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The Social Milieu of the Church and Religious Coping Responses: A Longitudinal Investigation of Older Whites and Older Blacks

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Abstract

The purpose of this study is to see if the social environment of the church influences the use of religious coping responses over time. The following theoretical relationships were embedded in the conceptual model that was developed to evaluate this issue: (1) people who go to church more often are more likely to feel their congregation is highly cohesive (e.g., share the same values and beliefs); (2) individuals who worship in highly cohesive congregations are more likely to receive spiritual support (i.e., encouragement to adopt religious teachings and principles) from their fellow church members; (3) people who receive more spiritual support will be more likely to adopt religious coping responses. In the process of evaluating this model, tests were performed to examine the influence of racial culture. Data from a nationwide longitudinal survey of older adults provide support for each link in the conceptual model. Pervasive racial cultural differences were also found: Older blacks were more likely to be deeply involved in each facet of religion than older whites.

Keywords

congregational cohesiveness; spiritual support; religious coping

Ever since researchers first began to study religion, a considerable effort has been devoted to identifying the functions or benefits that are associated with leading a religious life. For example, James Leuba (1921), an early psychologist of religion, maintained that one of the primary functions of religion is to help people deal with their own mortality. In contrast, George Albert Coe (1902), a noted philosopher of religion in his day, argued that deeper involvement in religion helps people be of greater service to others. Although a number of important functions that are provided by religion have been identified in the literature, many investigators would agree that the ways in which religion helps people deal with adversity are among the most essential. Early insight into this issue was provided by Charles Horton Cooley. Writing in 1927, he argued that religion "... often exists without our being aware of it, until some crisis brings it out" (Cooley, 1927, p. 254). More recent evidence that religion is a key coping resource may be found in the widely-cited work of Berger (1967), who discussed the notion of theodicies at length. Theodicies are religious explanations that help people understand and find meaning in the threatening events that arise in life. Similarly, Spilka and his colleagues state that "... the real test of faith ..." comes when people are confronted by major life events, such as economic difficulty or the death of a loved one (Spilka et al., 2003, p. 487).

As research on religion and stress matured, a number of investigators turned to the study of religious coping responses, which involves the specific behaviors and cognitions that individuals employ in an effort to alter or avoid the stressors in their lives (Pargament, 1997).

This work is important because a number of studies suggest that religious coping responses help offset the deleterious effects of stress on physical and mental health (Pargament & Raiya, 2007).

Although research on religious coping responses and health has made an invaluable contribution to the literature, relatively less effort has been spent on identifying the factors that promote the use of religious coping responses in the first place. Simply put, more studies that treat religious coping responses as a dependent variable are needed.

A necessary first step in conducting this type of research involves carefully reflecting on studies that have already examined factors promoting the adoption of religious coping responses. Within this literature is a small cluster of studies that form the cornerstone of the research that is reported below. This body of work examines how church-based social support may influence religious coping. It makes sense to examine this issue because researchers have been arguing for over a century that many aspects of religion arise from and are sustained by the social relationships that people forge in the places where they worship. Evidence of this may be found, for example, in the work of James Mark Baldwin, who was an early president of the American Psychological Association. He maintained that, "The fact is constantly recognized that religion is a social phenomena. No man is religious by himself, nor does he chose his god, nor devise his offering, nor enjoy his blessings alone" (Baldwin, 1902, p. 325).

Unfortunately, several limitations may be found in empirical studies that examine the relationship between church-based social support and religious coping responses. For example, Krause et al. (2001) report that spiritual support from fellow church members is associated with greater use of religious coping responses. Spiritual support is defined as assistance that is intended to increase the religious commitment, beliefs, and behavior of a fellow parishioner. This means, for example, that spiritual support involves helping fellow church members apply their religious beliefs in daily life and helping them find solutions to their problems in the Bible.

Although the study by Krause et al. (2001) sheds light on how religious coping responses arise, there are two limitations in this research. First, the sample comprised Presbyterians. This makes it difficult to determine if the findings can be generalized to a wider population. Second, the data were gathered at a single point in time. As a result, researchers cannot tell whether support from fellow church members increases the use of religious coping responses, or whether people who rely on religious coping responses are subsequently more likely to ask individuals in their congregation for support. This issue is important because some investigators suggest that religious coping responses may determine the amount of social support that is received by individuals who are confronted by major stressful events (e.g., Ai et al., 2007). Even though the direction of causality cannot be determined conclusively with survey data, data that have been gathered at more than one point in time take a step in the right direction by helping researchers more clearly specify the temporal ordering among key study constructs.

Nooney and Woodrum (2002) also found that church-based social support is associated with greater use of religious coping responses. However, these investigators work with data that were obtained at a single point in time. Moreover, they focus on how often church members provide emotional support to the people they worship with. Emotional support involves the provision of empathy, caring, love, and trust (Krause, 2008). Although emotional support helps people deal with adversity, it is not entirely clear why it would foster the use of religious coping responses specifically. In contrast, it is easier to see how spiritual support performs this important function because this type of assistance often encourages support recipients to adopt religious coping responses.

In addition to the limitations that are found in specific studies, there is a larger problem that cuts across a good deal of the research on religious coping responses. More specifically,

researchers have not typically made an effort to see if there are racial cultural differences in religious coping responses and the psychosocial factors that promote them. Moreover, studies that examine the influence of racial culture often suffer from three problems. First, some investigators assess religious coping responses solely within specific racial cultural groups, such as African Americans, without testing for differences across racial cultural groups, such as blacks and whites (e.g., Watlington & Murphy, 2006). Second, other researchers compare people from different racial cultural groups, but they work with samples that are not representative of the wider population, such as individuals who are HIV-positive (Tarakeshwar et al., 2005). Third, even when representative samples have been obtained, researchers have not tested substantive conceptual models that explain why people adopt religious coping responses. Instead, some investigators focus on a limited range of predictors, such as the demographic correlates of religious coping (e.g., Chatters et al., 2008). Although it is important to see if demographic variables such as gender and education are correlated with religious coping responses, it is time to take the next step. More specifically, researchers must identify the intervening constructs that link these demographic factors with religious coping responses.

