The Moderating Relationship of Spirituality on Negative Life Events and Psychological Adjustment

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Abstract:
The authors used a path model to examine how spirituality moderates relationships between negative life experiences and psychological adjustment, operationalized for this study as levels of depression and anxiety. Results suggest that spirituality provides a significant moderating effect for both depression and anxiety. The moderating effect was stronger for depression than for anxiety.

Article:
Interest in spirituality by the counseling field seems apparent from the numerous discussions that have taken place in the counseling literature defining and describing the construct (Benjamin & Looby, 1998; Chandler, Holden, & Kolander, 1992; Hinterkopf, 1994; Ingersoll, 1994; Kelly, 1995). Most writers have emphasized that spirituality is a construct that, although related to religion, is a distinct phenomenon (Bergin & Jensen, 1990; Ingersoll, 1994; Kelly, 1995). For example, Kelly defined spirituality as "a personal affirmation of a transcendent connectedness in the universe" (p. 4). Conversely, religion was defined by Kelly as "the creedal, institutional, and ritual expression of spirituality" (p. 4). Despite the extensive discussion of the topic, there is a notable lack of well-designed and theoretically based studies that have examined the construct of spirituality. Much of the previous research has focused on religious involvement, religious commitment, and religious sentiments (i.e., intrinsic and extrinsic religious orientation). For example, church attendance is inversely related to the development of diagnosable mental disorders (Koenig, George, Meador, Blazer, & Dyck, 1994). Good moods, marital satisfaction, and a happy family life have all been found to correlate with religious commitment (McNamara & George, 1979). However, given the distinction made in the literature between spirituality and religion, it seems important to understand the construct of spirituality itself. Furthermore, the notable lack of research is interesting considering that spirituality is viewed as an integral component of recovery from a variety of psychological difficulties (i.e., substance abuse, gambling, sexual addiction [Earle & Earle, 1995; Le, Ingvarson, & Page, 1995]). Therefore, it seems necessary to understand the relationship between spirituality and psychological adjustment.

A review of the literature revealed only one study that specifically investigated the relationship between spirituality and psychological adjustment. Fehring, Brennan, and Keller (1987) examined the relationship between spiritual well-being and psychological mood states that are the results of life change. Using a spiritual well-being index that measured religious well-being and existential well-being, results of the study indicated that there was a strong inverse relationship between spiritual well-being and negative moods. Although not directly related to psychological adjustment, Young, Cashwell, and Woolington (1998) examined the relationships between spirituality and a variety of psychological constructs (i.e., cognitive and moral development and purpose-in-life). Results suggest that there is a relationship between spirituality and both moral development and purpose-in-life. Researchers, however, have not considered how spirituality is important for psychological adjustment or more specifically the lack of psychological symptomology. According to experts in the counseling field, depression and anxiety are the most common symptoms for which individuals seek counseling services (Hinkle, 1999; Seligman, 1986). Furthermore, episodes of depression and anxiety are often precipitated by life stress events that are perceived by the individual as overwhelming or
otherwise negative (Diagnostic and Statistical Manual of Mental Disorders, fourth edition [DSM-IV]; American Psychiatric Association, 1994). Therefore, the purpose of this study was to examine how spirituality might moderate the relationship between negative life experiences and levels of depression and anxiety. The research hypothesis was that spirituality would serve to temper the impact that stressful events have on both depression and anxiety.

To test this hypothesis, a model positing spirituality as a variable that moderates the relationship between negative life events and depression and anxiety was developed. Figure 1 provides a graphic presentation of the model examined in this study. According to Jaccard, Turrisi, and Wan (1990), a moderating causal relationship occurs when "the relationship between X and Y is moderated by a third variable Z. In other words, the nature of the relationship between X and Y varies, depending on the value of Z" (p. 7). The model posits that negative life experiences (e.g., loss of a job or relationship) directly affect each of the two outcome variables (depression and anxiety). Furthermore, spirituality is posited to moderate the relationship between negative life experiences and each of the outcome variables.

