Belief in Life After Death and Mental Health

Findings from a National Survey

Kevin J. Flannelly, PhD, Harold G. Koenig, MD, MHS,† Christopher G. Ellison, PhD,‡ Kathleen Galek, PhD,* and Neal Krause, PhD§*

Abstract: The present study examined the association between belief in life after death and six measures of psychiatric symptomology in a national sample of 1403 adult Americans. A statistically significant inverse relationship was found between belief in life after death and symptom severity on all six symptom clusters that were examined (i.e., anxiety, depression, obsession-compulsion, paranoia, phobia, and somatization) after controlling for demographic and other variables (e.g., stress and social support) that are known to influence mental health. No significant association was found between the frequency of attending religious services and any of the mental health measures. The results are discussed in terms of the potentially salubrious effects of religious belief systems on mental health. These findings suggest that it may be more valuable to focus on religious beliefs than on religious practices and behaviors in research on religion and mental health.

Key Words: Anxiety, depression, life after death, obsession-compulsion, paranoia, phobia, religion, somatization.

(*J Nerv Ment Dis* 2006;194: 524–529)

There has been a growing interest in religion in psychiatry and other fields of medicine in recent years (Gallagher et al., 2002; Kroll et al., 2004; Weaver et al., 2003). This interest is spurred, in part, by the accumulating evidence in the health and social sciences showing a positive relationship between religion and psychological well-being (Ellison and Levin, 1998; Ellison et al., 2001; Koenig, 2004; Krause and Ellison, 2003). Various studies have found that religion can provide an important means for coping with mental illness and psychological distress (Koenig et al., 2001; Pargament, 1997), can affect attitudes about psychiatric disorders (Weisman, 2000), and may even influence the utilization of mental health resources (Fontana and Rosenheck, 2004; Larson et al., 1989). The most widely established impact of religion on mental health outcomes, however, is that it plays a protective or preventative role (Ellison and Levin, 1998; George et al., 2002).

Self-reported religious attendance is the most commonly used measure of institutional religious activity and has been found to be positively associated with numerous measures of physical and mental health (George et al., 2002; Koenig et al., 2001). Frequency of praying is the most commonly used measure of private religious activity, though it has not been studied as extensively and has been found to have both positive and negative associations with health outcomes (Koenig et al., 2001; McCullough, 1995). Little attention, however, has been paid to the influence of religious beliefs on physical or mental heath (Exline, 2002; Krause, 1993).

Religion and Psychiatric Problems

Depression is the most widely studied of the psychiatric disorders with respect to religion (Koenig et al., 2001). A review of over 50 published studies of organized religious activity and depression found there was reasonable evidence that religiousness was negatively related to depression, but "the results across studies are not as consistent as one would like" (McCullough and Larson, 1999, p. 130). The effects of prayer tended to be smaller or nonexistent, and sometimes they were in the opposite direction (McCullough and Larson, 1999). Some of the strongest evidence for the inverse relationship between organized religious activity and depression comes from national and regional studies of community-dwelling populations (Baetz et al., 2004; Braam et al., 1997; Ellison, 1995; Koenig et al., 1998a; Parker et al., 2003).

Anxiety is the second most commonly studied disorder with respect to religion. A recent article by Shreve-Neiger and Edelstein (2004) reviewed 17 studies on religion and general anxiety published since 1962. The majority of the studies found a negative relationship between religion and anxiety level, five found a positive relationship between religion and anxiety level, and four found no relationship at all. Once again, the strongest evidence for a negative relationship between anxiety and religiosity came from studies of community-dwelling individuals, but the results are far from conclusive (Koenig et al., 1993a, 1993b).

*The HealthCare Chaplaincy, New York, New York; †Department of Psychiatry and Medicine, Duke University Medical Center, Durham, North Carolina; ‡Department of Sociology, University of Texas at Austin, Austin, Texas; and §Department of Health Behavior and Health Education, School of Public Health, University of Michigan, Ann Arbor, Michigan.

Supported in part by a grant from the John Templeton Foundation to The HealthCare Chaplaincy.

Send reprint requests to Dr. Kevin J. Flannelly, The HealthCare Chaplaincy, 307 East 60th Street, New York, NY 10022.