The purpose of the current study is to examine the relationship between spiritual support provided by fellow church members and the use of religious coping responses. In the process, an effort is made to contribute to the literature by addressing the problems that were discussed above. First, the data that are used in the current study come from a nationwide sample of older adults. Second, these data were gathered at more than one point in time. Third, a conceptual model is devised to explain how differences in the use of religious coping responses arise between older whites and older African Americans.

Spiritual Support and Religious Coping Responses

The latent variable model that was developed for this study is presented in Figure 1. Two steps were taken to simplify the presentation of this conceptual scheme. First, the relationships among the constructs in this figure were evaluated after the effects of age, sex, and education were controlled statistically. This was accomplished by treating these demographic control variables as exogenous constructs in the model that was actually estimated for this study. However, if these demographic variables had been included in Figure 1, the model would have become overly complex and difficult to follow. Consequently, this conceptual scheme was simplified by not depicting the effects of these demographic indicators in this figure. Second, the elements of the measurement model (i.e., the factor loadings and measurement error terms) are not shown in Figure 1 even though they were estimated when the model was analyzed.

The conceptual core of this study is captured in the following hypotheses that are embedded in Figure 1: (1) older blacks attend church more often than older whites; (2) older people who go to church more often will be more likely to report that their congregations are highly cohesive than older adults who go to church less often; (3) older adults who worship in more cohesive congregations will receive more spiritual support from fellow church members than older people who do not worship in highly cohesive congregations; (4) compared to older individuals who receive relatively less spiritual support, older individuals who receive spiritual support from the people in their congregation will be more likely to say they have used religious coping responses at the baseline (Wave 1) and follow-up interviews (Wave 3).

The theoretical rationale for these hypotheses is discussed in greater detail below. Following this, the assessment of change in religious coping is discussed briefly and justification is provided for studying the social environment of the church and religious coping in samples comprising older people.

Racial culture and church attendance

A number of studies suggest that older blacks are more likely to attend worship services than older whites (see Taylor, Chatters, & Levin, 2004, for a review of this research). The root cause of these racial cultural differences may be found by turning to the history of the church in the black community. This issue was discussed some time ago by Nelsen and Nelsen (1975), who point out that the church has been the center of the African American community since its inception. Due to centuries of prejudice and discrimination, black people have turned to the church for spiritual, social, and material sustenance primarily because it was the only institution in their community that was built, funded, and wholly owned by black people. As a result, the church became a conduit for the delivery of social services, and the first schools for black children were located in them as well.

Perhaps no one wrote more on the history of the church in the black community than W. E. B. Du Bois (2000). Strong themes involving social relationships may be found in his work. Writing in 1887, he concluded that, "The Negro church ... provides social intercourse, it provides amusement of various kinds, it serves as a newspaper and intelligence bureau, it supplants the theater, it directs the picnic and excursion, it furnishes the music, it introduces the stranger to the community, it serves as a lyceum, library, and lecture bureau – it is, in fine, the central organ of organized life of the American Negro" (p. 21). Later, in 1899, Du Bois (2000) went on to argue that social ties in black churches were even stronger than those found in churches in the white community: "Without wholly conscious effort the Negro church has become a centre of social intercourse to a degree unknown in white churches even in the country" (p. 34). Even though the observations of Du Bois (2000) were made over a century ago, the strong influence of the church in the black community is still discussed by contemporary investigators, such as the noted black theologian J. Deotis Roberts (2003). He argued that, "The black church, as a social and religious body, has served as a kind of extended family for blacks. In a real sense then, thousands of blacks who have never known real family life have discovered the meaning of real kinship in the black church" (Roberts, 2003, p. 78).

It is not surprising to find detailed discussions of interpersonal relationships and group solidarity permeating research on the social forces that shaped the church in the black community. This makes sense because in addition to being influenced by historical factors, the black church also bears the imprint of the wider racial cultural context in which it is embedded. Evidence of these wider cultural influences may be found in the work of Baldwin and Hopkins (1990). These researchers went to great lengths identify key elements of the African American world view or culture. They persuasively argue that African American culture is characterized by an emphasis on harmony, cooperation, collective responsibility, "groupness," and "sameness."

Church attendance and congregational cohesiveness

Congregational cohesiveness is assessed in this study with indicators that ask study participants to report the extent to which their fellow church members share their values and beliefs, have a similar outlook on life, and have similar ideas about where their congregation should be headed in the future. However, regular social contact must take place before people can determine the values, beliefs, and outlooks of their fellow church members. Although contact may take place in several different church settings, regular attendance at worship services provides one useful forum.

There are two related reasons why frequent social contact is needed to ascertain the beliefs and views of fellow church members. The first involves the willingness of church members to fully disclose this kind of information. There is some evidence that religiously oriented values, beliefs, and outlooks on life may not carry over into actual behavior even though they are

endorsed verbally. For example, as research reviewed by Batson and his colleagues reveals, people cite religious reasons for engaging in altruistic behavior even though their actual behavior reveals that helping is more likely to be motivated by personal gain (Batson, Schoenrade, & Ventis, 1993). As these investigators maintain, the gap between attitudes and behavior may be attributed to social desirability response bias. But this issue may be more complicated than it seems initially. Church members may be willing to abandon socially desirable rhetoric, but only after they feel comfortable with and trust the individuals with whom they are interacting. Simply put, there must be trust before there can be self-disclosure (Steel, 1991). Moreover, repeated social contact (e.g., more frequent church attendance) is needed before feelings of trust can be forged and maintained.

The second reason why more frequent church attendance is needed in order to assess the cohesiveness of a congregation is related to the first. Recent data from the U. S. Congregational Life Survey (2009) indicates that one in three people in a typical congregation are new people (i.e., those who have been coming to the same congregation for less than five years). As a result, the process of building trust and promoting self-disclosure must take place on an ongoing basis as some members leave the church and new people join the congregation.

