

Financial Hardship, Religious Resources, and Psychological Well-Being in Late Life*

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Date Submitted:

Word Count:

*The authors would like to thank Neal Krause for providing access to the data, which was obtained from the Inter-University Consortium for Political and Social Research (ICPSR). The data collection was funded by the National Institute on Aging (NIA). Data analysis was partially supported by a research grant to Glen H. Elder, Jr. (R01-MH41827-01A2) and a training grant from NICHD (5 T32 AG00155-14). Direct correspondence to: Matt Bradshaw, Carolina Population Center, University of North Carolina at Chapel Hill, University Square, CB# 8120, 123 West Franklin Street, Chapel Hill, NC 27516. (817) 946-1165.
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ABSTRACT

Drawing broadly on insights from the stress process model, social capital theory, attachment theory, and the literature on the religion-health connection, this study investigated the main and interactive effects of financial hardship and religious resources on psychological well-being using data on a national sample of older adults. Several empirical findings are noteworthy: (1) financial hardship, particularly subjective assessments, has deleterious effects on psychological well-being; (2) religious resources, in the form of both congregational support and a secure attachment to God, are positively associated with well-being; (3) financial hardship and religious resources do not operate in completely independent ways, but instead interactively influence psychological well-being. With respect the final point, the negative impact of financial hardship is reduced at high levels of religious resources (a buffering effect), and the positive association between religious resources and psychological well-being accrues primarily to individuals who are suffering from financial hardship. In light of these findings, study limitations and an agenda for future research are discussed.

KEYWORDS

Mental Health, SES, Religion, Attachment Theory, Social Capital, Aging

INTRODUCTION

Financial hardship has deleterious effects on psychological well-being (Mirowsky and Ross 2003). This may be especially true in the later years of the life course, when labor force participation has ceased, personal income is smaller, and health care costs are increasing. That said, not all individuals who are exposed to economic strain suffer from poor mental health. Why? One answer concerns individual differences in stress-buffering resources. The present study focuses on a resource that may be particularly germane among older individuals: religion (Krause 2008; Schaie, Krause, and Booth 2004).

A growing literature has linked multiple dimensions of religious life—e.g., organizational involvement, prayer, and coping styles, among others—with psychological well-being (for reviews see: Ellison and Levin 1998; Koenig 2009). While findings are not unequivocal, the weight of evidence suggests that religious participation has salutary effects on mental health (Smith, McCullough, and Poll 2003). Proposed explanations center on religion's ability to reduce exposure to stress, and to provide psychosocial resources that can be used to cope with stress when it does occur (Ellison 1994).

Surprisingly, however, only a few empirical studies have examined the interface between financial hardship, religious resources, and psychological well-being (Ellison 1991; Krause 1995; Pollner 1989; Schieman, Nguyen, and Elliot 2003; Schieman, Pudrovska, and Milkie 2005). This neglect is curious given the pervasiveness of deprivation / compensation logic in much of the scholarship on religion. From the theoretical classics of Marx (Marx and Engels 1955) and Weber, ([1922] 1964), to research on religious coping (Pargament 1997), to contemporary theories of religion (Stark and Bainbridge 1996; Stark and Finke 2000), a great deal of research is grounded

in the assumption that religion is particularly salient among deprived individuals. Given that older individuals tend to have elevated levels of both financial strain and religiosity (Brady 2004; Dillon and Wink 2000; Idler 2006), this may be especially true among this segment of the population.

Therefore, drawing on insights from the stress process model (Ellison 1994; Pearlin et al. 2005), social capital theory (Foley, McCarthy, and Chaves 2001; Greeley 1997; King and Furrow 2004; Smidt 2003), and attachment theory (Kirkpatrick 2005), the present study makes two main contributions. First, it moves beyond global or distal measures of religious involvement such as church attendance or prayer, which do not specify how or why religion affects psychological well-being, and toward more proximal ones that affect mental health in functional ways: congregational support and a secure attachment to God (Hill and Pargament 2008). Compared with most previous research, these concepts and measures provide a more detailed understanding of the mechanisms by which religion influences psychological well-being.

Second, this study theorizes two distinct ways that religious resources may affect mental health in late life. To begin with, religious resources may simply have desirable main effects on mental health that at least partially counter the deleterious consequences of financial hardship. Here, financial stress and religious resources would exert additive independent effects, but since they would work in opposite directions, they would “offset” each other to at least some degree. In addition, financial hardship and religious resources may interactively influence psychological well-being. In this scenario, the effects of each would not simply be additive, but would instead function in a contingent

manner whereby the impact of hardship is reduced at high levels of religious resources, and religion is more important among those experiencing financial stress.

