps women who scored high on the Meaning/Peace subscale did not endorse perceptions of change on the PTGI because they already perceived themselves as being high on those PTGI dimensions. Women lower in life meaning may have been more likely to view cancer as a catalytic agent for positive life changes.

Study 2

A primary goal in Study 2 was to assess the generalizability of Study 1 findings in a sample of male and female survivors of various cancers who were further from their diagnosis and primary treatment. First, we were interested in whether the general superiority of the meaning/peace facet of spirituality (and change in meaning/peace) over the faith facet in predicting most aspects of adjustment would be replicated and whether the interaction effect of the two spirituality constructs on adjustment would remain significant. Most of the research on spirituality and patients with cancer has been conducted with people fairly close to diagnosis (see Stefanek et al., 2005). It is possible that religion or spirituality plays a stronger role in adjustment for those earlier in the survivorship trajectory (e.g., Culver, Arena, Antoni, & Carver, 2002), as patients struggle with fears of recurrence and mortality (Thuné-Boyle et al., 2006) or, more generally, because distress is higher closer to cancer diagnosis (e.g., Stommel, Kurtz, Kurtz, Given, & Given, 2004). Therefore, we sought to determine whether spirituality continued to predict adjustment at a later time point in the cancer trajectory. Given the multidimensional nature of spirituality, another goal in Study 2 was to determine whether the influences of meaning/peace on adjustment were unique above and beyond not only faith but also other core dimensions of spirituality shown to be important to adjustment (Idler et al., 2003): private religious practices, organizational religious commitment, and a measure of religious struggle (i.e., the feeling that God is punishing or has abandoned the individual).

Method

Participants

The study sample that completed both assessment points consisted of 165 participants (110 women, 55 men) whose average age was 45.7 years ($SD = 6.3$, range $= 22-55$), with a mean of 3.5 ($SD = 1.7$) years since cancer diagnosis and 3.1 ($SD = 1.3$) years since completion of primary treatment at Time 2. The sample was largely White (89%), married (71%), college educated or higher (70%), and financially secure, with a household income of at least $50,000 (82%). Most (72%) of the sample was Christian; the largest denomination was Catholic (40% of sample). Ten percent had no religious affiliation, 4% were Jewish, and 14% did not respond. A detailed description of the initial sample is reported elsewhere (Edmondson et al., 2008). Only participants who completed both time points were included in the present analyses. Due to missing data, the number of participants varied slightly for each analysis.

To evaluate whether the sample was representative of the population from which it was drawn (the Cancer Registry at Hartford [CT] Hospital), we compared demographic and cancer characteristics of our sample with those of all persons of the same age range in the Cancer Registry during the period in which our sample was drawn. The sample was very similar to the population on all characteristics with the exception of a somewhat lower percentage of minority participants (in the population, 85% was White/non-Hispanic, 6.5% was Hispanic, and 6% was African American). In addition, comparison of participants who completed only Time 1 measures ($n = 250$) with those who completed both Time 1 and Time 2 measures ($n = 165$) on all variables, including demographic variables, yielded no significant differences.

Procedures

Through the Cancer Registry at Hartford (CT) Hospital, we identified eligible participants (i.e., those diagnosed with any cancer within the past 4 years and under age 50) and invited them to participate by mail. Along with $10 checks as a token of appreciation, questionnaires were sent to approximately 600 participants, and 250 completed surveys were returned. One year later, a second packet of questionnaires, along with a $5 check, was mailed to those who had completed the initial survey. The study was approved by the institutional review boards of Hartford Hospital and the University of Connecticut.

Measures

FACIT–Sp. As in Study 1, spirituality was measured with the Meaning/Peace and Faith subscales of the FACIT–Sp (Peterman et al., 2002). However, due to item overlap between item 1 ("I feel peaceful") of the Meaning/Peace subscale and an item from the Medical Outcome Survey Short Form (SF-12; J. Ware, Kosinski, & Keller, 1996), item 1 was deleted from analyses that included both. Internal consistency reliability changed little due to the deletion, decreasing from $\alpha = .90$ to $\alpha = .88$ when item 1 was discarded. Internal consistency reliability of the Faith subscale was $\alpha = .87$. The two subscales were moderately correlated ($r = .55$, $p < .01$). As in Study 1, we computed change scores for each subscale by subtracting each participant's Time 1 subscale score from the participant's Time 2 subscale score.