Congregational cohesiveness and spiritual support

It is unlikely that people who worship in different congregations will have equal access to spiritual support. Becker's (1999) discussion of congregational conflict provides one reason why this may be so. Congregations that are rife with conflict are not likely to foster a social environment that encourages the use of religious coping responses. Consequently, it is important to identify the conditions that help ensure the successful exchange of spiritual support. According to the widely-cited homophily principle (McPherson, Smith-Lovin, & Cook, 2001), social support is more likely to be exchanged among members of a group when there is a high degree of consensus in their values and beliefs. This suggests that spiritual support is more likely to be exchanged in congregations that are more highly cohesive than in congregations that are less cohesive.

Spiritual support and religious coping

When people are confronted by adversity, they often look to God for direction and guidance (Pargament, 1997). Many times, religious coping responses can be implemented with relative ease. But other times they may be difficult to adopt. Evidence that implementing religious coping strategies may at times be challenging is illustrated by Saint John of the Cross in his discussion of the dark night of the soul (Coe, 2000) and it is found in more recent research on spiritual struggles (Exline & Rose, 2005). Fortunately, fellow church members may be especially helpful when difficulties adopting religious coping responses are encountered. Berger and Pullberg (1965) show why this is so. These investigators argue that: "... *men together* engage in constructing the world, which then becomes their dwelling. Indeed, since sociality is a necessary element of human being, the process of world production is necessarily a social one" (Berger & Pullberg, 1965, p. 201, emphasis in the original). And these investigators go on to argue that the process of developing social definitions of reality "... must be confirmed and re-confirmed *by others*" (Berger & Pullberg, 1965, p. 201, emphasis in the original). Cast within the context of the current study, this suggests that fellow church members may be instrumental in helping older people adopt religious coping responses, and religious others facilitate this process by confirming and reconfirming fundamental religious precepts. This view is consistent with the work of Stark and Finke (2000), who propose that, "An individual's confidence in religious explanations is strengthened to the extent that others express their confidence in them" (Stark & Finke, 2000, p. 107).

Some investigators have devised religious coping indices that treat church-based social support as a religious coping response (Pargament, Koenig, & Perez, 2000). The model depicted in Figure 1 departs from this practice by specifying that instead of being a religious coping response per se, spiritual support from fellow church members is a *source* of religious coping responses. This specification rests on the insights of Caplan (1981), who argues that significant others help a person who is confronted by a stressor evaluate the problem situation and develop a plan for confronting the stressor; they assist in implementing the plan, and they provide feedback and guidance as the plan is being executed.

Bringing issues involving change to the foreground

The questions about religious coping responses were administered in the current study at two points in time. This makes it possible to address two important issues. First, the effects of racial culture, church attendance, congregational cohesiveness, and spiritual support on religious coping responses can be evaluated with data that have been gathered at the same point in time. This is sometimes referred to as a contemporaneous effect (Kessler & Greenberg, 1981). In addition, it is possible to perform a more statistically demanding test by assessing whether the core constructs in this study are also associated with change in religious coping responses over time (i.e., a lagged effect). Taken together, the analyses of these contemporaneous and lagged effects provide a preliminary sense of the dynamic aspects of the process that shapes the use of religious coping responses.

Reflecting on the influence of age

Recall that the sample for this study comprised older adults. Although it is not possible to explore age differences in religious coping responses with these data, some justification for focusing specifically on older people is in order. A number of studies suggest that feelings of personal control decline at an accelerating rate across the life course (Mirowsky, 1995). The loss of personal control in late life is unfortunate because a vast literature suggests that older people who have a stronger sense of control tend to cope more effectively with adversity than older adults who do not feel they can influence the course of events in their lives (Krause, 2003). The age-related loss of this key coping resource necessitates that older people look elsewhere for help in dealing with the unwanted events they encounter. Some older adults may find that religious coping responses help compensate for the loss of secular coping responses, such as personal feelings of control. Older people may be especially disposed toward adopting religious coping responses because research reveals that the current cohort of older adults is more deeply involved in religion than people who are presently younger (Levin, 2004). If secular resources are eroded by the time people reach old age, and if involvement in religion increases over the life course, then the influence of the factors that shape the use of religious coping responses should be especially evident in this age group.

Methods

Sample

The data for this study come from an ongoing nationwide survey of older whites and older African Americans. The study population was defined as all household residents who were either black or white, noninstitutionalized, English-speaking, and at least 66 years of age. Geographically, the study population was restricted to all eligible persons residing in the coterminous United States (i.e., residents of Alaska and Hawaii were excluded). Finally, the study population was restricted to currently practicing Christians, individuals who were Christian in the past but no longer practice any religion, and people who were not affiliated with any faith at any point in their lifetime. This study was designed to explore a range of issues involving religion. As a result, individuals who practice a faith other than Christianity were

excluded because members of the research team felt it would be too difficult to devise a comprehensive battery of religion measures that would be suitable for individuals of all faiths.

The sampling frame consisted of all eligible persons contained in the beneficiary list maintained by the Centers for Medicare and Medicaid Services (CMS). A five-step process was used to draw the sample from the CMS Files (see Krause, 2002a, for a detailed discussion of these steps).

The baseline survey took place in 2001. The data collection for all waves of interviews was performed by Harris Interactive (New York). A total of 1,500 interviews were completed, face-to-face, in the homes of the study participants. Older African Americans were over-sampled so that sufficient statistical power would be available to assess racial cultural differences in religion. As a result, the Wave 1 sample consisted of 748 older whites and 752 older African Americans. The overall response rate for the baseline survey was 62%.

The Wave 2 survey was conducted in 2004. A total of 1,024 study participants were re-interviewed successfully, 75 refused to participate, 112 could not be located, 70 were too ill to participate, 11 had moved to a nursing home, and 208 were deceased. Not counting those who had died or moved to a nursing home, the re-interview rate for the Wave 2 survey was 80%.

A third wave of interviews was completed in 2007. A total of 969 older study participants were re-interviewed successfully, 33 refused to participate, 118 could not be located, 17 were too sick to take part in the interview, and 155 older study participants had died. Not counting those who had died, the re-interview rate was 75%.