These issues are addressed by first reviewing the relevant literature. Two different conceptual models are then proposed and tested using data collected in 2001 from a large national survey of US adults age 65 and older. The sample was restricted to people who were currently practicing Christians, individuals who were Christians in the past but no longer practice any religion, and people who were not affiliated with any faith at any point in their lifetime. Individuals who practice a religion other than Christianity (e.g., Jews or Muslims) were excluded because it would be difficult to devise a set of religion measures that are suitable for persons of all faiths. The results are then presented, including a discussion of their implications for research on socioeconomic disparities in mental health, the religion-health connection, and successful aging. Finally, promising directions for future inquiry are identified.

THEORETICAL AND EMPIRICAL BACKGROUND

Three different strands of literature are important here. The first deals with research on financial hardship and psychological well-being. The second entails a growing literature on religious involvement and mental health. And the third examines the interactive influence of financial hardship and religious resources on psychological well-being.

Financial Hardship and Psychological Well-Being in Late Life

Even though financial hardship in old age has declined in recent decades, it is still quite common. According to the US Census Bureau (2000), roughly 10% of the population 65

years of age and older lives below the poverty line. That said, financial problems in later life are probably much more widespread than this official statistic indicates. According to Brady (2004: 503), “the official number underestimates elderly poverty by a significant amount.” The real proportion may be closer to 25%. Regardless of the actual percentages, a considerable number of older individuals in the US suffer from economic difficulties.

Important for the present study, financial hardship has profound consequences for psychological well-being in late life. It shapes exposure to chronic and acute social stressors that tax individual capacities to respond. It also affects one’s vulnerability to the deleterious effects of stress by shaping the quantity and quality of resources with which individuals can draw on to cope with economic difficulties. In general, persons with insufficient monetary resources experience more chronic and acute stressors compared to their more privileged counterparts, and thus tend to have worse mental health (Miech et al. 1999; Pearlin, Lieberman, Menaghan, and Mullen 1981; Williams and Collins 1995).

In the literature on financial hardship, two distinct types of indicators have been employed. “Objective” forms include monetary income. Individuals with low incomes suffer from many disadvantages, all of which are harmful to psychological well-being. They are more prone to face difficulties in meeting personal or family needs, paying bills, and obtaining health care. They also have a higher risk for legal, interpersonal, familial, and other types of stressors. They often have smaller, less diverse social networks from which to obtain emotional, tangible, and informational assistance that could help them resolve problems and manage the emotional consequences of economic difficulties. Those with fewer financial resources also tend to suffer from a smaller array of psychological and cognitive resources, such as feelings of low personal control, efficacy,

and self-worth, which could facilitate successful coping and resilience in the face of hardship (Mirowsky and Ross 2003).

“Subjective” forms of financial hardship include concepts such as relative deprivation, subjective SES, self-reported class identification, and self-assessed economic strain (Adler et al. 2000; Boyle et al. 2004; Macleod et al. 2006; Singh-Manoux, Marmot, and Adler 2005; Walker and Smith 2002). Research in this area suggests that perceptions of one’s financial situation are powerful predictors of psychological well-being net of objective measures.¹ As discussed in self-determination theory, individuals in the US are often socialized to regard material gain (e.g., wealth, possessions, luxurious lifestyles) as an indicator of success and worth (Kasser and Ryan 1993). Individuals who perceive, rightly or wrongly, that they are failing to acquire these resources may be prone to emotional disturbance. Indeed, a growing body of evidence has linked subjective measures of financial hardship with a diverse array of mental health outcomes, including higher levels of chronic stress (Adler et al. 2000), psychosomatic stress symptoms (Walker and Mann 1987), depression (Singh-Manoux, Adler, and Marmot 2003), negative affectivity and pessimism (Adler et al. 2000), and lower levels of life satisfaction (Zagefka and Brown 2005). Overall, then, it is theorized that both objective and subjective measures of financial hardship will be inversely associated with psychological well-being in late life.

Religious Resources and Psychological Well-Being in Late Life

In addition to financial hardship, religious resources may have profound consequences for psychological well-being in the later years of life. To begin with, many different types

of religious participation increase during this stage of the life course (Dillon and Wink 2000; Idler 2006). Following retirement, many individuals have more time for religious activities, and thus may become more involved in their churches and synagogues. Similarly, as the end of life approaches, individuals may be more likely to seek out meaning in the spiritual realm. It has even been argued that a fear of death, or at least feelings of uncertainty about the afterlife, compels individuals to increase their focus on spiritual matters during the final years of life. Grounded in this knowledge, the present study examines two potential religious resources: congregational support and a secure attachment to God. It is important to examine each of these domains because religious resources may come from both humans and the divine (Koenig 2009).