ISSN: 0022-3018/06/19407-0524
DOI: 10.1097/01.nmd.0000224876.63035.23

Far less research has examined the relationship between religion and other psychiatric disorders. A review of the older literature suggested rigid religions may predispose an individual to obsessive-compulsive disorder (Fitz, 1990), but the results of recent studies are mixed (Abramowitz et al., 2004; Raphael et al., 1996; Sica et al., 2002; Tek and Ulug, 2001). An extensive literature review identified only three studies on religion and somatization. One found differences in somatic complaints across religious denominations (Androutsopoulou et al., 2002), and another found denominational differences in beliefs about the underlying causes of psychologically related somatic complaints (Chaturvedi and Bhandari, 1989). The last of the three studies found no significant relationship between somatization disorder and either organizational or private religious activities (Koenig et al., 1993a). Although phobic disorders appear to be the most common psychiatric disorders among the general public in the United States (Brown et al., 1990; Stein et al., 2000), we found only two community studies of religion and phobic disorders (Hybels et al., 2000; Koenig et al., 1993a), neither of which found them to be associated.

Belief in Life After Death

Current sociological theory views belief in an afterlife as a core component of many religious belief systems, providing meaning to one's present life and the promise of rewards in the next (Stark and Bainbridge, 1996). The existence of a life after death is a fundamental belief of most major religions (Obayashi, 1992), and some scholars have proposed that religion primarily arose as a way to deal with death (e.g., Malinowski, 1954).

Over the years, numerous national surveys have found that more than three-quarters of Americans believe in life after death (Greeley and Hout, 1999; Klenow and Bolin, 1989–1990). Despite such widespread belief, relatively little research on this topic has appeared in the psychological and psychiatric literature (Exline, 2002), and most of the existing research has examined the effects of afterlife belief on fear of death (Alvarado et al., 1995; Templer, 1972; Templer and Dotson, 1970).

Study Purpose

We are aware of only a few attempts to examine systematically the association between afterlife beliefs and other aspects of mental health. Although a recent study of terminally ill cancer patients found no relationship between belief in an afterlife and either anxiety or depression (McClain-Jacobson et al., 2004), community studies suggest that afterlife beliefs may have positive effects on physical and mental health (Ellison et al., 2001; Krause et al., 2002). The present study examined the association between belief in life after death and specific measures of a variety of psychiatric symptom clusters.

Hypotheses

The research to date suggests there is association between religious practices and symptoms of some psychiatric disorders. Given these findings, and the better established link between organizational religious activity and psychological well-being (Koenig et al., 1998b; Koenig, 2001; Levin and Chatters, 1998), our first hypothesis (#1) was that religious attendance will be negatively related to symptom severity for all six psychiatric symptom categories or clusters examined in the current study.

The strongest case for the salubrious effects of prayer on mental heath comes from studies on depression (McCullough and Larson, 1999). Thus, we hypothesized (#2a) that frequency of prayer will be inversely related to symptom severity. However, the opposite relationship has been reported in some studies. Indeed, Tepper et al. (2001) found frequency of prayer varied directly with psychiatric patients' severity of symptoms, as measured by the Symptom Checklist 90-R, a scale which is very similar to the one used in the present study. This may occur because patients use prayer to help alleviate their psychiatric symptoms. Therefore, we also decided to test the alternative hypothesis (#2b) that frequency of prayer will vary directly with symptom severity.

Finally, we hypothesized (#3) that belief in life after death would be inversely related to the severity of each of the six psychiatric disorders examined, even after controlling for other religious activity and demographic variables that have been found to covary with religiosity and/or to contribute to mental health.

METHODS

Sample

An email was sent to a random sample of 8500 American adults inviting them to participate in a Web-based survey. The potential participants were selected and contacted by Survey Sampling International, which maintains a sampling frame of individuals that matches the demographic characteristics of the 2000 United States Census within 1%. A total of 1895 individuals from all 50 states and Washington DC participated in the survey. Some 266 of the respondents were excluded because of missing demographic data, yielding a sample of 1629 participants. The survey was sponsored by *Spirituality & Health* magazine and was conducted by Equation Research between August 5 and 10, 2004. The rate of participation is comparable to or higher than that reported for other internet surveys using an email solicitation (Kaplowitz and Hadlock, 2004; Porter and Whitcomb, 2003). The sample was evenly divided between males (50.1%) and females (49.9%).

