A Lonely Search?  
Risk for Depression When Spirituality Exceeds Religiosity  
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Abstract: This study clarified longitudinal relations of spirituality and religiosity with depression. Spirituality's potential emphasis on internal (e.g., intrapsychic search for meaning) versus religiosity's potential emphasis on external (e.g., engagement in socially-sanctioned belief systems) processes may parallel depression-linked cognitive-behavioral phenomena (e.g., rumination and loneliness) conceptually. Thus, this study tested the hypothesis that greater spirituality than religiosity, separate from the overall level of spirituality and religiosity, predicts longitudinal increases in depression. A national sample of midlife adults completed diagnostic interviews and questionnaires of spiritual and religious intensity up to three times over 18 years. In time-lagged multilevel models, overall spirituality plus religiosity did not predict depression. However, in support of the hypothesis, greater spirituality than religiosity significantly predicted subsequent increases in depressive symptoms and risk for major depressive disorder (odds ratio = 1.34). If replicated, the relative balance of spirituality and religiosity may inform depression assessment and prevention efforts.

Key Words: Spirituality, religiosity, depression, risk factor, longitudinal

Relations of spirituality and religiosity with depression are complex and incompletely understood. For example, previous research suggests that positive spiritual or religious engagement (e.g., feelings of hope, thankfulness, meaning in life, participation in a community) predicts less depression, whereas negative spiritual or religious engagement (e.g., questioning, struggles, perceived insecure relationship with God) predicts increased depression (Dew et al., 2008; Dein, 2013; Abu-Raiya et al., 2016; Mihaljevic et al., 2016). However, measures of spirituality and religiosity often contain words marking positive emotionality (e.g., joyful, inspired, hopeful, strong) or negative emotionality (e.g., afraid, angry, ashamed, guilty) that are central to depression symptoms and diagnoses (Watson, 2000; Watson et al., 1988).

Consequently, measures of religiosity and spirituality that contain emotional words may spuriously inflate relations with depression. For example, in a US national sample, a general measure of religiosity was largely unrelated to depression, but a measure of religious thankfulness was a relatively strong predictor of (low) depression (Kendler et al., 2003). One purpose of the current study was to test prediction of depression from neutrally worded measures of spirituality and religiosity (i.e., questionnaire items without positive or negative emotional words). The current measures tapped intensity or personal importance of spirituality and religiosity (Idler et al., 2003), rather than the emotional valence of spiritual or religious experiences (cf. Yik et al., 2011).

A second issue concerns differences in spirituality and religiosity. Because spirituality and religiosity overlap conceptually and empirically (Saucier and Skrzyzipska, 2006; Ammerman, 2013), they are often investigated using blended measures (Ironson et al., 2002; Exline et al., 2014). Nonetheless, the constructs are not synonymous. In particular, spirituality often emphasizes internal (e.g., intrapsychic, contemplative) processes or experiences, whereas religiosity may be more externally observable (e.g., interpersonal, institutional; Saucier and Skrzyzipska, 2006; Greenfield et al., 2009; Hastings, 2016). Thus, spirituality with commensurate religiosity may signal multifaceted (i.e., internal and external) engagement in a formalized belief system.

In contrast, spirituality that exceeds religiosity may reflect a search for meaning with evolving or fluid beliefs and less engagement in socially sanctioned patterns of behavior. One part of this range is captured by the popular phrase “spiritual but not religious” (Saucier and Skrzyzipska, 2006; Ammerman, 2013). Conceptual analysis suggests that spirituality that exceeds religiosity may share intrapsychic and behavioral processes with depression. For example, rumination refers to a repetitive internal search for answers characteristic of depression (e.g., “why do I feel so sad?”; Olatunji et al., 2013) and is an important treatment target (Teissmann et al., 2014). Moreover, loneliness is a subjective sense of social isolation and detachment often present in depression (Mahon et al., 2006; Cacioppo et al., 2015) that may be treated through changes in social cognition (Masi et al., 2011). Conceptually, similarities between rumination and loneliness include more internal and less external engagement, similar to spirituality that exceeds religiosity (cf. Pyszczynski and Greenberg, 1987).

In this context, the current study tested relations of neutrally worded measures of spirituality and religiosity with depression in a national sample of adults assessed at three times over 18 years. In particular, the hypothesis was that greater spirituality than religiosity, separate from the overall level of spirituality and religiosity, predicts longitudinal increases in depression.

METHODS

Participants and Procedure
Data were collected in three waves in years 1994–1995, 2004–2006, and 2013–2014 in the Midlife Development in the United States Survey (Ryff et al., 2016). Community-dwelling, English-speaking adults, aged 25 to 74 years, residing in the coterminous United States, were eligible to enter the study. Wave 1 participants (n = 7108; mean age, 46.4 years; 51.7% women, 90.7% of white race/ethnicity) were recruited via national random digit dialing (n = 3487), a sample of their siblings (n = 950), a national twin database (n = 1914), and random digit dialing in metropolitan areas (n = 757). At wave 1, participants' religious preferences were 85.9% Christian (58.8% Protestant, 27.2% Catholic), 2.4% Jewish, 0.3% Buddhist, 0.2% Hindu, 0.2% Muslim, 1.7% other, 7.0% none, and 2.2% atheist or agnostic. At waves 2 (n = 4963) and 3 (n = 3294), researchers attempted to reassess all living...
participants from the previous wave. Participants completed structured interviews and questionnaires.

