THE RELATION BETWEEN A MULTIDIMENSIONAL MEASURE OF SPIRITUALITY AND MEASURES OF PSYCHOLOGICAL FUNCTIONING AMONG SECULAR ISRAELI JEWS

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ABSTRACT: In order to examine the relation between a multidimensional measure of spiritual orientation and measures of psychological functioning among a sample of secular Israeli Jews, 112 research participants responded to the Spiritual Orientation Inventory (Elkins et al., 1988) and to self-report measures of depression and life satisfaction. Significant relations between total spirituality and both depression and life satisfaction were uncovered even after controlling for religiousness. Partial correlations revealed that life coherency, intrinsic values, and experiential aspects of spirituality were related to these measures even after controlling for other dimensions of spirituality. Regression analysis demonstrated the unique contribution of these three aspects of spirituality to the prediction of depression and of intrinsic spiritual values to the prediction of life satisfaction.

The positive relation between religion and health - both physical and psychological - has been supported extensively in the research literature (see Ellison & Levin, 1998; Hill & Pargament, 2003; Koenig, McCullough, & Larson, 2001; Miller & Kelley, 2005; Oman & Thoresen, 2005; Powell, Shahabi, & Thoresen, 2003). Although the majority of the research in this area is correlative in nature, a basic assumption of causality exists in the literature, i.e., religion leads to enhanced health. A number of explanations for the assumed positive influence of religion on health have been forwarded by researchers, most of whom presume that this influence is mediated by other psycho-social variables. For example, a religious individual may have access to more social support than an individual who is not actively religious (Powell et al., 2003); a religious individual may tend to lead to a healthier lifestyle than a non-religious individual (Hill & Butter, 1995).

However, although much of the literature dealing with the relation between religion and health tends to group religion/religiosity and spirituality together without differentiating between the two constructs, more and more researchers point out that religion and spirituality are not identical (e.g., Saucier & Skrzypińska, 2006; Westgate, 1996). A religious person may not necessarily be spiritual; a spiritual individual may not necessarily be religious. Koenig, McCullough, & Larson (2001) identified a number of characteristics that distinguish between religion and spirituality: religion is community focused whereas spirituality focuses on the individual; religion is more observable and objective whereas spirituality

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is less visible and more subjective; religion is formal and organized whereas spirituality is less formal and systematic; religion is behavior oriented whereas spirituality is more emotion oriented; religion is more authoritarian and doctrine oriented whereas spirituality is not. On the basis of these characteristics, Koenig et al. offer the following definitions for religion and spirituality: “Religion is an organized system of beliefs, practices, rituals, and symbols, designed (a) to facilitate closeness to the sacred or transcendent (God, higher power, or ultimate truth / reality) and (b) to foster an understanding of one’s relationship and responsibility to others in living together in a community. Spirituality is the personal quest for understanding answers to ultimate questions about life, about meaning, and about relationship to the sacred or transcendent, which may (or may not) lead to or arise from the development of religious rituals and the formation of community” (p. 18).

On the assumption that spirituality and religion are independent—although related—constructs, it is reasonable to assume that the mechanisms that relate spirituality to health may be different from those that account for religion’s influence on health (Miller & Thoresen, 2003). However, as George, Larson, Koeing, and McCullough (2000) point out, almost all of the research concerning the relation between spirituality and health is based on measures of religion rather than on measures of spirituality. In order to broach this research gap, the present investigation focuses on the relation between a multidimensional measure of non-religious spirituality1 and measures of two different aspects of psychological functioning – depression and life satisfaction – among individuals who identify as being secular/non-religious. In addition, empirical studies focusing of the relation between religion and/or spirituality and various measures of physical or psychological well-being have often been based on predominantly North American samples of individuals identifying as Christians. Most of these studies have included a very small Jewish sample or none at all. Almost no studies have been based entirely upon Jewish samples. In this investigation the research measures were administered to Jewish individuals residing in Israel who identified as being non-religious or secular. In this manner, this investigation was unique and may contribute to our understanding of the influence of spirituality on mental health and the possibility of generalizing past findings to individuals from different cultures and religions.

In addition, this study may contribute to the field of transpersonal psychology. Although some transpersonal psychology theoreticians appear to negate empirical research in this area due to the inherent ineffability of the constructs concerned (e.g., Wilber, 1990), MacDonald, LeClair, Holland, Alter, and Friedman (1995) suggest that such research may be “worthy of consideration” (p. 172) if it studies the effects and correlates of transpersonal experience and development. Since spirituality is a major construct in transpersonal psychology, this study’s attempt to deepen our understanding of the relations between the various components of spirituality and psychological functioning would appear to be in fulfillment of this criterion.
In what way may spirituality influence health? Since spirituality and religion have a considerable degree of overlap, the most logical place to search for such explanations is in the extensive research literature dealing with the relation between religion and physical and mental health. In this literature a number of explanations of the mechanism through which religion affects health have been suggested. Following is a short review of these explanations and an examination of their relevance to the purported spirituality – health relation.

One explanation is based on the assumption that religious individuals have a healthier life style than do individuals who are not committed to a religion (Kark, Shemi, & Friedlander, 1996). Many religions have specific or nonspecific prohibitions against use of tobacco, alcohol, drugs, risky sexual behavior, excesses of food intake, etc. Some religions actively encourage positive health behaviors and even consider looking out for one’s health as a religious precept. Oman and Thoresen (2003) suggest that church attendees are exposed to individuals who are characterized by healthy attitudes and behaviors and therefore the attendees have an opportunity to model such elements that are conducive to positive lifestyles.

An additional explanation is based on the assumption that religious individuals who are actively associated with religious institutions may have more and better sources of various types of support than do individuals who are not associated with such institutions and that this support leads to enhanced physical and psychological health. For example, Plante and Sherman (2001) cite that a religious congregation can provide financial support, meals, and assistance with children. Other researchers point out that religious individuals are able to draw upon sources of religious support such as spiritual leaders, God, and their religious congregation for both tangible and intangible help (Fiala, Bjorck, & Gorsuch, 2002; Lazar & Bjorck, 2008).