General adjustment. Mental health was measured with the Mental Component Summary (MCS) of the SF-12 (J. Ware, Kosinski, & Keller, 1996). Participants rated whether their emotional health status had limited their daily activities in the past month (yes/no) and rated perceptions of their mental health status (e.g., "How much of the time have you felt downhearted and blue?") on a scale from 6 (*all of the time*) to 1 (*none of the time*). The MCS is calculated with weighted scoring and is standardized to a mean of 50 with a standard deviation of 10 in the general U.S. population (J. Ware et al., 1996). Available data for cancer survivors yield a mean of 52.2 for the MCS (Short & Mallonee, 2006).

Cancer-related adjustment. Intrusive thoughts about cancer were measured with a subscale of the IES–R (Weiss & Marmar, 1997) that consists of 8 items. Items are summed for a total intrusive thoughts score ($\alpha = .93$). As in Study 1, the intrusion variable was log transformed to correct for positive skew.

Cancer-related growth was assessed with the Benefit Finding Scale (Carver & Antoni, 2004; Tomich & Helgeson, 2004), a commonly used measure of positive life changes reported by cancer survivors. Each of 13 items was rated on a scale from 1 (*much worse now*) to 5 (*much better now*). Items assessing spiritual growth were not included in this study. We used a scoring procedure such that perceived positive change scores were calculated from recoded items (i.e., 0 = *no change*; 2 = *much better now*) and then summed for a total positive score (per Bellizzi, Miller, Arora, & Rowland, 2007, and Frazier, Conlon, & Glaser, 2001; Cronbach's $\alpha = .88$).

Religious beliefs and practices. We used two subscales from the Brief Multidimensional Measure of Religion/Spirituality (Fetzer Institute, National Institute on Aging Working Group, 1999) to measure private religious practices (PRP) and organizational religious commitment (ORC). The PRP subscale is summed from two items assessing frequency of prayer and meditation (1 = *never* to 7 = *many times a day*). The ORC subscale is structured similarly but consists of three items related to frequency of church attendance and other organized religious involvement (1 = *never* to 5 = *more than once a week*). Cronbach's αs for the PRP and the ORC in the present study were .70 and .81, respectively. Religious struggle was measured at Time 1 with five items from the Religious Strain Scale (Exline, Yali, & Sanderson, 2000), which assesses perceptions of a rupture in the relationship with God. Items are measured on an 11-point scale (0 = *not at all* to 10 = *extremely*) and include "To what degree do you currently: feel angry at God, feel that God has let you down, feel abandoned by God, feel God is punishing you, see God's actions as unfair" (Cronbach's $\alpha = .95$).

Data Analytic Plan

We examined descriptive statistics for the FACIT–Sp subscales and computed zero-order correlations to assess relations of baseline FACIT–Sp Meaning/Peace and Faith subscales to religion measures and adjustment outcomes. Next, Study 1 replication models were tested (i.e., multiple regressions were performed to evaluate the predictive utilities of baseline Meaning/Peace and Faith subscales and their interaction on each of the three outcomes at the 12-month follow-up). In the replication models, the baseline value on the relevant dependent variable was entered first to allow evaluation of the predictors on change in that dependent variable. In addition, three new regression analyses were performed with the Meaning/Peace and Faith change scores (centered on their respective means) as predictors. Regression equations for each of the three dependent variables included baseline values of the dependent variable (except for cancer-related distress), the three religious control variables, Meaning/Peace and Faith change scores, and the interaction of Meaning/Peace change and Faith change (entered at a second step to provide a significance test for the interaction; Keith, 2006). Beta weights reported are for the unique predictive utility of the variable over and above all other predictors in the equation (i.e., simultaneous predictor entry). Significant

interactions were analyzed via the method of Aiken and West (1991) for continuous variables. Regression analyses were conducted on all cases available at each assessment point.

