

Effects of Religion and Purpose in Life on Elders' Subjective Well-Being and Attitudes Toward Death

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ABSTRACT. Although religiosity tends to help older people to cope with physical and social losses, not all studies find a significant association between religious involvement and well-being in old age. It might be that primarily the intrinsic rather than the extrinsic aspect of religiosity is responsible for the positive effect of religiosity on well-being. Using a sample of 103 community dwelling older adults (58+), multivariate regression analyses showed that purpose in life rather than extrinsic *or* intrinsic religious orientation was positively related to elders' subjective well-being and negatively associated with fear of death and death avoidance. Moreover, extrinsic religious orientation had a positive effect on fear of death and death avoidance. Intrinsic religious orientation was positively related to approach acceptance of death. Frequency of shared spiritual activities and religious affiliation were unrelated to subjective well-being but positively related to death avoidance

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and fear of death, respectively. Those findings might explain why some studies that examine the effects of religion on well-being in old age produce contradictory or inconclusive results. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2003 by The Haworth Press, Inc. All rights reserved.]

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In Western societies, a positive association is often found between religiosity and general well-being, particularly for older adults (Beit-Hallahmi & Argyle, 1997; Chamberlain & Zika, 1988; Ellison, Boardman, Williams, & Jackson, 2001; Imamoglu, 1999; Willits & Crider, 1988; Witter, Stock, Okun, & Haring, 1985). Studies have shown positive effects of religious involvement on functional ability, health, and life satisfaction and negative effects on depressive symptoms among older people (Cutler, 1976; Guy, 1982; Idler, 1987; Idler & Kasl, 1992; Koenig, McCullough, & Larson, 2001; Levin, 1994; Levin, Chatters, & Taylor, 1995; Markides, 1983; Morris, 1991).

However, it is not clear what the causal direction of the association is. Physically disabled older adults might be less likely to attend religious functions and more likely to be depressed (Ainlay, Singleton, & Swigert, 1992; Levin & Markides, 1986; Steinitz, 1980). In addition, involvement in religious activities might offer social support, a positive influence on life style and marriage, and an available interpretation of the meaning of life events (Dull & Skokan, 1995; Imamoglu, 1999; Koenig, McCullough, & Larson, 2001; Levin, 1994; Neill & Kahn, 1999; Strawbridge, Cohen, Shema, & Kaplan, 1997). Moreover, not all studies report a significant positive association between religious involvement and well-being in old age (Koenig, McCullough, & Larson, 2001; Koenig et al., 1997; Walls & Zarit, 1991), whereas others find a reduced effect of religion on well-being when the effect of meaning in life is controlled (Chamberlain & Zika, 1992).

Maybe it is only the intrinsic aspect of religiosity rather than the extrinsic aspect that leads to well-being (Atkinson & Malony, 1994; Chamberlain & Zika, 1992; McFadden, 1999). According to Allport and Ross (1967, p. 434), “. . . the extrinsically motivated person *uses* his religion, whereas the intrinsically motivated *lives* his religion” (empha-

sis in the original). An intrinsic religious orientation is a “meaning-endowing framework in terms of which all of life is understood” (Donahue, 1985, p. 400) and often entails a commitment of one’s life to God or a higher power.

Whereas an intrinsic religious orientation is self-transcendent, an extrinsic religious orientation is more self-oriented. According to Donahue (1985, p. 400) it is a “religion of comfort and social convention, a self-serving, instrumental approach shaped to suit oneself.” Based on those definitions, religious affiliation and religious activities such as church attendance, which are often used in studies on religion (e.g., Cutler, 1976; Ellison, Boardman, Williams, & Jackson, 2001; Guy, 1982; Idler, 1987; Idler & Kasl, 1992; Morris, 1991), might not be the best indicators for religious orientation. Although it might be expected that intrinsically religious people tend to be more involved in religious activities, it is not clear how strong that relation is. For example, Nelson (1990) found only a moderately strong correlation ($r = .52$) between intrinsic religious orientation and church attendance in a sample of 68 community-dwelling elders who took part in an older adult day care program. Many people who attend church regularly might do so for extrinsic rather than intrinsic reasons. In the present study, it is hypothesized that an intrinsic religious orientation is more predictive of subjective well-being in old age than an extrinsic religious orientation, affiliation with a religious group, or religious activities such as church attendance.

In fact, Nelson (1990) found that intrinsic religious orientation was associated negatively with depression, whereas extrinsic religious orientation and church attendance were unrelated to depression. Similarly, Kehn (1995) reported a positive correlation between religious commitment and older people’s life satisfaction among a sample of 98 community-dwelling persons aged 65-90. Moreover, in a study of depression in medically ill hospitalized older patients, intrinsically religious patients tended to have a faster remission of depression, whereas religious affiliation and private religious activities were unrelated to recovery from depression (Koenig, George, & Peterson, 1998).