Yet a third explanation for the influence of religion on health was offered by Powell et al. (2003). Research has shown that helping behaviors are related to lower levels of depression (Krause, Herzog, & Baker, 1992). On the basis of such findings, Powell et al. suggested that church attendance may provide situations in which an individual can help others thus enhancing that individual’s feelings of self-worth.

It would appear that the three explanations cited above are not necessarily applicable to the purported influence of spirituality on physical and psychological well-being. Whereas institutionalized religion often dictates various behaviors, or the abstinence from certain behaviors, which may lead to a healthier lifestyle, to the best of my knowledge there is no such relation between spirituality and lifestyle. The two latter explanations are related to the social and interpersonal aspects of institutionalized religion. While church affiliation may provide opportunities to help others on the one hand, and sources of support on the other hand, non-institutionalized personal spirituality does not.
Hill and Pargament (2003) claim that although nonspiritual explanations have been forwarded in the literature concerning the influence of religion and spirituality on health, research should focus on "something inherent" (p. 66) in religion and spirituality. A number of additional explanations in the literature regarding the influence of religion on behavior seem to fulfill the Hill and Pargament criteria and appear to be applicable to non-religious non-institutionalized spirituality as well. However, before examining these explanations, a discussion of what spirituality consists of is in order.

**What is Spirituality?**

Spirituality has been defined in the psychological literature in numerous ways (see Zinnbauer & Pargament, 2002; Zinnbauer & Pargament, 2005; Zinnbauer, Pargament, & Scott, 1999). One approach to defining and conceptualizing spirituality is to survey various sources – often both psychological as well as non-psychological – and to identify various themes that are common to a number of sources. For example, on the basis of the works of a number of authors dealing with spirituality and spiritual well-being, Westgate (1996) identified four components of spirituality: meaning and purpose in life (i.e., the sense of a search for, or the finding of, meaning and purpose), transcendent beliefs and experiences (i.e., an awareness or experience of something beyond life’s rational aspects), intrinsic values (i.e., values, held by the individual with no ulterior motives, that guide his or her life), and community or relationship aspects (i.e., relationship with others and a willingness to help them). Westgate pointed out that the first two components were included in all of the writings reviewed concerning spirituality although there was a large degree of variety concerning specific definitions and descriptions of these dimensions.

As can be expected, there is little agreement in the literature as to what spirituality actually is. However, almost all researchers appear to agree that spirituality is a multi-dimensional construct (Miller & Thoresen, 2003; Seybold & Hill, 2001; Zinnbauer & Pargament, 2005). The significance of a multidimensional approach to spirituality is that the various components of spirituality may be related to other variables in a differential manner. For example, one dimension of spirituality may contribute to lower levels of depression but not to physical health, whereas a second dimension of spirituality may contribute to enhanced physical health while being unrelated to psychological functioning. If this is the case, the use of a unidimensional measure of spirituality, or even a composite measure of total spirituality combining various specific dimensions of spirituality, would reveal weak relations between spirituality and both depression and physical health in comparison to a multidimensional approach which would enable one to uncover the more complex relations between the various aspects of spirituality and different outcome measures. Indeed, MacDonald and Holland (2003) used the multidimensional Expressions of Spirituality Inventory (ESI) (MacDonald, 1997, 2000) in order to investigate the relation between spirituality and psychological functioning as operationalized by MMPI-2 scales and found general support for the predicted relation between spirituality and measures of
depression and psychopathy. However, these researchers uncovered a pattern of differential correlations between the five ESI dimensions and the MMPI scales. For example, the MMPI Social Introversion scale was related to the Experiential / Phenomenological Dimension but not to the Paranormal Beliefs dimension, whereas the reverse was true for the MMPI Paranoia scale.

It is important to note that many definitions and measures of spirituality include components that are specifically related to religion. An examination of a number of “spirituality” scales included in the Hill and Hood (1999) review of measures of religiosity as well as those included in surveys of measures of transpersonal constructs (MacDonald et al., 1995; MacDonald, Kuentzel, & Friedman, 1999) reveals that almost all of these scales include items or even entire subscales that refer to concepts related to institutionalized religions such as belief in God or involvement with the Church. In order not to confound the purported influence of spirituality on various aspects of mental and physical health with that of religion, it is important to use approaches to spirituality, and their related measures, that focus on spirituality as a construct independent from religion. For example, MacDonald and Holland (2003) stressed the importance of examining the relation between spirituality and psychological functioning while differentiating between religion and spirituality.

In the current study’s attempt to uncover the possible subtle and complex relations between spirituality and psychological functioning, it was decided to adopt a non-religious approach to spirituality and a corresponding measure based on this approach. One of the few approaches to spirituality that does not include any references to religion – direct or indirect - was forwarded by Elkins, Hedstrom, Hughes, Leaf, and Saunders (1988). These researchers listed four major assumptions concerning spirituality. One of these assumptions is that spirituality is not identical to religiosity and an individual who is unaffiliated with traditional religion can still be “spiritual.” On the basis of an extensive literature search, Elkins et al. (1988) developed a multidimensional definition of spirituality. According to this definition, spirituality is composed of the following nine components: (a) Transcendent Dimension, (b) Meaning and Purpose in Life, (c) Mission in Life, (d) Sacredness of Life, (e) Material Values, (f) Altruism, (g) Idealism, (h) Awareness of the Tragic, and (i) Fruits of Spirituality. On the basis of this definition, Elkins et al. then developed the Spiritual Orientation Inventory (SOI) whose nine subscales demonstrated acceptable levels of reliability (Elkins, 1988) and which was found to discriminate between groups who were assumed to differ on level of spirituality (Lauri & Elkins, 1988). Later factor analysis of the SOI uncovered two higher-order dimensions of spirituality - an experiential dimension and a spiritual value dimension (Zainuddin, 1993).