The analyses presented below are based on data from the Wave 1 and Wave 3 surveys. These data collection points are used because comparable measures of religious coping responses were not administered at Wave 2. Congregational cohesiveness and spiritual support play pivotal roles in the model depicted in Figure 1. However, some study participants reported that they either never go to church or they go only once or twice a year. The members of the research team felt it was not appropriate to administer questions about congregational cohesiveness and spiritual social support from fellow church members to these individuals. Consequently, 342 subjects were eliminated from the analyses presented below. After using listwise deletion to handle item nonresponse, complete data were available from 656 older study participants. Preliminary analysis of the data provided by these individuals reveals that 34.9% are older men and 49.3% are older whites. The average age of the respondents in this group at Wave 1 was 73.9 ($SD = 5.8$ years). Moreover, the participants in this study reported that they had successfully completed an average of 11.9 years of schooling ($SD = 3.4$ years). These descriptive statistics, as well as the findings that are presented below, are based on data that have been weighted.

Measures

Table 1 contains the core measures that were used to evaluate the conceptual model that is presented in Figure 1. The procedures used to code these indicators are provided in the footnotes of this table. The measures of congregational cohesiveness, spiritual support, and religious coping were crafted with the item development strategy reported by Krause (2002b). This item development program consisted of nine steps including focus groups, in-depth interviews, input from other quantitative studies, a review of the newly devised items by a panel of experts, cognitive interviews, and a pilot study. This item development strategy took three years to complete and involved 399 older adults.¹

Church attendance—During the Wave 1 interviews, the participants in this study were asked how often they attend worship services. The mean of this indicator is 7.2 ($SD = 1.5$).

Congregational cohesiveness—The measure of congregational cohesiveness was also taken from the Wave 1 survey. As shown in Table 1, these indicators assess whether study participants feel that the members of their congregation share the same values and beliefs, whether they have the same outlook on life, and whether their co-religionists have similar ideas about where the church should be headed in the coming years. A high score represents more cohesive congregations. The mean of the composite that was formed by summing responses to all three items is 12.2 ($SD = 2.0$).

Spiritual support—The spiritual support measure comes from the Wave 1 survey. The indicators in this brief composite assess whether fellow church members share their own religious experiences with study participants, whether they help study participants lead a better religious life, and whether they help study participants know God better. A high score on these items denotes more frequent spiritual support. The mean of this brief scale is 7.5 ($SD = 2.6$).

In the process of developing the spiritual support items, it became evident that church members can provide spiritual support in two different settings. First, spiritual support can be provided informally in the process of interacting with fellow church members. This interaction may take place inside, as well as outside, the church. Second, as the work of Wuthnow (1994) reveals, people may also provide spiritual support in formal church settings, such as Bible study and prayer groups. Moreover, when the items for this study were being developed, a number of study participants indicated that they considered sermons delivered during formal worship services and congregational prayers to be a source of spiritual support. Expanding the scope of inquiry to include these formal settings tends to blur the boundaries between support that is obtained through formal worship services, spiritual guidance that is garnered through prayer, and spiritual assistance that is provided informally by rank-and-file church members. In order to more clearly identify the underlying factors that may be at work, participants in the present study were instructed to exclude spiritual assistance they may have received in Bible study groups, prayer groups, and formal worship services when answering the spiritual support questions.

Religious coping responses—Four items were administered during the Wave 1 and Wave 3 interviews to assess religious coping responses. As shown in Table 1, these items reflect how study participants typically respond to major problems in life by doing things like turning to God for guidance and looking to God for strength. Study participants were asked how often they typically use these coping responses to help them deal with the major problems that arise in their lives. The mean of the religious coping response measures at Wave 1 is 14.9 ($SD = 1.8$) and the mean at Wave 3 is 1.50 ($SD = 1.9$).

Racial culture—A binary variable was created to contrast older whites (scored 1) and older blacks (scored 0). Information about racial culture was obtained through self-report.

Demographic control variables—The relationships among the constructs depicted in Figure 1 were assessed after the effects of age, sex, and education were controlled statistically. Age and education are scored as continuous variables. In contrast, sex (1 = men; 0 = women) is coded in a binary format.

¹Exploratory and confirmatory factor analysis provides another preliminary way of evaluating the quality of the newly devised religion measures (congregational cohesiveness, spiritual support, and religious coping). An exploratory factor analysis of these items revealed that three clear factors emerged from the data, which correspond to the religion measures identified above. The respective items for each construct (e.g., congregational cohesiveness) loaded highly on their respective underlying factors while the loadings of these indicators on the remaining were low. The findings from the confirmatory factor analysis revealed that the fit of a three factor model to the data is good (e.g., the standardized root mean square residual estimate of .041 is below the recommended ceiling of .050).

Data Analysis Issues

Four data analytic issues are examined in the discussion that follows. The first has to do with the measurement of change. The second focuses on identifying the model with the best fit to the data. The third is concerned with assessing the effects of sample attrition over time. The fourth has to do with estimating the psychometric properties of the multiple item measures.

Issues in the measurement of change—Because the data for this study were gathered at two points in time, it is possible to assess the effects of the congregational social environment on change in religious coping. Unfortunately, there is considerable disagreement in the literature about how to assess change (Allison, 1990). Among the approaches that are used to study change are raw change scores, residualized change scores, and sophisticated growth curve models. In addition, some investigators estimate lagged models of change. Cast within the context of the present study, this means that the Wave 3 measure of religious coping is regressed on the measures of the congregational social climate (e.g., spiritual support) as well as the demographic control variables and the Wave 1 measure of religious coping. A lagged model is estimated in the current study. This approach was taken because, as Kessler (1977) and others show, lagged models are not unduly influenced by some of the problems that are encountered with change scores and residualized change scores (e.g., problems arising from measurement error).