It is also likely that only an intrinsic religious orientation rather than an extrinsic religious orientation will lead to a sense of meaning and purpose in life. Indeed, in a meta-analysis of the literature Donahue (1985) found that intrinsic religious orientation was positively related to a sense of purpose in life. Similarly, Bolt (1975) reported a greater sense of purpose in life for intrinsically than extrinsically religiously

oriented undergraduates, and Tomer and Eliason (2000) discovered that religious devotion was positively related to a sense of meaning in life.

A sense of meaning and purpose in life, in turn, has been shown to be positively related to happiness, life satisfaction, and general psychological well-being among people of all age groups (Debats, 2000; Harlow, Newcomb, & Bentler, 1987; Reker, 1994; Shek, 1992; Wong, 2000; Zika & Chamberlain, 1992). It is also positively associated with life satisfaction and recovery from grief following bereavement (Edmonds & Hooker, 1992; Ulmer, Range, & Smith, 1991) and negatively correlated with fear of death and death avoidance (Bolt, 1978; Rappaport, Fossler, Bross, & Gilden, 1993; Tomer & Eliason, 2000; Van Ranst & Marcoen, 2000). Therefore, a sense of meaning and purpose in life appears to be particularly important during the later years of life when people are faced with inevitable social and physical losses and the approach of death. Wong (2000, p.25) suggests that

. . . the challenge of successful aging is to discover positive meanings of life and death even when one's physical health is failing. We need to address the needs of the frail, the disabled, and the chronically ill; we should not view them as unsuccessful agers. We need to look deeper and discover what enables one to triumph over prolonged illness and disability. Yes, the secret to successful aging for the frail and the dying lies in discovering the transcendental meaning of life and death.

Again, only an intrinsic religious orientation rather than an extrinsic religious orientation is likely to provide a transcendental meaning of life and death. In fact, many studies show a negative correlation between an intrinsic religious orientation and fear of death, but an insignificant association between an extrinsic religious orientation and death anxiety (e.g., Rasmussen & Johnson, 1994; Templer, 1972; Thorson & Powell, 1990). Similarly, in a meta-analysis of 49 studies of death anxiety in older adults, Fortner, Neimeyer, and Rybarczyk (2000, p.103) found ". . . that religious beliefs predicted higher correlations between death anxiety and religiosity than did religious behavior." Intrinsically religious people might be less likely than extrinsically religious people to fear death or avoid thinking about death because they might believe that they will be rewarded for their religious behavior in the afterlife (Hood & Morris, 1983).

However, intrinsic religious orientation is only one possible avenue to achieve a sense of meaning and purpose in life. Purpose in life can

also be obtained through enduring values or ideals, humanistic concerns, altruism, personal growth, relationship with nature, traditions and culture, social/political causes, personal relationships, creative activities, personal achievement, leaving a legacy, leisure activities, hedonistic activities, financial security, material possessions, and meeting basic needs (Reker, 2000). Hence, an intrinsic religious orientation might be sufficient but not necessary to find meaning and purpose in life. Yet, Moody (1986) argues that a sense of meaning and purpose during the later years of life can only be maintained if individual meaning is replaced by collective meaning or even cosmic meaning in life. Material possessions or hedonistic activities might provide individual meaning, but traditions or social/political causes are likely to be sources for collective meaning, and an intrinsic religious orientation or humanistic concerns might be sources for cosmic meaning. Only if a person's sense of meaning in life is part of a broader collective or cosmic purpose can physical decline, social losses, and death be accepted as necessary facts of life.

The goal of this study was to test the relative effects of purpose in life and religious orientation, affiliation, and behavior on subjective well-being and attitudes toward death in a sample of community dwelling 103 older adults (58+) from North Central Florida. To examine the relation between religion, well-being, and attitudes toward death in old age it is important to distinguish between the effects of intrinsic and extrinsic religious orientation, a sense of meaning and purpose in life, public religious activities, and religious affiliation. The following five hypotheses were tested:

- Hypothesis 1:* Only intrinsic religious orientation is positively correlated with a sense of meaning and purpose in life. Extrinsic religious orientation is unrelated to purpose in life.
- Hypothesis 2:* Intrinsic religious orientation and purpose in life are positively related to subjective well-being in old age. By contrast, extrinsic religious orientation, frequency of shared spiritual activities (e.g., church attendance), and religious affiliation have no direct effect on subjective well-being if the effects of intrinsic religious orientation and purpose in life are held constant.
- Hypothesis 3:* Intrinsic religious orientation and purpose in life are negatively related to fear of death and death avoidance.
- Hypothesis 4:* Only intrinsic religious orientation is positively related to approach acceptance of death. People who score high on

approach acceptance of death tend to view death as a gateway to heaven where they will be reunited with their deceased loved ones (Wong, Reker, & Gesser, 1994).

