Spirituality, Religion, and Depression in the Terminally Ill

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Objective: *This study examined the impact of spirituality and religiosity on depressive symptom severity in a sample of terminally ill patients with cancer and AIDS.*

Methods: *One hundred sixty-two patients were recruited from palliative-care facilities (hospitals and specialized nursing facilities), all of whom had a life expectancy <6 months. The primary variables used in this study were the FACIT Spiritual Well-Being Scale, a religiosity index similar to those used in previous research, the Hamilton Depression Rating Scale (HDRS), the Karnofsky Performance Rating Scale, the Memorial Symptom Assessment Scale, and the Duke-UNC Functional Social Support Questionnaire.*

Results: *A strong negative association was observed between the FACIT Spiritual Well-Being scale and the HDRS, but no such relationship was found for religiosity, because more religious individuals had somewhat higher scores on the HDRS. Similar patterns were observed for the FACIT subscales, finding a strong negative association between the meaning and peace subscale (which corresponds to the more existential aspects of spirituality) and HDRS scores, whereas a positive, albeit nonsignificant, association was observed for the faith subscale (which corresponds more closely to religiosity).*

Conclusions: *These results suggest that the beneficial aspects of religion may be primarily those that relate to spiritual well-being rather than to religious practices per se. Implications for clinical interventions and palliative-care practice are discussed.*

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Understanding the reasons why some individuals become depressed during the terminal stage of an illness has become an increasingly important focus of palliative care and mental health research in recent years. Fueled by interest in end-of-life care, clinicians and researchers alike have begun to focus their attention on identifying factors that might facilitate coping with a terminal illness.[1] Recently, this attention has targeted spirituality as a potentially important variable in understanding how patients cope with terminal illnesses.[2] Spirituality, which is typically defined as ''the need for finding satisfactory answers to . . . ultimate questions about the meaning of life, illness and death'' (p. 187),[3] can help provide a framework that helps someone gain an understanding of him- or herself and cope with unpleasant or unavoidable circumstances without becoming depressed.[4] Spirituality may be particularly important for individuals facing terminal illnesses because of the many physical, psychological, and social stressors that often accompany life-threatening diseases. In addition, the unpredictable nature of such illnesses may limit the effectiveness of traditional coping strategies.[5]

Understanding the relationship between spirituality and psychological well-being requires an understanding of the relationship between institutional religion and spirituality. Although spirituality and religion are often seen as synonymous, important distinctions have been made

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between these two constructs. Spirituality can exist both within and outside of a religious framework, and many individuals who consider themselves quite spiritual may not adhere to any particular religion.[6,7] Religion, on the other hand, denotes an organized system of beliefs, practices, and ways of worship.[8] Although religion may be a method to channel or direct the expression of spirituality, some religious individuals focus less on the spiritual aspects of religion than on the traditions, social interactions, and rituals.[9]

A number of studies have focused on the relationship between religion and depression, but very few of these have addressed the relationship between spirituality and depression. Most studies of religion and depression have used simplistic measures of religiosity, often relying on one or two questions such as the frequency of attending religious services or degree of ''belief'' in religious doctrine.[10–14] Not surprisingly, given the poor research methods used in many of these studies, the results have been inconclusive, with some studies demonstrating a moderate negative relationship between religiosity and depression (i.e., more religious individuals reporting less depression), whereas others have not. Moreover, some studies have actually observed a positive association between religion and depression, perhaps because of the stresses some religious doctrines impose.[15]

More recent studies of religion and depression have used more sophisticated methods, including validated, multidimensional measures of religiosity. One study, conducted by Fehring et al.,[16] used such a measure of religiosity (the Intrinsic/Extrinsic Religiosity Scale)[17] and found a strong negative relationship between religiosity and depression in a sample of 100 elderly patients with cancer. These authors distinguished ''intrinsic'' and ''extrinsic'' religiosity, with extrinsic religiosity corresponding more closely to the rituals and practices associated with institutional religions, whereas intrinsic religiosity tapped a combination of religious practices with a more spiritual aspect of religion. Of interest, they found a substantial negative association between intrinsic religiosity and depression ($r = -0.44$), whereas there was no relationship between extrinsic religiosity and depression ($r = 0.09$). Similar results have been obtained in several other studies, with negative associations between intrinsic religiosity and depression and no relationship (or even a positive association) with extrinsic religiosity.[12,18–21] Indeed, of studies that have distinguished between intrinsic and extrinsic religiosity, only one has failed to support this trend, finding no relationship between either intrinsic or extrinsic religiosity and depression in a small sample of former missionaries.[22]