Questionnaire

The questionnaire was designed by one of the authors (K. J. F.) in collaboration with the editor of *Spirituality & Health*, Robert O. Scott, and Andrew J. Weaver, the former Research Director of The HealthCare Chaplaincy. The items were drawn and adapted from a variety of published scales.

Independent Variables

Three independent variables were tested: (1) frequency of religious attendance (institutional religious activity), (2) frequency of prayer (private religious activity), and (3) belief in life after death. The first two variables were scored on an 8-point scale, ranging from 0 = "never" through 7 = "every

day." The third variable was scored as 1 = yes, 0 = undecided, and –1 = no (Klenow and Bolin, 1989; McClain-Jacobson et al., 2004).

Dependent Variables

Six subscales of the Symptom Assessment-45 Questionnaire served as the dependent variables (Davison et al., 1997; Sitarenios et al., 2000): anxiety, depression, obsession-compulsion, paranoid ideation, phobia anxiety, and somatization. Each subscale consists of five items that are rated from 1 to 5, with 5 indicating extreme severity. The Cronbach α values for the six subscales were between .81 and .88.

Control Variables

Six demographic variables were recorded and used as controls in the analyses: age, gender, race, marital status, socioeconomic status, and urban density. Gender, race, and marital status were dummy coded, respectively, as 1 = female, 0 = male; 1 = white, 0 = nonwhite; 1 = married, 0 = not married. Socioeconomic status was assessed by summing the scores for education and income, both of which were measured on 8-point scales. Residential urban density was measured by the question, "Which of the following best represents where you live?" Responses were coded for analysis as 1 = rural, 2 = suburban, and 3 = urban. Results from a 1978 national survey indicated that belief in life after death was higher in rural areas (Klenow and Bolin, 1989–1990).

Stress level and social support also were entered as controls in the analyses because they are known to influence mental health (Ellison et al., 2001; George et al., 2002). Stress was measured by having participants select any of a list of 15 stressors they experienced during the past year, and the number of stressors was summed to form a single measure. The stressors were selected and adapted from a number of studies (Cohan and Bradbury, 1997; Kubany et al., 2000; Oman and King, 2000; Shrout et al., 1989). Social support was measured by six items adapted from Zimet et al. (1988). Each of the six items was measured on a 4-point scale, which were summed to form a single score. The Cronbach α for the scale was = .83.

The questionnaire included six items that measured religious fundamentalism (Weaver et al., 2005), which were combined to form a single score (α = .84). The items were selected from a scale developed by Altemeyer and Hunsberger (1992). Although we were not interested in religious fundamentalism per se, we used it as a control variable.

Statistical Analyses

The data were analyzed by ordinary least squares multiple regression (Cohen and Cohen, 1975), with one regression model constructed for each of the six psychiatric symptom groups. The nine control variables were included in each model along with the three independent variables. The data set was adjusted for age, income, and race by weighting each participant to match the 2000 US Census. Because of missing values, the sample size used in the statistical analyses was 1403. Supplemental analyses are described in the text.

The standardized β values from each model are presented for each variable in the table. A β is similar to the Pearson correlation coefficient (r) in that it shows the direction and strength of the relationship between two variables (Cohen and Cohen, 1975).

RESULTS

Table 1 shows the results of the regression models for each of the six psychiatric symptom clusters examined in the study. The results provide no support for hypothesis 1, which predicted that organized religious activity would be positively related to better mental health. No significant association was

TABLE 1. The Net Effects of Belief in an Afterlife and Religious Practices on Six Diagnostic Disorders, Showing the Final Standardized β Values and the R^2 for each Model (Ordinary Least Squares Regression Estimates, N = 1402)

	Depression	Anxiety	Obsession Compulsion	Paranoia	Phobia	Somatization
Age	−.249***	−.230***	−.176***	−.322***	−.167***	.030
Gender (female)	.044	.039	.009	.049*	−.020	.064*
Race (Caucasian)	.093***	.072**	.039	.034	.013	.045
Martial status	−.041	.026	−.011	.007	−.015	.031
Socioeconomic status	−.100***	−.093***	−.064*	−.089***	−.141***	−.102***
Residential urban density	.072*	.046	.038	.050*	.062*	−.020
Stress	.231***	.258***	.224***	.198***	.128***	.259***
Social support	−.277***	−.122***	−.095**	−.224***	−.099***	−.077**
Religious fundamentalism	−.002	−.038	−.001	−.013	.029	.027
Religious attendance	.029	.055	.048	.013	−.009	−.036
Frequency of prayer	.035	.123***	.069*	.074*	.114**	.108**
Belief in an afterlife	−.050*	−.109***	−.099***	−.076**	−.142***	−.063*
Adjusted R^2	.265	.178	.115	.231	.105	.104

*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.

found between religious attendance and any of the six measures of psychiatric symptoms.