**METHOD**

**Participants**
The participants were 303 undergraduates enrolled in psychology courses at a midsize land grant university in the south. All of the participants, who volunteered for the study, completed all of the procedures. Of these, 54% (n = 165) were women, 43% (n = 130) were men, and 3% (n = 8) did not specify their sex. Furthermore, 71% (n = 216) reported their ethnicity as Caucasian, 25% (n = 77) as African American, 1% (n = 4) as Asian, 1% (n = 3) as Hispanic, and 1% (n = 3) identified their ethnicity as "other." All participants were between 18 and 29 years old.

**Instrumentation**

Human Spirituality Scale. The Human Spirituality Scale (HSS) is a 20-item, 5-point Likert-type instrument that is unique in that it was developed specifically to measure three content dimensions of spirituality. The three content dimensions of the HSS are (a) a larger context or structure in which to view one's life, (b) an awareness of life itself and other living things, and (c) a reverent compassion for the welfare of others (Wheat, 1991). Each item on the HSS is assigned a numeric value of 1 through 5 (1 = strongly disagree to 5 = strongly agree) corresponding to the Likert-type scale and a respondents total score comprises the summation of all 20 items. Items from the instrument include the following: "I actively seek a sense of purpose in my life." "I value the relationship between all living things." "It is important that we be sensitive to pain and suffering."

The development of the HSS began with the development of a table of specifications that had both content (e.g., sacredness of life, connection to life, altruism, awareness of pain and suffering) and process dimensions of spirituality (e.g., personal valuing, inner experience, behavioral expression). Content validity was determined as content coverage drawn from the table of specifications. Content relevance was determined by submitting the potential items to a panel of judges who held doctoral degrees in related fields (i.e., nursing, psychology, education). Through a series of pilot investigations, the 20 items of the HSS were developed. Scale reliability was estimated through item analysis. Each item demonstrated an item discrimination index greater than .30, and the total scale had a Cronbach's alpha of 0.89, suggesting that the scale is most reliable as a unidimensional measure of global spirituality. Cronbach's alpha for the current sample was .86. Construct validity was demonstrated in three studies (Wheat, 1991). In the first, the mean scores of members of long-standing spiritual formation groups were significantly higher than those of a reference group representing the general population. In the second, a factor analysis yielded three factors consistent with the spirituality literature. In the final study, sex differences within the sample were congruent with predictions based on the conceptual framework, with women scoring somewhat higher.

Beck Depression Inventory. The Beck Depression Inventory -- Second Edition (BDI-II; Beck, Steer, & Brown, 1996) is a 21-item self-report instrument for measuring the severity of depression in adults and adolescents aged 13 and older. The BDI-II was developed in 1994 to update the instrument to current diagnostic definitions of
depression. Content validity for the BDI-II was developed especially to assess the depressive symptoms listed as criteria for depressive disorders in the DSM-IV. To estimate the convergent validity of the BDI-II, the correlations between the Beck Depression Inventory -- Amended First Edition (BDI-IA) and BDI-II were calculated for outpatients and ranged from .84 to .93 (p < .001). An interval test-retest reliability coefficient of .93 was reported by Beck et al. (1996). Cronbach's alpha for the current sample was .88.

State-Trait Anxiety Scale. The State-Trait Anxiety Inventory (STAI Form Y-2; Spielberger, 1983) is a 20-item self-report measure. The STAI Form Y-2 was developed to measure trait anxiety (e.g., one's anxiety proneness or how anxious one generally feels). Trait anxiety is defined as "relatively stable individual differences in anxiety proneness" (Spielberger, 1983, p. 1). Trait anxiety was of interest because (a) the population was a nonclinical one, thus a measure of anxiety at a particular time would not necessarily be indicative of an individual's general functioning; and (b) negative life experiences (the independent variable) are influences that have an on-going rather than a present moment impact. Concurrent validity was established for the STAI form Y-2 through correlations with other anxiety instruments with scores ranging from .73 to .85. Spielberger, Gorsuch, and Lushene (1970) established construct validity from a study of 900 students, reporting pointbiserial correlations of .60 (men) and .73 (women). Test-retest correlations for college students ranging from .73 to .86 were reported by Spielberger (1983). Cronbach's alpha for the current sample was .92.

