Soc Indic Res (2010) 98:501–517
DOI 10.1007/s11205-009-9553-3

Spiritual Struggles and Psychological Distress: Is There a Dark Side of Religion?

Christopher G. Ellison · Jinwoo Lee

Accepted: 3 December 2009 / Published online: 27 December 2009

Abstract A growing literature examines the correlates and sequelae of spiritual struggles. Particular attention has been focused on three specific types of such struggles: (a) divine, or troubled relationships with God; (b) interpersonal, or negative social encounters in religious settings; and (c) intrapsychic, or chronic religious doubting. To date, however, this literature has focused primarily on one or another type, leaving open the possibility that these are highly correlated and may tap a single, underlying dimension. Further, because studies have relied mostly on small, specialized samples, it is not clear whether the associations between spiritual struggles and psychological functioning vary across key subgroups in the US population. Using data from the 1998 NORC General Social Survey we address these issues. Findings reveal strong and independent associations between each type of spiritual struggle and psychological distress, and they also show that these patterns are robust across most population subgroups, except for variations by age and marital status. Implications, study limitations, and directions for further research are identified.

Keywords Mental health · Religion · Spirituality · Spiritual struggle · Doubt · Negative interaction

1 Introduction

Over the past two decades, a burgeoning body of research has documented important links between religiousness and health (Koenig et al. 2001). Although work in this area remains highly controversial in some quarters (e.g., Sloan 2006), the weight of the evidence indicates that aspects of religious participation and commitment have salutary effects on a broad array of health outcomes, ranging from mental health (e.g., depression, subjective well-being) to physical health (e.g., hypertension, physical mobility), and even to mortality risk (Ellison and Levin 1998; George et al. 2002; Smith et al. 2003).

C. G. Ellison · J. Lee (✉)
The University of Texas at Austin, Austin, TX, USA
e-mail: jwlee@prc.utexas.edu

Moreover, although most work on religion and health has focused on salutary effects on health, investigators have increasingly pursued a more balanced approach, noting that religiousness may have both costs and benefits for individual well-being. Indeed, there is growing evidence that certain facets of religious engagement –often termed "spiritual struggles"—may undermine health and well-being (Exline 2002; Exline and Rose 2005; Pargament 2002). In one review of this area, Pargament and associates (2005) define spiritual struggles as "efforts to conserve or transform a spirituality that has been threatened or harmed" (247). Recent work in this tradition has highlighted three types of spiritual struggles: (a) divine, or troubled relationships with God; (b) interpersonal, or negative encounters with coreligionists; and (c) intrapsychic, or struggles with chronic religious doubting.

Despite the growing interest in these phenomena, few studies have examined the correlations among multiple forms of spiritual struggles, or their independent or additive effects on health and well-being. Moreover, with few exceptions (e.g., McConnell et al. 2006), research on spiritual struggles has focused on small, nonprobability samples, including many specialized clinical samples. Although there is much to be learned from such research, two important issues remain unresolved: (a) whether observed links between spiritual struggles and health outcomes are generalizable to the broader community-dwelling population, and (b) whether these associations are robust across various major population subgroups, i.e., by gender, race, age, and socioeconomic status. Our study addresses these significant gaps in the literature by outlining the major theoretical arguments linking spiritual struggles and psychological distress, and by testing relevant hypotheses using data on a large nationwide sample of US adults, the 1998 NORC General Social Survey. Results are discussed in terms of their implications for future work linking religion, and particularly spiritual struggles, with health behaviors and outcomes.

2 Theoretical and Empirical Background

For several decades, social scientists have recognized the complex, multidimensional character of religion, and a long tradition of research has focused on strategies for measuring individual-level variations in these diverse domains (Hill and Pargament 2003). This work has paid particular dividends in the area of religion and health; improved measurement of health-relevant aspects of religious involvement –e.g., congregational support, coping practices, meaning, etc.—has paved the way for significant advances in our understanding of "the religion-health connection" (Idler et al. 2003; Krause 2008; Pargament et al. 2000). Although most of this work has centered on salutary or desirable health effects, skeptics have long maintained that certain manifestations of religion may impair mental and physical well-being (e.g., Ellis 1962). Within the past decade, an empirical literature on correlates and sequelae of spiritual struggles has flourished (Exline and Rose 2005; Pargament et al. 2005). The available data suggest that spiritual struggles are less common than more positive manifestations of religiousness, such as positive religious coping (Idler et al. 2003; Meisenhelder and Marcum 2004), although it is believed that they surface more often among clinical samples as compared with samples of community-dwelling persons (Fitchett et al. 2004).

2.1 Divine Struggles: Troubled Relationships with God

Religion is often experienced and portrayed as a source of solace and comfort. There is ample evidence that individuals can derive reassurance, guidance, strength, and hope from

the establishment of a personal connection with a (real or perceived) divine other. Indeed, perhaps especially within the Christian tradition, individuals are exhorted to cultivate an intimate relationship with God, who is widely regarded as benevolent, loving, forgiving, and actively engaged in the lives of humans. Recent directions in the psychology of religion have drawn on insights from attachment theory, depicting God as an ideal attachment figure. Studies conducted within this tradition reveal that individuals with a secure attachment to God enjoy significantly lower levels of psychopathology and higher levels of psychosocial well-being (e.g., self-esteem, mastery, satisfaction) than other persons (Kirkpatrick 2004). Moreover, individuals who can access this relationship under conditions of high stress, and who actively engage God in solving problems and managing the negative emotions that often result from such difficulties, tend to reap important mental and physical health benefits from such positive religious coping strategies (Pargament 1997; Pargament et al. 1988, 1998).

However, many people experience their relationship(s) with God in more troubling, less satisfying ways. For them, God may seem distant and unresponsive to their entreaties, or even vengeful and punitive. These perceptions may be especially acute among persons who are facing stressful or traumatic conditions. Consequently, they may experience feelings of disappointment, and may question whether God cares, or whether God is powerful enough to help, or whether God exists at all. Alternatively, individuals may wonder whether God is judging them for their sinfulness or lack of spirituality. Thus, some persons may feel anger toward God for abandoning them, or for punishing them by causing challenges, crises, or discomfort. Empirical work on the nature of individuals' troubled relationships with God, and their health effects, has been driven by the seminal work of Pargament (1997) and his colleagues. Although early analyses of maladaptive religious coping efforts concentrated on the deleterious effects of passive (or deferential) forms of religious coping (Pargament et al. 1988), subsequent studies have uncovered many ways in which individuals may experience troubled relationships with God, and have shown that these can lead to an array of maladaptive religious coping approaches (Pargament et al. 1998, 2000).