Nor did we find any support for hypothesis 2a, which stated that prayer would be inversely related to symptom severity. Instead, we found frequency of prayer varied directly with symptom severity. Statistically significant positive associations between prayer and symptom severity were found for all the psychiatric symptom groups except depression. The β values for the other five psychiatric conditions ranged between .064 and .120. These findings provide strong support for hypothesis 2b that people with higher levels of symptoms pray more often. However, this may be an artifact of using cross-sectional data. Since prayer is widely used as a source of comfort in times of distress, the worse a person's symptoms are the more a person may pray, as Tepper et al. (2001) reported. And indeed, correlation analysis indicated that there was a positive association between our measures of prayer and stress ($r = .07$, $p < 0.01$).

The results confirmed hypothesis 3, that belief in life after death was significantly associated with lower symptom levels on all six psychiatric symptom clusters. The β values ranged from –.050 to –.142, with the highest degree of association found for the anxiety, phobia, and obsession-compulsive symptom clusters.

As expected, both stress and social support were significantly associated with symptom severity across all six psychiatric groups. Higher levels of stress were associated with greater symptom severity for each psychiatric group, and this association was quite substantial, with β values between .128 and .259. Social support, on the other hand, had a significant negative association with symptom severity, although the size of the association varied appreciably. Social support showed the strongest negative relationship with depression ($\beta = –.277$). These findings are consistent with past research on psychological well-being (e.g., Ellison et al., 2001), but previous research has typically used less sophisticated dependent variables than the ones used here.

Residential urban density was inversely related to belief in life after death ($r = –.08$, $p < 0.01$), which agrees with the findings of Klenow and Bolin (1989–1990). Urban density was not significantly correlated with any other religious measure. Regardless of religious beliefs or practices, people in more densely populated areas tended to report more psychiatric symptoms, but this association was statistically significant for only depression, paranoia, and phobia.

Socioeconomic status was inversely related to religious attendance ($r = –.06$, $p < 0.05$), prayer ($r = –.05$, $p < 0.001$), and religious fundamentalism ($r = –.15$, $p < 0.001$) to various degrees, but it was not significantly correlated with belief in life after death. Other research suggests that the relationship between socioeconomic status and religion can be complex (Sherkat and Ellison, 1999). We know of only one study that examined the correlates of afterlife beliefs, and the only socioeconomic measure it used was education, which was unrelated to belief in life after death. As seen in the table, socioeconomic status was inversely related to symptom severity on all six dependent variables.

Among all the demographic variables, age exhibited the strongest association with mental health, with older individuals reporting significantly less symptom severity on five of the six dependent variables. Religious fundamentalism was correlated with religious attendance ($r = .56$, $p < 0.001$), prayer ($r = .49$, $p < 0.001$), and belief in life after death ($r = .35$, $p < 0.001$), but it was not related to any of the psychiatric measures.

DISCUSSION

As hypothesized, belief in life after death was consistently and directly related to better mental health after controlling for other variables in the models (hypothesis 3). This association was found for all six psychiatric symptom groups assessed in the study. Although religion represents a sophisticated belief system, research in the area of religion and health has tended to ignore religious beliefs in favor of measures of church attendance, religious affiliation, or self-assessed religiosity (Flannelly et al., 2004). However, these measures may not sufficiently tap those aspects of religion that influence mental health (Ellison and Levin, 1998). The little research that has examined religious beliefs and mental health has mainly examined global concepts, such as well-being or life satisfaction (Krause, 1993), described the religious beliefs of patients (e.g., Kroll and Sheehan, 1989), or explored the role of religious beliefs in therapeutic interventions (e.g., Carone and Barone, 2001; McLaughlin, 2004).

Like other belief systems, religion provides meaning to life and a framework for understanding the world (McIntosh, 1995; Silberman, 2003). The fact that religion provides meaning to life may partly account for its salubrious influence on depression (Gallagher et al., 2002; Nelson et al., 2002). However, belief in an afterlife offers many avenues of support that can ease the strain of everyday life, and in so doing helps to prevent the development of depressive or various other psychiatric symptoms.