Congregational Support

Support from individuals in one's religious congregation, a form of social capital (Ammerman 1997; Foley, McCarthy, and Chaves 2001; Greeley 1997; King and Furrow 2004; Smidt 2003), may enhance psychological well-being and buffer against the deleterious effects of financial hardship for several reasons. To begin with, religious organizations expose individuals to prosocial teachings. These include scriptural narratives, stories, and parables such as the Golden Rule, Good Samaritan, and Widow's Might (Ellison 1992; Wuthnow 1996). These teachings implore followers to "love thy neighbor as thyself," and they may enjoin believers to behave with compassion, empathy, and selflessness toward each other (Sider 1997, 1999). This facilitates emotional and material support among members, which means that individuals in religious

congregations may have access to socio-emotional resources that could enhance psychological well-being and buffer against financial hardship in later life.

Individuals who are involved in religious congregations also report having larger social support systems—i.e., they have more friends, interact with them more often, receive more support from them, and value and trust their support networks more than non-religious persons (Ellison and George 1994; Bradley 1995). Within religious organizations, individuals informally exchange various types of tangible aid such as goods, services, and information, as well as companionship and personal feelings (Wuthnow 1994; Krause 2002). For many churchgoers, coreligionists are a vital and dependable source of help with personal needs and problems, including financial ones (Taylor and Chatters 1986; Krause 2002). Moreover, individuals may belong to a single religious community for a long period of time, allowing them to build up "convoys" of potential supporters, and to accrue informal "credits" from their own performance of helping behaviors toward others in the group (Maton 1987; Ellison and George 1994; Krause 2006). In essence, religious congregations are often contexts where ongoing support systems are generated and sustained. This may enhance psychological well-being.

Religious congregations also directly sponsor various types of charitable activities, such as congregational programs for the elderly and soup kitchens for the less fortunate (Ammerman 2005; Chaves 2004). Church members are encouraged and recruited, often via personal appeals from friends and clergy, to give time and money to these efforts (Musick, Bynum, and Wilson 2000; Musick and Wilson 2007). In addition to church-based charities, congregations are often clearinghouses of information and fertile

recruiting grounds for the charitable pursuits of other community organizations (e.g., campaigns to fight world hunger, struggles for social justice) (Morris 1984; Smith 1996). It is likely that members directly benefit from this—in the form of social, emotional, and economic aid—in ways that may enhance psychological well-being and buffer against financial hardship. Overall, then, it is theorized that congregational support will be positively associated with psychological well-being in later life.

Secure Attachment to God

Religious resources may also come from intimate relations with, or a secure attachment to, God (Pollner 1989).² At its very core, religion involves a search for the sacred (Hill and Pargament 2003; Koenig, McCullough, and Larson 2001), and one of the primary goals of religious teachings and organizations is the development of a close, personal relationship with God.³ Even though individuals engage in religious practices for many reasons, a relationship with the divine serves as a foundation for spiritual life, which influences a person's worldview, values, and meaning structures, as well as their methods of coping in stressful times. It is therefore possible that a secure attachment to God may function in much the same way as congregational support—i.e., to enhance psychological well-being and alleviate the deleterious effects of financial hardship.

Research from an attachment-theoretic perspective may be particularly useful here. According to this framework, the human need for social attachment begins in infancy and continues throughout life (Bowlby 1969, 1973, 1980). Attachment relationships involve close, affectional bonds where an attachment figure provides a secure base for exploration and safe haven when threats are perceived—thus, facilitating psychological

well-being. Securely attached individuals perceive their attachment figure as warm, loving, and a reliable source of protection and security during stressful times.⁴

Importantly, secure attachment has been linked multiple dimensions of psychological well-being (Kirkpatrick and Davis 1994; Kirkpatrick and Hazan 1994; Murphy and Bates 1997; Pielage, Luteijn, and Arrindell 2005; Riggs, Vosvick, and Stallings 2007).⁵

Although much of the empirical work in this area has focused on infant-mother relations, attachment dynamics have been shown to apply to other close relationships as well, including romantic love in adulthood (Hazan and Shaver 1987; Kirkpatrick 1992; Shaver, Hazan, and Bradshaw 1988; Collins and Read 1990; Feeney and Noller 1990). Some have even posited that one's relationship with God operates in functionally similar ways to human attachments (Kirkpatrick 2005). Here, God serves as an attachment figure not unlike parents or romantic partners. Recent empirical work has supported this idea by showing that an individual's attachment to God generally follows similar patterns as human attachment relationships (Rowatt and Kirkpatrick 2002; Beck and McDonald 2004). Attachment to God even appears to have similar effects on psychological well-being (Kirkpatrick and Shaver 1992; Rowatt and Kirkpatrick 2002), with securely attached individuals experiencing better mental health than others.⁶