Results

Descriptive Statistics and Correlations

Scores on the FACIT–Sp were similar to those in Study 1, with mean scores at Time 1 of 20.57 ($SD = 5.81$) for Meaning/Peace (without item 1 of the scale, for which the mean was 2.36) and 9.15 ($SD = 4.83$) for Faith. At Time 2, mean scores were 21.09 ($SD = 5.84$) for Meaning/Peace (without item 1 of the scale, $M = 2.37$) and 9.22 ($SD = 5.13$) for Faith. Mean change scores for Meaning/Peace and Faith were close to 0 (0.58 and 0.18, respectively) but varied widely ($SD = 6.11$ and 4.46, respectively) and were normally distributed. The SF-12 MCS mean was 48.13 ($SD = 10.5$) at Time 1 and 50.15 ($SD = 9.7$) at Time 2. The growth attributed to cancer mean score was 10.21 ($SD = 7.87$) at Time 1 and 8.62 ($SD = 7.09$) at Time 2. Although those means appear low in comparison to those in some other studies (e.g., Tomich & Helgeson, 2004), they reflect the measurement procedure we used (i.e., allowing participants to report that they experienced negative as well as positive consequences in potential "growth" domains). The IES–R Intrusive Thoughts score mean was 5.78 ($SD = 6.67$) at Time 2, which is fairly low compared to those of some other investigations of cancer survivors (e.g., Baider & Kaplan De-Nour, 1997). The sample was moderately religious, with Time 1 mean scores of 6.37 ($SD = 4.56$) for PRP and 3.37 ($SD = 2.81$) for ORC. The sample mean for religious struggle was 4.63 ($SD = 9.74$). This result reflected the fact that only a subset ($n = 53$) of participants reported any struggle.

With regard to demographic and cancer-related correlates of FACIT–Sp scores, women reported significantly greater faith than did men at Time 1, $t(245) = 2.92$, $p < .01$. White participants reported significantly less Time 1 faith than did participants of other racial/ethnic groups, $t(245) = -2.844$, $p < .01$, as well as a smaller increase in meaning/peace over time, $t(160) = -2.34$, $p < .05$. Greater income ($r = .25$, $p < .01$) and higher education ($r = .18$, $p < .01$) were related to greater Time 1 Meaning/Peace, as well as to a greater decrease in Meaning/Peace over time (for income, $r = -.17$, $p < .05$; for education, $r = -.27$, $p < .01$). Higher education also was related to a greater decrease in Faith ($r = -.25$, $p < .01$). Relations of FACIT–Sp scores with current age, age at cancer diagnosis, or cancer site were not significant. Zero-order correlations of spirituality measures and change in Meaning/Peace and Faith with outcomes are given in Table 3. Current age, age at diagnosis, and time since the end of treatment were all unrelated to adjustment outcomes (all ps > .10). The correlation between mental health and perceived growth was significant at Time 1 ($r = .13$, $p < .05$), as was the correlation between Time 2 mental health and cancer-related distress ($r = -.39$, $p < .001$). Cancer-related growth was unrelated to the other two outcomes at Time 2.

Time 1 Predictors of Time 2 Adjustment

Neither Time 1 Meaning/Peace nor Time 1 Faith was a significant predictor of any Time 2 adjustment outcome (all ps > .07). Further, the interaction of Meaning/Peace and Faith did not significantly improve any of the models (all ps > .10).

Table 3

Study 2 Zero-Order Correlations of Time 1 and Time 2 FACIT–Sp Meaning/Peace and Faith Variables, Religious Variables, and Outcomes at Time 1 and Time 2

Predictor	Mental health (SF-12 MCS)		Cancer-related perceived growth (BFS)		Cancer-related distress (IES–R)
	T1	T2	T1	T2	T2 (only)
PRP (T1)	−.08	−.01	.30**	.30**	−.02
ORC (T1)	.04	−.01	.18**	.18*	.03
Religious struggle (T1)	−.26**	−.14	−.12	−.05	.13
FACIT–Sp Meaning/Peace change	.59**	.22**	.33**	.11	−.12
FACIT–Sp Faith change	.16*	.17*	.44**	.26**	−.14