Unlike the literature on religion and depression, studies of spirituality and depression have been relatively scarce. In their study of patients with cancer, Fehring et al.[16] included a measure of spiritual well-being, the Spiritual Well-Being Index,[23] and observed a significant negative relationship between spiritual well-being and depressive symptoms. Of interest, they reported a stronger negative relationship between the existential well-being subscale ($r = -0.57$), compared with the religious well-being subscale ($r = -0.43$) of the Spiritual Well-Being Index. More recently, Baider et al.[24] described the results of a study of spirituality beliefs in a sample of 100 Israeli patients with cancer. Their measure of spirituality, the Spiritual Beliefs Inventory, included four subscales that measured ''existential perspective on life and death,'' ''religious beliefs and practices,'' ''social support received from religious and/or spiritual community members,'' and ''relationship to a superior being.'' Although they found several modest, but statistically significant, relationships between spiritual beliefs and measures of psychological distress and coping style, their analyses focused solely on overall spiritual beliefs, with no analysis of the different subscales. Thus, their results may reflect the confounding influence of religion and spirituality, with little separation of these two constructs.

Given the importance of the distinction between intrinsic and extrinsic religiosity and the importance of spirituality to most conceptualizations of intrinsic religiosity, we sought to focus more directly on the relationship between spirituality and depression and to assess the relationship independent of one's religious beliefs and practices. We hypothesized that more ''spiritual'' individuals would report lower levels of depression, even when other medical, social, and psychological factors were taken into account. With regard to the role of religious beliefs, we hypothesized that there would be no relationship between religiosity (i.e., religious beliefs and practices) and depression independent of spirituality.

METHODS

Participants

Terminally ill patients diagnosed with cancer and AIDS were recruited from several institutions in the New York City metropolitan area. All participants were recruited shortly after admission to one of several large pallia-

tive-care facilities (three hospitals and two specialized nursing facilities). All patients had a life expectancy <6 months at the time of admission. Patients were offered participation in the study if they were sufficiently cognitively intact (as based on a cognitive screening battery described below) to provide meaningful responses to the study instruments. After a complete discussion of the risks and benefits of study participation, all patients provided written informed consent. The study was approved by the institutional review boards of each participating institution.

Procedures

After informed consent was obtained, patients were administered one or more cognitive screening tests. All patients were required to score ≥20 on the Mini-Mental State Exam,[25] and patients with HIV/AIDS were also administered the HIV Dementia Scale[26] to assess for more subtle forms of cognitive impairment (i.e., AIDS-related dementia). A description of the proportion of subjects who met inclusion/exclusion criteria and consented to participate is described elsewhere.[27,28]

After informed consent was obtained, all patients were administered a series of self-report and clinician-rated instruments. The primary independent variable used in this study was the Functional Assessment of Cancer Therapy (FACIT) Spiritual Well-Being Scale,[29] a 12-item measure that was developed and validated in a large sample of medically ill patients. This scale generates an overall measure of spirituality, along with two subscales, one that corresponds to one's sense of meaning and purpose in life (the ''meaning/peace'' subscale, which includes items such as ''My life lacks meaning and purpose'') and a second that measures faith (the ''faith'' subscale, which includes items such as ''I receive support from my faith''). Research elsewhere has demonstrated that the FACIT provides a useful and valid measure of spiritual well-being that taps a unique aspect of overall quality of life.[29] The primary dependent variable used was the Hamilton Depression Rating Scale (HDRS),[30] a clinician-rated measure of depression. Because of the potential for clinician estimates of depression to be confounded by the self-report measures administered, depression ratings were made prior to administration of the self-report questionnaires. Measures of physical well-being included the Brief Pain Inventory,[31] a self-report measure of pain intensity and pain-related functional interference; the Karnofsky Performance Rating Scale (KPRS),[32] a clinician-rated measure of functional ability; and the Memorial Symptom Assessment Scale (MSAS),[33] a self-report measure of symptom prevalence, intensity, and distress. In addition, subjects completed the Duke-UNC Functional Social Support Questionnaire.[34] Religiosity was measured with the following two questions: ''Do you consider yourself a religious person'' (with possible responses of ''very much,'' ''slightly,'' or ''not at all'') and ''How often do you attend religious services'' (''regularly,'' ''sometimes,'' or ''never''). Responses to these questions were summed to yield an index of religiosity, with possible scores ranging from 0 to 4 (each item was rated on a 0–2 point scale), with higher scores corresponding to more religiosity. In addition, participants were asked to rate how ''spiritual'' they considered themselves, by use of a similar (''very much,'' ''slightly,'' or ''not at all'') rating system.