Identifying the model with the best fit to the data—The model depicted in Figure 1 was estimated with Version 8.80 of the LISREL statistical software program (du Toit & du Toit, 2001). This software program is well suited for evaluating longitudinal data because it helps investigators address important issues in the measurement of religious coping responses over time. Four models were fit to the data for this purpose. First, a baseline model was estimated that serves as a point of comparison for subsequent tests. The second and third models assess factorial invariance over time (Bollen, 1989). The tests for factorial invariance were designed to see if the elements of the measurement model (i.e., the factor loadings and measurement error terms) are the same for the Wave 1 and Wave 3 religious coping items. Tests of factorial invariance are important because they provide a way of empirically evaluating whether the religious coping measures mean the same thing to study participants at both points in time. If the meaning of these indicators changes over time, then difficulty may be encountered in interpreting substantive longitudinal findings. The tests for factorial invariance (not shown here) reveal that the factor loadings and measurement error terms are invariant (i.e., do not change) over time (a table containing the results of these analyses is available from the author).

Another issue that was addressed in this study involves assessing whether the measurement error terms for identical indicators of religious coping are correlated over time. This separates the effects of systematic measurement error from random measurement error. The results that were derived from estimating the fourth model (not shown here) suggest that the measurement error terms are significantly correlated over time.

The fit of the fourth and final model to the data is acceptable. Specifically, the Bentler-Bonett Normed Fit Index (NFI, Bentler & Bonett, 1980) estimate of .961 and the Comparative Fit Index (CFI, Bentler, 1990) value of .975 are well above the recommended minimum cut point of .900. Similarly, the standardized root mean square residual estimate of .036 is below the recommended ceiling of .050 (SRMR, Kelloway, 1998).

Assessing the effects of sample attrition—Some older people who were interviewed at Wave 1 did not participate in the Wave 3 survey. The following procedure was used in order to see whether older adults who were lost to follow-up differ from older people who remained

in the study (McKnight, et al., 2007). First, a nominal-level variable containing three categories was created to represent older adults who participated in both the Wave 1 and Wave 3 surveys (scored 1), older people who were alive but did not participate at Wave 3 (scored 2), and older adults who died during the course of the follow-up period (scored 3). Then, using multinomial logistic regression, this categorical outcome was regressed on the following Wave 1 measures: age, sex, education, racial culture, the frequency of church attendance, congregational cohesiveness, spiritual support, and religious coping responses. Evidence of potential bias would be found if any statistically significant findings emerge from the data.

The results (not shown here) reveal that only one out of eight Wave 1 measures significantly differentiated between older adults who were alive but did not participate at Wave 3 and older people who took part in the Wave 1 and Wave 3 interviews. The data suggest that compared to people who remained in the study, those who dropped out but were still alive were less likely to be white ($b = -.967$; $p < .001$; odds ratio = .380). The findings further indicate that compared to older people who remained in the study, older adults who had died tended to be older ($b = .073$; $p < .001$; odds ratio = 1.076), they were more likely to be men ($b = .372$; $p < .05$; odds ratio = 1.451), they had fewer years of schooling ($b = -.052$; $p < .05$; odds ratio = .950), and they attended church less often ($b = -.195$; $p < .001$; odds ratio = .823).

Although the data suggest that the loss of study participants over time did not occur randomly, there are two reasons why this sample attrition may not have biased the findings from the current study. First, the measures which indicate where non-random loss occurred (e.g., age, sex, church attendance) were included in the model when the substantive analyses for this study were performed. As a result, any potential bias that is associated with these constructs is likely to be minimal (Graham, 2009). Second, as Groves (2006) points out, non-response does not necessarily translate into non-response bias. Because this issue has not been resolved conclusively, the potential influence of non-random subject attrition should be kept in mind as the substantive findings from this study are examined.

Psychometric properties of the observed indicators—Table 2 contains the factor loadings and measurement error terms that were derived from the final study model. These coefficients are important because they provide preliminary information about the psychometric properties of the multiple item study measures. Kline (2005) recommends that items with standardized factor loadings in excess of .600 have good reliability. As the data in Table 2 indicate, the standardized factor loadings range from .583 to .904. Only one coefficient (.583) is below .600. However, the difference between this estimate and the general guideline is trivial. Consequently, the measures that are used in the current study appear to have good psychometric properties.

Although the factor loadings and measurement error terms provide useful information about the reliability of each item, it would be helpful to know something about the reliability for the scales as a whole. Fortunately, it is possible to compute these reliability estimates with a formula provided by Raykov (1998). This procedure is based on the factor loadings and measurement error terms in Table 2. Applying the procedures described by Raykov to the data yields the following reliability estimates for the multiple item constructs in Figure 1: Congregational cohesiveness (.824), spiritual support (.875), religious coping at Wave 1 (.834), and religious coping at Wave 3 (.847).² Taken as a whole, these estimates indicate that the items used in the current study have an acceptable level of reliability.

Results

Table 3 contains the substantive estimates of the relationships among the latent constructs in Figure 1. According to this conceptual scheme, older blacks should attend worship services

more often than older whites. However, the data in Table 3 do not appear to be consistent with this hypothesis ($\text{Beta} = -.033$; ns). Fortunately, there is a straightforward way to explain these findings. Recall that the data that are analyzed in this study do not include study participants who go to church less than three times a year. Additional analyses (not shown here) suggest that if older people with low rates of church attendance are included in the sample, then older whites report that they go to church less often than older blacks ($\text{Beta} = -.167$; $p < .001$). These results are important because they help sharpen the focus of the hypothesized relationship between racial culture and church attendance by showing that the difference between the two racial cultural groups arises primarily among low-attenders.

Even though the findings involving racial culture and church attendance were not anticipated, the data provide support for the remaining linkages in the model. Returning to Table 3, the results indicate that older adults who go to church more often report that their congregations are more highly cohesive than older people who attend worship services less often ($\text{Beta} = .349$; $p < .001$). The findings further reveal that older people who worship in more cohesive congregations receive more spiritual support than older individuals whose congregations are not as cohesive ($\text{Beta} = .453$; $p < .001$). Finally, consistent with the theoretical rationale that was developed for this study, the data suggest that, compared to older adults who receive less spiritual support, older people who get more spiritual support from fellow church members are more likely to use religious coping responses at the Wave 1 ($\text{Beta} = .242$; $p < .001$) and the Wave 3 ($\text{Beta} = .172$; $p < .01$) interviews. This suggests that spiritual support has both a contemporaneous and a lagged effect on the use of religious coping responses over time.