Note. FACIT–Sp = Functional Assessment of Chronic Illness Therapy—Spiritual Well-Being Scale; SF-12 MCS = Mental Component Summary of the Medical Outcome Survey Short Form; BFS = Benefit Finding Scale; IES–R = Revised Impact of Events Scale; PRP = private religious practices; ORC = organized religious commitment; T1 denotes variable measured at Time 1; T2 denotes variable measured at Time 2.
* $p < .05.$ ** $p < .01.$

Change in Spirituality as a Predictor of Adjustment

None of the religious covariates (i.e., PRP, ORC, religious struggle) were significant predictors in any of the regression models predicting Time 2 adjustment from change in Meaning/Peace and Faith.

Mental health. As shown in Table 4, in the model predicting the Time 2 SF-12 MCS, only Time 1 MCS and change in Meaning/Peace were significant predictors, and change in Meaning/Peace was a stronger predictor of greater Time 2 MCS than was Time 1 MCS. The full model, $F(7, 153) = 6.38$, $p < .01$, accounted for 25% of the variance in Time 2 MCS.

Perceived growth. In the model predicting Time 2 growth, Time 1 growth and change in Faith were significant predictors, such that increased faith predicted an increase in perceived growth. As shown in Figure 2a, a significant interaction effect also was observed such that, for those who experienced decreased meaning/peace, increased faith was a particularly potent predictor of increased growth (and decreased faith was related to less growth). Change in Faith and the interaction of Change in Faith × Degree of Change in Meaning/Peace

accounted for more variance in Time 2 growth than did Time 1 growth. The full model, $F(7, 153) = 12.12$, $p < .01$, accounted for 36% of the variance in Time 2 perceived growth.

Cancer-related distress. An increase in Meaning/Peace significantly predicted lower cancer-related distress at Time 2. A significant interaction effect also was observed: For those who experienced decreased meaning/peace, cancer-related distress was relatively high and change in faith was unimportant (see Figure 2b). However, for those who experienced increased meaning/peace, those who also experienced a decrease in faith reported the lowest distress. The full model, $F(6, 129) = 3.28$, $p < .01$, accounted for 13% of the variance in Time 2 distress.

Discussion

In Study 2, we sought to replicate and extend the findings of Study 1 by testing the relative strengths of meaning/peace and faith in a sample of female and male survivors of diverse cancers further from diagnosis and into longer term survivorship. Time 1 Mean-

Table 4

Results From Multiple Regression Analyses Predicting Study 2 Outcomes From Change in FACIT–Sp Meaning/Peace, Faith, and Their Interaction, Controlling for Religious Variables and Time 1 for Each Criterion

Predictor	Mental health[a]				Cancer-related growth[b]				Cancer-related distress[c]			
	ΔR^2	B	SE(B)	β (final)	ΔR^2	B	SE(B)	β (final)	ΔR^2	B	SE(B)	β (final)
Step 1	*.25***				*.33***				*.11*			
Criterion (T1)		0.43	0.09	.43***		0.39	0.06	.45***		N/A	N/A	N/A
Meaning/Peace change		0.82	0.16	.50***		0.09	0.08	.09		−0.02	0.01	−.34**
Faith change		−0.31	0.20	−.14		0.56	0.11	.42***		0.01	0.01	.15
PRP (T1)		−0.02	0.19	−.01		0.20	0.10	.15		0.00	0.01	−.03
ORC (T1)		−0.23	0.32	−.06		0.24	0.17	.11		0.07	0.20	.03
Religious struggle (T1)		−0.01	0.08	−.10		−0.02	0.04	−.03				
Step 2	*.01*				*.03**				*.03*	0.006	0.003	.14
Meaning/Peace Change × Faith Change		−0.02	0.02	−.07		−0.03	0.01	−.19**		0.002	0.001	.17*
Total R^2	.25***				.36***				.13**			