Statistical Analyses

Pearson correlation coefficients were used to assess the relationship among the scores on the HDRS and the total FACIT scores, FACIT subscale scores, FACIT individual items, and religion questionnaire scores. Coefficient alpha was also used to assess the reliability of the various religiosity and spirituality measures, particularly because these measures differed considerably in length. A series of multiple-regression analyses were then used to quantify the independent contributions of spirituality and religion in predicting depression scores. These analyses were conducted first with only the measures of religiosity and spirituality and then a second time with these measures as well as measures of physical functioning (MSAS and KPRS ratings), social support, and demographic variables. Finally, a final set of regression analyses were conducted after the substitution of two FACIT subscales (meaning/peace and faith) for the FACIT total score and religiosity index.

RESULTS

Sample Characteristics

Of the 162 participants included in these analyses, 84 were diagnosed with cancer and 78 with AIDS. Because of the significant demographic differences between these two groups, these samples are described separately. The average age of the participants with cancer was 59.8 years (SD 14.5; range, 33–94), with 40% (n = 34) male and 60% (n = 50) female. They had completed an average of

12.9 years of education (SD 3.47; range, 1–22). The majority of patients with cancer were white (70%, n = 58), with 23% black (n = 19) and 7% Hispanic (n = 6; the racial background was missing for one subject). The most common religious affiliations were Catholic (49%, n = 41), Jewish (17%, n = 14), Protestant (11%, n = 9), and Baptist (8%, n = 7); 12 subjects indicated other religious affiliations, and 2 indicated no religious affiliation (data were missing for one subject).

Of the 78 participants with AIDS, the average age was 44.0 (SD 10.1; range, 25–72), with 78% (n = 61) male and 22% (n = 17) female. Subjects had completed an average of 12.1 years of education (SD 2.9; range, 2–19). Compared with the cancer sample, only 23% (n = 18) of the participants with AIDS were white, whereas 46% were black (n = 36) and 14% were Hispanic (n = 11; 17% were of other or mixed racial background). The most common religions reported were Catholic (49%, n = 38), Baptist (18%, n = 14), Protestant (6%, n = 5), and Jewish (5%, n = 4); six subjects indicated other religious affiliations, and eight subjects indicated no religious affiliation (these data was missing for one subject).

Not surprisingly, coefficient alpha was considerably lower for the two-item religiosity measure than for the FACIT subscales (because coefficient alpha increases with the addition of scale items). Coefficient alpha for the two-item religiosity scale was 0.59 versus 0.87 for the 12-item FACIT. Coefficient alpha for the two FACIT subscales were not substantially lower than for the total scale (and were identical to one another, despite the different number of items on each subscale), with both the eight-item meaning/peace subscale and the four-item faith subscale having alpha coefficients of 0.82, which indicates a high degree of internal consistency for these two subscales. Because of our concern that some FACIT items may be confounded with our dependent variable, we compared the individual item-total correlations for the FACIT with the correlations between FACIT items and depression scores. This analysis indicated that, although most item-total correlations were substantially greater than the item correlations with depression scores (with many >5–10 times greater), one FACIT item was more highly correlated with depression scores (“I have trouble feeling peace of mind”) and a second was only slightly (1.2 times) stronger (“My life lacks meaning and purpose”). As a result, we calculated an abbreviated version of the FACIT, omitting these potentially problematic items, and repeated all of the analyses described below with this modified version, to minimize the potential for confounded items. Although these results are not presented, every analysis with the abbreviated FACIT was essentially identical (with minimal differences in the observed coefficients). As such, we have omitted these analyses to minimize redundancy and maintain consistency (in our use of the FACIT) with the existing literature.