Hypothesis 5: Extrinsic religious orientation, frequency of shared spiritual activities, and religious affiliation are unrelated to attitudes toward death after controlling for the effects of intrinsic religious orientation and purpose in life.

The analyses also controlled for the effects of subjective health, age, socioeconomic status (SES), gender, race, marital status, and retirement status.

METHODS

Procedure

Between December 1997 and June 1998 180 volunteers were recruited for a "Personality and Aging Well Study" from 18 close-knit social groups of older adults in North Central Florida. Each volunteer was asked to complete a self-administered questionnaire. Members of the research team visited respondents at home to deliver and explain the questionnaire and the informed consent form, to let the respondent sign the informed consent form, and to conduct the interview if the respondent needed assistance. Research team members conducted ten interviews at the respondent's home. All the remaining 170 questionnaires were completed by the respondents and returned by mail in stamped, pre-addressed envelopes.

Ten months after the initial interview, a follow-up survey and informed consent form was sent to all respondents with known addresses. If the follow-up survey was not returned within two to three weeks, respondents were contacted by phone to remind them of the questionnaire and to offer help and assistance if needed. This procedure resulted in 123 completed follow-up surveys or a response rate of about 70% of the initial sample with known addresses. Religiosity and attitudes toward death were only assessed in the follow-up survey. Hence, all measures in this study were taken from the follow-up survey with the exception of the demographic variables.

Sample

The sample for the present research consisted of 103 White and African American older adults with no missing values on the religion vari-

ables. The respondents were between 58 and 87 years of age with a mean age of 72 years and a median age of 73 years. Seventy percent were women, 78% were White, 60% were married, and 81% were retired. Ninety percent had a high school diploma, 31% had a graduate degree, and 87% of the respondents were affiliated with a religious group. Thirty-eight percent of the respondents who were affiliated with a religious group were Baptists, 23% were Methodists, 24% belonged to other Protestant groups, 8% were Catholics, and 7% were affiliated with other religious groups.

The 103 older adults in the study sample did not differ significantly from the original sample of 180 respondents with regard to subjective health, socioeconomic status, gender, race, age, or marital and retirement status.

Measures

To construct the scales, the mean of all scale items with valid values was calculated, under the condition that no more than one of the scale items had a missing value. The only exception to this rule concerned the 20-item CES-D depression scale. Because the number of items in this scale was large, two items with missing values were allowed to construct the mean of the scale. Given the relatively small sample, this procedure was considered the most appropriate method. A listwise deletion of cases, by contrast, would have reduced the sample size even further.

Subjective Well-Being. Subjective well-being was assessed as the average of two indicators: general well-being during the past month and depressive symptoms during the past week. *General well-being* was measured by the two items of the life satisfaction subscale (e.g., “How happy, satisfied, or pleased have you been with your personal life during the past month?” ranging from 1 = “very dissatisfied” through 6 = “extremely happy”) and the four items of the cheerfulness subscale (e.g., “How have you been feeling in general during the past month?” ranging from 1 = “in very low spirits” through 6 = “in excellent spirits”) of the NCHS General Well-Being Schedule (Fazio, 1977). Five of the six items were assessed on 6-point scales and one item was measured on a 0-10 interval scale. All scales were transformed into 0-5 scales and the scales of the negatively worded items were reversed before the average of all six items was taken. The reliability coefficient Cronbach’s alpha was .88. *Depressive symptoms* were assessed by the CES-D (Radloff, 1977), a widely used depression scale for the general population. The scale consisted of 20 items that asked respondents how often they have

felt in a particular way during the past week (e.g., "I felt depressed." "I felt sad." "I was happy." "I enjoyed life.") on a scale ranging from 1 (less than 1 day) through 4 (5-7 days). All positively worded items were reversed before the mean of the 20 items was calculated.¹ Cronbach's alpha for the scale was .89. The correlation between general well-being and depressive symptoms was $-.70$ and, hence, a combined scale was constructed that measured subjective well-being. The two scales were averaged after the scale for depressive symptoms was reversed and recoded to a 0-5 scale.²

Attitudes Toward Death. Fear of death, death avoidance, and approach acceptance of death were measured by the Death Attitude Profile-Revised (Wong, Reker, & Gesser, 1994). *Fear of death* consisted of the average of seven items (e.g., "I have an intense fear of death." "Death is no doubt a grim experience.") with an alpha-value of .84; *death avoidance* was the mean of five items (e.g., "I avoid death thoughts at all costs." "I always try not to think about death.") with an alpha of .85; and *approach acceptance of death* was the average of 10 items (e.g., "I believe that I will be in heaven after I die." "I look forward to life after death.") with an alpha of .97. All items were assessed on 5-point scales ranging from 1 (strongly disagree) through 5 (strongly agree).