A burgeoning empirical literature has documented numerous negative health consequences of Divine struggles and the flawed coping strategies that can result from them. For example, one meta-analysis of 49 empirical studies showed that such spiritual struggle and the attendant negative religious coping practices are consistently linked with anxiety and negative affect (Ano and Vasconcelles 2005). Another meta-analysis of more than 100 studies also revealed that this form of spiritual struggle is positively associated with depressive symptoms (Smith et al. 2003). Specific studies have found that divine struggle is correlated with: (a) symptoms of depression and suicidality, anxiety, and low self-esteem among college students and clinical samples (Exline et al. 1999; Exline et al. 2000); (b) distress and symptoms of post-traumatic stress disorder (PTSD) among victims of the 1993 Midwest floods and members of churches located near the site of the Oklahoma City bombing (Pargament et al. 1994; Pargament et al. 1998; Smith et al. 2000); (c) higher levels of anxiety, phobic anxiety, depression, paranoid ideation, obsessive-compulsive disorder, and somatization in an online national sample of adults (McConnell et al. 2006); (d) greater depression, higher perceived burden, and lower sense of meaning and purpose among samples of Alzheimers and hospice caregivers (Mickley et al. 1998; Shah et al. 2001); (e) slower rates of recovery among medical rehabilitation patients (Fitchett et al. 1999); and (f) poorer physical health and increased mortality risk in medically-ill older patients (Pargament et al. 2001, 2004). This body of theory and evidence provides the basis for our first study hypothesis:

H1 Troubled relationships with God will be positively associated with psychological distress.

2.2 Interpersonal Struggles: Negative Interaction in Religious Settings

Although recent studies have emphasized the role of religious groups in fostering supportive networks, not all interactions that occur within religious settings are pleasant. To the contrary, some encounters within congregations are fraught with tension and conflict (Becker et al. 1993). These negative interactions may stem from a number of causes. For example, churches can be what Coser (1974) termed "greedy institutions," demanding high levels of time, energy, money, and allegiance, in some cases perhaps straining members' commitments to family, work, or other activities. When these real or perceived demands tax the ability of individuals to respond, persons under stress can experience negative emotions (Krause et al. 1998). In addition, religious communities often attempt to guide the behavioral choices and lifestyles of their members, and those who deviate from normative conduct can be the focus of informal social sanctions, in the form of gossip, criticism, or even ostracism. These communities can also be the sites of mundane bickering, jealousy, and other egocentric behavior, of the kind that can occur in any other social setting (Krause et al. 2000). Further, congregations can give rise to lasting disagreements over more substantial matters, including (but not restricted to): (a) theological rifts; (b) disputes over political issues, such as war, social justice, or the church's position on homosexuality; (c) attitudes toward the minister; (d) administrative matters, such as the use of facilities, or financial affairs; and many other domains (Becker 1999; Becker et al. 1993; Hartman 1997).

Research on the mental and physical health correlates and sequelae of unpleasant contacts in secular settings has underscored the deleterious consequences of such encounters. Indeed, studies have concluded that the harmful effects of negative interactions may be proportionally greater than the salutary influence of positive encounters (Okun and Keith 1998; Schuster et al. 1990). This may be true because broad social norms lead individuals to expect that most encounters will be pleasant, or at least civil. Overtly unpleasant or hostile interactions are unexpected and counter-normative, and therefore they can be emotionally jolting when they occur (Rook 1984; Rook and Pietromonaco 1987). Negative interactions may lead individuals to question their own behavior (e.g., what did I do to deserve this treatment?), and their motives and identities (e.g., am I a bad person?). Moreover, studies have shown that stressors are more prone to have acute undesirable psychosocial consequences when they challenge or threaten roles that are highly valued (Thoits 1991). For members of religious communities, religious roles and moral standing may be especially salient, and for that reason negative interactions with coreligionists may be particularly likely to elicit feelings of anger, anxiety, and depression (Krause et al. 1998).

Although researchers have studied negative interaction in secular contexts in some detail, investigations of this phenomenon within religious congregations have surfaced only recently. Analyzing cross-sectional data from a nationwide survey of Presbyterians, Krause and colleagues (1998) found that negative interactions in church were linked with psychological well-being, and that the magnitude of this association increased with the intensity of formal religious roles –i.e., negative interactions seemed to take a greater toll on well-being among clergy and church elders, as compared with rank-and-file members. Longitudinal data on Presbyterians reveals that negative encounters within the congregation predict increases in feelings of distress over the ensuing 21-month study period (Ellison et al. 2009). In a nationwide sample of churchgoers, Krause and Wulff (2005)

found that negative interaction in the church is also associated with less favorable assessments of physical health. Finally, Krause (2003a) showed that negative interaction with a clergy member (i.e., pastor, minister, priest) is inversely linked with self-esteem (i.e., feelings of self-worth) among older adults. Taken together, this prior work suggests a second hypothesis:

H2 Negative interaction in religious settings will be positively associated with psychological distress.

2.3 Intrapsychic Struggles: Chronic Religious Doubting

Yet a third type of spiritual struggle involves chronic religious doubting (Exline 2002; Hunsberger et al. 1993, 2002; Krause and Ellison 2009). Doubts or nagging reservations about matters of faith can emerge from numerous causes, including the problem of evil, as believers struggle to understand why bad things happen to good people. Many persons also grapple with challenges posed by scientific developments, as well as a host of other issues concerning religious doctrines, institutions, and practices (Hecht 2003). To be sure, some prominent theologians (e.g., Paul Tillich) and developmental scholars (e.g., James Fowler) have argued that doubts can play a constructive role, leading to spiritual growth and maturation of faith (Krause et al. 1999). However, a growing body of evidence links unresolved doubts with a range of negative mental and physical health outcomes (Ellison 1991; Galek et al. 2007; Krause 2006; Krause and Ellison 2009; Krause et al. 1999; Krause and Wulff 2004).

This may be the case for several reasons. First, individuals facing chronic doubts are deprived of a potentially valuable personal resource than can facilitate health and well-being. Coherent sets of religious beliefs can shape fundamental assumptions about the world and one's place within it. Such plausibility structures can provide an anchor or organizing principle via which one conducts routine affairs, defines roles and performs responsibilities, and nurtures relationships. Thus, religious meaning systems may provide the toolkits with which individuals make sense of daily events, major life changes, and traumatic crises (Berger 1967; Ellison 1991; Krause 2003b).

