Published in final edited form as:

J Am Med Dir Assoc. 2009 October ; 10(8): 581–586. doi:10.1016/j.jamda.2009.06.001.

Religiousness, Religious Coping, and Psychological Well-Being in Nursing Home Residents

Karen Glasser Scandrett, MD, MPH and Susan L. Mitchell, MD, MPH

Department of Geriatrics, Northwestern University Feinberg School of Medicine, Chicago, IL (K.G.S.); Institute for Aging Research, Hebrew Senior Life, Boston, MA (S.L.M.).

Abstract

Objectives—To measure the importance of religion among nursing home residents, describe their use of religious coping strategies, and examine the association between religiousness, religious coping, and psychological well-being.

Design—Cross-sectional study.

Setting—Two nursing facilities in Boston, Massachusetts.

Participants—One hundred forty cognitively intact to moderately impaired long-stay nursing home residents.

Measurements—Subjects rated religion as either “not important,” “somewhat important,” or “very important.” Use of religious coping strategies was measured using the 14-item Brief RCOPE. The outcome measure, psychological well-being, was measured with the Bradburn Affect Balance Scale. Covariates included demographic variables and a measure of social engagement, comorbidity, functional status, and mental status. Linear regression was used to examine the association between religious importance and psychological well-being after adjusting for covariates.

Results—Subjects rated the importance of religion as follows: very important (54%), somewhat important (27%), and not important (19%). The mean score on the Affect Balance Scale was 5.9 ± 2.1 (SD) (range 2–9). After multivariate adjustment, viewing religion as somewhat or very important (versus not important, $P = .0019$) and absence of negative religious coping strategies ($P = .0083$) were associated with better psychological well-being (with higher scores on the Affect Balance Scale) ($P = .007$).

Conclusion—Religion was important to most older residents living in 2 religiously affiliated long-term care facilities. Residents for whom religion was somewhat or very important and who did not use negative religious coping strategies are more likely to have better psychological well-being.

Keywords

Religiousness; religious coping; psychological well-being; nursing home

Religion and spirituality have been shown to be important aspects of health among individuals of advanced age,¹ of whom 43% are reported to regularly attend religious activities² and 68% to conduct private religious activity.³ Population studies in the elderly have shown lower

mortality among frequent religious services attendees, and greater subjective health perception among those who engage in private religious activity.⁴⁻⁶ However, studying the relationship between religion and health is challenging because of a lack of standardized measures of religiosity, differences between various religious groups, and unclear explanatory pathways.^{6,7}

One possible mechanism for religion's protective effects is via the enhancement of psychological well-being. Researchers propose that individuals with strong religious identification may have greater resilience in coping with stressors,^{4,7} and have shown increased life satisfaction among those involved in private religious activity.^{8,9} Furthermore, studies of religious coping have found higher rates of depression among older individuals with poor religious coping strategies.¹⁰ A subsequent study in a medically ill elderly cohort demonstrated greater mortality among patients who exhibited religious struggle.¹¹ A by-product of these studies was the development and validation of a standardized assessment tool designed to measure religious coping.^{12,13}

Although the results of these and other studies are intriguing, their conclusions are limited for several reasons. First, the study populations were 95% Christian (mostly Protestant), and therefore the results may not be generalizable to other religions.¹⁴ Second, studies of religious coping in elderly have involved mostly community-dwelling adults between 65 and 80 years of age, and thus have limited applicability to the older, frailer populations residing in nursing facilities. Finally, studies did not examine the relationship between religious involvement and other outcomes important to the frail elderly (eg, overall well-being), for whom religious observance may provide an important component of quality of life.¹⁵

To address these limitations we conducted a cross-sectional study among frail nursing home residents at 2 religiously affiliated nursing homes (Jewish and Roman Catholic) in Boston. We hypothesized that religion provides individuals with an additional coping mechanism to handle adverse health events and dependency, resulting in better psychological well-being among individuals who are more religious. Psychological well-being is a distinct domain of the multifaceted quality of life construct, and plays a mediating role in the individual's perception of his or her situation.¹⁶ This work will further our understanding of religious observance in older persons and its interaction with psychological health.