Religiosity. Intrinsic and extrinsic religious orientation was measured by Allport and Ross' (1967) Intrinsic and Extrinsic Religious Orientation Scale. The 5-point scales of all items ranged from 1 (strongly disagree) through 5 (strongly agree). *Intrinsic religiosity* consisted of the average of 9 items (e.g., "I try hard to carry my religion over into all my other dealings in life.") with an alpha of .89, and *extrinsic religiosity* was the mean of 11 items (e.g., "A primary reason for my interest in religion is that my church is a congenial social activity.") with an alpha of .81. Although the validity of the scales has sometimes been criticized in the past (Hunt & King, 1971; Kirkpatrick & Hood, 1990), it is the most widely used scale to measure religious orientation (e.g., Donahue, 1985) and has not been replaced yet by any superior scales. Furthermore, the two scales have high internal consistency and appear to measure two distinct religious orientations. *Shared spiritual activities* ("Last months, I participated in spiritual activities with at least one other person . . ." ranging from 1 = "0 times" through 5 = "more than 15 times") was a single item from the Spiritual Involvement and Beliefs Scale (Hatch, Burg, Naberhaus, & Hellmich, 1998). *Religious affiliation* was measured as a dichotomous variable. Respondent who an-

swered “none” or did not give an answer to the open-ended question “What is your religious affiliation?” were coded as having no religious affiliation.

Purpose in Life. Three “pure” meaning items from Crumbaugh and Maholick’s (1964) Purpose in Life Test (King & Hunt, 1975) were used to assess respondents’ sense of purpose and meaning in life (“I have discovered satisfying goals and a clear purpose in life.” “If I should die today, I would feel that my life has been worthwhile.” “My personal existence often seems meaningless and without purpose.”).³ The 5-point scale of the items ranged from 1 (not true of myself) through 5 (definitely true of myself). The scale of the negatively worded item was reversed before the average of all three items was taken, resulting in an alpha-value of .65.

Subjective Health. Four adapted items from the OARS Multidimensional Functional Assessment Questionnaire (Center for the Study of Aging and Human Development, 1975), the National Survey of the Aged (Shanas, 1962, 1982), and the “Americans’ Changing Lives” Questionnaire, Wave I (House, 1994) were used to measure subjective health. The items measured present overall health (1 = “very bad” through 5 = “excellent”), overall health compared to other people the respondent’s age and present health compared to health one year ago (1 = “worse” through 3 = “better”), and extent of health related problems and limitations (1 = “a great deal” through 5 = “not at all”). The two 3-point scales were first transformed into 5-point scales before computing the mean of all items. Cronbach’s alpha was .75.

Socioeconomic Status (SES). The average of longest held occupation and educational degree was used to determine SES. Three raters coded longest held occupation according to Hollingshead’s Index of Occupations (O’Rand, 1982) on a scale ranging from 1 (farm laborers, mental service workers) through 9 (higher executive, large business owner, major professional). The codes for occupations whose designation was not self-evident were decided jointly by at least two raters. The 5-point scale of educational degree, ranging from 0 (no high school) through 4 (graduate degree), was first transformed into a 9-point scale before it was averaged with occupation. SES for respondents without an occupation was represented by their educational degree.

Age was measured in years. *Gender, race, marital status, and retirement status* were coded as dichotomous variables.

Analysis

The data were analyzed through bivariate correlation, ANOVA, and multivariate OLS regression analyses. To perform the multivariate regression analyses, the independent variables of interest, religiosity and purpose in life, were first entered into the model. Control variables were subsequently added to the model in a stepwise procedure if their regression coefficients were statistically significant. After the significance of the coefficient estimates for the control variables was determined, the model was analyzed again without the insignificant control variables to maximize the number of cases in the model. For the three models that predict attitudes toward death (Table 4), control variables that were significant in at least one of the three models were included in all of the models to facilitate a comparison between the models.

