

2012

Spiritual Well-Being Scale: Mental and Physical Health Relationships (Chapter 48 of Oxford Textbook of Spirituality in Healthcare)

Raymond F. Paloutzian

Rodger K. Bufford

George Fox University, rbufford@georgefox.edu

Ashley J. Wildman

Follow this and additional works at: https://digitalcommons.georgefox.edu/gscp_fac

 Part of the [Christianity Commons](#), and the [Psychology Commons](#)

Recommended Citation

Paloutzian, Raymond F.; Bufford, Rodger K.; and Wildman, Ashley J., "Spiritual Well-Being Scale: Mental and Physical Health Relationships (Chapter 48 of Oxford Textbook of Spirituality in Healthcare)" (2012). *Faculty Publications - Grad School of Clinical Psychology*. 289.

https://digitalcommons.georgefox.edu/gscp_fac/289

This Article is brought to you for free and open access by the Graduate School of Clinical Psychology at Digital Commons @ George Fox University. It has been accepted for inclusion in Faculty Publications - Grad School of Clinical Psychology by an authorized administrator of Digital Commons @ George Fox University. For more information, please contact arolfe@georgefox.edu.

Spiritual Well-Being Scale: mental and physical health relationships

Raymond F. Paloutzian, Rodger K.
Bufford, and Ashley J. Wildman

Introduction

The existence of this handbook documents the recent increase in research on and practical attention to the role of spirituality in healthcare. One essential companion to the concept of spirituality is spiritual well-being (SWB).[1] That is, although the degree and type of spirituality *per se* can no doubt play an important role in how well a person faces the dilemmas related to health issues,[2,3] the degree to which a person perceives or derives a sense of well-being from that spirituality may be equally or more important. In this connection, SWB is an outcome indicator, or barometer, of how well a person is doing in the face of whatever the person is confronting.[4] Therefore, although SWB is not synonymous with spirituality, it is closely related to it. Similarly, SWB is not synonymous with mental health or physical health, but is likely to be related to both of them. SWB connotes one's subjective perception of well-being in both the religious and/or existential dimensions in accord with whatever is implicitly or explicitly conceived of as a spiritual umbrella for the individual. The Spiritual Well-Being Scale (SWBS)* was developed in order to be a tool for self-assessment of these aspects of general perceived well-being.[4,5]

Since its first publication in 1982, a large body of research has been done with the SWBS. In preparation for writing this chapter, a literature search documented the scale's use in over 300 published articles and chapters, 190 doctoral dissertations and Masters theses, 35 posters and presentations, and 50 unpublished papers. It has also been reprinted in no less than 4 books on palliative care and counseling.[6–9] An exhaustive review of all of this research is beyond the scope of this chapter; the interested reader is referred to a companion review article.[10] Here, we focus specifically and selectively on research related to healthcare. We highlight those studies using the SWBS that are related to mental health variables or to the mental and well-being issues that are consequences or correlates of physical health conditions.

In order to maximize the usefulness of this chapter, it is necessary to (1) summarize the intellectual roots of the concept of SWB and what the SWBS does and does not measure, (2) explain the meaning and utility of its religious well-being (RWB) and existential well-being (EWB) subscales, (3) summarize the literature with the SWBS as related to mental and physical health variables, (4) note any strengths and weaknesses, research directions, and applications of the SWBS, and (5) summarize implications of SWB research for healthy healthcare practice.

Brief Roots of the Spiritual Well-Being Scale

The SWBS was created a generation ago to be a social indicator of the quality of life,[4,5] but one that would be different from the common social indicators of that era. At the time, social indicators were developed to assess many aspects of life quality. Some of them were measures that reflected access to or the number of tangible or countable goods, services, or things. Countering this trend, however, Campbell[11] proposed that 'the quality of life lies in the experience of life' (p. 118), rather than merely or only in the tangible aspects of it. Many years later, research on happiness, which is not identical to SWB, but is related to it and is part of the burgeoning research on general subjective well-being, would make the same point. For example, Diener and colleagues[12,13] document that increased income predicts increased happiness only until most ordinary needs are met. After that, having more money, which is directly associated with having more tangible goods and services, does not predict more happiness, subjective well-being, or a feeling of being OK. Overall, such results are strong evidence that once basic needs are met, one does not become happier or experience greater well-being, tranquility, or internal peace by having more wealth or the things obtained by it. The findings are instead consistent with notions rooted in the existential psychiatry of Frankl[14] and with the building-block model of personality proposed by Maslow[15] that after basic needs are satisfied, higher-order 'spiritual' values and motives take priority as human strivings. Such values, motives, and strivings are sometimes couched in

Note: We dedicate this chapter to Craig W. Ellison.