METHODS

Study Subjects

Subjects were residents living in 2 nonprofit, religiously affiliated nursing homes (NHs) in Boston, Massachusetts. One facility was a 600-bed institution in which 95% of residents were Jewish, that had a full-time rabbi and held weekly religious services in an on-site synagogue. The other facility was a 366-bed NH operated by the Carmelite Sisters for the Aged and Infirm in which 90% of residents were Catholic. In both facilities, religious services are also aired on television via an internal cable service.

Subjects met inclusion criteria if they had resided at the facility for at least 3 months, were able to speak English, were cognitively able to consent to participate in a minimally invasive study, and were physically able to complete a structured in-person interview. To identify the study sample, an administrator from each facility provided the investigator (K.G.S.) with a computerized list of residents who had resided at the facility for more than 100 days, and who scored a 0 (independent), 1 (modified independence), or 2 (moderately impaired) on the cognitive skills for daily decision-making item (Item B.4.) (Range 0–3) on their most recent Minimum Data Set (MDS) assessment,¹⁷ which is collected on a quarterly basis. Before approaching the resident, the investigator asked unit nursing staff to verify English-speaking

ability and medical stability. Residents meeting these criteria were solicited for participation, and written informed consent was obtained. Enrollment and interviews continued until 3 attempts had been made to contact all residents meeting eligibility requirements. The investigator conducted and transcribed all interviews, which lasted approximately 45 minutes.

The Institutional Review Board at Hebrew Senior Life approved the conduct of this study.

Measures

Baseline Variables—Demographic information including age, gender, length of stay, country of birth, marital status, and education level was obtained via chart review (K.G.S.). The number of chronic medical conditions and medications were abstracted from the chart. Functional status and level of social engagement were scored using information from the subject's most recent MDS assessment, which is conducted on a quarterly basis. Functional ability was assessed with the MDS–Activities of Daily Living (ADL) scale (range 0–28), which measures performance in 7 domains¹⁸: dressing, personal hygiene, toilet use, locomotion, transferring, bed mobility, and eating. Each domain is scored as follows: 0 = independent, 1 = supervision, 2 = limited assistance, 3 = extensive assistance, and 4 = total dependence. A score of 28 represents complete dependence in all 7 domains. Social engagement was measured using the MDS social engagement index derived from the Resident Assessment Instrument, which assigns a score of 1 (item present) or 0 (item absent) in the following 6 domains¹⁹: at ease interacting with others, at ease doing planned activities, at ease doing self-initiated activities, establishes own goals, pursues involvement in the facility, and accepts invitations into activities. The resulting score was not normally distributed, and was dichotomized at the median to denote engaged versus not engaged. During the interview, all subjects completed the Folstein Mini-Mental State Exam (MMSE, range 0–30, lower scores indicate worse cognition)²⁰ and the Katz Geriatric Depression Scale (GDS short form, range 0–15, higher scores indicating greater depressive symptoms).²¹ The GDS was included to better describe the cohort; however, given that many items in the GDS scale were endogenous with those in the Bradburn Affect scale (outcome),²² the GDS was not included as an independent variable in the analyses.

Religious Variables—Religious variables were measured in 2 ways. First, subjects identified their religion, and were asked how important religion was to them personally (not important, somewhat important, and very important). Second, their use of religious means of coping was assessed using the Brief RCOPE,¹³ a 14-item questionnaire that has been validated in older US populations. The instrument categorizes religious coping into 7 positive attributes (eg, “looked for a stronger connection with God”) and 7 negative attributes (eg, “questioned God’s love for me”). The frequency with which each subject used each attribute was rated 0 (not at all), 1 (rarely), 2 (sometimes), or 3 (a great deal), and the positive and negative attributes were scored separately on 2 subscales each ranging from 0 to 21. Based on the distribution of each score in this population, both subscales were dichotomized to denote use versus non-use of positive and negative religious coping strategies.