RESULTS

Bivariate Correlation Analyses

Table 1 displays the bivariate correlations of the dependent and independent variables. As predicted in Hypothesis 1, purpose in life correlated with intrinsic religious orientation ($r = .31$; $p < .01$) but was unrelated to extrinsic religious orientation. As hypothesized, intrinsic religious orientation was related positively to subjective well-being ($r = .27$; $p < .01$) and to approach acceptance of death ($r = .81$; $p < .01$). However, contrary to expectations, intrinsic religious orientation was unrelated to fear of death and death avoidance. Extrinsic religious orientation, by contrast, was negatively correlated with subjective well-being ($r = -.23$; $p < .05$) and positively correlated with fear of death ($r = .40$; $p < .01$) and death avoidance ($r = .36$; $p < .01$). Intrinsic and extrinsic religious orientation were also related negatively to each other ($r = -.26$; $p < .01$).

Purpose in life was related positively to subjective well-being ($r = .67$; $p < .01$) and approach acceptance of death ($r = .23$; $p < .05$) and related negatively to fear of death ($r = -.28$; $p < .01$) and death avoidance ($r = -.29$; $p < .01$). Frequency of shared spiritual activities and belonging to a religious group were related positively to subjective well-being ($r = .35$ and $r = .32$, respectively; $p < .01$). Shared spiritual activities and religious affiliation were correlated negatively with extrinsic religious orientation ($r = -.35$; $p < .01$ and $r = -.20$; $p < .05$, respectively) and

TABLE 1. Correlation Matrix of Dependent, Independent, and Control Variables; Pairwise Deletion of Cases.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	Mean	s	n
(1) Subjective well-being	-															4.15	.64	101
(2) Fear of death	-.29**	-														2.32	.73	96
(3) Death avoidance	-.25*	.58**	-													2.25	.74	96
(4) Approach acceptance of death	.16	-.02	-.02	-												3.91	1.00	94
(5) Intrinsic religious orientation	.27**	-.08	-.03	.81**	-											3.95	.79	103
(6) Extrinsic religious orientation	-.23*	.40**	.36**	-.24*	-.26**	-										2.78	.72	103
(7) Purpose in life	.67**	-.28**	-.29**	.23*	.31**	-.16	-									4.34	.66	103
(8) Shared spiritual activities	.35**	-.19	-.01	.56**	.64**	-.35**	.44**	-								2.90	1.33	103
(9) Religious affiliation (1 = yes)	.32**	.12	-.08	.43**	.54**	-.20*	.34**	.44**	-							.87	.33	103
<u>Control Variables</u>																		
(10) Subjective health	.51**	-.19	-.02	.22*	.18	-.21*	.35**	.24*	.09	-						3.66	.80	96
(11) SES	.17	-.12	-.22*	-.27**	-.11	-.02	.20*	.04	-.03	-.02	-					5.69	2.34	103
(12) Gender (1 = female)	.05	.05	-.05	.23*	.30**	-.21*	.09	.27**	.20*	.12	-.21*	-				.70	.46	103
(13) Race (1 = White)	-.09	-.19	-.26*	-.10	-.16	-.38**	-.19	-.02	-.06	-.16	-.03	-.05	-			.78	.42	103
(14) Age	-.36**	.09	.15	-.18	-.18	.24*	-.13	-.03	-.07	-.27**	.05	-.07	.18	-		72.44	7.43	100
(15) Retired (1 = yes)	-.12	.07	.00	-.12	-.09	.04	-.10	-.16	-.10	-.17	.20*	-.10	.11	.29**	-	.81	.39	100
(16) Married (1 = yes)	.17	-.07	-.13	.01	-.01	-.09	.04	.02	.08	.05	.00	-.26**	.16	-.31**	-.23*	.60	.49	101

** p < .01; * p < .05

positively with intrinsic religious orientation ($r = .64$ and $r = .54$, respectively; $p < .01$), purpose in life ($r = .44$ and $r = .34$, respectively; $p < .01$), and approach acceptance of death ($r = .56$ and $r = .43$, respectively; $p < .01$). Finally, respondents who belonged to a religious group tended to participate in shared spiritual activities more often than did those who did not belong to a religious group ($r = .44$; $p < .01$).

Although all of the respondents in the study belonged to Christian religious groups, religious beliefs and practices might vary between the different groups. To test for this possibility, several ANOVA analyses were performed. Only intrinsic religious orientation and approach acceptance of death varied significantly between religious groups. As Table 2 shows, Baptists tended to score highest on intrinsic religious orientation and approach acceptance of death. By contrast, Protestants who neither belonged to the Baptist nor to the Methodist denomination had the lowest average score on intrinsic religious orientation, and respondents who were affiliated with other religious groups had the lowest average score on approach acceptance of death. However, belonging to the Baptist denomination did not have an independent statistical effect on the dependent variables in any of the multivariate regression models. Hence, the variable was not included in the multivariate regression analyses.