* SWBS ©1982 Craig W. Ellison & Raymond F. Paloutzian. All rights reserved.

'spiritual' terms, but as established by Emmons,[16] are nevertheless basic functional aspects of human personality. Research with the SWBS was a manifestation of these trends.

Implicit in the idea behind SWB is the notion that people need transcendence. However, this does not mean that people have a subjective 'need for transcendence,' as if they should be in a certain state of consciousness for its own sake or because it is an interesting state of mind. Rather, it means that they need to focus on whatever transcends them because it is psychologically functional to do so. That is, by transcending immediate concerns, people's minds go beyond themselves and make attributions about the meaning of events in their environment—past, present, and future. Such processes have increased the probability of survival of those whose minds adapted this skill. There are psychological and evolutionarily functional benefits to attending to and making meaning out of the stimuli that surround us;[17–19] thus meaning-making processes including those operative under the label 'spirituality,' and their correlates, such as SWB, could be seen as one kind of healthy psychological manifestation of the tendency to put one's attention on things that lie outside of oneself.

The Spiritual Well-Being Scale

The scale, subscales, and properties

In ordinary language people refer to whatever is connotes 'spirituality' to them in religious and/or in nonreligious, existential terms. Because of this, and based on interviews and literature on what was meant by 'spiritual,' the SWBS is comprised of two subscales, one as an assessment of one's perception of well-being in ordinary religious language, called religious well-being (RWB), and the other as an assessment of one's perception of well-being in existential terms, called existential well-being (EWB). There are a total of 20 items on the SWBS, with 10 items on the RWB subscale and 10 items on the EWB subscale. The RWB items contain the word 'God,' and some researchers have found it useful to indicate that 'God' can be taken to mean 'god or higher power' in whatever sense is meaningful to the subject or in his or her religious or cultural context. The EWB items contain no specifically religious language, but are instead worded in terms of meaning, connection, and general satisfaction. Thus, RWB can be thought of as a 'vertical' dimension and EWB can be thought of as a 'horizontal' dimension. About half of the items are reverse worded (and therefore reverse scored) as a guard against response set bias. Each item is scored from 1–6 with a higher number reflecting more well-being. The scale yields three scores: (1) a total score for overall SWB, (2) an RWB subscale score, and (3) an EWB subscale score.

The face validity of the SWBS is evident by an examination of its items, especially in light of the procedures used to develop them. Standard statistical tests have been run in order to assess the statistical properties of the scale and its subscales with various datasets. Alpha reliability coefficients typically are in the 0.8 and 0.9 range, test-retest reliabilities show that the scale score remains stable, and, as expected, RWB and EWB subscale scores do not necessarily behave the same way.[20,10] Conceptually, EWB and RWB would seem to overlap, but not be synonymous. The correlation coefficients between RWB and EWB subscale scores have ranged from about 0.20 to 0.71 with various samples,[20] which suggests that these two subscales, as operational representations of their constructs, are statistically distinct while they also share common

variance in some datasets. This would be expected on theoretical grounds, since it is possible for someone to perceive well-being both religiously and existentially at the same time, even though they are not identical.

Factor analyses of the datasets through which the SWBS was developed yielded 2 factors consistent with the above conceptualization and operationalization of the constructs.[4,5] All of the 'God' items loaded on the RWB factor and all of the a-religious items loaded on the EWB factor. The EWB subscale also yielded two small subfactors, one connoting life satisfaction and one connoting life purpose. Subsequent examinations of the factor structure of the SWBS with datasets similar to those in the original studies report a similar structure.[21,22] However, examination of the factor structure with data from different samples shows more diverse results. For example, Scott et al.[23] reported that SWBS data from a sample of hospitalized mental patients yielded 3 factors, but these clustered into different factors than those in the college student datasets of Genia,[21] and Paloutzian and Ellison.[4,5] Ledbetter et al.[24,25] also showed that the factor structure of the SWBS can vary in complexity depending on the dataset under examination. Such variations are valuable, as may be revealed by an examination of the difference in the factor structure as well as the descriptive statistics [e.g. 26] obtained by in-hospital subjects compared with other outpatient clinical and counselling, convict, caregiver, or other normal samples. For example, the factors obtained in the data of Paloutzian and Ellison is what one would expect based upon item content (God and non-God items loading on two relatively independent factors), but those obtained for the hospitalized subjects by Scott et al.[23] do not fit this to-be-expected grouping. Such differences may be clinically revealing, and useful.