In addition, chronic doubts may be experienced as stressors in their own right. A long tradition of Christian teaching excoriates persons who harbor doubts about their faith, and there are also scirptural injunctions against doubting (Krause et al. 1999). Clearly significant, chronic religious doubting is non-normative within many faith communities, and especially among active church members. For this reason, individuals who nevertheless experience such nagging intrapsychic struggles may be caught in a particularly difficult bind: They may encounter feelings of guilt and remorse over their uncertainty, and might even worry about divine judgment of their tepid faith. At the same time, they may also fear the negative reactions of church members and other believers, and therefore may be reluctant to discuss their doubts openly. By remaining silent about their flagging faith, doubters are deprived of whatever informal social support might be available from other believers who have also wrestled with spiritual questions. Consequently, religious doubting can be an especially lonely and painful form of spiritual struggle (Krause et al. 1999).

Several studies have addressed the links between chronic religious doubts and health-related outcomes. In one of the earliest works in this area, Ellison (1991) showed that the absence of doubts –which he characterized as "existential certainty"—was positively associated with life satisfaction and personal happiness in a cross-sectional probability sample of US adults. Several subsequent cross-sectional studies also linked religious doubts

with elevated levels of depression and distress (Krause et al. 1999), as well as other emotional disorders such as anxiety, phobia, paranoia, and hostility (Galek et al. 2007). Religious doubt has been shown to predict increases in psychological distress in at least one prospective study of older adults (Krause 2006a), and has also been linked with satisfaction with physical health, as well as psychological well-being (Krause and Wulff 2004). Several studies in this vein have theorized that the relationships between religious doubting and health (particularly mental health) outcomes varies by age, with adults becoming less prone to doubt, and more adept at managing the doubts they do experience, as they age. Empirical findings have consistently supported these arguments (Ellison 1991; Galek et al. 2007; Krause et al. 1999). The foregoing discussion leads to a third and final study hypothesis:

H3 Chronic religious doubting will be positively associated with psychological distress.

Although these issues have been investigated in a growing body of literature, several questions remain to be resolved. First, it is not clear whether these three dimensions or domains of spiritual struggle –divine, interpersonal, and intrapsychic—have independent (unique) associations with psychological distress or well-being. Most studies in this area have considered only a single facet of spiritual struggle and its correlates. Second, because most studies in this area have been based on small, non-probability samples, it is unclear whether their findings are generalizable to the broader population of US adults as a whole. Third, few previous works have explored subgroup variations in the links between spiritual struggles and distress. Thus, it is unclear whether these patterns differ by gender, race/ethnicity, age, socioeconomic status, or marital status. The remainder of this study designs and executes a study that addresses each of these significant issues.

3 Data

To examine these issues, we analyze data from the General Social Survey (GSS; Davis et al. 2008), a nationally representative cross-sectional survey of adults residing in the contiguous (lower 48) United States conducted by the National Opinion Research Center. The GSS was conducted annually between 1972 and 1994 (except for 1979, 1981, and 1992), and has been conducted biennially (in even-numbered years) since 1994. The 1998 GSS offers a rare opportunity to explore these issues because it includes (a) a mini-module of items tapping health-relevant aspects of religiousness and spirituality, sponsored by the Fetzer Institute and the National Institute on Aging (Idler et al. 2003), as well as other items on health and religion, and a wealth of information on the socio-demographic characteristics of individual respondents. Although the 1998 GSS interviewed a total of 2,832 respondents, the survey implemented a split-ballot design, in which only a limited number of core (mostly sociodemographic) items are asked of all respondents. The mini-module on religion, spirituality, and health, from which a number of our study items were taken, was included on approximately one-half of the 1998 interviews ($n = 1{,}445$).

4 Measures

4.1 Dependent Variable

Psychological distress is measured with an index developed for this purpose by Kessler et al. (2002). This index is based on responses to the following six items: During the past

30 days, how much of the time did you feel … (a) so sad nothing could cheer you up; (b) nervous; (c) restless or fidgety; (d) hopeless; (e) that everything was an effort; and (f) worthless. Each item was scored ranging from 1 = none of the time to 5 = all of the time; scores were summed and then averaged across the number of items for which valid responses were available (alpha = .84).

4.2 Independent Variables

Three aspects of spiritual struggle are examined in this study. First, divine struggles, indicating a strained or troubled relationship with God, are assessed with two items drawn from Pargament's Brief RCOPE (Pargament et al. 2000). Respondents were asked to what extent, when coping with difficult events and conditions, they have the following experiences: (a) I feel that God is punishing me for my sins or lack of spirituality. (b) I wonder whether God has abandoned me. Each item was scored ranging from 1 = not at all to 4 = a great deal, and our measure is based on the mean score for these items (alpha = .55, $r = .36$, $p < .001$). Second, interpersonal struggles, i.e., negative interactions in religious settings, are gauged via responses to the following two items, which have been employed in prior work in this area (Idler et al. 2003; Krause 2008): (a) How often do the people in your congregation make too many demands on you? (b) How often are the people in your congregation critical of you and the things you do? Responses to each item ranged from 1 = never to 4 = very often, and our measure is the mean score on these items (alpha = .67, $r = .47$, $p < .001$). Third, we also measure intrapsychic spiritual struggles, or chronic religious doubting. Respondents were asked: How often have these problems caused doubts about your religious faith … Specific problems included (a) evil in the world and (b) personal pain or suffering. These items are among a larger set that have been used in several previous studies of this topic (Galek et al. 2007; Krause et al. 1999). Answers ranged from 1 = never to 3 = often, and our measure is based on the mean score on these items (alpha = .75, $r = .60$, $p < .001$).