Multivariate Regression Analyses

Multivariate regression analyses were performed to test the simultaneous effects of religiosity and purpose in life on subjective well-being and attitudes toward death in old age, controlling for subjective health, SES, age, gender, race, and marital and retirement status. Although intrinsic religious orientation was associated moderately with shared spiritual activities ($r = .64$) and religious affiliation ($r = .54$), multicollinearity did not appear to be a serious problem. In all of the models, the variance inflation factor did not exceed 2.3 for any of the variables included in the models. Further analyses also revealed that the effects for intrinsic religious orientation and the other variables in the model did not change substantially if shared spiritual activities or religious affiliation were excluded from the model.

Subjective Well-Being

As expected in Hypothesis 2, purpose in life had a significant positive effect on subjective well-being ($\beta = .53$; $p < .001$) if the effects of all other variables in the model were controlled (see Table 3). However,

TABLE 2. Mean Differences Between Religious Affiliations, ANOVA Analyses

Religious Affiliation	Intrinsic Religious Orientation			Approach Acceptance of Death		
	Mean	s	n	Mean	s	n
Baptist	4.37	.59	34	4.44	.54	32
Methodist	4.07	.46	21	3.76	.70	18
Other Protestant group	3.83	.65	22	3.95	1.05	20
Catholic	3.95	.63	7	4.03	.64	7
Other	3.98	.76	6	3.52	1.20	5
<i>F</i> score		3.06			3.33	
<i>df</i>		4,85			4,77	
<i>p</i>		.02			.01	

none of the religious variables in the model, including intrinsic religious orientation, was predictive of subjective well-being. Besides purpose in life, subjective health was related positively ($\beta = .25$; $p = .002$) and age was related negatively ($\beta = -.21$; $p = .006$) to subjective well-being. The effects of other control variables (SES, gender, race, and marital and retirement status) were not statistically significant and were therefore excluded from the model. Fifty-eight percent of the variation in subjective well-being could be explained by the variables in the model.

Attitudes Toward Death

Table 4 shows that contrary to Hypothesis 3, intrinsic religious orientation was unrelated to fear of death and death avoidance, but as expected, purpose in life was related negatively to fear of death ($\beta = -.37$; $p = .001$) and death avoidance ($\beta = -.35$; $p = .002$). As predicted in Hypothesis 4, intrinsic religious orientation had a positive effect on approach acceptance of death ($\beta = .74$; $p < .001$).

Hypothesis 5 proposed that extrinsic religious orientation, frequency of shared spiritual activities, and religious affiliation would not have independent significant effects on attitudes toward death after controlling for intrinsic religious orientation and purpose in life. Contrary to that hypothesis, extrinsic religious orientation had a positive effect on fear of death ($\beta = .37$; $p = .001$) and death avoidance ($\beta = .31$; $p = .004$). Moreover, religious affiliation was positively related to fear of death ($\beta = .36$; $p = .001$), and shared spiritual activities were positively related to death avoidance ($\beta = .29$; $p = .024$).

TABLE 3. Effects of Religiosity and Purpose in Life on Subjective Well-Being; Multivariate OLS Regression Analyses with Selected Controls^a

Independent Variables	Subjective Well-Being		
	<i>b</i>	<i>SE</i>	<i>beta</i>
Intrinsic religious orientation	-.06	.08	-.07
Extrinsic religious orientation	.05	.08	.05
Purpose in life	.52	.08	.53***
Shared spiritual activities	.03	.05	.07
Religious affiliation (1 = yes)	.24	.16	.13
Controls			
Subjective health	.20	.06	.25**
Age	-.02	.01	-.21**
<i>F</i> score		18.41***	
<i>df</i>		7,83	
Adjusted <i>R</i> ²		.58	
<i>n</i>		95	

*** $p < .001$; ** $p < .01$

^a The effects of other control variables (SES, gender, race, marital and retirement status) were not statistically significant.

In addition, socioeconomic status had a negative effect on death avoidance ($\beta = -.20$; $p = .039$) and approach acceptance of death ($\beta = -.16$; $p = .016$), and African American older adults tended to avoid thinking about death more than did White elders ($\beta = -.26$; $p = .012$). The effects of age, subjective health, gender, and marital and retirement status were not statistically significant and were, therefore, not included in the model. The variables in the model explained 28% of the variation in fear of death, 26% of the variation in death avoidance, and 65% of the variation in approach acceptance of death.