The predictive and discriminate validity of the SWBS is supported by the large number of research findings that have consistently shown that the scale scores are associated with other variables in ways that they ought to be on theoretical grounds. For example, low scores on the SWBS and its subscales have been repeatedly found to predict higher scores on measures of depression and anxiety, lower marital satisfaction, lower hardiness in coping with terminal disease, greater alcohol and other substance abuse, higher loneliness, higher PTSD, and so forth.[10] These and similar subsequent findings are consistent with the initial normative data for various samples published by Bufford et al.[26]

Translations

Reliable and tested translations of the SWBS have been made in Spanish,[27] Portuguese,[22] Chinese,[28,29] Malay,[30] and Arabic.[31] Translations at various stages of development are underway in Korean, Hebrew, Dutch, German, Urdu, Farsi, Latvian, and others. Especially important for a translated version of a psychological scale is that the meaning of the items, not merely the words in each item, be translated so that its psychological content and implications are represented in the translated scale to mean the same thing that they mean in the original English scale, to the maximum degree possible for a different population, culture, and language. In addition, the meaning of the answer format must be accurately transferred from one language and culture to the other, so that the mathematical weight of each item is the same and a total score obtained on the translated tool can be meaningfully compared to the same score on the original English scale. Factor structures and validity predictions in the datasets obtained

with translated versions of the SWBS have been partly similar to those obtained in the original English-speaking work on the scale, and the alpha and test-retest reliabilities typically show the same strength. At the same time, the factor structures also show characteristics perhaps unique to the local culture. Therefore, there may be room for cross-cultural research on clinical and non-clinical populations, since relatively comparable versions of the scale are emerging in different languages.

Applied use of Spiritual Well-Being Scale

Depending on the specific sample from which data are obtained, scores on the SWBS can show a ceiling effect[26] or not.[20] A ceiling effect may occur especially in religiously conservative samples. When it is observed, it is probably due to a high grouping of scores on the RWB subscale; such a pattern of scores is considerably less evident for the EWB subscale. Data from various samples shows distributions ranging from normality to different degrees of skewness; however, if the data are skewed, they are virtually always skewed in the negative direction.[26] This means that SWBS total scores, and especially RWB subscale scores, are not likely to be useful if the researcher's goal is to test differences in SWB, EWB, or RWB on the high end. However, it also means that the scale can be especially useful for clinical, counselling, or other helping relationships in which a scale sensitive at the low end is needed. That is, the scale property that makes the SWBS not particularly useful for testing differences in high degrees of SWB, is the very property that makes it more sensitive, and therefore more useful, at the low end. Thus, the scale is applicable for helping work for which an easy-to-use tool can be applied that will help point to and identify problems to solve or dilemmas to raise and deal with.

Research on the Spiritual Well-Being Scale, and mental and physical health

Space constraints allow only a brief sketch of recent research in which the SWBS has been used to explore psychological well-being dimensions in association with mental and physical health. They include studies of stress response, blood pressure, heart rate, domestic violence, health-risk and health-promotion behaviour and status, HIV-AIDS and immune health, poor vision or blindness, diabetes, irritable bowel syndrome (IBS), kidney failure, depression, anxiety, coping, intimate partner violence, sleep quality, juvenile delinquency, 12-step programmes, schizophrenia, and suicidal ideation. Some have examined differences among intact groups, many have been correlational, and several studies have examined SWB changes as a result of psychotherapy. In the vast array of studies the variables overlap a great deal; thus, digesting the findings into meaningfully separate chunks is difficult. Nevertheless, we try to present the information in units that highlight the most prominent aspects of the study as related to SWB.

Physical health

Stress

In a laboratory study, Edmonson et al.[32] examined the effects of an induced stress experience on perceived stress, subjective well-being, heart rate, and systolic blood pressure. EWB was inversely related to perceived stress and physical health symptoms; RWB was also inversely related to perceived stress. SWB was inversely related with self-reported use of medications. SWB, EWB, and RWB were

all positively related to self-reported mental health. EWB was associated with both lower heart rate and lower heart rate reactivity to the stressful interview, while RWB was inversely related to increases in systolic blood pressure during the stressful interview.

Family predictors

Paranjape and Kaslow[33] explored the relationship between spirituality and coping with exposure to family violence among older African American women. They found that with family violence and demographic factors controlled, SWB predicted both better physical and mental health status. They proposed efforts to promote spiritual well-being as a way to cope with and buffer the exposure to family violence. In a twin study, in an effort to examine the relationship of SWB to health status among Vietnam era twins, Tsuang et al.[34] found that EWB predicted health outcomes in this sample.