TABLE 1. Correlations with spirituality and religion measures

	FACIT Spiritual Well-Being Scale			
Variable	Total	Meaning/peace	Faith	Religiosity index
Depression (HDRS)	−0.40*	−0.51*	−0.13	0.04
Social support (FSSQ)	0.36*	0.37*	0.24**	0.18**
Number of symptoms (MSAS)	−0.28*	−0.38*	−0.04	0.02
Average pain intensity (BPI)	0.16	0.07	0.24**	0.02
Functional ability (KPRS)	0.10	0.09	0.08	0.03
Age	−0.16**	−0.15	−0.14	0.04
Sex	−0.03	−0.09	0.08	0.20
Race (white/nonwhite)	0.33*	0.34*	0.22**	0.12
Sample (cancer/HIV)	0.09	0.10	0.04	−0.05

Note. BPI = Brief Pain Inventory; FSSQ = Duke-UNC Functional Social Support Questionnaire; HDRS = Hamilton Depression Rating Scale; KPRS = Karnofsky Performance Rating Scale; MSAS = Memorial Symptom Assessment Scale.
*$P < 0.001$. **$P < 0.05$.

Table 1 lists the bivariate Pearson product-moment correlation coefficients between the FACIT total score, the meaning/peace and faith subscales, and the religiosity index with the primary independent variables and covariates (the numbers for these analyses differ slightly because of occasional missing data). There was a moderate correlation between the HDRS scores and the FACIT total scores, r (n = 158) = −0.40, $P < 0.01$, but this correlation was substantially greater for the meaning/peace subscale, r (n = 158) = −0.51, $P < 0.01$, whereas the faith subscale was not related to HDRS scores, r (n = 157) = −0.13, NS. Likewise, there was no relationship between religiosity, as measured by our two-item index, and depression, r = 0.04, NS.

There was a positive correlation, r (n = 161) = 0.40, $P < 0.001$, between the FACIT total scores and the religiosity index, as well as with the question regarding overall spirituality, r (n = 160) = 0.36, $P < 0.001$. There was also a significant difference in FACIT scores across the different religious affiliations, F(3, 155) = 5.03, P = 0.002, although post hoc analyses revealed that this dif-

TABLE 2. FACIT religiosity intercorrelations

	FACIT Spiritual Well-Being Scale		
	Total	Meaning/peace	Faith
FACIT Total	1.0		
Meaning/peace	0.93*	1.0	
Faith	0.84*	0.56*	1.0
Religiosity index	0.43*	0.29*	0.53*

*$P < 0.001$.

ference was largely attributable to the lower FACIT scores among Jewish participants relative to all other groups (Protestants and Baptists were combined for these analyses, as were subjects of other/no religious affiliation, which yielded four religion categories). Similar results were observed for the FACIT faith subscale as well as the religiosity index, but there was no difference in FACIT meaning/peace subscale scores across the different religious categories (Table 2).

Relationships Among Spirituality, Religiosity, and Depression

Multiple-regression analyses were used to ascertain the relationships among spirituality, religiosity, social support, measures of physical well-being (number of symptoms endorsed on the MSAS, and physical functioning ability per the KPRS) and depression. This analysis, the results of which are detailed in Table 3, was statistically significant, $F(5, 145) = 24.86$, $P < 0.001$, which accounted for 46% of the variance in HDRS scores. As expected, there were significant associations between number of symptoms endorsed on the MSAS and HDRS scores, ($\beta = 0.49$, $P < 0.001$), as well as a significant negative association between HDRS scores and FACIT total scores ($\beta = -0.30$, $P < 0.001$), which indicates that more spiritual individuals obtained lower scores on this measure of depression. Conversely, scores on the religiosity index were positively associated with depression ($\beta = 0.18$, $P = 0.009$), which indicates that more religious individuals were more depressed. There was no association between social support ($\beta = -0.09$, $P = 0.24$) or physical functioning ability ($\beta = 0.01$, $P = 0.92$) and depression.