Outcome Variable—The outcome variable, psychological well-being, was evaluated using the Bradburn Affect Balance Scale (ABS).²² This instrument has been validated in multiple community samples and is well established for use in elderly populations. It is a circumplex model for subjective well-being that measures 2 distinct aspects of psychological well-being, namely, positive and negative affect. Subjects answer yes or no to 5 items measuring positive affect (subscore possible 1–5) and 5 measuring negative affect (subscore range 0–4). The total negative subscore score is subtracted from the positive subscore, and 5 is added to the result, for a range of scores from 2 (more negative affect) to 10 (more positive affect). The ABS is brief (administered in less than 5 minutes) and suitable for inclusion in a longer research

interview, in contrast to life-satisfaction scales including the Life Satisfaction Index-A,²³ the Salamon-Conte Life Satisfaction in the Elderly Scale,²⁴ and the Philadelphia Geriatric Center Morale Scale.²⁵ It has good reliability in comparison with other measures of psychological well-being including the Philadelphia Geriatric Center Positive and Negative Affect Scales,²⁶ and the Positive Affect and Negative Affect Scales (PANAS),²⁷ although it is noted to have poor convergent correlation between subscales. The extent to which this affects the summative score is unclear. None of these models for psychological well-being have been specifically validated for NH populations.²⁸

Analysis

All analyses were conducted using SAS, version 6.0 (SAS Institute, Inc., Cary, NC).

Descriptive statistics were used to describe all variables using means for continuous variables and frequencies for categorical variables. Unadjusted analyses were conducted to examine the bivariable associations between each independent variable and the dependent variable, psychological well-being (2–10), analyzed as a continuous variable. Main independent variables included both religious variables (importance, RCOPE). All resident characteristics with the exception of the GDS were included as covariates. The *t* tests were used to test significant associations between dichotomous independent variables and the outcome variable. Pearson correlations were used to test associations between continuous independent variables and the outcome.

Multivariable linear regression was used to model the dependent variable: psychological well-being. All baseline variables achieving a *P* value less than or equal to .50 in the unadjusted analyses were entered into the regression equation.

RESULTS

Study Sample

A total of 218 NH residents were screened for eligibility; 211 met eligibility requirements, and 140 were enrolled. Reasons for nonenrollment were refusal (80.3%), too ill (18.3 %), and unavailable after multiple attempts (1.4%). The mean age of nonparticipants was 90.1 ± 7.8 (SD); 83.3% were female and 98.6% were white.

The mean age of the subjects was 85.4 ± 8.2 (SD) years; 71.4% were female and 97.1% were white (Table 1). A total of 78.4% of subjects had completed at least 12 years of education. Mean length of stay in the nursing facility was 1135.0 ± 1081.5 days. The subjects had a mean score of 9.9 ± 7.3 on the ADL scale, and an average of 7.3 ± 2.2 active medical diagnoses. The mean score on the GDS was 4.9 ± 3.2 , the mean MMSE score was 22.0 ± 5.7 with 51% of subjects scoring under a cutoff score of 24, and 27.1% of subjects were scored as socially engaged.

Among all subjects, 48.5% were Jewish, 42.9% were Roman Catholic, 6.4% were Protestant Christian, and 2.1% did not endorse any religion. A total of 54% of subjects said that religion was “very important,” 27% stated religion was “somewhat important,” and 19% of subject felt it was “not important.” Use of any type of positive religious coping strategy was reported by 82.1% of subjects, whereas 47.9% reported using any negative religious coping strategy.

Subjects’ mean Bradburn Affect Balance Scale was 5.9 ± 2.1 , with a range of 2 to 9.

Association between Religious Measures and Psychological Well-Being

In bivariable analyses, subjects who rated religion as either “very” or “somewhat” important (versus not at all) had higher scores on the Bradburn Affect Balance Scale (better psychological well-being). Using negative religious coping and older age was associated with lower Bradburn Affect Balance Scale scores (poor psychological well-being). The 2 religious measures (importance and RCOPE), age, sex, social engagement, MMSE score, ADL score, and number of diagnoses were entered into a multivariate linear regression model. After adjustment, greater religious importance ($P = .0019$) and absence of negative religious coping strategies ($P = .0083$) remained independently associated with greater psychological well-being (see Table 2).