Belief in life after death may help to put one's experiences in a broader context. If this life is only a small part of things to come, daily problems and even major traumas may be seen as merely temporary or ethereal. If life transcends death, one's core identity may be seen as spiritual and apart from the material world, so health, financial, and relationship problems may seem less threatening. Such material concerns also may feel less pressing if one is more concerned about one's spiritual welfare. In a similar vein, the common Christian concept that bad people will be punished and good people will be rewarded in the afterlife (Obayashi, 1992) may reduce stressful reactions to interpersonal conflicts or injuries, since one believes the wrongdoer will be punished in the afterlife. One might also be able to accept adversity more easily, given the promise of eternal rewards in the next life (Stark and Bainbridge, 1996).

The sense that life is meaningful and manageable is an important resource that allows people to see stressful experiences as less threatening and to cope with them more effectively (George et al., 2002). Belief in life after death appears to provide this perspective.

Viewed broadly, these findings underscore the potential value of moving beyond the current focus on religious practices and behaviors. Paying more attention to religious beliefs may help to clarify the complex, multifaceted nature of associations between the domain of religion/spirituality and mental health. Since the use of cross-sectional data does not allow us to establish a causal relationship between belief in life after death and psychiatric symptoms, it would be valuable to include measures of afterlife beliefs in longitudinal studies of mental health.

ACKNOWLEDGMENTS

The authors thank John Barone for his assistance preparing the manuscript.

REFERENCES

Abramowitz JS, Deacon BJ, Woods CM, Tolin DF (2004) Association between Protestant religiosity and obsessive-compulsive symptoms and cognitions. *Depress Anxiety*. 20:70–76.

Alvarado KA, Templer DI, Bresler C, Thomas-Dobson T (1995) The relationship of religious variables to death depression and death anxiety. *J Clinl Psychol*. 51:202–204.

Altemeyer B, Hunsberger B (1992) Authoritarianism, religious fundamentalism, quest and prejudice. *Int J Psychol Relig*. 2:113–133.

Androutsopoulou C, Livaditis M, Xenitidis KI, Trypsianis G, Samakouri M, Pastelmatxi A, Tzavaras N (2002) Psychological problems in Christian and Moslem primary care patients in Greece. *Int J Psychiatry Med*. 32:285–294.

Baetz M, Griffin R, Bowen R, Koenig HG, Marcoux E (2004) The association between spiritual and religious involvement and depressive symptoms in a Canadian population. *J Nerv Ment Dis*. 192:818–822.

Braam AW, Beekman AT, Deep DJ, Smith JH, Van Tilburg W (1997) Religiosity as a protective or prognostic factor of depression in later life; results from a community survey in The Netherlands. *Acta Psychiatr Scand*. 96:199–205.

Brown DR, Eaton WW, Sussman L (1990) Racial differences in prevalence of phobic disorders. *J Nerv Ment Dis*. 179:434–441.

Carone DA, Barone DF (2001) A social cognitive perspective on religious beliefs: Their functions and impact on coping and psychotherapy. *Clin Psychol Rev*. 21:989–1003.

Chaturvedi SK, Bhandari S (1989) Somatisation and illness behaviour. *J Psychosom Res*. 33:147–153.

Cohan CL, Bradbury TN (1997) Negative life events, marital interaction and the longitudinal course of newlywed marriage. *J Pers Soc Psychol*. 73:114–128.

Cohen J, Cohen P (1975) *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences.* Hillsdale (NJ): Lawrence Erlbaum.

Davison ML, Bershadsky B, Bieber J, Silversmith D, Maruish ME, Kane RL (1997) Development of a brief, multidimensional, self-report instrument for treatment outcomes assessment in psychiatric settings: Preliminary findings. *Assessment*. 4:259–276.

Ellison CG (1995) Race, religious involvement and depressive symptomatology in a southeastern U.S. community. *Soc Sci Med*. 40:1561–1572.

Ellison CG, Boardman JD, Williams DR, Jackson JS (2001) Religious involvement, stress and mental health: Findings from the 1995 Detroit area study. *Soc Forces*. 80:215–249.

Ellison CG, Levin JS (1998) The religion-health connection: Evidence, theory and future directions. *Health Educ Behav*. 25:700–720.