A subsequent analysis, which substituted the FACIT meaning/peace subscale for the total score and the faith subscale for the religiosity index, generated roughly similar results, yielding an overall significant model, $F(5, 145) = 25.40$, $P < 0.001$, which accounted for 47% of the variance in HDRS scores. This analysis revealed a similar pattern to the above regression analysis, with significant associations between number of symptoms endorsed on the MSAS ($\beta = 0.45$, $P < 0.001$) and depression. Scores on the FACIT meaning/peace subscale were also negatively associated with depression ratings ($\beta = -0.34$, $P < 0.001$), but the relationship between the faith subscale, although positive (like the association with religion described above), was not significant ($\beta = 0.09$, $P = 0.21$). Similarly, there was no relationship between social support ($\beta = -0.08$, $P = 0.30$) or physical functioning ($\beta = 0.01$, $P = 0.87$) and depression.

TABLE 3. Multiple-regression model predicting HDRS score

Source	β	*t*	*P*
FACIT total score	−0.30	−3.99	0.001
Religiosity index	0.18	2.64	0.009
Number of symptoms (MSAS)	0.49	6.89	0.001
Social support (FSSQ)	−0.09	−1.18	0.24
Physical functioning (KPRS)	0.01	0.11	0.92
FACIT meaning/peace subscale	−0.34	−4.22	0.001
FACIT faith subscale	0.09	1.23	0.21
Number of symptoms (MSAS)	0.45	6.14	0.001
Social support (FSSQ)	−0.08	−1.04	0.30
Physical functioning (KPRS)	0.01	0.17	0.87

Note. FSSQ = Duke-UNC Functional Social Support Questionnaire; KPRS = Karnofsky Performance Rating Scale; MSAS = Memorial Symptom Assessment Scale.

DISCUSSION

With the growing interest in understanding how people cope with a terminal illness, attention to factors or traits that might bolster one's resiliency to depression or despair has become increasingly important. Among the factors often discussed as potentially beneficial, spirituality and religion stand out as two that have aroused considerable interest but have rarely been systematically studied. In fact, these data represent the first empirical study of the interrelationships among depression, spirituality, and religion in terminally ill populations. In our sample of patients with cancer and AIDS, we found a negative association between spirituality and depression, with more spiritual individuals demonstrating lower levels of depressive symptoms. Religiosity, on the other hand, appeared to have a negligible or even small positive association with depression (depending on the analysis), which indicates that those individuals who considered them-

selves more religious had equal or greater numbers of depressive symptoms than did nonreligious participants.

The finding that spirituality was strongly and negatively associated with depression is encouraging, particularly as researchers struggle to identify sources of resiliency in individuals coping with a terminally illness. These results, and the strong negative association between depression and the meaning/peace subscale of the FACIT in particular, suggest that the beneficial aspect of spirituality may be largely related to one's ability to search internally for strength and meaning—to place their illness in a broader context and accept their circumstances. Indeed, the ability to sustain a sense of meaning and inner peace may be particularly important among terminally ill individuals as they grapple with difficult personal challenges such as weighing the significance of their lives and trying to maintain their dignity and self-esteem in the face of waning physical abilities.

Perhaps more puzzling is the finding that religiosity was positively associated with depression in the multiple-regression analysis (and not associated at all in the bivariate correlations and analysis of variance). However, by controlling for the role of spiritual well-being and social support in the multivariate analyses, the variance accounted for by religiosity essentially reflects the impact of everyday religious activities and rituals. The nonspiritual component of religion may be less relevant to overall psychological well-being than the spiritual or social functions of institutional religion. Moreover, as noted above, this finding is consistent with past research, particularly those studies that have separated religiosity into internal (i.e., intrinsic) and external (i.e., extrinsic) motives. In fact, those studies have typically observed a negative relationship between depression and intrinsic religiosity (which encompasses both religious practices and religion-based spirituality), whereas extrinsic religiosity (which corresponds more closely to religious practices without the spiritual component) has been positively correlated with depression or not associated at all.