The SOI has been used in a number of empirical studies as a measure of spirituality (e.g., Smith, 1995; Sherman, 1996; Tloczynski, Knoll, & Fitch, 1997). In addition, the SOI has been found to be related to measures of physical health. Morris (2001) uncovered a positive relation between the total SOI score, the Transcendent Dimension, and Awareness of the Tragic with the reversal of coronary obstruction as measured by computerized
cardiac catheterization data, measured four years after the initial measurement. However, these findings were based on a small sample. In addition, half of the patients were assigned to an experimental group with a vegetarian diet, aerobic exercise and meditation, thus confounding the results. In any case, the SOI appears to be a suitable measure for examining the possible relation between various aspects of a spiritual orientation and psychological functioning.

**Spirituality and Health**

Although an exhaustive review is beyond the scope of this paper, a number of themes are common to most definitions of spirituality – meaning and purpose in life, transcendental experience, and cognitive spiritual values. As will be immediately pointed out, some of these dimensions appear to be particularly relevant to physical and psychological well-being. On the basis of the preceding discussion of spirituality, more specific predictions regarding the relation between spirituality and psychological well-being can be drawn.

Perhaps the most widely accepted component of spirituality is the appreciation of meaning and purpose in life. Many researchers have reported a positive relation between meaning in life and psychological functioning (see Westgate, 1996). George et al. (2000) termed the influence of spirituality-based meaning in life on well-being as the “coherence hypothesis.” According to this approach, religion or spirituality provides a sense of meaning and coherence to life. Such a feeling helps individuals to cope with and endure suffering in life which in turn leads to less debilitating effects of suffering. In a similar manner, Hill and Pargament (2003) claim that “religion and spirituality frameworks can provide people with a sense of their ultimate destinations in life” (p.68). Such a sense may lead to greater personal coherence which then leads to enhanced physical and psychological health (Emmons, 1999). Indeed, Emmons, Cheung, and Tehrani (1998) uncovered positive relations between spiritual strivings, purpose in life, life satisfaction and well-being. Other researchers have also found a positive relation between a sense of coherence based on religion or spirituality and health (Idler, 1987; Zuckerman, Kasl, & Ostfeld, 1984). Two SOI dimensions - Meaning and Purpose in Life and Mission in Life - appear to fall into this category.

A second explanation of the possible influence of spirituality on health is based on the assumption that religious and spiritual practices and experiences may lead to positive emotions (Idler & Kasl, 1997), or may in part be composed of positive emotions (Hood, 1975), and that these positive emotions may be expected to contribute to health (Larson, Swyers, & McCullough, 1998; Thoresen, 1999). Other researchers also identified positive emotions related to religion or spirituality that may be behind religion’s and spirituality’s positive effects on well-being. Three SOI dimensions are associated with experiential and positive emotional aspects of spirituality - Transcendent Dimension, Awareness of Tragic, and Fruits of Spirituality.
A third explanation of the purported positive influence of spirituality on health is forwarded by Westgate (1996). She cites a number of investigations that suggest that intrinsic values held by the individual are related to lower levels of depression. A number of aspects of spirituality suggested by Elkins et al. (1988) can be considered as intrinsic values, e.g. Altruism, Sacredness of Life, Idealism, and Material Values, and would therefore be expected to contribute to better psychological functioning.

Based upon the arguments presented above it was predicted that:

1. Overall spirituality will be positively related to psychologically functioning.
2. Dimensions of spirituality associated with life coherency (Meaning and Purpose in Life, Mission in Life) will contribute positively to psychological functioning.
3. Dimensions of spirituality associated with spiritual experiences (Transcendent Dimension, Awareness of Tragic, Fruit of Spirituality) will contribute positively to psychological functioning.
4. Dimensions of spirituality associated with intrinsic values (Altruism, Sacredness of Life, Idealism, Material Values) will contribute positively to psychological functioning.

The present investigation focused on Israeli Jews who identify as secular/non-religious. The SOI was chosen as a measure of spirituality since it focuses on aspects of spirituality that are independent of religion and is therefore suitable for non-religious populations. In addition, the SOI is multidimensional and therefore allows for an examination of the predictions stated above. Two widely used aspects of psychological functioning – depression and life satisfaction - were included in the present investigation.

Method

Research Participants

One hundred and twenty research participants filled-out and returned questionnaires, eight of which were discarded due to incomplete data. The final research sample therefore consisted of 112 voluntary participants (55 women) between the ages of 21 and 41 (M = 25.1 years; SD = 2.7). All research participants were Jewish Israelis who self-identified as being secular/non-religious (see endnote 2). On a five point scale of religiousness (1= not at all religious, 5= very religious) the average was 1.5 with a standard deviation of .68. Ethnicity was reported as 33.9% Ashkenazi, 40.2% Oriental, 8.0% Yemenite, 3.6% Ethiopian, 9.8% Other, and 4.5% did not respond. Family status was reported as 86.6% single, 11.6% married, and 1.8% divorced. Education level was reported as 1.8% not finishing high school, 50.0% high school or post high school education, 47.3% BA, and 0.9% graduate level education.
Measures

**Spiritual Orientation Inventory (SOI).** Elkins et al. (1988) developed this 85-item measure which provides nine subscales of spirituality: (a) Transcendent Dimension, 13 items (e.g., “I have had transcendent, spiritual experiences which seem almost impossible to put into words”); (b) Meaning and Purpose in Life, 10 items (e.g., “Even though I may not always understand it, I do believe that life is deeply meaningful”); (c) Mission in Life, 9 items (e.g., “I believe life presents one with a mission to fulfill”); (d) Sacredness of Life, 15 items (e.g., “Even such activities as eating, work, and sex have a sacred dimension to them”); (e) Material Values, 6 items, (e.g., “It is much more important to pursue spiritual goals than to pursue money and possessions”); (f) Altruism, 7 items (e.g., “I am often overcome with feelings of compassion for human beings”); (g) Idealism, 10 items (e.g., “I believe the human spirit is powerful and will win in the end”); (h) Awareness of the Tragic, 5 items, (e.g., “It seems pain and suffering are often necessary to make us examine and re-orient our lives”); (i) Fruits of Spirituality, 10 items (e.g., “Contact with the transcendent, spiritual dimension has helped reduce my personal stress level”).