The Life Experiences Survey. Sarason, Johnson, and Siegel (1978) developed the Life experiences Survey (LES) as a measure of the personal impact, both positive and negative, of a variety of life stressors or life change events. The LES consists of 60 items that are ranked on a 7-point Likert-type scale ranging from extremely negative to extremely positive. Examples of events measured include marriage, breakup of a relationship, the death of a close relative, a new job, a change of residence, and academic difficulties. Respondents rank only those events that have occurred to them in the last 12 months, and ratings of the events as "negative" or "positive" is subjectively determined by the respondent. However, to address the research hypothesis for the current study, only items that were marked by participants as "negative life experiences" were examined. Because each individual selected different items (i.e., what had happened to them in the last 12 months) and because interpretations of the impact of a specific event as a positive or negative life event were determined by each respondent, a Cronbach's alpha was not run for the current sample.

**Procedure**

Participants for the study were solicited from several undergraduate psychology courses; researchers explained the nature of the study during classes at which individuals were invited to participate. Participation was completely voluntary, and no incentive was provided. Individuals who agreed to participate were asked to complete the BDI, the HSS, the STAI Form Y-2, the demographic information, and the LES.

**TABLE 1 Correlation Matrix of Study Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>1. Negative Life Experiences</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Spirituality</td>
<td>-01</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Depression</td>
<td>.39[b]</td>
<td>-.14[a]</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>4. Trait Anxiety</td>
<td>.33[b]</td>
<td>-.11</td>
<td>.68[b]</td>
<td>--</td>
</tr>
<tr>
<td><strong>a p &lt; .05.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>b p &lt; .01.</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**RESULTS**

Overall, the participants reported lower levels of depression (M = 9.48, SD = 8.26) than in previous research with psychiatric outpatient clients (Beck et al., 1996). Similarly, levels of Negative Life Experiences (M = 10.26, SD = 10.04) were lower than reported in previous research (Sarason et al., 1978). Participants had a mean score for Spirituality of 76.04 (SD = 11.59), which was comparable to previous findings (Wheat, 1991).
The mean level of anxiety for the current sample was 39.24 (SD = 11.53) on the Trait Anxiety subscale, which is consistent with previous research (Speilberger, 1983).

The zero-order correlation matrix is presented in Table 1. As expected, a moderately strong positive relationship was found between Negative Life Experiences and both Depression and Trait Anxiety. A statistically significant negative correlation was found between Spirituality and Depression. However, the relationship between Spirituality and Anxiety was nonsignificant.

To test the research hypothesis regarding the extent to which spirituality moderates the relationship between negative life events and levels of depression and anxiety, a regression with interaction terms was conducted for each of the dependent variables. Each predictor variable (Negative Life Experiences and Spirituality) was entered as a separate block, then an interactive term (Negative Life Experience x Spirituality) was added as a third block. In this kind of analysis, the extent to which the interaction term provides additional predictive information beyond the first two blocks indicates the strength of the moderating effect. That is, if the interaction term adds significantly to the prediction of the dependent variables beyond that which is predicted by the two-predictor variables examined separately, then the moderating variable (Spirituality) is indicated as moderating the relationship between negative life stressors and the outcome measure. An a priori significance level of .05 was established.

### TABLE 2 Regression With Interactive Terms for Outcome of Depression

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Depression</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Life Experiences</td>
<td>.15</td>
<td>.15</td>
<td>50.77[*]</td>
</tr>
<tr>
<td>Spirituality</td>
<td>.18</td>
<td>.03</td>
<td>7.74[*]</td>
</tr>
<tr>
<td>NLE x Spirituality</td>
<td>.25</td>
<td>.07</td>
<td>25.94[*]</td>
</tr>
<tr>
<td><strong>Anxiety</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Life Experiences</td>
<td>.11</td>
<td>.11</td>
<td>33.60[*]</td>
</tr>
<tr>
<td>Spirituality</td>
<td>.12</td>
<td>.01</td>
<td>5.57[*]</td>
</tr>
<tr>
<td>NLE x Spirituality</td>
<td>.16</td>
<td>.04</td>
<td>11.22[*]</td>
</tr>
</tbody>
</table>

Note. NLE x Spirituality = the interactive effect of Negative Life Experiences and Spirituality.