Latent variable models are quite versatile because they help researchers obtain a more finely nuanced understanding of the relationships among the constructs in their conceptual schemes. The data that have been presented up to this point deal solely with the direct effects of constructs such as racial culture on religious coping responses. However, direct effects do not fully capture the size of the relationships among study measures because the indirect and total effects that operate through the model must also be taken into account. The best way to grasp the meaning of indirect and total effects is to focus on a specific example. According to the model depicted in Figure 1, people who worship in highly cohesive congregations tend to receive more spiritual support, and individuals who get more spiritual support are, in turn, more likely to rely on religious coping responses. Stated in a more technical way, these linkages suggest that congregational cohesiveness influences religious coping responses indirectly through spiritual support. When this indirect effect is added to the direct effect of congregational cohesiveness on spiritual support, the resulting total effect provides a better vantage point for determining the overall influence of congregational cohesiveness in the model.

Table 4 contains all the direct, indirect, and total effects that operate through the conceptual model developed for this study. Three sets of analyses are discussed below in an effort to bring some of the study findings into sharper focus.

First, when the purpose of this study was introduced, an effort was made to explain why it is important to assess racial cultural differences in religious involvement. However, relatively little has been said about the influence of racial culture up to this point. The total effects reported in Table 4 help address this issue because these coefficients more fully illuminate the pervasive

²The Raycov (1998) estimates of reliability are used in place of Cronbach's alpha for the following reason. It is widely known that alpha is sensitive to the number of items in a scale. This means that scales with a large number of items may have high alpha reliability estimates even though the inter-correlations among the indicators may be low. Conversely, scales with relative few items may appear to have low reliability even though the item inter-correlations are relatively high. The problem arises because N (the number of items in a scale) is included in the formula developed by Cronbach. In contrast, N does not appear in the formula reported by Raycov (1998). Instead, reliability is computed by taking the sum of the squared factor loadings divided by the sum of the squared factor loadings plus the sum of the measurement error terms. Standardized estimates are used in this formula.

influence that racial culture exerts on the core study measures. The total effects suggest that older whites are less likely than older blacks to worship in cohesive congregations ($\text{Beta} = -.104; p < .01$), they are less likely to obtain spiritual support from their fellow church members ($\text{Beta} = -.225; p < .001$), and they are less likely to report using religious coping responses at Wave 1 ($\text{Beta} = -.243; p < .001$) and Wave 3 ($\text{Beta} = -.200; p < .001$).

The second set of analyses helps clarify the influence of church attendance on religious coping. As the direct effects in Table 4 reveal, more frequent church attendance is associated with greater use of religious coping responses at Wave 1 ($\text{Beta} = .151; p < .001$) and Wave 3 ($\text{Beta} = .170; p < .001$). But when the total effects of church attendance on religious coping at Wave 1 ($\text{Beta} = .279; p < .001$) and religious coping at Wave 3 ($\text{Beta} = .285; p < .001$) are examined, it quickly becomes apparent that the frequency of church attendance is more influential than it may seem initially. Put another way, the total effect of church attendance on religious coping at Wave 1 is approximately 85% larger than the direct effect of church attendance on religious coping at Wave 1. Similarly, the total effect of church attendance on religious coping at Wave 3 is approximately 68% larger than its corresponding direct effect.

Examining the direct, indirect, and total effects of church attendance on religious coping responses highlights another advantage of working with latent variable models. More specifically, these conceptual schemes provide an important point of departure for identifying areas of research that need to be pursued in the future. Deeper appreciation for this theory building function may be obtained by closely examining the indirect and total effects of church attendance on religious coping at Wave 1. Dividing the direct effect by the total effect suggests that approximately 46% of the total effect of church attendance on religious coping at Wave 1 ($.128/.279 = 46\%$) is explained by the intervening variables in the conceptual model (i.e., congregational cohesiveness and spiritual support). Although this helps illustrate the overall explanatory power of the study model, these data also indicate that slightly over half of the total effect of church attendance is not explained by this conceptual scheme. This finding draws attention to the fact that researchers need to identify other ways in which attendance at worship services encourages older people to use religious coping responses. Perhaps the influence of the sermons, hymns, and congregational prayers that are part of many worship services should be examined more closely. These specific components of worship services have yet to be evaluated in the literature, but assessing their relative impact may provide valuable insight into the factors that influence the use of religious coping responses.

The third set of analyses helps gauge the relative importance of spiritual support in the conceptual model. Researchers have argued for decades that one of the best predictors of behavior in the future is the frequency of the same behavior in the past (Aarts, Verplanken, & van Knippenberg, 1998). This suggests that the relationship between religious coping at Wave 1 and Wave 3 can be used as a benchmark for evaluating the substantive importance of the other constructs in the model. The data in Table 4 reveal that the total effect of spiritual support on religious coping responses at Wave 3 ($\text{Beta} = .228; p < .01$) is virtually the same size as the direct effect of religious coping responses at Wave 1 on religious coping responses at Wave 3 ($\text{Beta} = .233; p < .001$).³ These data are noteworthy because they indicate that the role played by spiritual support in shaping religious coping at the follow-up interview is just as important as the role played by the use of religious coping responses in the past.⁴

³Unfortunately, it was not possible to determine if the difference between the total effect of spiritual support on religious coping at Wave 3 is significantly different from the direct effect of Wave 1 on Wave 3 religious coping. The software program that is used in this study (LISREL) does not compute these tests.

⁴The relatively low stability coefficient provides preliminary evidence that religious coping responses are more state-like than trait-like. A more definitive evaluation of this issue requires more sophisticated analyses (see Kessler & Greenberg, 1981).

Conclusions

The findings from this study underscore the significant influence that the social environment of the church exerts on the use of religious coping responses. More specifically, the results suggest that older people who go to church often are more likely to report that their congregations are highly cohesive. In addition, the data indicate that older individuals who worship in highly cohesive congregations receive more spiritual support from their fellow church members. This is important because the findings further reveal that people who receive more spiritual support from rank-and-file church members are more likely to report using religious coping responses at both the baseline and follow-up interviews. Greater confidence may be placed in these results because they are based on data from a nationwide longitudinal survey.