DISCUSSION

This study demonstrates that religion is somewhat or very important to most of the study participants at 2 religiously affiliated nursing facilities in Boston. This finding is not surprising given that residents had most likely participated in choosing their NH. Moreover, our results suggest that ascribing greater importance to religion and not using negative religious coping strategies is associated with better psychological well-being among institutionalized elders, even after controlling for health status.

Prior epidemiologic studies of community-dwelling elders have demonstrated robust levels of religious activity among elderly individuals,^{3–5} and shown that these activities remain important to elders living in the last year of life.^{1,29} However, many reports do not specify the religious traditions of the study sample; the majority of those that do specify draw from a predominantly Protestant Christian population. This study confirms the importance of religion among primarily Jewish and Roman Catholic NH residents.

Our study also found that religiousness is associated with psychological well-being. This is consistent with other work that found higher levels of religious involvement among elderly subjects to be associated with fewer depressive symptoms,²⁹ improved life satisfaction,⁸ and improved self-esteem.³⁰ Psychological well-being incorporates important positive aspects of affect that are not addressed by assessments for depression or other psychopathology, and is a proposed mediator between religious involvement and better health outcomes in some explanatory models.^{7,31} Psychological well-being comprises one important aspect of quality of life for NH patients, a construct that is widely sought for the NH population but is unwieldy and difficult to measure,³² and has been described as the ultimate outcome in a causal model for quality of life.³³

Our study showed an association between psychological well-being and negative religious coping, but not positive religious coping. Several previous studies reporting on general religious coping strategies have shown them to be a common response to stressful life events, and to be associated with preservation of psychological well-being.^{34,35} In contrast, one study among Catholics facing severe, chronic illness demonstrated an association between religious coping and poor adjustment to illness,⁷ and a study of acutely ill young elderly found a correlation between negative coping and increased mortality.¹¹ The current study found no association between positive religious coping strategies and psychological well-being among either Roman Catholics or Jews, although negative religious coping was correlated with poor psychological well-being in both groups. This finding illustrates the potential for religious coping to be dysfunctional, leading to greater distress in response to life events.¹²

Our study has several limitations that warrant comment. First, the study was cross sectional and therefore was not designed to determine direct causality between religiousness and health outcomes. Second, the study sample was drawn from 2 religiously affiliated NHs. It is likely that older persons who choose to live in these facilities may place more importance on religion

compared with those who live in NHs that are not religiously affiliated, and religious aspects of the institutional culture may have an impact on all residents, regardless of how important they view religion in their lives. Moreover, our results may not be generalizable to NH residents of other faiths.

Third, the religious coping instrument has not been validated among individuals with mild to moderate cognitive impairment, which represented 51% of our study population, and it is unclear what contribution cognition played in the low response rate to many of the items. Similarly, the Affect Balance Scale has not been validated among institutionalized elderly or specifically among cognitively impaired individuals, and although the distribution of responses was normal, results should be interpreted with caution.

Finally, although this study demonstrates the association between religiousness and well-being, the conceptual model was not sufficient to explore a particular causal pathway, which might include reinforcing social cohesion,³⁰ buffering the effect of depression among a high-risk population,³⁶ facilitating an integrative life review,³⁷ or, conversely, reinforcing feelings of shame or hopelessness based on negative or harmful religious beliefs and experiences.¹²

Despite these limitations, this study presents evidence that religion remains important to many individuals late in life, including those residing in nursing facilities, and is associated with psychological well-being. Many nursing facilities were started by religious groups and retain connections to religious organizations today. Further studies should be designed to address questions raised by this study, and should include an elucidation of the causal pathway between religiousness and well-being, as well as the effect of NH religious culture on individuals across the spectrum of religiousness. Longitudinal studies should be undertaken to investigate the effect of religiousness on well-being over time. Interventions may be designed to offer and reinforce positive aspects of religious involvement for some, and to provide alternative coping strategies among others. Sensitivity and responsiveness in dealing with the varieties of religious interest and participation is an important aspect of person-centered care in any long-term care facility.