* p < .05.
Table 2 provides the results of the analysis conducted with Depression as the outcome variable. Negative Life Experiences accounted for 15% of the variance in depression ($R^2 = .15$, $F = 50.77$, $p < .05$). With Negative Life Experiences already in the equation as a predictor, Spirituality predicted an additional 3% of the variance in Depression ($R^2 = .18$, $F = 7.74$, $p < .05$). With both Negative Life Experiences and Spirituality already in the equation as a predictor, the interaction term (Negative Life Experiences x Spirituality) predicted an additional 7% of the variance in Depression ($R^2 = .25$, $R^2_{\text{change}} = .07$, $F = 25.94$, $p < .05$). Because of the negative bivariate correlation between Spirituality and Depression, these results suggest that a greater orientation to spirituality weakens the impact of negative life experiences on depressive symptoms.

Table 2 also provides the results of the regression analysis performed with Anxiety as the outcome variable. Negative Life Experiences accounted for 11% of the variance in Anxiety ($R^2 = .11$, $F = 33.60$, $p < .05$). With Negative Life Experiences already in the equation, Spirituality predicted an additional 1% of the variance in Anxiety ($R^2 = .12$, $R^2_{\text{change}} = .01$, $F = 5.57$, $p < .05$). With both Negative Life Experiences and Spirituality already in the equation, the interactive term (Negative Life Experience x Spirituality) predicted an additional 4% of the variance in Anxiety ($R^2 = .16$, $R^2_{\text{change}} = .04$, $F = 11.22$, $p < .05$). Again, because of the negative bivariate correlation between Spirituality and Anxiety, these results suggest that a greater orientation to spirituality weakens the effect of negative life experiences on the onset of anxiety. Overall, the tested model predicted more variance in Depression (25%) than Anxiety (16%). Although the moderating effect of Spirituality was statistically significant with both outcome variables, Spirituality provided a stronger moderating effect for Depression than for Anxiety.

**DISCUSSION**

Overall, results of this study support the hypothesis that spirituality moderates the relationship between negative life experiences and levels of depression and anxiety. These results support the findings of Fehring et al. (1987) that spirituality seems to provide a buffer from stressful life events that are perceived as negative. The HSS, a relatively untested instrument, was developed specifically to measure dimensions of spirituality as a unique construct. Scores from this sample were comparable to HSS scores from previous research (Wheat, 1991; Young et al., 1998), adding credence to the use of the HSS to evaluate individual spirituality unrelated to religious practice.

Support of the research hypothesis in the current study is interesting for two reasons. First, if future researchers report similar findings regarding the usefulness of spirituality in assisting individuals to maintain a healthy psychological adjustment in the face of negative life events, then the efficacy of intentionally integrating spirituality into counseling practice is indicated. Second, the challenge facing future researchers includes how to develop counseling theory and technique that can facilitate the enhancement of a sense of spirituality within a client. The issue of theory and technique is especially timely given that 85% of counselors report that they are spiritually oriented as compared with 68% of other mental health practitioners (Kelly, 1995). These data suggest that an opportunity exists for the counseling field to provide leadership in this area. However, recent findings (Young, Frame, & Cashwell, 1999) indicated that many counselors are interested in addressing spirituality as part of their practice yet report a lack of training and understanding of both theory and technique for working with spirituality in clinical practice.

To properly interpret the results of this study, it is also important to note limitations of the research. First, the participants were a convenience sample of traditional age college undergraduate students (18-29 years). Replication of this study with a more heterogeneous sample would facilitate our understanding of how individuals of varying ages and levels of psychosocial development react to negative life events, when spirituality is and is not a central value. Second, this sample generally reported active participation in Christian religious activities. Again, a sample that is more heterogeneous would assist in understanding how spirituality relates to the adjustment of less religious individuals.
CONCLUSION
The purpose of this study was to test a moderating model to examine how spirituality served as a buffer against the undesirable effects of stressful life events. Preliminary support was found for the moderating effect of spirituality among an adult population, particularly in providing protection against depression. Although further research is needed, findings seem to indicate that spirituality as a construct has an important relationship to psychological adjustment and, therefore, to the clinical work of counselors.

CHART: Figure 1. Hypothesized Path Model of Spirituality as a Moderating Factor in the Influence of Negative Life Experiences on Depression and Anxiety

REFERENCES