Note. Italicized values represent the amount of change in R^2 due to the corresponding step. FACIT–Sp = Functional Assessment of Chronic Illness Therapy—Spiritual Well-Being Scale; PRP = private religious practices; ORC = organized religious commitment; T1 denotes variable measured at Time 1; T2 denotes variable measured at Time 2; N/A = not available.
[a] $n = 141.$ [b] $n = 161.$ [c] $n = 136.$
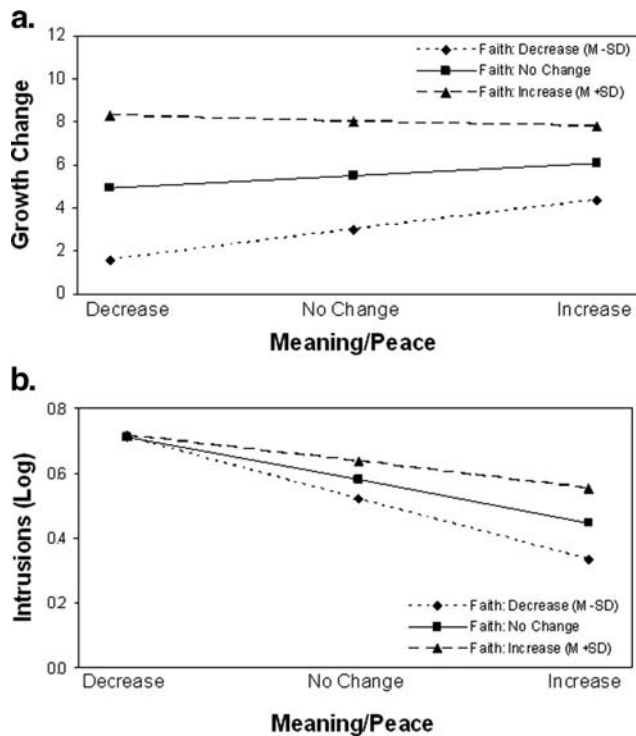* $p < .05.$ ** $p < .01.$ *** $p < .001.$

Figure 2. (a) Study 2 interaction of Meaning/Peace change with Faith change on Time 2 cancer-related perceived growth, controlling for Time 1 growth. (b) Study 2 interaction of Meaning/Peace change with Faith change on cancer-related distress (log transformed).

ing/Peace and Faith did not predict adjustment across time. However, increased meaning/peace was considerably more beneficial than was increased faith in terms of both improved mental health and lower cancer-related distress.

Only an increase in faith over time facilitated increased cancer-related growth, and this effect was particularly strong for those who experienced decreased meaning/peace. Perhaps perceiving growth can become a means of attempting to compensate for experiencing an erosion of one's sense of living a meaningful life. Paradoxically, we found that decreased faith predicted lower cancer-related distress for individuals who had experienced increased meaning/peace over the year and that increased faith predicted more distress in that group. Given that the Faith scale measures the degree of strength and comfort individuals derive from religious/spiritual beliefs, this finding perhaps reflects the fact that those who live an increasingly meaningful life and have successfully coped with their cancer experience (and thus have lower distress) do not have to rely as much on their faith to sustain them. Lower distress also might reflect the success of patients in shifting from relying on their faith to sustain them during a difficult time to finding meaning/peace in the aftermath of cancer. In a sample of women with breast cancer, Stanton, Danoff-Burg, and Huggins (2002) reported a similar finding, such that women who were high in hope but low in religious coping (e.g., "I try to find comfort in my religion") evidenced improved adjustment. It is also important to note that the effect sizes for both significant interaction effects were relatively small in comparison

to the total proportion of variance explained by the model. Our interpretation is that the interactions reflect an adaptive shift from faith to meaning/peace, though the shift might represent a relatively modest contributor to adjustment. Taken together, findings testify to the importance of turning to intrinsic attributes such as meaning/peace as an adaptive strategy for confronting adversity.

Finally, other religious constructs were not significant predictors of outcomes. Though we expected that religious struggle could partially account for the lack of positive relationships between faith and adjustment outcomes, it did not alter faith's relationships to any outcome.