Exline JJ (2002) The picture is getting clearer, but is the scope too limited? Three overlooked questions in the psychology of religion. *Psychol Inquiry*. 13:245–247.

Fitz A (1990) Religious and familial factors in the etiology of obsessive-compulsive disorder: A review. *J Psychol Theol*. 18:141–147.

Flannelly KJ, Ellison CG, Strock AL (2004) Methodologic issues in research on religion and health. *South Med J*. 97:1231–1241.

Fontana A, Rosenheck R (2004) Trauma, change in strength of religious faith and mental health service use among veterans treated for PTSD. *J Nerv Ment Dis*. 192:579–584.

Gallagher EB, Wadsworth AL, Stratton TD (2002) Religion, spirituality and mental health. *J Nerv Ment Dis*. 190:697–704.

George LK, Ellison CG, Larson DB (2002) Explaining the relationships between religious involvement and health. *Psychol Inquiry*. 13:190–200.

Greeley AM, Hout M (1999) American's increasing belief in life after death: Religious competition and acculturation. *Am Sociol Rev*. 64:813–835.

Hybels CF, Blazer DG, Kaplan BH (2000) Social and personal resources and the prevalence of phobic disorder in a community population. *Psychol Med*. 30:705–716.

Kaplowitz MD, Hadlock TD (2004) A comparison of web and mail survey response rates. *Public Opin Q*. 68:94–101.

Klenow DJ, Bolin RC (1989) –1990) Belief in an afterlife: A national survey. *Omega*. 20:63–64.

Koenig HG (2001) Religion and medicine: Religion, mental health and related behaviors. *Int J Psychiatry Med*. 31:97–109.

Koenig HG (2004) Religion, spirituality and medicine: Research findings and implications for clinical practice. *South Med J*. 97:1194–2000.

Koenig HG, Ford SM, George LK, Blazer DG, Meador KG (1993a) Religion and anxiety disorder: An examination and comparison of associations in young, middle-aged and elderly adults. *J Anxiety Disord*. 74:321–342.

Koenig HG, George LK, Blazer DG, Pritchett JT, Meador KG (1993b) The relationship between religion and anxiety in a sample of community-dwelling older adults. *J Geriatr Psychiatry*. 26:65–93.

Koenig HG, George L, Peterson BL (1998a) Religiosity and remission of depression in medically ill older patients. *Am J Psychiatry*. 155:536–542.

Koenig HG, Larson DB, Weaver AJ (1998b) Research on religion and serious mental illness. *New Dir Ment Health Serv*. 80:81–95.

Koenig HG, McCulloguh ME, Larson DB (2001). *Handbook of Religion and Health.* New York: Oxford University Press.

Krause N (1993) Measuring religiosity in later life. *Res Aging*. 15:170–197.

Krause N, Ellison CG (2003) Forgiveness by God, forgiveness of others and psychological well-being in late life. *J Sci Study Relig*. 42:77–93.

Krause N, Liang J, Shaw BA, Sugisawa H, Kim H, Sugihara Y (2002) Religion, death of a loved one and hypertension among older adults in Japan. *J Gerontol*. 57B:S96–S107.

Kroll J, Egan E, Erickson P, Carey K, Johnson M (2004) Moral conflict, religiosity and neuroticism in an outpatient sample. *J Nerv Ment Dis*. 192:682–688.

Kroll J, Sheehan W (1989) Religious beliefs and practices among 52 psychiatric inpatients in Minnesota. *Am J Psychiatry*. 146:67–72.

Kubany ES, Leisen MB, Kaplan AS, Watson SB, Haynes SN, Burns K, Owens JA (2000) Development and preliminary validation of a brief broad-spectrum measure of trauma exposure: The traumatic life events questionnaire. *Psychol Assess*. 12:210–224.

Larson DB, Donahue MJ, Lyons JS, Benson PL, Pattison M, Worthington EL, Blazer DG (1989) Religious affiliations in mental health research samples as compared with national samples. *J Nerv Ment Dis*. 177:109–111.

Levin JS, Chatters LM (1998) Research on religion and mental health: An overview of empirical findings and theoretical issues. In HG Koenig (Ed), *Handbook of Religion and Mental Health.* San Diego: Academic Press.

Malinowski B (1954) *Magic, Science and Religion.* New York: Doubleday.