Measures

Depressive Symptoms and Diagnosis

The Composite International Interview short-form (Kessler et al., 1998) assessed criteria for major depressive disorder (MDD; American Psychiatric Association, 1987) over the past year. Participants with 2 weeks of depressed mood and/or anhedonia completed assessment of six additional symptoms (e.g., appetite changes, fatigue, and thoughts of death). This interview yielded a 0 to 7 scale of depressive symptoms, on which scores of 4 or higher defined MDD. The reliability of this interview has been good in past research (Kessler et al., 1998).

Spirituality and Religiosity

Items without positive or negative emotional words were selected to measure spirituality and religiosity in parallel. Participants rated two spirituality (“How spiritual are you?”; “How important is spirituality in your life?”) and religiosity (“How religious are you?”; “How important is religion in your life?”) items on a scale from 1 (not at all) to 4 (very). Averages of the relevant items formed the spirituality and religiosity scales, which demonstrated high internal consistency reliability (e.g., alpha coefficients of 0.91 and 0.89 at survey wave 1, respectively).

Statistical Analyses

Hypotheses were tested with time-lagged multilevel models using maximum likelihood estimation. Models were linear (depressive symptoms) or logistic (MDD diagnostic status). In each model, the outcome variable at the target survey wave was predicted from the fixed effects of depressive symptoms at the previous survey wave plus other predictors of interest at the previous survey wave. Models controlled for missing data within families (some participants were siblings). The multilevel models allowed retention of cases with some missing outcome data (e.g., due to attrition) to produce unbiased results when data were missing at random or due to processes captured by predictors (e.g., spirituality or religiosity; Schafer and Graham, 2002). Models were weighted using age (decade ranges from 25 to ≥75 years), sex (female, male), and race (white, non-white) distributions from the 2015 US Current Population Survey (US Census Bureau, 2015).

Results

Descriptive statistics for study variables appear in Table 1. On average, participants reported moderately high levels of spirituality and religiosity (means of about 3 on the 1–4 scale) and few depressive symptoms (means of roughly 1 on the 0–7 scale). Spirituality and religiosity were moderately highly correlated (r = 0.61 among observations available for prediction models)—participants who reported greater spirituality tended to report greater religiosity and vice versa.

Because statistical models with substantially correlated predictors often yield unstable results, and moreover, the hypothesis concerned the relative balance of spirituality and religiosity, these variables were transformed. In particular, the sum (spirituality + religiosity) and difference (spirituality − religiosity) contained the same total information as the two original variables (canonical correlation = 1.0). However, unlike the original variables that were substantially correlated, the sum (overall level) and the difference (relative level) of spirituality and religiosity were largely independent (r = −0.06).

Models predicting depressive symptoms and MDD controlled depressive symptoms from the previous survey wave, plus age, sex, and ethnicity (Table 2). Thus, these models tested changes in depression independent of basic demographic influences. History of depressive symptoms, younger age, and female sex predicted subsequent depression, consistent with past research. The transformed variables were used to test the hypothesis that greater spirituality relative to religiosity predicts depression (Table 2, Model 1). Spirituality + religiosity did not predict change in depressive symptoms significantly, whereas a larger spirituality − religiosity difference predicted subsequent increases in depressive symptoms.

To clarify the primary finding's clinical relevance, the spirituality − religiosity difference was dichotomized to predict MDD. Spirituality exceeded religiosity in 26.5% of observations, whereas religiosity was

<table>
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<th>Variable</th>
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<th>Mean</th>
<th>SD</th>
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<tr>
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<tr>
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</table>

Note. N = 6295 midlife adults who completed assessments at three survey waves over approximately 18 years. The lag between the target and previous survey waves was approximately 9 years. Data were analyzed in linear (model 1) or logistic (model 2) multilevel models. Intercepts are not shown.
the same or higher than spirituality in 73.5% of observations in the prediction models. Greater spirituality than religiosity was slightly more common among women (27.6%) than men (25.2%), among persons of white (26.6%) than nonwhite (25.2%) ethnicities, and among younger (28.7%) than older (24.3%) participants based on a median split at age 49 years. Controlling previous depression symptoms and demographics, the odds of MDD were 34.2% higher (odds ratio = 1.342) when spirituality exceeded religiosity during the previous survey wave (Table 2, Model 2).

**CONCLUSIONS**

Adults may be at risk for increases in depressive symptoms and MDD when their spirituality exceeds religiosity, regardless of overall spiritual and religious intensity. If this finding is replicated, testing possible risk mechanisms such as rumination and loneliness would inform preventive efforts for depression.

**DISCLOSURE**

The author is a paid reviewer for UpToDate.

**REFERENCES**