For the purposes of this investigation, the SOI items were translated into Hebrew separately by three individuals, all with a BA in the Social Sciences, who are fluent in both English and Hebrew. The three translations were then compared by the translators under the supervision of the author, differences were discussed and rectified, and a final translation was prepared. The final translation was then given to an additional three translators, similar to the original translators, who were requested to translate the items back into English. The three English back-translations were then compared to the original SOI items. The few items found to be problematic were discussed and rectified. The final corrected translation was administered to the research participants.

Although the original scale used a seven-point Likert scale, for the sake of uniformity a five-point scale was adopted for all measures in the present study. In the case of the SOI, research participants were requested to indicate the degree to which they agreed to each item ranging from 1 (strongly disagree) to 5 (strongly agree). In the present study, the reliability coefficient for the entire 85 item scale was .97 and the reliability coefficients for the subscales ranged from .70 to .91 with the exception of Awareness of the Tragic ($\alpha = .46$).

**Center for Epidemiological Studies – Depressed Mood Scale (CES-D).** The original 20 item measure of depression developed by Radloff (1977) assesses the extent to which participants have experienced depressive symptoms over the past 7 days. The current study used a Hebrew translation (Blumstein et al., 2004), which has been used in previous research in Israel (e.g., Benyamini & Lomranz, 2004). In order to maintain measure consistency, the time frame was changed to “how do you usually feel” (1 = rarely or none of the time, 5 = most or all of the time). In the current study, the reliability coefficient was .87.
Satisfaction with Life Scale (SWLS). This five-item measure of Life Satisfaction developed by Diener, Emmons, Larsen, & Griffin (1985) measures general subjective well-being. For the current study, items were translated to Hebrew using the same procedure described above. A five point Likert scale was used (1 = strongly disagree, 5 = strongly agree). The reliability coefficient for this scale in the present investigation was .79.

Religiousness. A single-item five point Likert scale of self reported level of religiousness was used (1 = not at all religious, 5 = very religious).

Demographics. Research participants were requested to report their age, sex, ethnic group (Ashkenazi, Oriental, Yemenite, Ethiopian, other), family status, level of education, and religious group identity (ultra-religious, religious, traditional, secular/ non-religious, other).

Procedure

Research assistants approached potential participants at a number of university campuses in central Israel. Participants were invited to take part in the study by completing a survey dealing with the attitudes and feelings of various people. The research assistants first asked prospective research participants as to their religious identity. Only individuals who identified as secular / non-religious received questionnaires. All participants were assured that responses would be anonymous and confidential and it was stressed that participation was voluntary. No incentive was offered for participating. Participants returned the filled-out research instruments to the research assistants immediately upon completion.

Results

Scores for all research variables were calculated by averaging scale items resulting in scores ranging from 1 (low) to 5 (high). The zero-order correlations between Religiousness, Overall Spirituality and the specific dimensions of spirituality with the outcome measures were calculated and are presented in Table 1. Examination of the correlations presented in Table 1 reveals statistically significant relations in the expected directions between Overall Spirituality and both measures of psychological functioning (Depression, $r = -.26, p < .01$; Life Satisfaction, $r = .29, p < .01$) thus providing support for Prediction 1. In order to further examine the unique contributions of spirituality to psychological functioning, partial correlations between this score and the outcome measures were calculated after controlling for Religiousness and are presented in the left column of Table 2. As can clearly be seen, the partial correlations are identical to the zero-order correlations (Depression, $r_p = -.26, p < .01$; Life Satisfaction, $r_p = .29, p < .001$) thus providing further support for Prediction 1.
Regarding the relations between the specific dimensions of spirituality and the measures of psychological functioning, examination of Table 1 reveals statistically significant correlations in the expected directions between the two dimensions of spirituality related to life coherency – Meaning and Purpose in Life and Mission in Life – with both Depression (r = −.37, p < .001; r = −.33, p < .001) and with Life Satisfaction (r = .34, p < .001; r = .26, p < .01) thus providing support for Prediction 2. In order to examine the unique relationships of each spirituality dimension with psychological functioning, three sets of partial correlations were calculated and are presented in Table 2. In the first set, religiousness was controlled for; in the second set, for each of the nine specific dimensions of spirituality, the remaining eight dimensions were controlled for.

**TABLE 1**
Zero-order Correlations between Religiousness, Overall Spirituality, and Specific Dimensions of Spirituality with Depression and Life Satisfaction

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<thead>
<tr>
<th></th>
<th>Depression</th>
<th>Life Satisfaction</th>
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<tr>
<td>Religiousness</td>
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<td>.00</td>
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<tr>
<td>Overall Spirituality</td>
<td>−.26**</td>
<td>.29**</td>
</tr>
<tr>
<td>Transcendent Dimension</td>
<td>−.09</td>
<td>.16</td>
</tr>
<tr>
<td>Meaning and Purpose in Life</td>
<td>−.37**</td>
<td>.34***</td>
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<tr>
<td>Mission in Life</td>
<td>−.33**</td>
<td>.26**</td>
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<tr>
<td>Sacredness of Life</td>
<td>−.26**</td>
<td>.20*</td>
</tr>
<tr>
<td>Material Values</td>
<td>−.05</td>
<td>.32***</td>
</tr>
<tr>
<td>Altruism</td>
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<td>.18</td>
</tr>
<tr>
<td>Idealism</td>
<td>−.34***</td>
<td>.34***</td>
</tr>
<tr>
<td>Awareness of the Tragic</td>
<td>−.02</td>
<td>.03</td>
</tr>
<tr>
<td>Fruits of Spirituality</td>
<td>−.19*</td>
<td>.20*</td>
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</table>