4.3 Covariates

Our multivariate models also include controls for the following sociodemographic variables: gender (1 = female, 0 = male); age (measured in years); marital status (1 = currently married, 0 = all others); and education (years completed). We also include adjustments for family income, measured as an ordinal variable, on which 1 = less than $1 K/year, and 23 = at least $110 K/year. Race is measured with a dummy variable (1 = African American, 0 = white); because numbers of other ethnic minority populations (i.e., Latino, Asian American, Native American, etc.) were too small to permit meaningful analysis, they were dropped from these analyses. Finally, to insure that estimated net effects of spiritual struggles do not result from individual variations in overall religiousness, we include controls for (a) self-reported frequency of attendance at religious services, an ordinal measure ranging from 0 = never to 8 = more than once a week, (b) frequency of private prayer (i.e., in places other than church or synagogue), and (c) frequency of meditation, ordinal measures each of which ranges from 1 = rarely or never to 8 = several times a day. Because the items tapping negative congregational interaction were not asked of persons who attended services less than a few times per year, we include a dummy

variable to identify persons who attend less often than this (1 = attends rarely or never, 0 = all others).[1]

5 Results

Means and standard deviations on all variables used in our analyses are presented in Table 1.[2] Several patterns are noteworthy. As is often the case in samples of the community-dwelling population, average levels of psychological distress are relatively low, roughly 1.90 on a scale of 1–5. This is also true of levels of each type of spiritual struggle: intrapsychic (religious doubts), divine (troubled relations with God), and interpersonal (negative interaction). On average, GSS respondents reported attending services slightly less than once per month (3.73),[3] a figure that includes approximately 40% of respondents who rarely or never attended services. The average respondent also prayed more than once per week (5.57), and engages in some form of meditation a few times per month (3.37). A majority of respondents (56%) are female, while 14% are African American and nearly half (47%) are married. The average GSS respondent is approximately 45 years old, has some college education (13.28 years completed), and reported a family income (in 1997) of roughly $30 K.

As we noted earlier, multiple forms of spiritual struggle have rarely been incorporated into a single study. Thus, skeptical readers may be concerned about the degree of overlap among the three facets of spiritual struggle considered here, which could lead to biased

[1] Readers may be surprised that our models do not include measure(s) of social integration or support. As noted in our description of the GSS data, since 1987 NORC General Social Survey has utilized a "split-ballot" interview design, in which (a) a relatively small core set of items are asked of all GSS respondents, and (b) the other items are asked of a randomly selected subset of respondents, usually roughly two-third of the total sample. In practice, this means that combining variables from several different "ballots" can result in quite small sample sizes, and indeed, this was the case when we included indicator(s) of social integration into the models presented in Table 3. However, in ancillary analyses (not shown, but available upon request), we did explore correlations between each of the spiritual struggle variables and a three-item index tapping the frequency with which respondents reported socializing with (a) neighbors, (b) friends, and (c) relatives. This indicator of secular social participation was virtually uncorrelated (i.e., $r < .05$) with each of the spiritual struggle variables, which suggests that it is unlikely to confound the associations between spiritual struggles and feelings of distress.

[2] The issue of missing data deserves comment. Briefly most missing values occur on items tapping spiritual struggles or other aspects of religious involvement, or on the measure of psychological distress. These missing cases are handled via listwise deletion, which accounts for nearly all of the 20% case loss (298 of the initial 1,445). A smaller number (roughly 11%) of respondents failed to provide useable information on the family income item. To retain those cases in the analysis sample, we followed the longstanding practice advocated by Cohen and his associates (2002), substituting a fixed value (i.e., the valid sample mean on the variable) for the missing data, and then adding a dummy variable flag to identify those cases that were initially missing. Like the missing data flag for non-attendance at religious services, this dummy variable was never a significant predictor of psychological distress, and thus it was dropped from the final regression models. Extensive analyses were conducted to assess any potential biases associated with this approach and none were found.

[3] Although our study does not focus on denominational differences in distress, spiritual struggles, or the relationships between these constructs, readers may be interested in the religious composition of the GSS (sub)sample. Based on the classificatory scheme proposed by Steensland and his associates (2000), our 1,147 respondents consisted of approximately 29% conservative (i.e., fundamentalist, evangelical, and charismatic) Protestants, 27% Catholics, 18% mainline (i.e., moderate and liberal) Protestants, 12% persons with no religious preference at all, 5% members of various other Christian groups (e.g., Mormon or LDS, Jehovah's Witness, Mennonite or Amish), 4% adherents of various non-Christian traditions, and 5% persons who reported hard-to-classify or indeterminate religious or spiritual groups.

Table 1 Descriptive statistics on all variables ($N = 1{,}147$)

	Mean	SD
Outcome variable		
Psychological distress (1–5)	1.90	.74
Behavioral religious variables		
Frequency of attendance (0–8)	3.73	2.82
Rarely/never attends (0–1)	.40	–
Frequency of prayer (1–8)	5.57	2.46
Frequency of meditation (1–8)	3.37	2.71
Negative religious variables		
Troubled relation with God (1–3)	1.24	.48
Negative interaction (1–4)	1.29	.54
Religious doubts (1–3)	1.57	.60
Sociodemographic controls		
Age (18–89)	45.27	16.81
Female (0–1)	.56	–
Black (0–1)	.14	–
Education (2–20)	13.28	2.91
Income (1–23)	15.13	5.05
Mincome (0–1)	.11	–
Married (0–1)	.47	–

estimates, multicollinearity, and other statistical and interpretive problems. As Table 2 indicates, however, this should not be an issue. Key findings in Table 2 include the following: (1) Zero-order correlations among the spiritual struggle variables are quite low, ranging from .05 to .18. This suggests that these facets of spiritual struggle are quite independent of one another, i.e., they are not overlapping or redundant, and are unlikely to emanate from a single, overarching causal source (e.g., personality factors such as neuroticism). (2) The measures of conventional religiosity are moderately, but not highly associated with one another; zero-order correlations range from .38 to .53. (3) With the exception of interpersonal struggle (negative interaction), our indicators of spiritual struggles are largely unrelated to conventional religiousness. The highest zero-order correlation among these variables is between negative interaction and attendance at services ($r = .31$); this makes sense, because attendance increases one's exposure to coreligionists, thus enhancing the likelihood that one may encounter negative judgments, excessive demands, or other unpleasant exchanges with church members. (4) At the zero-order level, each of the spiritual struggle variables is positively associated with psychological distress, with zero-order correlations ranging from .10 to .36. These patterns offer preliminary support for our main study hypotheses (H1–H3). Of the measures of conventional religiousness, only frequency of attendance bears a modest association with distress ($r = -.14$). The strength of this finding is especially noteworthy given the relatively low internal consistency reliability (alpha = .55) of the two-item measure of divine struggle that is used in these analyses.