CONCLUSION

Religion was somewhat or very important to most study subjects at 2 religiously affiliated NHs in Boston. Ascribing greater importance to religion and not using negative religious coping strategies was associated with better psychological well-being among subjects, even after controlling for health status. The results suggest that among residents for whom religion is important, support to reinforce positive aspects of religious involvement may enhance psychological well-being. For nonreligious residents, alternative means of coping should be identified. Further studies should be undertaken to evaluate this association over time.

Acknowledgments

The authors gratefully acknowledge the support of the Hebrew SeniorLife Department of Medicine and Institute for Aging Research for technical and administrative assistance, and Dr. John Orav and Dr. C. Francis Cook of the Harvard School of Public Health for their expert guidance with the statistical approach. Dr. Muriel Gillick of Brigham and Women's Hospital was instrumental in developing the study concept, and Dr. Linda Emanuel provided helpful critical review of the final manuscript.

This research was conducted while the corresponding author was supported by a Hartford/AFAR Fellows Center of Excellence Award, funded by the John A. Hartford Foundation. In addition, the author was supported by a Harvard/Hartford Junior Faculty Development Award and a grant from the Hebrew Rehabilitation Center for Aged Women's Auxiliary.

Dr. Mitchell is supported by NIH-NIA K24AG033640.

REFERENCES

1. Idler EL, Kasl SV, Hays JC. Patterns of religious practice and belief in the last year of life. *J Gerontol B Psychol Sci Soc Sci* 2001;56B:2326–2334.
2. Taylor, H. While most Americans believe in God, only 36% attend a religious service once a month or more often. Rochester, NY: Harris Interactive, Inc.; 2003 [Accessed January 12, 2009]. Available at http://www.harrisinteractive.com/harris_poll/index.asp?PID=408.
3. Americans who are religious and older people are happier. Rochester, NY: Harris Interactive, Inc; 2008 [Accessed January 12, 2009]. The Harris Poll. Available at http://www.harrisinteractive.com/harris_poll/index.asp?PID=900
4. Oman D, Reed D. Religion and mortality among the community-dwelling elderly. *Am J Public Health* 1998;88:1469–1475. [PubMed: 9772846]
5. Musick M. Religion and subjective health among black and white elders. *J Health Soc Behav* 1996;37:221–237. [PubMed: 8898494]
6. Koenig HG, Hays JC, Larson DB, et al. Does religious attendance prolong survival? A six-year follow-up study of 3,968 older adults. *J Gerontol A Biol Sci Med Sci* 1999;54A:M370–M376. [PubMed: 10462170]
7. Tix AP, Frazier PA. The use of religious coping during stressful life events: Main effects, moderation, and mediation. *J Consult Clin Psychol* 1998;66:411–422. [PubMed: 9583344]
8. Ayele H, Mulligan T, Gheorghiu S, Reyes-Ortiz C. Religious activity improves life satisfaction for some physicians and older patients. *J Am Geriatr Soc* 1999;47:453–455. [PubMed: 10203121]
9. Chally PS, Carlson JM. Spirituality, rehabilitation and aging: A literature review. *Arch Phys Med Rehabil* 2004;85:S60–S65. [PubMed: 15221731]
10. Koenig HG, Pargament KI, Nielsen BA. Religious coping and health status in medically ill hospitalized older adults. *J Nerv Ment Dis* 1998;186:513–521. [PubMed: 9741556]
11. Pargament KI, Koenig HG, Tarakeshwar H, Hahn J. Religious struggle as a predictor of mortality among medically ill elderly patients: A 2-year longitudinal study. *Arch Intern Med* 2001;161:1881–1885. [PubMed: 11493130]
12. Pargament KI, Smith B, Koenig HG, Perez L. Patterns of positive and negative religious coping with major life stressors. *J Sci Stud Relig* 1998;37:710–724.
13. Pargament KI, Koenig HG, Perez LM. The many methods of religious coping: Development and initial validation of the RCOPE. *J Clin Psychol* 2000;56:519–543. [PubMed: 10775045]
14. Levin J, Chatters LM, Taylor RJ. Religious factors in health and medical care among older adults. *South Med J* 2006;99:1168–1169. [PubMed: 17100058]
15. Touhy TA, Brown C, Smith CJ. Spiritual caring: End of life in a nursing home. *J Gerontol Nurs* 2005;31:27–35. [PubMed: 16190010]
16. Berglund A, Kirkevold M. Thriving—a useful theoretical perspective to capture the experience of well-being among frail elderly in nursing homes? *J Adv Nurs* 2001;36:426–432. [PubMed: 11686757]
17. Hawes C, Morris JN, Phillips CD, et al. Reliability estimates for the Minimum Data Set for nursing home resident assessment and care screening (MDS). *Gerontologist* 1995;35:172–178. [PubMed: 7750773]
18. Morris JN, Fries BE, Morris SA. Scaling ADLs with the MDS. *J Gerontol A Biol Sci Med Sci* 1999;54:M546–M553. [PubMed: 10619316]
19. Mor V, Branco K, Fleishman J, et al. The structure of social engagement among nursing home residents. *J Gerontol B Psychol Sci Soc Sci* 1995;50:P1–P8. [PubMed: 7757818]
20. Folstein MF, Folstein SE, McHugh PR. Mini-mental state. *J Psychiatr Res* 1975;12:189–198. [PubMed: 1202204]
21. Sheikh JI, Yesavage JA. Geriatric Depression Scale: Recent evidence and development of a shorter version. *Clin Gerontol* 1986;5:165–172.
22. Kempen GI. Psychometric properties of the Bradburn Affect Balance Scale among elderly persons. *Psychol Rep* 1992;70:638. [PubMed: 1598382]