*Note. * p < 0.05 ** p < 0.01 *** p < 0.001*

**TABLE 2**
Partial Correlations Controlling for Religiousness and Spirituality Dimensions

<table>
<thead>
<tr>
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<tr>
<td>Fruits of Spirituality</td>
<td>−.18</td>
<td>.20*</td>
<td>−.13</td>
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*Notes. * p < 0.05 ** p < 0.01 *** p < 0.001*

*For the examination of each of the 9 dimensions of spirituality, all other 8 dimensions of spirituality were controlled for.
were controlled for; in the third set, both religiousness and the remaining spirituality dimensions were controlled for. Examination of these correlations indicates that controlling for Religiousness did not affect the relationships between Meaning and Purpose in Life and Mission in Life with Depression \( (r = -0.37, p<.001; r = -0.34, p<.001) \). However, controlling for the other dimensions of spirituality did weaken these correlations. For Meaning and Purpose in Life the correlation remained at a significant level \( (r_p = -0.24, p<.05) \) whereas for Mission in Life, controlling for the other dimensions of spirituality lowered the correlation to a level that bordered statistical significance \( (r_p = -0.18, p = .07) \). When both Religiousness and other spirituality dimensions were controlled for, the correlations between both of these dimensions and Depression were significant \( (\text{Meaning and Purpose in Life}, r_p = -0.23, p<.05; \text{Mission in Life}, r_p = -0.20, p<.05) \). In contrast, controlling for the other dimensions of spirituality lowered the correlations between these two dimensions of spirituality with Life Satisfaction to nonsignificant levels \( (\text{Meaning and Purpose in Life}, r_p = .07; \text{Mission in Life}, r_p = .08) \).

Examination of the zero-order correlations between the dimensions of spirituality associated with the experiential aspects of spirituality and the measures of psychological functioning presented in Table 1 indicate that the relations between Fruits of Spirituality and these measures were low but significant and in the expected directions \( (\text{Depression}, r = -0.19, p<.05; \text{Life Satisfaction}, r = .20, p<.05) \). Examination of partial correlations reported in Table 2 reveals that after controlling for the other dimensions of spirituality the relations between Fruits of Spirituality and the outcome variables were lowered to nonsignificant levels \( (\text{Depression}, r_p = -.13; \text{Life Satisfaction}, r_p = -.02) \). The zero-order correlations between the other two SOI dimensions in this category - Transcendent Dimension, and Awareness of the Tragic – and the two measures of psychological functioning were not significant. After controlling for the other dimensions of spirituality a significant positive relation between Transcendent Dimension and Depression emerged \( (r_p = .23, p<.05) \) indicating an apparent suppressor effect whereas relationship with Life Satisfaction was found to be close to zero \( (r_p = .02) \). Thus Prediction 3 was partially supported.

Finally, mixed results were found for Prediction 4 concerning the relations between the dimensions of spirituality associated with intrinsic values and psychological functioning. As can be seen in Table 1, Idealism was significantly correlated in the expected directions with Depression \( (r = -0.34, p<.001) \) and with Life Satisfaction \( (r = .34, p<.001) \) and controlling for Religiousness did not change these correlations. In addition, the relation with Life Satisfaction remained at a significant level even after controlling for the other dimensions of spirituality \( (r_p = .23, p<.05) \). However, the relation with Depression was lowered to a nonsignificant level \( (r_p = -.14) \). Sacredness of Life was significantly related to lower levels of Depression \( (r = -.26, p<.01) \) and higher levels of Life Satisfaction \( (r = .20, p<.05) \) before controlling for the other dimensions of spirituality but not after controlling for them \( (r_p = -.10, -.11) \). Material Values was related to higher levels of Life Satisfaction both
before and after controlling for other dimensions of spirituality \((r = .32, p < .001; r_p = .22, p < .05)\) but only marginally to Depression after controlling for these dimensions \((r_p = .18, p = .07)\). Finally, the relations between Altruism and both measures of psychological functioning bordered statistical significance in the expected directions (Depression, \(r = -.18, p = .06\); Life Satisfaction, \(r = .18, p = .06\)). However, after controlling for the other dimensions of spirituality the relation between Altruism and Depression was positive \((r_p = .21, p < .05)\) indicating an apparent suppressor effect.

In order to better understand the relation between spirituality and psychological functioning, and to examine the relative contributions of the various dimensions of spirituality to the two measures of psychological functioning used in this study, regression analysis was performed. In these analyses, the latter measures were regressed separately onto the specific spirituality scores. Since the correlation between Transcendent Dimension and Fruits of Spirituality was very high \((r = .87)\), the latter scale was dropped from the regression analyses in order to avoid multicollinearity. All other correlations between scales of spirituality were lower than the widely accepted .80 level (Licht, 2001).

Preliminary hierarchical regression analysis indicated that for both Depression and Life Satisfaction, the demographic variables (age, sex) and Religiousness entered on the first step resulted in nonsignificant regression equations whereas the specific spirituality measures entered on the second step resulted in a significant \(R^2\)’s (Depression \(R^2 = .30, F(11,111)= 3.83***\); Life Satisfaction \(R^2 = .24, F(11,111)= 2.82**) as well as significant \(\Delta R^2\)’s. Therefore, for the sake of clarity the results are reported for standard multiple regression. The standardized beta coefficients for each of the predictors and the squared semi-partial correlation coefficients for the significant predictors are presented in Table 3.