Next we turn to the multivariate findings. Table 3 presents the results of OLS regression models, estimating the net effects of spiritual struggles and covariates on psychological distress among US adults. Findings are quite straightforward. In model 1, the baseline model, consistent with the bivariate patterns described above, religious attendance is

Table 2 Correlations among religious variables ($N = 1{,}147$)

	v1	v2	v3	v4	v5	v6	v7
v1	–	.52***	.38***	−.12***	.31***	−.06*	−.14***
v2		–	.43***	−.04	.19***	−.01	.00
v3			–	−.04	.21***	−.01	−.03
v4				–	.05	.18***	.25***
v5					–	.10***	.10***
v6						–	.36***

Keys: v1 Frequency of attendance, v2 Frequency of prayer, v3 Frequency of meditation, v4 Religious doubts, v5 Negative interaction, v6 Troubled relation with God, v7 Psychological distress

*** $p < .001$; * $p < .05$

inversely associated with distress ($b = -.046$, $\beta = -.174$, $p < .01$), while frequency of prayer bears a slight positive association with distress, and meditation is unrelated to this outcome. Among the non-religious predictors, age ($b = -.009$, $\beta = -.204$, $p < .001$), family income ($b = -.029$, $\beta = -.198$, $p < .001$), and education ($b = -.033$, $\beta = -.128$, $p < .001$) are the strongest predictors of psychological distress in the baseline model.

Models 2–5 present multivariate tests of our main study hypotheses; in models 2–4 our measures of spiritual struggle are added to the models individually, while model 5 (the full model) includes all predictor variables used in the study. Model 3 offers clear support to H1; our measure of divine struggle, troubled relationship with God, exhibits a strong positive association with feelings of distress ($b = .444$, $\beta = .286$, $p < .001$). In model 4, negative interaction, our indicator of interpersonal struggle, is positively related to distress ($b = .173$, $\beta = .124$, $p < .001$), which is consistent with H2. Religious doubts, our measure of intrapsychic struggle, bears a positive association with psychological distress in model 4 ($b = .236$, $\beta = .191$, $p < .001$), revealing clear support for H3. In the final model, model 5, each of the spiritual struggle variables bears a significant independent association with psychological distress. The estimated net effect is most pronounced for divine struggle, which is the strongest predictor in the model ($b = .399$, $\beta = .255$, $p < .001$). Intrapsychic struggle, gauged in terms of religious doubt, is the second strongest predictor ($b = .182$, $\beta = .147$, $p < .001$), while interpersonal struggle is also positively linked with distress ($b = .121$, $\beta = .087$, $p < .001$). Taken together, the addition of our three measures of spiritual struggle substantially enhanced the overall predictive power of the model; the adjusted R-square rose from .129 to .231, an increase of approximately 45%. In addition, statistical adjustments for spiritual struggle variables results in substantial reductions in the baseline estimated net effects of key sociodemographic predictors of distress, such as age and family income.

To investigate the (in)variance of these overall patterns across key population subgroups, we calculated a series of cross-product interaction terms (i.e., spiritual struggle × sociodemographic covariate) and adding these individually to the full model (model 5) in Table 3. Continuous and ordinal component variables were zero-centered prior to this calculation, in order to minimize collinearity between raw and product terms (Aiken and West 1991). In all, 18 interactions were tested, and only 1 of these (5.6%) was statistically significant at the $p < .01$ level. This pattern indicates that the link between divine struggles and psychological distress is less deleterious among married persons as compared with their unmarried counterparts. Ours appears to be the first study

Table 3 Estimated net effects of religious variables and covariates on psychological distress ($N = 1{,}147$)

Variable	Model 1			Model 2			Model 3			Model 4			Model 5		
	b	se	Beta	*b*	se	Beta	*b*	se	Beta	*b*	se	Beta	*b*	se	Beta
Age	−.009***	.001	−.204	−.007***	.001	−.153	−.009***	.001	−.193	−.008***	.001	−.186	−.006***	.001	−.137
Female	−.035	.043	−.023	−.011	.041	−.007	−.020	.043	−.013	−.052	.042	−.035	−.016	.041	−.011
Black	−.113	.061	−.053	−.101	.059	−.047	−.120	.061	−.056	−.105	.060	−.050	−.101	.058	−.048
Education	−.033***	.008	−.128	−.025***	.007	−.097	−.033***	.008	−.128	−.034***	.008	−.132	−.027***	.007	−.104
Income	−.029***	.005	−.198	−.021***	.005	−.144	−.027***	.005	−.186	−.026***	.005	−.176	−.018***	.005	−.125
Married	−.065	.046	−.043	−.076	.044	−.051	−.070	.046	−.047	−.064	.045	−.043	−.078	.043	−.052
Frequency of attendance	−.046**	.016	−.174	−.039**	.015	−.148	−.049**	.016	−.184	−.036*	.015	−.136	−.034*	.015	−.128
Frequency of prayer	.023*	.011	.077	.022*	.010	.072	.023*	.010	.076	.023*	.010	.075	.021*	.010	.070
Frequency of meditation	.004	.009	.015	.003	.008	.010	.000	.009	.001	.004	.009	.013	.000	.008	−.001
Troubled relation with God				.444***	.043	.286							.396***	.043	.255
Negative interaction							.173***	.041	.124				.121***	.039	.087
Religious doubts										.236***	.034	.191	.182***	.033	.147
Intercept	3.323			2.415			3.056			2.844			1.958		
Adjusted R-sq	.129			.204			.142			.164			.231		

*** $p < .001$; ** $p < .01$; * $p < .05$ (two-tailed tests)

to reveal this contingent association, which suggests that intimate bonds may partly compensate for troubled relationships with God. Two other interactions were significant at the $p < .05$ level. One of these patterns indicates that the harmful consequences of intrapsychic struggles, i.e., religious doubts may diminish with age, while the second of these contingent relationships involves a similar age-graded reduction in the deleterious effects of interpersonal struggles, i.e., negative interaction in religious settings, on feelings of distress.

6 Discussion

Although a burgeoning body of theory and research has highlighted the salutary implications of religiousness and spirituality for mental and physical health (Ellison and Levin 1998; Koenig et al. 2001; Smith et al. 2003), a smaller literature has reported on the potential "dark side" of the religion-health connection (Pargament 2002). This emerging work has identified several types of "spiritual struggles" that may undermine well-being, but to date empirical studies have focused almost exclusively on clinical or convenience samples (for an exception, see McConnell et al. 2006). To our knowledge, this study is the first analysis of data on a large-scale, nationally representative sample that has: (a) explored three types of spiritual struggle (i.e., divine, interpersonal, and intrapsychic struggles); (b) examined their independent, additive links with psychological distress; and (c) investigated the robustness of these associations across major population subgroups, i.e., by gender, race, age, socioeconomic status, and marital status.