23. Neugarten BL, Havighurst RJ, Tobin SS. The measurement of life satisfaction. *J Gerontol* 1961;16:134–143. [PubMed: 13728508]
24. Salamon, MF.; Conte, VA. *Salamon-Conte Life Satisfaction in the Elderly Scale (LSES)*. Odessa, FL: Psychological Assessment Resources; 1984.
25. Lawton MP. The Philadelphia geriatric center morale scale: A revision. *J Gerontol* 1975;30:85–89. [PubMed: 1109399]
26. Lawton MP, Kleban MH, Dean J, Pajogopal D, Parmelee PA. The factorial generality of brief positive and negative affect measures. *J Gerontol* 1992;47:228–237.
27. Watson D, Clark LA, Tellegen A. Development and validation of brief measures of positive and negative affect: The PANAS Scales. *J Pers Soc Psych* 1988;54:1063–1070.
28. Grann, JD. Assessment of emotions in older adults: Mood disorders, anxiety, psychological well-being, and hope. In: Kane, RL.; Kanr, RA., editors. *Assessing Older Persons: Measures, Meaning, and Practical Applications*. New York: Oxford University Press; 2000. p. 129-169.
29. Blazer D, Palmore E. Religion and aging in a longitudinal panel. *Gerontologist* 1976;16:82–85. [PubMed: 1245308]
30. Krause N. Religiosity and self-esteem among older adults. *J Gerontol B Psychol Sci Soc Sci* 1995;50B:P236–P246. [PubMed: 7656073]
31. Idler EL. Religious involvement and the health of the elderly: Some hypotheses and an initial test. *Social Forces* 1987;66:226–238.
32. Kane RA. Definition, measurement, and correlates of quality of life in nursing homes: Toward a reasonable practice, research, and policy agenda. *Gerontologist* 2003;43:28–36. [PubMed: 12711722]
33. Lawton, MP. A multidimensional view of quality of life in frail elders. In: Birren, JE.; Lubben, JE.; Rowe, JC.; Deutchman, DE., editors. *The Concept and Measurement of Quality of Life in the Frail Elderly*. San Diego: Academic Press; 1991. p. 3-27.
34. Koenig HG, George LK, Siegler IC. The use of religion and other emotion-regulating coping strategies among older adults. *Gerontologist* 1988;28:303–310. [PubMed: 3396911]
35. Krause N. Neighborhood deterioration, religious coping, and changes in health during late life. *Gerontologist* 1998;38:653–664. [PubMed: 9868846]
36. Koenig HG, Weiner MD, Peterson B, et al. Religious coping in the nursing home: A biopsychosocial model. *Int J Psychiatry Med* 1997;27:365–376. [PubMed: 9565732]
37. Melia SP. Continuity in the lives of elder catholic women religious. *Int J Aging Hum Dev* 1999;48:175–189. [PubMed: 10400122]