Youth risk and education

In a sample of mostly white high school students, Cotton et al.[35] found that after controlling for demographics and religiosity, EWB and RWB contributed an additional 17% of variance in predicting health-risk behaviours. However, EWB was the only predictor that contributed significantly to the final model. Similarly, Douchand Brown[36] found that along with education and number of children, EWB made a statistically significant unique contribution to health promotion behaviours among African American women.

HIV/AIDS

Studies among African-American HIV or AIDS patients by Coleman and Holzemer[37] found that EWB was significantly related to psychosocial well-being. Similarly, Dalmida et al.[38] reported a strong relationship between SWB scores and health functioning in a predominantly African American sample of HIV-positive women; both EWB and RWB were positively related to CD4 cell count, an index of healthy immune functioning; they accounted for a significant amount of the variance beyond that explained by demographic variables, HIV medication adherence, and HIV viral load. Finally, Philips et al.[39] examined the role of RWB and EWB in ameliorating the adverse effects of HIV infection in a mixed sample of male and female patients. EWB predicted better sleep quality, and both better mental and physical health status, while RWB predicted only better physical health status.

Other physical conditions

In an examination of well-being among a sample of individuals with vision impairment, Yampolosky et al.[40] found that RWB was a predictor of more effective coping with this challenge, but EWB was not. An exploration of the contribution of SWB as an added predictor of psychosocial well-being in patients with diabetes mellitus, Landis[41] showed that both RWB and EWB were inversely related to self-reported uncertainty. Uncertainty accounted for 43% of the variance in psychosocial well-being; EWB explained an additional 10%. In a predominantly White sample, Cotton et al.[42] compared individuals with and without IBS on RWB and EWB; scores were similar. However, the relationships of RWB and EWB with depression were significantly increased when IBS was present—more so for EWB. Finally, among patients with end-stage renal disease, Tanyi and Werner[43] found that RWB was related to lower psychological and total distress scores on the Psychosocial Adjustment to Illness Scale. EWB was significantly related to these

scores as well as to lower distress about extended family relationships.

Mental health

Correlational studies

Several studies show inverse relationships between RWB or EWB and depression. Fehring et al.[44] reported two studies that showed EWB had a strong inverse relationships with negative moods. Cotton et al.,[35] in a sample of mostly white high school students, found that after controlling for demographics and religiosity, EWB and RWB contributed an additional 29% of variance in predicting depression. EWB was the only predictor that contributed significantly in their final model. Coleman[45] found that RWB and EWB accounted for 32% of the variance in depression in a sample of African American heterosexuals with HIV infection. Dalmida et al.[38] reported a strong relationship between SWB scores and psychological functioning in a predominantly African American sample of HIV-positive women; both EWB ($r = -0.62$) and RWB ($r = -0.36$) were negatively related to depressive symptoms. Phillips et al.[39] found that spiritual well-being was a significant predictor of sleep quality and mental and physical health status among a sample of HIV infected individuals. As related to a very serious mental disorder, Compton and Furman[46] studied the relationship between general psychopathology symptoms on the SCID-IV and well-being in a small sample of African Americans hospitalized for a first-episode schizophrenia-spectrum disorder at a public urban hospital. Results showed negative symptoms were inversely related with RWB ($\rho = -0.614$; $p = 0.007$) and general psychopathology symptoms were inversely related with EWB ($\rho = -0.539$; $p = 0.021$).

Anxiety, depression, and suicide

In a complex study, Mela et al.[47] investigated a sample of Canadians that was predominantly male and about half aboriginal. EWB correlated negatively with anxiety and depression, and positively with life satisfaction. RWB correlated positively with life satisfaction. Dunn et al.[48] found that SWB was inversely related and accounted for 22, 32, and 64% of the variance for anxiety, depression, and combined anxiety and depression respectively. Consistent with these findings, Kocot and Goodman[49] found that low SWB was associated with higher psychological distress and parenting stress. Similarly, Mitchell et al.[50] found SWB to be inversely related to depression, anxiety, and parenting stress. Further, they found that SWB played a mediating role between intimate partner violence and both depression and parenting stress, but not anxiety. Extending these findings to concerns about suicide, Anglin et al.[51] found that RWB was negatively related to suicide attempts among a low-income African American group ($ES = -1.0$). Taliaferro et al.[52] studied suicidal ideation among college students and found that EWB, but not RWB, added significant unique variance in addition to that from several other predictors.