In addition to providing insight into the influence of the social milieu of the church, the findings from this study highlight the pervasive influence of racial culture. The results suggest that older blacks are more likely to worship in cohesive congregations than older whites, receive spiritual support, and they are more likely to use religious coping responses. These results are consistent with studies that report racial cultural differences in other aspects of religion (e.g., the frequency of prayer and the frequency of reading the Bible) (Taylor, Chatters, & Levin, 2004). The findings from the current study contribute to this research by focusing on racial cultural differences in aspects of religion that have not received sufficient attention in the literature (e.g., congregational cohesiveness and religious coping responses).

Two aspects of the findings involving spiritual support merit further comment because these data show the key role this specific type of assistance plays in helping older people lead a more religious life. First, the fact that spiritual support exerts a statistically significant direct effect on religious coping at Wave 1 and Wave 3 speaks to the potent and long-lasting influence of church-based spiritual support. This is especially noteworthy because six years transpired between the Wave 1 and Wave 3 surveys.

The second point about the findings involving spiritual support helps refine the theoretical perspective that was developed in this study. Fellow church members may either teach older study participants to use coping responses they have not used in the past or they may, as Berger and Pullberg (1965) point out, confirm and reconfirm the importance of the coping responses that older study participants have relied upon in the past. It seems that the latter scenario is more viable. The religious coping indicators that were evaluated in the current study ask respondents about things like turning to God for strength and turning to God for guidance when difficult times arise. Because the participants in this study were, on average, about 74 years old at the baseline survey, it is quite unlikely that they have not turned to God for strength and guidance in the past. This issue is important because it suggests that the process of encouraging older people to turn to religious coping responses they have used in the past may be different from the process involved in getting them to adopt religious coping responses that are new and less familiar to them. Specifically, when fellow church members strive to reconfirm the value of coping responses that older support recipients have relied upon in the past, their overtures are less likely to be seen as intrusive. Moreover, these recommendations may instill greater self-confidence in older support recipients by helping them realize that they already possess appropriate coping responses. These issues are important because a number of studies suggest that older adults tend to value their independence highly (e.g., Lee, 1985).

In the process of reflecting on these age-related issues, researchers may also benefit by pursuing two other promising lines of research. First, the data in the current study focus solely on spiritual support received from fellow church members. However, we need to know whether older people also provide spiritual support to the individuals in their congregation. Although data

on providing spiritual support to others are not available in this study, it is important to explore this issue because there is some evidence that giving support to fellow church members is more beneficial than receiving assistance from them (Krause, 2006). This study suggests that older people who give emotional support to fellow church members are less likely to die over the course of the study follow-up period than older people who receive emotional support from fellow parishioners. Researchers need to know if the same is true of spiritual support.

Second, the interface between spiritual support and religious coping may more complex than it seems because the nature of the relationship between the provider and the recipient may influence whether spiritual support is provided successfully. More specifically, the measure of spiritual support that was used in the current study assesses how often this type of assistance is provided by all fellow church members taken together. However, a certain level of intimacy and trust must exist in a relationship before people feel comfortable accepting advice on how to deal with their personal problems. Otherwise, efforts to provide spiritual support by those who are less familiar with an older support recipient may be viewed as intrusive and may be met with resentment. In order to address this issue, researchers need to gather more detailed information about the specific individuals who provide spiritual support to older people and greater insight is needed into the nature of the relationship that older support recipients have with them.

In the process of assessing these, as well as other issues, researchers would benefit from keeping the limitations in the current study in mind. Seven shortcomings are briefly discussed below. First, even though the data in this study were gathered at two points in time, it still cannot be determined conclusively that spiritual support “causes” religious coping responses. Instead, the causal ordering might be reversed by arguing that people with a long history of relying on religious coping responses may subsequently be more likely to turn to fellow church members for spiritual support than individuals who prefer to cope with stressors in other ways. Issues involving the direction of causality also arise with respect to the relationship between church attendance and congregational cohesiveness as well as the relationship between congregational cohesiveness and spiritual support. However, definitive conclusions about causality can only be obtained in studies that employ a true experimental design. Second, the questions on religious coping that were used in the current study focus on what older people typically or generally do when stressors arise. However, the literature reveals that people may use specific kinds of coping responses to deal with particular types of stressful life events (Pargament, 1997). To the extent this is true, the relationship between spiritual support and religious coping that is reported in the current study may gloss over the way in which different kinds of stressful events shape the way older people select specific religious coping responses. Third, the model that was analyzed in this study is misspecified because a number of potentially important variables have not been taken into account. Included among these measures are religious motivation orientations as well as indicators of religious identity salience. Fourth, the measures of religious coping and congregational cohesiveness that are used in this study each assess a single underlying dimension. However, it would be helpful to explore multiple dimensions of these constructs in the future. For example, the religious coping items focus on a study participant's relationship with God. But as research by Pargament et al. (2000) reveals, a number of other dimensions are subsumed under the broad rubric of religious coping responses. Fifth, the sample for this study was restricted to practicing Christians. It is important to determine whether the study findings can be generalized to people of other faiths. Sixth, researchers should utilize more sophisticated procedures for studying change in religious coping responses, such as latent growth curve models. Seventh, only one element of African American culture was evaluated in this study, but there is far more to this rich cultural tradition than this.

Even though there are limitations in the research presented above, it is hoped that the findings encourage further research on the social underpinnings of religious coping. Developing and empirically evaluating well-articulated conceptual models that illuminate the processes that foster the use of religious coping responses are essential for the implementation of interventions that aim to assist people who are faced with adversity (Pargament, Ano, & Wachholtz, 2005). The insights gleaned from this type of research are important because they may ultimately be used to improve the physical and mental health of our aging population.