CONCLUSION

This study tested the effects of religiosity and purpose in life on subjective well-being and attitudes toward death using a community sample of 103 older persons, age 58 and above. Hypothesis 1, which stated that only intrinsic religious orientation but not extrinsic religious orientation would be positively correlated with a sense of meaning and purpose in life, was supported. That suggests that intrinsically religious older adults are more likely to have a sense of meaning and purpose in life than are extrinsically religious elders.

TABLE 4. Effects of Religiosity and Purpose in Life on Attitudes Toward Death; Multivariate OLS Regression Analyses with Selected Controls^a

Independent Variables	Fear of Death			Death Avoidance			Approach Acceptance of Death		
	<i>b</i>	<i>SE</i>	<i>beta</i>	<i>b</i>	<i>SE</i>	<i>beta</i>	<i>b</i>	<i>SE</i>	<i>beta</i>
Intrinsic religious orientation	-.03	.12	-.03	-.05	.12	-.06	.92	.11	.74***
Extrinsic religious orientation	.38	.11	.37***	.33	.11	.31**	.04	.11	.03
Purpose in life	-.40	.12	-.37***	-.38	.12	-.35**	-.03	.11	-.02
Shared spiritual activities	-.02	.07	-.04	.16	.07	.29*	.08	.07	.10
Religious affiliation (1 = yes)	.79	.24	.36***	-.04	.24	-.02	-.00	.23	-.00
<u>Controls</u>									
Socioeconomic status	-.01	.03	-.04	-.07	.03	-.20*	-.07	.03	-.16**
Race (1 = White)	-.23	.18	-.12	-.48	.19	-.26*	.01	.18	.00
F score		6.20***			5.77***			25.90***	
<i>df</i>		7,88			7,88			7,86	
Adjusted <i>R</i> ²		.28			.26			.65	
<i>n</i>		96			96			94	

****p* < .001; ***p* < .01; **p* < .05

^aThe effects of other control variables (age, subjective health, gender, marital and retirement status) were not statistically significant.

Hypothesis 2 predicted that only intrinsic religious orientation and purpose in life would be positively related to subjective well-being, whereas extrinsic religious orientation, frequency of shared spiritual activities, and religious affiliation would be unrelated to subjective well-being. The results of the multivariate regression analysis in Table 3 partly confirmed and partly rejected that hypothesis. Purpose in life was indeed positively related to subjective well-being, confirming earlier findings in the literature of a positive association between purpose in life and happiness, life satisfaction, and general psychological well-being (Debats, 2000; Harlow, Newcomb, & Bentler, 1987; Shek, 1992; Zika & Chamberlain, 1992). However, contrary to Hypothesis 2, intrinsic religious orientation was unrelated to subjective well-being if purpose in life and the other religious variables were included in the model. Those results contradict earlier findings of a positive association between intrinsic or mature religiosity and subjective well-being (Atkinson & Malony, 1994), even though the bivariate correlation between intrinsic religious orientation and subjective well-being was statistically significant in the present study. Yet, the multivariate analysis in Table 3 suggest that it was purpose in life rather than intrinsic religious orientation per se that had a positive effect on subjective well-being in old age, corroborating earlier findings by Chamberlain and Zika (1992).

Hypothesis 3 also was only partly corroborated. As shown in Table 4, purpose in life had a negative effect on fear of death and death avoidance as predicted, supporting earlier reports of a negative relation between purpose in life and death anxiety and death avoidance (Bolt, 1978; Rappaport, Fossler, Bross, & Gilden, 1993; Tomer & Eliason, 2000; Van Ranst & Marcoen, 2000). Yet, in opposition to what was expected in Hypothesis 3 and in contrast to earlier finding of a negative association between intrinsic religious orientation and death anxiety (Rasmussen & Johnson, 1994; Templer, 1972; Thorson & Powell, 1990), intrinsic religious orientation was not related to fear of death and death avoidance.

It was assumed in Hypothesis 4 that intrinsic religious orientation would be positively related to approach acceptance of death. It was argued that intrinsically religious older adults might be most likely to accept death as an entrance to heaven because they anticipate a better existence in the afterlife where they will be rewarded for their religious beliefs and behaviors. Hypothesis 4 was strongly supported by the data. Intrinsic religious orientation was highly related to approach acceptance of death.