Group differences

Bufford et al.[26] reported significantly different means for mental health patients and normal samples on both RWB and EWB. Kaslow et al.[53] and Meadows et al.[54] reported that abused women have lower levels of SWB than non-abused peers and use more mental health services. Ganje-Fling et al.[55] found that outpatient mental health clients who reported childhood sexual abuse

did not differ from other clients in their sample, but both groups scored significantly lower on EWB, RWB and SWB than hospice workers and medical outpatients; they also scored significantly lower than Bufford et al.'s[26] adult and sexually abused mental health outpatients on RWB.

In an investigation of well-being among three groups of antepartum women, Dunn et al.[48] found that women who had been on enforced bed rest for at least seven days scored significantly lower on SWB than those without known high-risk pregnancies. In a study of African American women who either had or had not been the victim of intimate partner violence, Mitchell et al.[50] found a significant difference on SWB between those who had experienced such violence and a control group who had not.

Outcome Studies

A few studies explored the effects of counseling and psychotherapy on SWB. First, Richards et al. explored the effectiveness of a religiously-oriented group treatment on self-defeating perfectionism in a group of 15 religiously-devout university students, most of whom were probably Mormon.[56] Interventions included religious imagery, relaxation exercises, religious bibliotherapy, and discussion of religious perfectionism. Improvements were found in perfectionism, depression, self-esteem, and EWB. Because a single group pre- and post-test design was used, causal conclusions were not established.

Second, in studies of Christian lay counseling conducted through a local church, Toh et al.[57] investigated SWB gains following both 10 and 20 sessions of Christian counseling. In an uncontrolled study, they demonstrated reduced emotional distress and significant gains on EWB and RWB. In a controlled follow-up study, Toh and Tan[58] again found significant gains in SWB and the treatment group showed significantly greater gains than a no-treatment control group, thus providing evidence that gains were the result of counseling rather than other factors. In related studies, Bufford and Renfro[59] studied outpatients at two clinics, one associated with a Baptist seminary that had a reputation for Christian counseling and one with no religious affiliation or identity. They found significant reductions in depression and significant gains in RWB and EWB for both samples. There were no differences between groups, and no interactions.

Third, Howard and others[60,61] examined changes in SWB in two groups of adolescents. The first was a group of adolescents hospitalized in a private psychiatric hospital for substance abuse, severe misconduct, or severe affective disorders. The second group was comprised of adolescents incarcerated in a juvenile detention facility; this group was considered a non-equivalent control group since treatment was not a normal feature of their setting. Religious or spiritual interventions were not an explicit aspect of treatment in either facility, except that substance abuse treatment incorporated 12-step elements including appeals to a 'higher power.' About half of the inpatient group, and over 80% of the detention group professed no traditional religious affiliation. Results showed that the two groups did not differ on RWB, EWB, or SWB at the pre-test. The psychiatric groups showed significant gains in both EWB and RWB, and scored significantly higher than the detention group at post-test when pre-test scores were controlled.

Fourth, two studies have explored the relationship between SWB and substance abuse outcomes. Borman and Dixon[62] found that SWB increased significantly among participants in both

a 12-step programmes and an alternative programme; no differences were found between the two groups. Brooks and Matthews[63] also found an increase in SWB scores for participants in substance abuse counselling. In their study, increases in SWB were found to be positively correlated with the SWB scores of participants' counsellors: as the counsellor's score increased, gains in counsellee SWB also increased.

Spiritual well-being and healthy healthcare practice

The above summary of research with the SWBS suggests that people's sense of well-being, as they perceive it in terms that they deem to be spiritual, is related to a number of mental and physical health conditions. It seems, therefore, that SWB ought to be taken into account in healthcare policy side-by-side with other factors. In their assessment, Hill and Killian[64] concluded that 'there is evidence of a moderately positive relationship between Ellison's ... measure of spiritual well-being ... and physical as well as mental health (see Ellison & Smith, 1991)' (p. 155). This does not mean that particular forms of spirituality should be promoted or that patients should be encouraged or manipulated into 'being spiritual.' It means, instead, that patients' sense of well-being, as they perceive it in terms meaningful to them, ought to be properly taken into account in a comprehensive program of patient care,[3] with the particular form that this might take being chosen by the patient. Simply put, when it comes to patient comfort, it is the patient that calls the shots. We would argue, too, that the priority that is given to this should increase as the severity of the disease or disorder that the patient is suffering increases, and that this is maximally so when a patient is terminally ill.