Several findings warrant emphasis here. First, levels of each type of spiritual struggle are relatively low in this general population sample of adults. This bears out earlier suggestions that such struggles are uncommon among community-dwelling samples, but may be more prevalent within clinical populations (Fitchett et al. 2004). Thus, contrary to a long tradition of critical work in psychology and allied fields (e.g., Ellis 1962), few individuals experience religious or spiritual life in these highly negative ways at any one point in time. Second, our indicators of three dimensions of spiritual struggle are only minimally correlated. This pattern suggests that they are indeed tapping distinct facets of experience, and also that they may emanate from different sources, rather than broader negative dispositional factors (e.g., neuroticism). Third, each dimension of spiritual struggle is independent predictor of psychological distress in our GSS sample. Overall, it appears that divine struggle, or the experience of a troubled relationship with God, has the strongest association with distress, followed in order of magnitude by intrapsychic struggle (i.e., chronic doubting) and interpersonal struggle (i.e., negative interaction in religious settings). Fourth, the strength of these associations is far from trivial. Individually, these variables are among the strongest predictors of distress, and as a bloc, spiritual struggle variables are much stronger predictors of psychological distress than religious behaviors, which have long been a staple of the religion-health literature. Inclusion of our three dimensions of spiritual struggles nearly doubles the fit of the regression model. Taken together, these patterns support the view that –while rare compared to more positive religious or spiritual experiences—spiritual struggles may be "red flags" that can help to identify persons encountering significant emotional upset and discomfort (Pargament 2002; Pargament et al. 2005).

In addition, the links between spiritual struggles and distress appear to be robust across most key population subgroups. Specifically, these associations do not vary by race or socioeconomic status (SES) as gauged by education or family income. These null results

contrast with findings among older adults that some positive aspects of religiousness –such as congregational social support or the sense of divine control in one's life—are linked with more desirable health outcomes for African Americans as compared with whites, and for lower-SES persons as compared with their better educated and more affluent counterparts (Krause 2006b, 2008; Schieman et al. 2006). Despite the higher levels and apparent importance of religiousness and spirituality among women (Greenfield et al. 2009; Maselko and Kubzansky 2006), we find no evidence of gender variations in the links between spiritual struggles and psychological distress. These patterns confirm the significance of spiritual struggles, indicating that when they occur, such struggles are associated with poorer mental health for most major segments of the adult population.

We do find evidence that divine struggles i.e., troubled relationships with God, may be less damaging for married persons as compared with their unmarried counterparts. One possible explanation for this pattern centers on the role of God as an ideal attachment figure, who can be engaged for solace, guidance, and meaning (Kirkpatrick 2004). Married persons, for whom the spouse can be such an attachment figure, may be less troubled by divine struggles than persons who lack the supportive ties of marriage, and therefore may feel particularly isolated, lonely, and distressed. There is also some evidence that the deleterious effects of intrapsychic and interpersonal forms of spiritual struggle diminish somewhat with age. The former pattern is consistent with the findings of several previous studies (Ellison 1991; Galek et al. 2007; Krause et al. 1999). To our knowledge, the latter finding is a new addition to the research literature. Although the reasons for such a pattern are unclear, it is plausible that, per the "positivity bias" identified by Carstensen and her associates (e.g., Charles et al. 2003), older adults may tend to recall or reframe events in more positive terms than younger persons, and may be also be more prone to forget or minimize negative images and experiences. Given the modest magnitude and significance of these contingent relationships, it would be an error to exaggerate their importance. Nevertheless, the replication and explanation of such subgroup variations in the estimated effects of spiritual struggles should receive close attention in future studies.

Although our study makes a useful contribution to the emerging literature on spiritual struggle and well-being, it is important to acknowledge several limitations. Due to the cross-sectional nature of the GSS data, we cannot establish the causal direction of these associations. It is quite possible that these relationships are bidirectional, and that distress may exacerbate spiritual struggle as well. In addition, data limitations preclude consideration of the role of most types of chronic or acute stressors. For instance, stressors may promote feelings of discomfort partly by increasing levels of spiritual struggle; or that the effects of spiritual struggle are exacerbated by the presence of (other) stressful events or conditions (e.g., McConnell et al. 2006), Further, the GSS data do not include personality variables, such as neuroticism; although the modest correlations among dimensions of spiritual struggle make it seem unlikely, we cannot rule out the possibility that such factors could underlie spiritual struggles or condition their effects on health and well-being. Finally, it is important to bear in mind that our study population is drawn from a US population which, despite growing diversity (Wuthnow 2005), remains largely affiliated with, or at least influenced by, Christianity (Davis et al. 2008). Thus, it is unclear how the facets of spiritual struggle considered here would be germane for respondents from other religious or spiritual traditions. Future work is needed to address these limitations.

Several additional questions also bear investigation. It would be useful to know more about the interplay of positive and negative facets of religiousness and spirituality. For example, one wonders whether the apparently noxious effects of spiritual struggles are offset or buffered by positive dimensions, such as congregational support (Krause 2008),

gratitude (Krause 2006b), or specific types of daily spiritual experiences (Ellison and Fan 2008; Maselko and Kubzansky 2006). In addition, it will be important to explore the social, psychological, and situational antecedents of various types of spiritual struggle, and their stability over time. Although one recent study has offered some fresh insights on trajectories of religious doubt (Krause and Ellison 2009), considerably more work is needed in this area using high-quality longitudinal data. Further, although we have considered three important types of spiritual struggle, theorists and researchers have pointed to a number of other promising candidates. For example, critics have long indicted certain Judeo-Christian religious doctrines, notably teachings about human sinfulness, for their possibly damaging effects on mental and physical well-being (Ellis 1962; Musick 2000). More recently, Exline (2002; Exline and Rose 2005) has noted the potential role of nagging vices, spiritual perfectionism, guilt and shame, and other issues. Finally, although clinical studies have related spiritual struggle with negative physical health outcomes and mortality risk (Fitchett et al. 1999; Pargament et al. 2001, 2004), additional research among non-clinical, community-dwelling samples is needed.