### TABLE 3

**Multiple Regression of Depression and Life Satisfaction on Demographic Measures, Religiousness, and Spirituality Dimensions**

<table>
<thead>
<tr>
<th></th>
<th>Depression</th>
<th>Life Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>beta (sr^2)</td>
<td>beta (sr^2)</td>
</tr>
<tr>
<td>Age</td>
<td>-.15</td>
<td>-.16</td>
</tr>
<tr>
<td>Gender</td>
<td>.00</td>
<td>-.02</td>
</tr>
<tr>
<td>Religiousness</td>
<td>-.12</td>
<td>.05</td>
</tr>
<tr>
<td>Transcendent Dimension</td>
<td>.29*</td>
<td>.03</td>
</tr>
<tr>
<td>Meaning and Purpose in Life</td>
<td>-.37*</td>
<td>.04</td>
</tr>
<tr>
<td>Mission in Life</td>
<td>-.24</td>
<td>.11</td>
</tr>
<tr>
<td>Altruism</td>
<td>.28*</td>
<td>.03</td>
</tr>
<tr>
<td>Sacredness of Life</td>
<td>-.21</td>
<td>-.16</td>
</tr>
<tr>
<td>Material Values</td>
<td>.15</td>
<td>.22*</td>
</tr>
<tr>
<td>Idealism</td>
<td>-.21</td>
<td>.39*</td>
</tr>
<tr>
<td>Awareness of the Tragic</td>
<td>.10</td>
<td>-.07</td>
</tr>
</tbody>
</table>

*Note. Separate regressions were run for each dependent variable. Gender coded male=1, female=2. \(sr^2\) = squared semi-partial correlations.

\(p < 0.05\)
The results in Table 3 indicate that three dimensions of spirituality - Transcendent Dimension, Meaning and Purpose in Life, and Altruism - had statistically significant contributions to the prediction of Depression. Squared semi-partial correlations were calculated for these predictors. A semi-partial correlation is the correlation between a predictor and the criterion where all of the other predictors are partialed out of the predictor thus indicating the unique contribution of each predictor to the predicted variable. The squared semi-partial correlation \((sr)^2\) indicates the amount of the \(R^2\) that can be uniquely attributed to each predictor in predicting the unchanged criterion. In the prediction of Depression, a total of 30% of the variance was explained by the predictors. Therefore, the three significant spirituality dimensions - Meaning and Purpose in Life \((sr^2 = .04)\), Transcendent Dimension \((sr^2 = .03)\), and Altruism \((sr^2 = .03)\) - each contributed between 10%–13% of the explained variance. It should be noted that whereas Meaning and Purpose in Life \((\beta = -.37)\) demonstrated a negative contribution to the prediction of Depression, Transcendent Dimension \((\beta = .29)\) and Altruism \((\beta = .28)\) were found to have positive contributions to the prediction of this measure. For the prediction of Life Satisfaction, for which a total of 24% of the variance was explained by the predictors, statistically significant contributions were uncovered for Material Values \((sr^2 = .03)\) which contributed 12.5% of the explained variance and for Idealism \((sr^2 = .05)\) which contributed 20% of the explained variance. Both of these dimensions of spirituality had positive contributions to the prediction of Life Satisfaction (Material Values, \(\beta = .22\); Idealism, \(\beta = .39\)).

**DISCUSSION**

This investigation focused on the relation between spirituality and psychological functioning. In particular, a multidimensional measure of spirituality was used in order to analyze the possible complexity of this relation and to enable the testing of three possible explanations of the influence of spirituality on psychological functioning based on different facets of spirituality – life coherence, intrinsic values, and experiential aspects. In addition, in an attempt to differentiate between the possible influences of religion and spirituality, this study focused on individuals who identified as being secular / non-religious, used a measure of spirituality that was free from references to religious themes, and used statistical control for religiousness. Finally, this investigation was based upon a unique population – Israeli Jews – in order to test the possibility of generalizing findings found in past research focusing on predominantly North American Christian samples.

In general, the results presented here provide support for the assumed positive relation between spirituality and psychological functioning. The positive relation with Life Satisfaction and the negative relation with Depression were evident even after statistically controlling for religiousness. In particular, the results of this study also make clear the importance of adopting a multidimensional approach to spirituality in order to better understand the complex relationship between spirituality and psychological functioning. This
is apparent from the zero-order correlations between the various components of spirituality and the two measures of psychological functioning presented in Table 1. Life coherency aspects of spirituality were related to higher levels of Life Satisfaction and lower levels of Depression; the relation between the various aspects of spiritual intrinsic values and psychological functioning were mixed; the experiential aspects of spirituality were found to be related to Depression and to Life Satisfaction in a limited manner.

The complexity of the relation between the various aspects of spirituality and psychological functioning is also indicated by the partial correlations controlling for various dimensions of spirituality and by the multiple regression analyses. An integration of the results presented here show that the relation between spirituality and Depression is indeed complex. On the one hand, all three of the components of spirituality mentioned here – life coherency, experiential spiritual aspects, and intrinsic spiritual values - contributed to the prediction of Depression. However, whereas life coherency was clearly associated with lower levels of Depression, the experiential aspects of spirituality associated with the transcendent quality appeared to contribute to higher levels of Depression after controlling for other aspects of spirituality. In addition, one intrinsic value aspect of spirituality – Altruism – also demonstrated a positive contribution to Depression in conjunction with other aspects of spirituality. These apparent net suppressor effects (see Conger, 1974; Conger & Jackson, 1972; Paulhus, Robins, Trzesniewski, & Tracy, 2004) were unexpected.Suppressor effects are rather rare and often unstable. Future research is needed to help to determine if the suppressor effects uncovered here are a statistical artifact of the present study or are replicable findings necessitating more in-depth explanation.