Summary and conclusions

The research on relationships between SWB and mental and physical health suggests that the larger perceptual umbrella under which a person sees, interprets, and faces life's difficulties may play an important role in his or her health, and coping with the issues that come with deficiency or illness. In addition to what happens to a person being important in determining his or her well-being, the larger meaning umbrellas under which such things occur also play a part. They seem to be important in helping a person cope and suffer less, and feel less dread, and greater peacefulness and comfort, in the face of harsh realities. There is no evidence that higher SWB has any causally curative effect on a purely organic disease, but there seems to be ample evidence that high SWBS scores predict greater comfort and peace in the face of them. Finally, the research seems clear that SWB is not one thing; it is multidimensional. Each dimension must be understood independently as well as in combination with the whole, for what it is and is not, and can and cannot do, for people who are suffering.

References

- 1 Moberg, D.O. (1979). The development of social indicators of spiritual well-being for quality of life research. In: Moberg, D.O. (ed.), *Spiritual Well-Being: Sociological Perspectives*. Washington, DC: University Press of America.
- 2 Piedmont, R.L. (2001). Spiritual transcendence and the scientific study of spirituality. *J Rehabil* 67: 4–14.
- 3 Masters, K.S., Hooker, S.A. (in press). Religion, spirituality, and health. In: R.F. Paloutzian, C.L. Park (eds), *Handbook of the Psychology of Religion and Spirituality*, 2nd edn. New York: Guilford Press.
- 4 Ellison, C.W. (1983). Spiritual well-being: conceptualization and measurement. *J Psychol Theol* 11: 330–40.
- 5 Paloutzian, R.F., Ellison, C.W. (1982). Loneliness, spiritual well-being and the quality of life. In: L.A. Peplau, D. Perlman (eds) *Loneliness: a Sourcebook of Current Theory, Research and Therapy*, pp. 224–37. New York: Wiley-Interscience.
- 6 Dow, K.H. (2006). *Nursing Care of Women With Cancer*. St Louis: Mosby Elsevier.
- 7 Kuebler, K.K., Heidrich, D.D., Esper, P. (2007). *Palliative and End-of-life Care: Clinical Practice Guidelines*, 2nd edn. St Louis: Saunders Elsevier.
- 8 Kelly, E.W. Jr. (1995). *Spirituality and Religion in Counseling and Psychotherapy: Diversity in Theory and Practice*. Alexandria: American Counseling Association.
- 9 Topper, C. (2003). *Spirituality in Pastoral Counseling and the Community Helping Professions*. New York: Haworth.
- 10 Bufford, R.K., Paloutzian, R.F., Wildman, A.J. (in press). Spiritual Well-Being Scale: research and assessment. *Religions*.
- 11 Campbell, A. (1976). Subjective measures of well-being. *Am Psychol*, 31: 117–24.
- 12 Diener, E., Biswas-Diener, R. (2008). *Happiness: Unlocking the Mysteries of Psychological Wealth*. Oxford: Blackwell.
- 13 Myers, D., Diener, E. (1995). Who is happy? *Psychol Sci* 6: 10–19.
- 14 Frankl, V. (1963). *Man's Search for Meaning*. New York: Washington Square Press.
- 15 Maslow, A. (1954). *Motivation and Personality*. New York: Harper.
- 16 Emmons, R.A. (1999). *The Psychology of Ultimate Concerns: Motivation and Spirituality in Personality*. New York: Guilford Press.
- 17 Park, C.L. (in press). Religion and meaning. In: R.F. Paloutzian, C.L. Park (eds) *Handbook of the Psychology of Religion and Spirituality*, 2nd edn. New York: Guilford Press.
- 18 Park, C.L. (2010). Making sense of the meaning literature: an integrative review of meaning making and its effects on adjustment to stressful life events. *Psychol Bull* 136(2): 257–301.
- 19 Kirkpatrick, L.A. (2005). *Attachment, Evolution, and the Psychology of Religion*. New York: Guilford.
- 20 Brinkman, D.D. (1989). *An Evaluation of the Spiritual Well-Being Scale: Reliability and Measurement*. Portland: Western Conservative Baptist Seminary.
- 21 Genia, V. (2001). Evaluation of the Spiritual Well-Being Scale in a sample of college students. *Int J Psychol Relig* 11(1): 25–33.
- 22 Marques, L.F., Sarriera, C., Dell'Aglio, D.D. (2009). Adaptacao e validacao da Escala de Bem-Estar Espiritual (EBE) [Adaptation and validation of Spiritual Well-Being Scale]. *Aval Psicol* 8(2): Porto Alegre ago. [In Portuguese].
- 23 Scott, E.L., Agresti, A.A., Fitchett, G. (1998). Factor analysis of the Spiritual Well-Being Scale and its clinical utility with psychiatric inpatients. *J Scient Study Relig* 37: 314–21.x
- 24 Ledbetter, M.F., Smith, L.A., Fischer, J.D., Vosler-Hunter, W.L. (1991). An evaluation of the research and clinical usefulness of the Spiritual Well-Being Scale. *J Psychol Theol* 19(1): 49–55.
- 25 Ledbetter, M.F., Smith, L.A., Fischer, J.D., Vosler-Hunter, W.L., Chew, G.P. (1991). An evaluation of the construct validity of the Spiritual Well-Being Scale: a confirmatory factor analytic approach. *J Psychol Theol* 19(1): 94–102.
- 26 Bufford, R.K., Paloutzian, R.F., Ellison, C.W. (1991). Norms for the spiritual well-being scale. *J Psychol Theol* 19: 56–70.
- 27 Bruce, K.C. (1997). *A Spanish translation of the Spiritual Well-Being Scale: preliminary validation* [dissertation]. Newberg: George Fox University, 1995.
- 28 Tang, W.R. (2008). *Spiritual Assessment and Care of Cancer Patients*. Taiwan: School of Nursing, Chang Gung University.
- 29 Liu, Y.H. (2010). *Spiritual Well-Being and Acculturative Stress Among Older Chinese Immigrants in the United States*. Long Beach: Gerontology Program, California State University.