Table 1

Subject Characteristics and Their Bivariable Associations with Psychological Well-Being* (N = 140)

Characteristics	Mean $\pm$ SD [†] or % (n)	Unadjusted P value [‡]
Age, y, mean $\pm$ SD	85.4 $\pm$ 8.2	-.007
Female, % (n)	71.4 (100)	-.58
Socially engaged, § %	27.1 (38)	.08
Religious affiliation, % (n)		
Jewish	48.6 (68)	.32
Catholic	42.3 (60)	.77
Protestant	6.4 (9)	—
Importance of religion		
Very	54.3 (76)	.004
Somewhat	27.1 (38)	.013
Not	18.6 (26)	—
Length of stay, d, mean $\pm$ SD	1134.8 $\pm$ 1081.5	.18
No. diagnoses, mean $\pm$ SD	7.3 $\pm$ 2.2	-.18
Activities of Daily Living Score, mean $\pm$ SD	9.9 $\pm$ 7.3	-.92
Mini Mental State Examination Score, ¶ mean $\pm$ SD	22.0 $\pm$ 5.7	.11
Geriatric Depression Scale, ** mean $\pm$ SD	4.9 $\pm$ 3.2	N/A
Negative religious coping, †† % (n)	47.9 (67)	-.001
Positive religious coping, †† % (n)	82.1 (115)	.82

* Psychological well-being was measured by Bradburn Affect Balance scale; range, 2–10, with higher scores indicating greater well-being.

[†]SD = Standard deviation.

[‡]P value = Values determined using t tests for categorical characteristics and Pearson correlations for continuous characteristics. Negative P values are used to indicate an inverse association with psychological well-being.

§ Social engagement was measured using the Minimum Data Set (MDS) Social Engagement Scale; range 0–6. These non-normal data were dichotomized as engaged versus nonengaged.

|| Activities of Daily Living were measured using MDS scores for 7 domains of function; range 0–28, with higher scores indicating greater impairment.

¶ Mini Mental Status Examination (MMSE) was conducted using the Folstein MMSE scale; range 0–30, with lower scores indicating worse cognition.

** Geriatric Depression Scale (GDS) was measured by the Katz GDS short form; range 0–15, with higher scores indicating more depressive symptoms. GDS was not included in analysis because of endogeneity with the Bradburn Affect Balance Scale (outcome).

†† Religious Coping was assessed by the Brief RCOPE, resulting in separate scales for positive and negative religious coping. These non-normal data were dichotomized. The use of negative religious coping is inversely associated with psychological well-being.

Table 2

Linear Regression Model of Psychological Well-Being

Variable	β^*	<i>t</i> value	<i>P</i> value	<i>R</i> ²
Age	−0.05877	−2.37	.019	
Religiousness [†]	1.65461	3.17	.0019	
Negative religious coping [‡]	−1.019	−2.68	.0083	
Model			.0071	0.2121

Psychological well-being was regressed on all covariates displayed in Table 1 and covariates retained after adjustment are displayed.

* β s represent standardized regression coefficients after controlling for previous variables. Negative β coefficients indicate an inverse relationship with psychological well-being.

[†] Religiousness defined as religious being “very” or “somewhat” important versus “not” important.

[‡] Negative religious coping represents any use of negative coping strategies.