In contrast to the relation between spirituality and Depression, the relation between spirituality and Life Satisfaction was less complex. It appears that the contributions of two aspects of spirituality are responsible for the prediction of Life Satisfaction. One aspect is an overall spiritual orientation to life. In addition, there appears to be a unique contribution to the prediction of Life Satisfaction by spiritual intrinsic values such as Idealism and Material Values. These values represent an outlook on life that sees the more mundane aspects of life more as means and less as ends. This would seem to be in line with the Jewish proverb, “Who is rich? He who rejoices in his portion, as it is written (Psalms 128:2) ‘You shall eat the fruit of the labor of your hands; you shall be happy, and it shall go well with you’ ” (Ethics of the Fathers, 4:1).3

A word of caution regarding the interpretation of the results is in order. According to Cohen’s (1988, 1992) guidelines for the social sciences, the effect size of most of the significant zero-order correlations was medium and for the partial correlations between small and medium. Regarding the regression analyses, Cohen’s (1988) $f^2$ was calculated (Depression $f^2=.43$; Life Satisfaction $f^2=.49$) and are by convention considered large. However, the semi-partial correlations for the specific dimensions of spirituality were small and only account for a third of the total explained variance. Therefore, some of these
findings may be due to chance, particularly in light of the small sample size and large number of analyses, and replication is strongly recommended.

Nevertheless, these findings demonstrate the importance of using a multi-dimensional approach in research dealing with spirituality. Research in this field using a unidimensional measure of spirituality may not be able to uncover the full complexity of the relation between spirituality and other constructs.

Koenig (2008) recently critiqued much of the research that focuses on the relationship between spirituality and mental and physical health. According to Koenig, many of the spirituality measures used in such investigations are contaminated with various facets (e.g., purpose and meaning) of the outcome measures that they are purported to predict. Due to this apparent tautology, it is not surprising that measures of spirituality based on items such as “I feel very fulfilled and satisfied with life” from the Spiritual Well-Being Scale (Paloutzian & Ellison, 1982) have been found to predict measures of life satisfaction. Koenig therefore recommended “that measures of spirituality not be used that are contaminated with items that clearly tap positive psychological, mental health, or human characteristics” (p. 354) in order to allow for a non-confounded examination of the relationships between spirituality and various outcome measures. Examination of the items on the SOI shows that they are in accordance with Koenig’s recommendation. For example, the items belonging to the Meaning and Purpose in Life subscale are representative of an individual’s cognitive attitude towards the search for meaning and purpose on life (e.g., “The search for meaning and purpose is a worthy quest”; “If one has a reason or purpose for which to live, one can bear almost any circumstance”) rather than tapping the degree to which that individual has him or herself achieved this goal.

In general, the findings presented here regarding the overall positive contribution of spirituality to psychological functioning on the basis of a sample of Israeli residents provide support for the generalization of such findings in the literature on the basis of predominantly North American samples. Despite various cultural differences between North America and Israel, the measure of spirituality developed in the U.S. demonstrated comparable levels of reliability. It would be desirable to perform confirmatory factor analysis on the measures used in order to determine measurement equivalence across cultures. Although the sample size of the present study did not allow for such analyses, future research should endeavor to establish measurement equivalence.

In an attempt to understand the unique relation between spirituality and psychological well-being independent of religion’s influence, this study was based on the responses of individuals who identified as being secular / non-religious. George et al. (2000) raises the possibility that research based on such individuals may “not generate distinct, broadly applicable measures of religiousness and spirituality” (p. 104). While not necessarily subscribing to this criticism, future research in the field of spirituality and health should include both religious and non-religious individuals which would help to clarify
such issues as the influence of religious spirituality in contrast with non-religious spirituality and of non-religious spirituality among religious individuals. On the other hand, the distinction between spirituality and religion in this study was not total. The research participants in this study all identified as being Jewish. Although all of these individuals identified as being secular/non-religious, past research has shown that such individuals do perform a substantial number of rituals (e.g., participating in a Passover Seder, fasting on Yom Kippur) associated with the Jewish faith (Kedem, 1991; Levy, Levinson, & Katz, 1993). Accordingly, it is problematic to classify these individuals as being truly non-religious. Although a single-item measure of religiousness was used in this study in order to provide further statistical control for this variable, such a measure is obviously an under-approximation of religiousness which is itself a multidimensional construct (e.g., Glock & Stark, 1965). Future research should focus on individuals who are completely non-religious, i.e., who do not identify with any religion and do not perform any religious rituals. In addition, in order to better understand the relationship between spirituality and psychological functioning, it is recommended that future research compare non-religious individuals to individuals who identify themselves as being religious and who are committed to one of the organized religions. Such a comparison would allow for a more stringent examination of the possible unique contribution of spirituality to psychological functioning over and above that of religion.

One inherent limitation of any study, and in particular in the study of such an elusive construct as spirituality, is the instrument used to measure the construct of interest. The instrument used in the present study, the Spiritual Orientation Inventory, is based on a theoretical multidimensional conceptualization of spirituality and was chosen in particular due to its distinctions between nine aspects of a spiritual orientation. However, other theory-based measures of spirituality, which were developed with a more rigorous factor analysis methodology, seem to indicate that these distinctions may be too fine. For example, Piedmont (1999) developed the Spiritual Transcendence Scale and uncovered a three-factor structure of spirituality. Spiritual Transcendence was found to be independent of personality as conceptualized by the Five-Factor Model of Personality (McCrae & Costa, 1987) and was found to have a unique contribution to a variety of outcome variables such as perceived social support and prosocial behavior over and above personality (Piedmont, 1999).