A number of explanations have been offered for this pattern of results, but these explanations have not focused on medically ill or terminally ill individuals.[35–37] Among the terminally ill, one's religion may be a potential source of stress for those individuals who cannot perceive a deeper, more spiritual component. This may be due to a feeling of anger that patients sometimes feel toward a God who has caused them and their family so much pain. Because individuals with strong religious beliefs may not be comfortable with these angry feelings or are unable to accept or express the anger they feel toward their God, the resulting conflict may fuel the psychological distress these individuals already face. In addition, when patients suffer a crisis in faith, such as when they feel unprepared for their situation and are unable to find guidance through their religious beliefs, the religion that was once a source of strength or comfort may instead become a source of stress. Of course, these findings by no means diminish the importance of religion for many individuals. Religion and pastoral counseling are likely quite beneficial for those terminally ill individuals who are able to draw support from their religion and may help resolve many of the conflicts that arise in the course of a terminal illness (e.g., a crisis in faith).

Although we separated the constructs of spirituality and religiosity empirically, using different measures of each, there is considerable overlap between the two. Many individuals are both spiritual and religious, although in other individuals these two constructs are more separate. Indeed, among individuals for whom the constructs of religiosity and spirituality are distinct, the beneficial aspects of spirituality and disadvantageous role of religiosity may be partly a reflection of their locus of control. Spiritual individuals are likely to draw their strength from within themselves and therefore feel in control of themselves and their spiritual well-being. In contrast, those who are religious but are not particularly spiritual may seek guidance through their religion, placing the source of control outside of themselves. This external locus of control can exacerbate feelings of helplessness, a possibility supported by research on depression and locus of control.[38]

These results, however, must be tempered by several methodological limitations. Foremost among these issues is the discrepancy between our measures of spirituality and religiosity. Although we used a new, well-validated measure of spiritual well-being, our religiosity index was considerably less robust. Although this index was comparable to those used in many studies elsewhere of religion and depression, in which single-item measures have been common, a more thorough, multidimensional rating scale would clearly have been preferable and may have yielded somewhat different results. Indeed, the differences in scale reliability between the FACIT and religiosity measure were considerable and likely handicapped the religiosity measure in models where both were competing for variance (i.e., the multivariate models). However, it should be noted that the two-item religiosity measure *did* provide a significant contribution to the prediction of depression scores but in the opposite direction (higher levels

of religiosity corresponded to higher levels of depression). Moreover, the subsequent analysis that used the meaning/peace and faith subscales of the FACIT, which have comparable levels of reliability, generated roughly similar results, which further supports these conclusions. Despite the consistent findings, it is certainly possible that our results may have differed somewhat were we to have used a more sophisticated measure of religiosity.

Another significant methodological issue in this study concerns the interpretation of the FACIT Spiritual Well-Being scale. Because this scale measures spiritual well-being rather than spirituality per se, it is unclear which of these constructs provides a buffer against depression. Nevertheless, this scale was highly correlated with a question regarding whether individuals consider themselves spiritual, which supports the interpretation of the FCIT as a measure of spirituality as well as spiritual well-being. Finally, and perhaps most important, the absence of any follow-up data on our sample prevents any definitive conclusions regarding the extent to which spirituality or religiosity buffer or exacerbate depression and distress. Longitudinal analyses are clearly necessary to determine the role these factors play in helping terminally ill patients cope with disease and symptom-related stressors.

Perhaps the most significant potential confound in this study concerns the conceptual overlap between our primary independent and dependent variables. When a measure of spiritual well-being is used, the possibility of overlap between FACIT items and a measures of depressive symptoms exists. Although we chose not to include the data in this report, to minimize redundancy, we compared the item-total correlations with the associations between individual FACIT items and our measure of depression. Most of these items were far more correlated with one another than with the measure of depression, but one item was more highly correlated with depression ratings and a second was only slightly lower. Most item-total correlations were 5–10 times greater than were the correlations between the individual FACIT items and depression scores. Moreover, when we repeated each of the analyses described above using an abbreviated version of the FACIT (and an abbreviated version of the meaning/peace subscale that these items loaded on) with these potentially confounded items omitted, the results were essentially unchanged (e.g., the beta weight for the FACIT reported in Table 3 decreased from 0.3 to 0.27, and the beta weight for the meaning/peace subscale decreased from 0.34 to 0.33, whereas the beta weights for religiosity variable and the faith subscale did not change). Although these analyses do not eliminate the possibility of a confound between our independent and dependent variables, they certainly bolster our conclusion that some unique benefits of spirituality on depression exist for terminally ill individuals.