According to Hypothesis 5, no significant effects of extrinsic religious orientation, frequency of shared spiritual activities, and religious affiliation on subjective well-being and attitudes toward death in old age were predicted if the effects of intrinsic religious orientation and purpose in life were held constant. Contrary to expectations, extrinsic religious orientation was related positively to fear of death and death avoidance, although it was unrelated to subjective well-being and approach acceptance of death as hypothesized. Extrinsically religious older adult appeared to be more afraid of death and to avoid death more than did either intrinsically religious people or elders who were not religious at all. That suggests that an extrinsic religious orientation might actually be harmful in dealing with death. Extrinsically religious people might still attend religious services and be exposed to religious doctrine. However, because they are aware that their religious behavior is far from perfect, they might be apprehensive about a possible afterlife. Hence, they might avoid and fear death more than a person who is not religious.

Likewise, belonging to a religious group appeared to increase fear of death, and shared spiritual activities had a positive effect on death avoidance if the effects of the other religious variables and purpose in life were controlled. Similar to extrinsic religious orientation, religious affiliation or participation that is not accompanied by an intrinsic religious orientation or a sense of meaning and purpose in life might increase rather than decrease fear of death or death avoidance. On the other hand, it could also be that those older adults who were afraid of death and tended to avoid thinking about death were more likely to join a religious group and to participate in religious activities with others to find solace and comfort in a religious environment.

The results do not necessarily suggest that intrinsic religious orientation and religious involvement are irrelevant for increasing subjective well-being and decreasing fear of death and death avoidance in old age. In fact, the bivariate correlations between purpose in life and intrinsic religious orientation, frequency of shared spiritual activities, and religious affiliation are all highly significant (see Table 1). It appears that intrinsic religious orientation and religious involvement might have an indirect effect, mediated by purpose in life, on subjective well-being, fear of death, and death avoidance (e.g., Chamberlain & Zika, 1992).

The fact that shared spiritual activities and religious affiliation were associated positively with intrinsic religious orientation and purpose in life but negatively with extrinsic religious orientation (see Table 1) suggests that intrinsically religious older people and those who have found

a sense of meaning and purpose in life were more likely to participate frequently in spiritual activities with others and to belong to a religious group than were extrinsically religious people. However, it is also possible that religious affiliation and frequent communal spiritual activities tended to increase intrinsic religious orientation and a sense of meaning and purpose in life while simultaneously decreasing extrinsic religious orientation.

The study had several limitations. First, the sample was relatively small and was not necessarily representative of the older population in general. All sample members were socially active and relatively healthy. Second, the cross-sectional nature of the data did not allow to examine the causal relations between religious affiliation, frequency of shared spiritual activities, intrinsic and extrinsic religious orientation, purpose in life, subjective well-being, and attitudes toward death. The conducted analyses presented only one possible pathway between the variables, even though it is likely that reciprocal influences existed, particularly between religious orientation, religious involvement, and purpose in life. Future longitudinal research is needed to replicate the analyses with a larger and more representative data set.

Yet, the analyses clearly indicate that a sense of purpose and meaning in life is a powerful predictor for subjective well-being, fear of death and death avoidance in old age (Erikson, Erikson, & Kivnick, 1986; Wong, 2000). Apart from intrinsic religious orientation, a guided life review might help older adults to make sense of their past, present, and future life and to increase a feeling of meaning and purpose in life (Bianchi, 1994; Butler, 1974; Moody, 1986). It is also likely that a cosmic or collective sense of meaning rather than a self-centered or individualistic meaning has the strongest effect on subjective well-being and attitudes toward death during the later years of life (Moody, 1986). Whereas intrinsic religious orientation might provide a cosmic sense of meaning, cosmic meaning might also be obtained through, for example, humanistic concerns, a relationship with nature, enduring values and ideals, altruism, and personal growth.

Furthermore, the present research suggests that an extrinsic religious orientation and religious involvement sometimes might be more harmful than the absence of any religiosity. That implies that frequency of church attendance does not appear to be enough to insure subjective well-being among older adults (Blasi, 1999). If religious affiliation and participation is not accompanied by an intrinsic sense of religiosity and purpose in life, religious involvement might not have any beneficial effects and might actually increase death anxiety and death avoidance.

Those results might explain why some studies find contradictory or inconclusive effects of religious involvement on well-being in old age (Koenig, McCullough, & Larson, 2001; Koenig et al., 1997; Walls & Zarit, 1991).

NOTES

1. The score of the CES-D typically is calculated as the sum of all 20 items, measured on a 0-3 scale. To facilitate comparisons across studies, I calculated the mean of the CES-D on the full 0 to 60 scale. The mean in the present study is 7.6, well below the cut-off of 16 that represents a risk for serious depression.

2. The transformation was as follows: $(4 - \text{CES-D}) * 5/3$. The result was a 0-5 scale with higher values indicating *less* depressive symptoms.

3. Other items of the original Purpose in Life Test measure subjective well-being or a sense of control rather than meaning and purpose in life.

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