Religion is a complex and multidimensional phenomenon, to which exposure can have an array of positive and negative effects on individuals. Much of the literature on religion and health has emphasized the generally salutary effects of religious practices as well as more proximal or functional indicators such as congregational support, gratitude, meaning, positive religious coping, spiritual experiences, and others (Ellison and Fan 2008; Idler et al. 2003; Krause 2006b, 2008; Maselko and Kubzansky 2006; Pargament et al. 2000). Although there is mounting support for the role of such factors –as well as religious practices per se—in shaping health and well-being, it is important for researchers to offer a balanced perspective on "the religion-health connection," specifically by examining potentially deleterious effects (Exline 2002; Pargament 2002). Our study augments the existing literature in this area, focusing on spiritual struggle in a nationally representative sample of US adults, and exploring the independent effects of three dimensions of spiritual struggle, and investigating subgroup variations in their associations with one facet of mental health, non-specific psychological distress. But much more work remains to be done, and it is hoped that future analyses along the lines sketched above will cast additional light on the possible "dark side" of the complex linkage between religion and health.

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.

Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of Clinical Psychology, 61*, 461–480.

Becker, P. E. (1999). *Congregations in conflict*. New York: Cambridge University Press.

Becker, P. E., Ellingson, S. J., Flory, R. W., Griswold, W., Kniss, F., & Nelson, T. (1993). Straining at the tie that binds: Congregational conflict in the 1980s. *Review of Religious Research, 34*, 193–209.

Berger, P. L. (1967). *The sacred canopy*. Doubleday Garden City, NY.

Charles, S. T., Mather, M. M., & Carstensen, L. L. (2003). Aging and emotional memory: The forgettable nature of negative images for older adults. *Journal of Experimental Psychology: General, 132*, 310–324.

Cohen, J., Cohen, P., Aiken, L., & West, S. G. (2002). *Applied multiple regression/correlation analysis for the behavioral sciences*. Mahwah, NJ: Lawrence Erlbaum, Inc.

Coser, L. A. (1974). *Greedy institutions: Patterns of undivided commitment*. New York: Free Press.

Davis, J. A., Smith, T. W., & Marsden, P. V. (2008). *The general social surveys: Cumulative codebook, 1972–2008*. Chicago: National Opinion Research Center.

Ellis, A. L. (1962). *Reason and emotion in psychotherapy*. Secaucus, NJ: Lyle Stuart.
Ellison, C. G. (1991). Religious involvement and subjective well-being. *Journal of Health and Social Behavior, 32*, 80–99.
Ellison, C. G., & Fan, D. (2008). Daily spiritual experiences and psychological well-being among US adults. *Social Indicators Research, 88*, 247–271.
Ellison, C. G., & Levin, J. S. (1998). The religion-health connection: Evidence, theory, and future directions. *Health Education and Behavior, 25*, 700–720.
Ellison, C. G., Zhang, W., Krause, N., & Marcum, J. P. (2009). Does negative interaction in church promote psychological distress? Longitudinal findings from the Presbyterian Panel Survey. Sociology of Religion.
Exline, J. J. (2002). Stumbling blocks on the religious road: Fractured relationships, nagging vices, and the inner struggle to believe. *Psychological Inquiry, 13*, 182–189.
Exline, J. J., & Rose, E. (2005). Religious and spiritual struggles. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion*. New York: Guilford.
Exline, J. J., Yali, A. M., & Lobel, M. (1999). When God disappoints: Difficulty forgiving God and its role in negative emotion. *Journal of Health Psychology, 4*, 365–379.
Exline, J. J., Yali, A. M., & Sanderson, W. C. (2000). Guilt, discord, and alienation: The role of religious strain in depression and suicidality. *Journal of Clinical Psychology, 56*, 1481–1496.
Fitchett, G., Murphy, P. E., Kim, J., Gibbons, J. L., Cameron, J. R., & Davis, J. A. (2004). Religious struggle: Prevalence, correlates, and mental health risks in diabetic, congestive heart failure, and oncology patients. *International Journal of Psychiatry in Medicine, 34*, 179–196.
Fitchett, G., Rybarczyk, B. D., DeMarco, G. A., & Nicholas, J. J. (1999). The role of religion in medical rehabilitation outcomes: A longitudinal study. *Rehabilitation Psychology, 44*, 333–353.
Galek, K. C., Krause, N., Ellison, C. G., Kudler, T., & Flannelly, K. J. (2007). Religious doubt and mental health across the lifespan. *Journal of Adult Development, 14*, 16–25.
George, L. K., Ellison, C. G., & Larson, D. B. (2002). Explaining the relationships between religious involvement and health. *Psychological Inquiry, 13*, 190–200.
Greenfield, E. A., Vaillant, G. E., & Marks, N. F. (2009). Do formal religious participation and spiritual perceptions have independent linkages with diverse dimensions of psychological well-being? *Journal of Health and Social Behavior, 50*, 196–212.
Hartman, K. (1997). *Congregations in conflict: The battle over homosexuality*. New Brunswick, NJ: Rutgers University Press.
Hecht, J. M. (2003). *Doubt: A history*. San Francisco: Harper.
Hill, P. C., & Pargament, K. I. (2003). Advances in the conceptualization and measurement of religion and spirituality: Implications for physical and mental health research. *American Psychologist, 58*, 64–74.
Hunsberger, B., McKenzie, B., Pratt, M., & Pancer, S. M. (1993). Religious doubt: A social psychological analysis. *Research in the Scientific Study of Religion, 5*, 27–51.
Hunsberger, B., Pratt, M., & Pancer, S. M. (2002). A longitudinal study of religious doubt in high school and beyond: Relationships, stability, and looking for answers. *Journal for the Scientific Study of Religion, 41*, 255–266.
Idler, E. L., Musick, M. A., Ellison, C. G., George, L. K., et al. (2003). Measuring multiple dimensions of religion and spirituality for health research: Conceptual background and findings from the 1998 general social survey. *Research on Aging, 25*, 327–365.
Kessler, R. C., Andrews, G., Colpe, L., Hiripi, E., Mroczek, D., Normand, S., et al. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine, 32*, 959–976.
Kirkpatrick, L. (2004). *Attachment, evolution, and the psychology of religion*. New York: Guilford.
Koenig, H. G., McCullough, M. E., & Larson, D. B. (2001). *Handbook of religion and health*. New York: Oxford University Press.
Krause, N. (2003a). Exploring race differences in the relationship between social interaction with clergy and feelings of self-worth in late life. *Sociology of Religion, 64*, 183–205.
Krause, N. (2003b). Religious meaning and subjective well-beingin late life. *Journal of Gerontology: Social Sciences, 58B*, S160–S170.
Krause, N. (2006a). Religious doubt and psychological well-being: A longitudinal investigation. *Review of Religious Research, 47*, 287–302.
Krause, N. (2006b). Gratitude toward God, stress, and health in late life. *Research on Aging, 28*, 163–183.
Krause, N. (2008). *Aging in the church: How social relationships affect health*. West Conshohocken, PA: John Templeton Foundation Press.
Krause, N., Chatters, L. M., Meltzer, T., & Morgan, D. L. (2000). Negative interaction in the church: Insights from focus groups with older adults. *Review of Religious Research, 41*, 510–533.