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Figure 1.
A Conceptual Model of Religious Involvement and Religious Coping Responses

Table 1**Core Study Measures**

1	Church Attendance ^a Wave 1
	How often do you attend religious services?
2	Congregational Cohesiveness ^b Wave 1
	A. I feel my beliefs and values are shared by most of the people in my congregation.
	B. Most of the people in my congregation have similar ideas about where our church should be headed in the future.
	C. Most people in my congregation tend to have the same outlook on life.
3	Spiritual Support Received from Fellow Church Members ^c Wave 1
	A. Not counting Bible study groups, prayer groups, or church services, how often does someone in your congregation share his or her own religious experiences with you?
	B. Not counting Bible study groups, prayer groups, or church services, how often do the examples set by others in your congregation help you lead a more religious life?
	C. Not counting Bible study groups, prayer groups, or church services, how often does someone in your congregation help you to know God better?
4	Religious Coping Responses ^d Wave 1 and Wave 3
	A. I look to God for strength in a crisis.
	B. I look to God for guidance when difficult times arise.
	C. When I'm faced with a difficult experience, I try to think about the good things God has given me.
	D. I try to realize that God never gives us more than we can handle.

^aThis item is scored in the following manner (coding in parentheses): never (1), less than once a year (2); about once or twice a year (3); several times a year (4); about once a month (5); 2 to 3 times a month (6); nearly every week (7); every week (8); several times a week (9).

^bThese items are scored in the following manner: strongly disagree (1); disagree (2); agree (3); strongly agree (4).

^cThese items are scored in the following manner: never (1); once in a while (2); fairly often (3); very often (4).

^dThese items are scored in the following manner: not at all (1); a little (2); some (3); a great deal (4).

Table 2Measurement Model Parameter Estimates for Core Study Measures ($N = 656$)

Construct	Factor Loading ^a	Measurement Error ^b
1. Church Attendance Wave 1	1.000	0.000
2. Congregational Cohesiveness Wave 1		
A. Beliefs shared ^c	.750	.437
B. Similar ideas	.810	.344
C. Outlook on life	.780	.392
3. Spiritual Support Wave 1		
A. Share religious experiences	.690	.524
B. Lead religious life	.844	.288
C. Know God better	.845	.285
4. Religious Coping Responses Wave 1 ^d		
A. Look to God for strength	.842	.291
B. Look to God for guidance	.896	.196
C. Think about good things	.651	.576
D. Realize that God never	.583	.660
5. Religious Coping Responses Wave 3		
A. Look to God for strength	.852	.273
B. Look to God for guidance	.904	.183
C. Think about good things	.668	.554
D. Realize that God never	.600	.640

^aFactor loadings are from the completely standardized solution. The first listed item for each latent construct was fixed at 1.0 in the unstandardized solution.

^bMeasurement error terms are from the completely standardized solution. All factor loadings and measurement error terms are significant at the .001 level.

^cItem content is paraphrased for the purpose of identification. See Table 1 for the complete text of each indicator.

^dThe factor loadings and measurement error terms for the second and third listed items were constrained to be equivalent in the unstandardized solution for identical Wave 1 and Wave 3 religious coping measures.

Table 3

Spiritual Support and Religious Coping ($N = 656$)

Independent Variables	Church Attendance (Wave 1)	Congregational Cohesiveness (Wave 1)	Spiritual Support (Wave 1)	Religious Coping (Wave 1)	Religious Coping (Wave 3)
Age	-.003 ^a (.010) ^b	-.118** (.004)	-.140*** (.004)	-.032 (.003)	-.035 (.003)
Sex	-.028 (.126)	-.028 (.045)	.018 (.049)	-.220*** (.033)	-.093* (.036)
Education	.066 (.018)	-.032 (.007)	-.025 (.007)	.008 (.005)	-.023 (.005)
Racial culture	-.033 (.123)	-.093* (.044)	-.170*** (.050)	-.172*** (.033)	-.104** (.036)
Church attendance		.349*** (.015)	.219*** (.017)	.151*** (.011)	.170*** (.012)
Congregational coherence			.453*** (.062)	.106* (.043)	-.043 (.046)
Spiritual support				.242*** (.036)	.172*** (.039)
Religious coping (Wave 1)					.233*** (.050)
Multiple R ²	.005	.150	.412	.283	.234

^a Standardized regression coefficient

^b Standard error

* $p < .05$

** $p < .01$

*** $p < .001$

Table 4

Direct, Indirect, and Total Effects

Dependent Variable/Independent Variable	Decomposition of Effects		
	Direct (A)	Indirect (B)	Total (A + B)
Church attendance/Racial culture	-.033 ^a		-.033
Congregational cohesiveness/Racial culture	-.093 [*]	-.012	-.105 ^{**}
Congregational coherence/Church attendance	.349 ^{***}		.349 ^{***}
Spiritual support/Racial culture	-.170 ^{***}	-.055 [*]	-.225 ^{***}
Spiritual support/Church attendance	.219 ^{***}	.158 ^{***}	.377 ^{***}
Spiritual support/Congregational coherence	.453 ^{***}		.453 ^{***}
Religious coping (Wave 1)/Racial culture	-.172 ^{***}	-.071 ^{***}	-.243 ^{***}
Religious coping (Wave 1)/Church attendance	.151 ^{***}	.128 ^{***}	.279 ^{***}
Religious coping (Wave 1)/Congregational cohesiveness	.106 [*]	.110 ^{***}	.216 ^{***}
Religious coping (Wave 1)/Spiritual support	.242 ^{***}		.242 ^{***}
Religious coping (Wave 3)/Racial culture	-.104 ^{**}	-.096 ^{***}	-.200 ^{***}
Religious coping (Wave 3)/Church attendance	.170 ^{***}	.115 ^{***}	.285 ^{***}
Religious coping (Wave 3)/Congregational cohesiveness	-.043	.128 ^{***}	.085
Religious coping (Wave 3)/Spiritual support	.172 ^{***}	.056 ^{**}	.228 ^{***}
Religious coping (Wave 3)/Religious coping (Wave 1)	.232 ^{***}		.232 ^{***}

^a Standardized regression coefficient^{*}
 $p < .05$ ^{**}
 $p < .01$ ^{***}
 $p < .001$