Despite the above-noted limitations, these results have a number potential implications for clinical interventions and palliative care. Given the strong negative association between spiritual well-being and depression, existential or spirituality-based interventions may yield important clinical benefits for terminally ill individuals who are struggling to cope with their illness and prognosis. Of course, many clergy experienced in working with terminally ill individuals would likely focus their interventions toward issues and topics that are more typically considered ''spiritual'' rather than simply focusing on the ritual practice aspects of one's religious faith. A more difficult question, therefore, is whether interventions focused more squarely on religious practices rather than the spiritual component of religion are likely to prevent the development of a depression or benefit those terminally ill individuals who have become depressed. The feasibility of interventions based on sustaining or enhancing spiritual well-being is largely unknown, as is the question of whether spirituality- or religion-based interventions would yield clinical benefits (i.e., decrease depression). Although interventions designed to help terminally ill patients find meaning and inner strength have been described and used,[39,40] no empirical data have yet established their effectiveness. Clearly, systematic longitudinal research that focuses on changes in spiritual well-being and spirituality more generally may yield important insights into the relationship between spirituality and psychological distress. Given the importance of spiritual well-being as a component of one's overall quality of life, particularly among terminally ill individuals, continued research focused on identifying useful clinical and palliative care interventions that enhance spiritual well-being is needed.