Krause, N., & Ellison, C. G. (2009). The doubting process: A longitudinal study of the precipitants and consequences of religious doubt. *Journal for the Scientific Study of Religion, 48*, 293–312.
Krause, N., Ellison, C. G., & Wulff, K. M. (1998). Church-based emotional support, negative interaction, and psychological well-being: Findings from a national sample of Presbyterians. *Journal for the Scientific Study of Religion, 37*, 725–741.
Krause, N., Ingersoll-Dayton, B., Ellison, C. G., & Wulff, K. M. (1999). Aging, religious doubt, and psychological well-being. *The Gerontologist, 39*, 525–533.
Krause, N., & Wulff, K. M. (2004). Religious doubt and health: Exploring the potential dark side of religion. *Sociology of Religion, 65*, 35–56.
Maselko, J., & Kubzansky, L. D. (2006). Gender differences in religious practices, spiritual experiences, and health: Results from the US General Social Survey. *Social Science and Medicine, 62*, 2848–2860.
McConnell, K., Pargament, K. I., Ellison, C. G., & Flannelly, K. J. (2006). Examining the links between spiritual struggles and psychopathology in a national sample. *Journal of Clinical Psychology, 62*, 1469–1484.
Meisenhelder, J. B., & Marcum, J. P. (2004). Responses of clergy to 9/11: Posttraumatic stress, coping, and religious outcomes. *Journal for the Scientific Study of Religion, 43*, 547–554.
Mickley, J. R., Pargament, K. I., Brant, C. R., & Hipp, K. M. (1998). God and the search for meaning among hospice caregivers. *The Hospice Journal, 13*, 1–17.
Musick, M. A. (2000). Theodicy and life satisfaction among black and white Americans. *Sociology of Religion, 61*, 267–287.
Okun, M. A., & Keith, V. M. (1998). Effects of positive and negative social exchanges from various sources on depressive symptoms in younger and older adults. *Journal of Gerontology: Psychological Sciences, 53B*, P4–P20.
Pargament, K. I. (1997). *The psychology of religion and coping*. New York: Guilford.
Pargament, K. I. (2002). The bitter and the sweet: An evaluation of the costs and benefits of religiousness. *Psychological Inquiry, 13*, 168–181.
Pargament, K. I., Ishler, K., Dubow, E. F., Stanik, P., Rouiller, R., Crowe, P., et al. (1994). Methods of religious coping with the Gulf War: Cross-sectional and longitudinal analyses. *Journal for the Scientific Study of Religion, 33*, 347–361.
Pargament, K. I., Kennell, J., Hathaway, W., Grevengoed, N., Newman, J., & Jones, W. (1988). Religion and the problem-solving process: Three styles of coping. *Journal for the Scientific Study of Religion, 27*, 90–104.
Pargament, K. I., Koenig, H. G., & Perez, L. M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology, 56*, 519–543.
Pargament, K. I., Koenig, H. G., Tarakeshwar, N., & Hahn, J. (2001). Religious struggle as a predictor of mortality among medically ill elderly patients. *Archives of Internal Medicine, 161*, 1881–1885.
Pargament, K. I., Koenig, H. G., Tarakeshwar, N., & Hahn, J. (2004). Religious coping methods as predictors of psychological, physical, and spiritual outcomes among medically ill elderly patients: A two-year longitudinal study. *Journal of Health Psychology, 9*, 713–730.
Pargament, K. I., Murray-Swank, N., Magyar, G. M., & Ano, G. G. (2005). Spiritual struggle: A phenomenon of interest to psychology and religion. In W. R. Miller & H. D. Delaney (Eds.), *Judeo-Christian perspectives on psychology: Human nature, motivation, and change* (pp. 245–268). Washington, DC: American Psychological Association.
Pargament, K. I., Smith, B. W., Koenig, H. G., & Perez, L. (1998). Patterns of positive and negative religious coping with major life stressors. *Journal for the Scientific Study of Religion, 37*, 710–724.
Rook, K. S. (1984). The negative side of social interaction: Impact on psychological well-being. *Journal of Personality and Social Psychology, 46*, 1097–1108.
Rook, K. S., & Pietromonaco, P. (1987). Close relationships: Ties that heal or ties that bind? In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (pp. 1–35). Greenwich, CT: JAI Press.
Schieman, S., Pudrovska, T., Pearlin, L. I., & Ellison, C. G. (2006). The sense of divine control and psychological distress: Variations across race and socioeconomic status. *Journal for the Scientific Study of Religion, 45*, 529–549.
Schuster, T. L., Kessler, R. C., & Aseltine, R. H., Jr. (1990). Supportive interactions, negative interactions, and depressed mood. *American Journal of Community Psychology, 18*, 423–438.
Shah, A., Snow, A. L., & Kunik, M. E. (2001). Spiritual and religious coping in caregivers of patients with Alzheimer's disease. *Clinical Gerontologist, 24*, 127–136.
Sloan, R. P. (2006). *Blind faith: The unholy alliance of religion and medicine*. New York: St. Martin's Press.
Smith, T. B., McCullough, M. E., & Poll, J. (2003). Religiousness and depression: Evidence for a main effect and the moderating influence of stressful life events. *Psychological Bulletin, 129*, 614–636.

Smith, B. W., Pargament, K. I., Brant, C., & Oliver, J. M. (2000). Noah revisited: Religious coping by church members and the impact of the 1993 midwest flood. *Journal of Community Psychology, 28*, 169–186.

Steensland, B., Park, J. Z., Regnerus, M. D., Robinson, L. D., Wilcox, W. B., & Woodberry, R. D. (2000). The measure of American religion: Toward improving the state of the art. *Social Forces, 79*, 291–318.

Thoits, P. A. (1991). Merging identity theory with stress research. *Social Psychology Quarterly, 54*, 101–112.

Wuthnow, R. (2005). *America and the challenges of religious diversity*. Princeton, NJ: Princeton University Press.