McClain-Jacobson C, Rosenfeld B, Kosinski A, Pessin H, Cimino JE, Breitbart W (2004) Belief in an afterlife, spiritual well-being and end-of-life despair in patients with advanced cancer. *Gen Hosp Psychiatry*. 26:484–486.

McCullough ME (1995) Prayer and health: Conceptual issues, research review and research agenda. *J Psychol Theol*. 25:15–29.

McCullough ME, Larson DB (1999) Religion and depression: A review of the literature. *Twin Res*. 2:126–136.

McIntosh DN (1995) Religion-as-schema, with implications for the relation between religion and coping. *Int J Psychol Relig*. 5:1–16.

McLaughlin D (2004) Incorporating individual spiritual beliefs in treatment of inpatient mental health consumers. *Perspect Psychiatr Care*. 40:114–119.

Nelson CJ, Rosenfeld B, Breitbart W, Galietta M (2002) Spirituality, religion and depression in terminally ill. *Psychosomatics*. 43:213–220.

Obayashi H (Ed) (1992) *Death and Afterlife: Perspectives of World Religions.* New York: Greenwood Press.

Oman RF, King AC (2000) The effect of life events and exercise program format on the adoption and maintenance of exercise behavior. *Health Psychol*. 19:605–612.

Pargament KI (1997) *The Psychology of Religion and Coping: Theory, Research, Practice.* New York: Guilford Press.
Parker M, Roff L, Klemmack DL, Koenig HG, Baker P, Allman RM (2003) Religiosity and mental health in southern, community-dwelling older adults. *Aging Ment Health*. 7:390–397.
Porter SR, Whitcomb ME (2003) The impact of contact type on web survey response rates. *Public Opin Q*. 67:579–588.
Raphael FJ, Rani S, Bale R, Drummond LM (1996) Religion, ethnicity and obsessive-compulsive disorder. *Int J Soc Psychiatry*. 42:39–44.
Sherkat DE, Ellison CG (1999) Recent developments and current controversies in the sociology of religion. *Annu Rev Sociol*. 25:363–394.
Shreve-Neiger AK, Edelstein BA (2004) Religion and anxiety: A critical review of the literature. *Clin Psychol Rev*. 24:379–397.
Shrout PE, Link BG, Dohrenwend BP, Skodol AE, Stueve A, Mirotznik J (1989) Characterizing life events as risk factors for depression: The role of fateful loss events. *J Abnorm Psychol*. 98:460–467.
Sica C, Novara C, Sanavio E (2002) Religiousness and obsessive-compulsive cognitions and symptoms in an Italian population. *Behav Res Ther*. 40:813–823.
Silberman I (2003) Spiritual role modeling: The teaching of meaning system. *Int J Psychol Relig*. 13:175–195.
Sitarenios G, Rayes M, Morrison J (2000) *SA-45: The Symptom Assessment-45 Questionnaire.* North Tonawanda (NY): Multi-Health Systems.
Stark R, Bainbridge WS (1996) *A Theory of Religion.* New Brunswick (NJ): Rutgers University Press.
Stein MB, Torgrud LJ, Walker JR (2000) Social phobia symptoms, subtypes and severity: Findings from a community survey. *Arch Gen Psychiatry*. 57:1046–1052.
Tek C, Ulug B (2001) Religiosity and religious obsessions in obsessive-compulsive disorder. *Psychiatry Res*. 104:99–108.
Templer DI, Dotson E (1970) Religious correlates of death anxiety. *Psychol Rep*. 25:895–897.
Templer DI (1972) Death anxiety in religiously very involved persons. *Psychol Rep*. 31:361–362.
Tepper L, Rogers SA, Coleman EM, Malony HN (2001) The prevalence of religious coping among persons with persistent mental illness. *Psychiatr Serv*. 52:660–665.
Weaver AJ, Flannelly KJ, Galek K (2005) Fundamental values. *Spirituality Health*. 8:789.
Weaver AJ, Flannelly KJ, Oppenheimer JE (2003) Religion, spirituality and chaplains in the biomedical literature: 1965–2000. *Int J Psychiatry Med*. 33:155–161.
Weisman AG (2000) Religion: A mediator of Anglo-American and Mexican attributional differences toward symptoms of schizophrenia? *J Nerv Ment Dis*. 188:616–621.
Zimet GD, Dahlem NW, Zimet SG, Farley GK (1988) The multidimensional scale of perceived social support. *J Pers Assess*. 52:30–41.