An additional limitation of the measure of spirituality used here is its restricted scope. MacDonald (2000) collected responses to 39 scales and subscales of spirituality, including the SOI, and on the basis of exploratory factor analysis identified the following five dimensions of spirituality: Cognitive Orientation Towards Spirituality (i.e., attitudes and beliefs concerning spirituality), Experiential/Phenomenological Dimension (i.e., spiritual, mystical, and transcendental experiences), Existential Well-Being (i.e., a sense of purpose and meaning in life), Paranormal Beliefs (i.e., belief in ESP, witchcraft, etc.), and Religiousness (i.e., beliefs, attitudes, and practices associated with Western-orientated religions) and constructed a corresponding measure of spirituality, the Expressions of Spirituality Inventory (ESI: MacDonald, 1997, 2000).
Subsequent research using the ESI has demonstrated the importance of aspects of spirituality other than those related to meaning and purpose in life in predicting a variety of variables related to various aspects of well-being such as boredom proneness (MacDonald & Holland, 2002a) and complex epileptic-like signs (MacDonald & Holland, 2002b). In comparison, MacDonald (2000) found that almost all of the SOI scales were identified with the Cognitive Orientation Towards Spirituality dimension of the ESI. The possible contributions of dimensions related to a wider definition of spirituality to measures of psychological functioning were therefore not tapped in the present investigation. Future research should use measures based on broader definitions of spirituality such as the ESI. Such research may uncover the possible contributions of various aspects of spirituality, other than spiritual cognitive orientations, to psychological and physical well-being.

On the other hand, it may also be fruitful to extend the research between spirituality and psychological and physical functioning to more specific measures of aspects of spirituality. In the MacDonald and Holland (2003) study, the Cognitive Orientation towards Spirituality scale, which groups together various aspects of a spiritual orientation onto one scale, was not found to contribute to the measures of psychological functioning used in that study. However, in the present study, particular scales of the SOI which provide a finer distinction between these aspects did indeed contribute to the prediction of these variables. In a similar manner, the Transcendent Dimension scale of the SOI combines varies aspects of spiritual and / or mystical experience. Research using an instrument that differentiates between various aspects of such experiences may be important in uncovering the relation between such experiences and psychological functioning. Indeed, these three approaches to spirituality may be may be seen as a continuum - differentiating between various shades of the experiential aspect of spirituality; the SOI grouping the experiential aspects together but differentiating between various cognitive components of a spiritual orientation; the ESI collapsing cognitive spiritual orientation components onto a single dimension while including other non-cognitive aspects of spirituality. It would be fruitful for future research to take this spectrum of approaches to spirituality into account when investigating the contribution of spirituality to both mental and physical health.

Notes

1 The term non-religious spirituality refers to spirituality that is not necessarily related to religion and that is applicable to non-religious individuals. This is in contrast to many references to spirituality in the literature that are inherently religious in nature, i.e. relationship with God, etc. However, non-religious spirituality is equally applicable to non-religious individuals as well as to religious individuals and is not discordant with institutionalized religion.

2 In Israeli society, as well as in social research in Israel, the Jewish population is divided up into a number of commonly accepted categories of religious identification – Ultra-religious or “Haredi”, Religious, Traditional, and Secular/Non-religious. According to data available form the Israeli Central Bureau of Statistics, in 2007 7.8% of the Israeli Jewish population identified as Ultra-Religious, 9.5% as Religious, 39.2% as Traditional, and 43.6% as Secular/Non-religious. While there are no legal or official definitions of these groups, individuals identifying as Ultra-religious are strict observers of Jewish law and custom, often live in segregated communities, are non-Zionistic and usually do not serve in the Israeli army. These individuals (males) are easily identified by
their garments (black jackets and coats) and head covering (black hats and black cloth or felt skullcaps). Individuals identifying as Religious also observe Jewish law and custom, ranging from a more strict observation to a more lenient observation, are Zionist, and are more integrated into general Israeli society. These individuals (males) are also easily identified by their head covering (knit colored skullcaps). Individuals identifying as Traditional observe many of the Jewish traditions and laws, but often in a more lenient manner. For example, many Israeli Jews who identify as Traditional will go to synagogue services on Sabbath morning, but will later drive to the beach with their families in the afternoon, a desecration of the Sabbath according to Jewish law. Finally, individuals identifying as being Secular/Non-religious do not accept Jewish law and custom as being obligatory. However, most of these individuals do perform various Jewish customs and rituals (Levy, Levinson, & Katz, 1993). Research has shown that the pattern of motivations behind the performance of religious behaviors of these individuals is different than for individuals identifying as Religious (Lazar, Kravetz, & Kedem-Freidrich, 2002). In particular, whereas one of the strongest motivations for religious behavior among Jews identifying as religious is associated with religious beliefs and commitment, this motivation was the weakest for individuals identifying as Secular/Non-religious. For this group the strongest motivation for performing religious behavior was related to various aspects of family life. Therefore, although these individuals do identify as being Jewish, they can be considered to be non-religious.

3 The basic text of the Jewish oral tradition, called the mishna, was compiled by Rabbi Yehudah HaNasi around the year 200. The mishna is divided into 63 tractates, each of which focuses on a specific area of Jewish law, e.g., prayers, tithes, the Sabbath, marriage and divorce, civil law such as contracts and damages, sacrificial rites, etc., and encompasses all aspects of life. The tractate titled Avot (Fathers), commonly called the Chapters of the Fathers or the Ethics of the Fathers is an exception. Rather than dealing with Jewish law, this tractate is a compilation of various ethical and moral teachings.

4 I would like to thank an anonymous reviewer for bringing this point to my attention.

REFERENCES


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**The Author**

*Aryeh Lazar, Ph.D.*, was born in the USA and moved to Israel in 1975 where he received his academic and professional training. He is a licensed supervisor in industrial – organizational psychology and specializes in selection systems and performance appraisal. However, his doctoral dissertation in psychology, granted by Bar Ilan University in 2000, dealt with the motivation for religious behavior, and since then his research interests have focused on the psychology of religion and spirituality. Dr. Lazar has published studies dealing with religious motivation, religious experiences and religious support. His current field of research includes religion and spirituality at the workplace.

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