General Discussion

Our primary goal in these two longitudinal studies was to investigate facets of spirituality as predictors of adjustment to cancer. Our central conclusion is that different facets of spirituality have distinct adaptive consequences. In particular, it is important to regard the FACIT–Sp Meaning/Peace and Faith scores (Peterman et al., 2002) as distinct components of spirituality. Although the scales were moderately correlated, they differentially predicted the dependent variables. Studies employing the FACIT–Sp have not uniformly examined the subscale scores separately (e.g., Daugherty et al., 2005); examining only the composite score can lead researchers to overlook meaningful differences regarding the subscales' relations with adjustment. This observation is important not only methodologically but conceptually.

Results from both studies underscore the importance of achieving meaning and peace; having a sense of meaning and peace (in Study 1, which targeted an earlier phase in the cancer trajectory) and gaining meaning/peace over time (in both studies), although not consistent for all outcomes across the two studies, predicted enhanced adjustment. These findings add to emerging evidence that the ability to find meaning in life is a potent predictor of adjustment to cancer (Jim & Andersen, 2007; Krupski et al., 2006; Nelson et al., 2002) and of well-being more generally (e.g., Steger et al., 2006).

The effects of faith were somewhat surprising. Faith was unrelated to most outcomes, and when it was related, its effects were mixed. The sole outcome with which faith was directly and consistently related was an increase in cancer-related perceived growth. These findings are consistent with other research, which has revealed a link between religiosity and perceived stressor-related benefits (for a review, see Helgeson, Reynolds, & Tomich, 2006). Findings on other outcomes were less positive. In Study 1, high baseline faith predicted an increase in depressive symptoms and a decline in vitality at 6 months in the context of low baseline meaning/peace, whereas adjustment was positive when meaning and peace were high, regardless of the level of faith. In Study 2, the beneficial effects of increased meaning/peace on lower cancer-related intrusive thoughts were most evident when faith had declined. In both cases, findings underscore the greater adaptive value of finding meaning and peace.

The current research offers clinical implications regarding commonly used personal resources for individuals experiencing stressful life events. Results from both studies suggest that, in clinical approaches, it may be more important to discuss spirituality in terms of the patient's sense of meaning rather than religiosity, with the ultimate goal of establishing contentment and fostering pur-

pose in life. Furthermore, endorsing faith during an emotionally and physically disruptive period may falsely reassure survivors that faith will function as a uniformly positive resource. Without minimizing the importance of faith or preexisting religious beliefs to individuals, clinicians might wish to discuss how faith and other approaches can serve to promote a sense of meaning in life.

Findings must be interpreted within the context of study limitations. Although similarity in primary findings across the two studies promotes confidence in the generalizability of the results, the Study 1 sample was predominantly composed of well-educated White women diagnosed with nonmetastatic breast cancer, and the Study 2 sample was also largely White. Further, there was some indication that participants retained across follow-ups in Study 1 were less distressed. Replication of findings in diverse groups is warranted. In Study 1, information regarding participants' religious affiliation was not requested, and this precluded examination of that variable's role. However, findings from Study 2 suggest that the ability to find life meaning and peace contributes to adjustment over and above traditional indicators of religious commitment (see also Yi et al., 2006). Certainly, contributors to adjustment other than spirituality are also relevant (e.g., Low et al., 2006).

In conclusion, achieving meaning and peace appears to function consistently as a positive resource for cancer survivors on important dimensions of adjustment, but faith might serve to facilitate or hinder positive adjustment. The effect of reliance on religious faith seems to depend upon the outcome assessed, whether faith is tied to achieving meaning in life, and perhaps the point in the cancer trajectory. Additional studies should determine whether meaning/peace and faith predict adjustment across religious faiths, in particular for individuals who have a strong tradition of turning to religion to cope with adversity. Previous research has suggested that religious coping is more effective in promoting adjustment in Protestants than in Catholics (e.g., Tix & Frazier, 1998). Moreover, African Americans and Hispanics are more likely to engage in religious coping when confronting cancer than are non-Hispanic Whites (Culver et al., 2002). The adaptive value of distinct aspects of spirituality deserves study in these groups.

Although the past decade has seen an increase in research investigating the benefits of spirituality and religion, additional research investigating the pathways through which spirituality is related to adjustment is warranted. Findings from the present research underscore the importance of continued study of the distinct facets of spirituality and their relation to psychological and physical health and, in particular, a renewed focus on the attainment of meaning for well-being.

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