- 30 Imam, S.S., Karim, N.H., Jusoh, N.R., Mamad, N.E. (2009). Malay version of the Spiritual Well-Being Scale: is the Malay Spiritual Well-Being Scale a psychometrically sound instrument? *J Behav Sci* 4(1): 59–69.
- 31 Musa, A.S., Pevalin, D.J. (2012). An Arabic version of the Spiritual Well-Being Scale. *Int J Psychol Relig*, 22(2): 119–34.
- 32 Edmondson, K.A., Lawler, K.A., Jobe, R.L., Younger, J.W., Piferi, R.L., Jones, W.H. (2005). Spirituality predicts health and cardiovascular responses to stress in young adult women. *J Relig Hlth* 44(2): 161–71.
- 33 Paranjape, A., Kaslow, N. (2010). Family violence exposure and health outcomes among older African American women: does spirituality and social support play a protective role? *J Womens Hlth* 19: 1899–904.
- 34 Tsuang, M.T., Williams, W.M., Simpson, J.C., Lyons, M.J. (2002). Pilot study of spirituality and mental health in twins. *Am J Psychiat* 159(3): 486–8.
- 35 Cotton, S., Larkin, E., Hoopes, A., Cromer, B.A., Rosenthal, S.L. (2005). The impact of adolescent spirituality on depressive symptoms and health risk behaviours. *J Adolesc Hlth* 36(6): 529.
- 36 Douchand Brown, S.E. (2009). *Health promotion behaviours among African American women* [dissertation]. Coral Gables: University of Miami.
- 37 Coleman, C.L., Holzemer. (1999). Spirituality, psychological well-being, and HIV symptoms for African-Americans living with HIV disease. *J Ass Nurses AIDS Care* 10(1): 42–50.
- 38 Dalmida, S.G., Holstad, M.M., Diiorio, C., Laderman, G. (2009). Spiritual well-being, depressive symptoms, and immune status among women living with HIV/AIDS. *Women Hlth* 49(2–3): 119–43.
- 39 Phillips, K.D., Mock, K.S., Bopp, C.M., Dudgeon, W.A., Hand, G.A. (2006). Spiritual well-being, sleep disturbance, and mental and physical health status in HIV-infected individuals. *Iss Ment Hlth Nurs* 27(2): 125–39.
- 40 Yampolosky, M.A., Wittich, W., Webb, G., Overbury, O. (2008). The role of spirituality in coping with visual impairment. *J Vis Impairment Blindness* 102(1): 28–39.
- 41 Landis, B.J. (1996). Uncertainty, spiritual well-being, and psychosocial adjustment to chronic illness. *Iss Ment Hlth Nurs* 17(3): 217–31.
- 42 Cotton, S., Kudel, I., Roberts, Y.H., Palleria, H., Tsevat, J., Succop, P., et al. (2009). Spiritual well-being and mental health outcomes in adolescents with or without inflammatory bowel disease. *J Adolesc Hlth* 44(5): 485–92.
- 43 Tanyi, R.A., Werner, J.S. (2007). Spirituality in African American and Caucasian women with end-stage renal disease on hemodialysis treatment. *Hlth Care Women Int* 28(2): 141–54.
- 44 Fehring, R.J., Brennan, P.F., Keller, M.L. (1987). Psychological and spiritual well-being in college students. *Res Nurs Hlth* 10(6): 391–8.
- 45 Coleman, C.L. (2004). The contribution of religious and existential well-being to depression among African American heterosexuals with HIV infection. *Iss Ment Health Nurs* 25(1): 103–10.
- 46 Compton, M.T., Furman, A.C. (2005). Inverse correlations between symptom scores and spiritual well-being among African American patients with first-episode schizophrenia spectrum disorders. *J Nerv Ment Dis* 193(5): 346–9.
- 47 Mela, M.A., Marcoux, E., Baetz, M., Griffin, R., Angelski, C., Deqiang, G. (2008). The effect of religiosity and spirituality on psychological well-being among forensic psychiatric patients in Canada. *Ment Hlth Relig Cult* 11(5): 517–32.