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References

1. Field M, Cassel C: Approaching Death: Improving Care at the End of Life. Washington, DC, National Academy Press, 1997
2. Greisinger A, Lorimor R, Aday L, et al: Terminally ill cancer patients: their most important concerns. Cancer Pract 1997; 5: 147–154
3. Highfield MF, Cason C: Spiritual needs of patients: are they recognized? Cancer Nurs 1983; 6:187–192
4. Fife BL: The conceptualization of meaning in illness. Soc Sci Med 1994; 38:309–316
5. Hilton BA: The relationship of uncertainty, control, commitment, and threat of recurrence to coping strategies used by women diagnoses with breast cancer. J Behav Med 1989; 12: 39–54
6. Vaughan F, Wittine B, Walsh R: Transpersonal psychology and the religious person, in Religion and the Clinical Practice of Psychology. Edited by Shafranske EP. Washington, DC, American Psychological Association, 1988, pp 483–509
7. Ellerhorst-Ryan JM: Measuring aspects of spirituality, in Instruments for Clinical Nursing Research. Edited by Frank-Stromborg M. Norwalk, CT, Appleton and Lange, 1988, pp 141–149
8. Emblen JD: Religion and spirituality defined according to current use in nursing literature. J Prof Nurs 1992; 8:41–47
9. Elkins DN, Hedstrom LJ, Hughes LL, et al: Toward a humanistic phenomenological spirituality. J Humanist Psychol 1988; 28:5–18
10. Koenig HG, Hays JC, George LK, et al: Modeling the cross-sectional relationships between religion, physical health, social support, and depressive symptoms. Am J Geriatr Psychiatr 1997; 5:131–143
11. Levin JS, Markides KS, Ray LA: Religious attendance and psychological well-being in Mexican Americans: a panel analysis of three-generations data. Gerontol 1996; 36:454–463
12. McCullough ME, Larson DB: Religion and depression: a review of the literature. Twin Res 1999; 2:126–136
13. Pressman P, Lyons JS, Larson DB, et al: Religious belief, depression, and ambulation status in elderly women with broken hips. Am J Psychiatry 1990; 147:758–760
14. Wright LS, Frost CJ, Wisecarver SJ: Church attendance, meaningfulness of religion, and depressive symptomatology among adolescents. J Youth Adolesc 1993; 22:559–568
15. Ellison CG: Religion, the life stress paradigm, and the study of depression, in Religion in Aging and Health. Edited by Levin JS. Thousand Oaks, CA, Sage, 1994
16. Fehring RJ, Miller JF, Shaw C: Spiritual well-being, religiosity, hope, depression, and other mood states in elderly people coping with cancer. Oncol Nurs Forum 1997; 24:663–671
17. Gorsuch R, McPherson S: Intrinsic/extrinsic measurement: I/E-revised and single-item scales. J Sci Study Religion 1989; 28: 348–354
18. Ginia V, Shaw DG: Religion, intrinsic-extrinsic orientation, and depression. Rev Religion Res 1991; 32:276–283
19. Nelson PB: Ethnic differences in intrinsic/extrinsic religious orientation and depression in the elderly. Arch Psychiatr Nurs 1989; 3:199–204
20. Rosik, CR: The impact of religious orientation in conjugal bereavement among older adults. Int J Aging Human Devel 1973; 28:251–260
21. Watson PJ, Hood RW, Foster SG, et al: Sin, depression, and narcissism. Rev Religion Res 1988; 29:295–305
22. Bergin AE, Masters KS, Richards PS: Religiousness and mental health reconsidered: a study of an intrinsically religious sample. J Counsel Psychol 1987; 34:197–204
23. Paloutzian RF, Ellison CW: Loneliness, spiritual well-being, and quality of life, in Loneliness: A Sourcebook of Current Theory, Research, and Therapy. Edited by Peplau A, Porlaman D. New York, Wiley InterScience, 1982, pp 224–237
24. Baider L, Russak SM, Perry S, et al: A The role of religious and spiritual beliefs in coping with malignant melanoma: an Israeli sample. Psychooncology 1999; 8:27–35
25. Folstein MF, Folstein SE, McHugh PR: ''Mini-mental state'': a practical method of grading the cognitive state of patients for the clinician. J Psychiatr Res 1957; 12:189–198
26. Power C, Selnes OA, Grim JA, et al: HIV Dementia Scale: a rapid screening test. J Acquir Immun Defic Syndr Hum Retrovirus 1995; 8:273–278
27. Breitart W, Rosenfeld B, Pessin H, et al: Depression, hopelessness, and desire for death in terminally ill cancer patients. JAMA 2000; 284:2907–2911
28. Pessin H: Impact of cognitive impairment on desire for hastened death in patients with AIDS. Dissertation Abstracts International 2001; 62:2963
29. Brady MJ, Peterman AH, Fitchett G, et al: A case for including spirituality in quality of life measurement in oncology. Psychooncology 2000; 8:417–428
30. Hamilton M: A rating scale for depression. J Neurol Neurosurg Psych 1960; 23:56–62
31. Cleeland CS: Measurement of pain by subjective report, in Advances in Pain Research and Therapy, Volume 12. Issues of pain measurement. Edited by Chapman CR, Loeser JD. New York, Raven Press, 1989, pp 391–403
32. Karnofsky DA, Burchenal JH: The clinical evaluation of chemotherapeutic agents in cancer, in Evaluation of Chemotherapeutic Agents. Edited by MacLeod CM. New York, Columbia University Press, 1949, pp 191–205
33. Portenoy R, Thaler HT, Kornblith AB, et al: The Memorial Symptom Assessment Scale: an instrument for evaluation of symptom prevalence, characteristics and distress. Eur J Cancer 1994; 30A:1326–1336
34. Broadhead WE, Gehlbach SH, De Gruy FV, et al: The Duke-UNC Functional Social Support Questionnaire: measurement of social support in family medicine patients. Med Care 1988; 26: 709–723
35. Levin JS, Vanderpool HY: Is frequent religious attendance really conductive to better health? Toward an epidemiology of religion. Soc Sci Med 1987; 24:589–600
36. McGaw DB, Wright E: A Tale of Two Congregations: Commitment and Social Structure in a Charismatic and Mainline Congregation. Hartford, CT, Hartford Seminary Foundation, 1979
37. Strawbridge WJ, Shema SJ, Cohen RD, et al: Religiosity buffers effects of some stressors on depression but exacerbates others. J Gerontol 1998; 53:188–196
38. Benassi VA, Sweeney PD, Dufour CL: Is there a relation between locus of control orientation and depression? J Abnorm Psychol 1899; 97:357–367
39. Rousseau P: Spirituality and the dying patient. J Clin Oncol 2000; 18;2000–2002
40. Greenstein M, Breitbart W: Cancer and the experience of meaning: a group psychotherapy program for people with cancer. Am J Psychother 2000; 54:486–500