- 48 Dunn, L.L., Handley, M.C., Shelton, M.M. (2007). Spiritual well-being, anxiety, and depression in antepartal women on bedrest. *Iss Ment Health Nurs* 28(11): 1235–46.
- 49 Kocot, T., Goodman, L.A. (2003). The roles of coping and social support in battered women's mental health. *Violence Against Women* 9: 1–24.
- 50 Mitchell, M.D., Hargrove, G.L., Collins, M.H., Thomson, M.P., Reddick, T.L., Kaslow, N.J. (2006). Coping variables that mediate the relation between intimate partner violence and mental health outcomes among low-income, African American women. *J Clin Psychol* 62(12): 1503–20.
- 51 Anglin, D.M., Gariel, K.O.S., Kaslow, N.J. (2005). Suicide acceptability and religious well-being: a comparative analysis in African American suicide attempters and non-attempters. *J Psychol Theol* 33: 140–50.
- 52 Taliaferro, L.A., Rienzo, B.A., Pigg, R.M. Jr., Miller, M.D., Dodd, V.J. (2009). Spiritual well-being and suicidal ideation among college students. *J Am Coll Hlth* 58(1): 83–90.
- 53 Kaslow, N.J., Thompson, M.P., Okun, A., et al. (2002). Risk and protective factors for suicidal behaviour in abused African American women. *J Consult Clin Psychol* 70: 311–19.
- 54 Meadows, L.A., Kaslow, N.J., Thompson, M.P., Jurkovic, G.J. (2005). Protective factors against suicide attempt risk among African American women experiencing intimate partner violence. *Am J Commun Psychol* 36: 109–21.
- 55 Ganje-Fling, M., Veach, P.M., Kuang, H., Houg, B. (2000). Effects of childhood sexual abuse on client spiritual well-being. *Couns Values* 44: 84–91.
- 56 Richards, P.S., Owen, L., Stein, S. (1993). A religiously-oriented group counseling intervention for self-defeating perfectionism: a pilot study. *Couns Val* 37: 96–105.
- 57 Toh, Y.M., Tan, S.Y., Osburn, C.D., Faber, D.E. (1994). The evaluation of a church-based lay counseling program: some preliminary data. *J Psychol Christian* 13: 270–5.
- 58 Toh, Y.M., Tan, S.Y., Osburn, C.D., Faber, D.E. (1994). The evaluation of a church-based lay counseling program: some preliminary data. *J Psychol Christianity* 13: 270–5.
- 59 Bufford, R.K., Renfroe, T.W. (1994). Spiritual well-being and depression in psychotherapy outpatients. Paper presented at The Annual Meeting of the Christian Association for Psychological Studies/Western Region, June 1994, Del Mar (CA).
- 60 Howard, G.T. (1995). *The effect of short-term hospitalizations on the spiritual well-being of psychiatric, adolescent inpatients* [dissertation]. Newberg: George Fox University.
- 61 Bufford, R.K., Renfroe, T.W., Howard, G. (1995). Spiritual changes as psychotherapy outcomes. Paper presented at the Annual Meeting of the American Psychological Association; August 1995, New York.
- 62 Borman, P.D., Dixon, D.N. (1998). Spirituality and the 12 steps of substance abuse recovery. *J Psychol Theol* 26(3): 287–91.
- 63 Brooks, C.W., Matthews, C.O. (2000). The relationship among substance abuse counselor's spiritual well-being, values, and self-actualizing characteristics and the impact of clients' well-being. *J Addict Offender Couns* 21: 23–33.
- 64 Hill, P.C., Kilian, M.K. (2004) Assessing clinically significant religious impairment in clients: applications from measures in the psychology of religion and spirituality. *Ment Hlth Relig Cult* 6(2): 149–60.