Other, research is relevant here as well. For example, several studies have reported a positive correlation between images of God (e.g., as loving, forgiving, etc.), perceived closeness to God, and psychological well-being (Benson and Spilka 1973; Kirkpatrick and Shaver 1992; Levin 2002; Maton 1989; Spilka, Addison, and Rosensohn 1975).⁷ A growing literature on religious coping is also informative (Pargament 1997). Berger (1967) argued some time ago that religion provides people with worldviews that help

them cope with fundamental difficulties of life, and several studies have found that positive religious coping is associated with psychological well-being (Smith, McCullough, and Poll 2003; Emery and Pargament 2004; Koenig, Pargament, and Nielsen 1998; Pargament, Koenig, Tarakeshwar, and Hahn 2001). Importantly, most older adults report using religion, including their relationship with God, as one of their coping resources (Koenig 1990; Emery and Pargament 2004).⁸ Moreover, religious coping is the most frequently reported type of coping behavior older adults use when confronting stressful events or difficult times (Koenig, George, and Siegler 1988; Manfredi and Pickett 1987; Rosen 1982; Conway 1985-1986).⁹ As physical and economic resources decline with age, secondary control through God may increase in importance (Krause 2006; Berrenberg 1987). Thus, a close relationship with a supportive God may be associated with good mental health.

[Figure 1 About Here]

Conceptual Model and Hypotheses

In an attempt to understand which resources might help to alleviate the deleterious effects of financial hardship on psychological well-being, and how religious participation affects individual responses to stress, several researchers have integrated insights from the sociology and psychology of religion with a framework commonly referred to as the stress process model (Ellison 1994; Ellison et al. 2001; Pearlin et al. 2005). This perspective, which is depicted graphically in Figure 1, contains two nested models: (1) the additive / offsetting effects model, which posits independent influences of financial hardship and religious resources; and (2) the moderator / buffering effects model, in

which the estimated net effects of financial hardship vary across differences in religious resources and vice-versa.

More specifically, in the offsetting effects model, financial hardship is inversely associated with psychological well-being (Pathway A), while religious resources (i.e., congregational support and a secure attachment to God) are positively correlated (Pathways B). In this case, religious resources have salutary effects on mental health, thereby at least partially “offsetting” the deleterious influence of financial hardship. In this model, the effects of financial hardship are not contingent upon religious resources or vice-versa (i.e., Pathways C and D are not important).

In the buffering model, the inverse association between financial hardship and psychological well-being (Pathway A) varies across levels of religious resources (Pathway C). In other words, in addition to whatever direct effects religious resources may exert, they may also moderate the connection between hardship and well-being. Specifically, the consequences of financial stress might be significantly weaker among persons with relatively high levels of congregational support or secure attachment to God. Thus, religious resources might mitigate the deleterious effects of financial hardship on well-being. Likewise, religious resources may be relatively more important among some individuals compared with others based on levels of financial hardship (Pathway D).

Therefore, the primary goal of this study is to examine this model, and test the following specific hypotheses:

- Hypothesis 1: Financial hardship will be inversely associated with psychological well-being in late life.

- Hypothesis 2: Religious resources (both congregational support and secure attachment to God) will be positively associated with psychological well-being in late life.
- Hypothesis 3: Financial hardship and religious resources will be associated with psychological well-being in late life net of each other, and thus will function to at least partially offset each other.
- Hypothesis 4a: Religious resources will moderate the effects of financial hardship on psychological well-being in late life in such a way that the deleterious effects of hardship are reduced at high levels of religious resources.
- Hypothesis 4b: Financial hardship will moderate the effects of religious resources on psychological well-being in late life in such a way that the beneficial effects of religious resources are stronger at high levels of financial hardship.

METHODS

Sample

The data for this study come from a nationwide survey of older whites and African Americans. The study population was defined as all household residents who were either white or black, non-institutionalized, English speaking, and at least 66 years of age.

Geographically, the study population was restricted to eligible persons residing in the coterminous United States (i.e., residents of Alaska and Hawaii were excluded). Finally, the study was restricted to people who were currently practicing Christians, individuals who were Christians in the past but no longer practice any religion, and people who were not affiliated with any faith at any point in their lifetime. Individuals who practice a

religion other than Christianity (e.g., Jews or Muslims) were excluded because it would be difficult to devise a set of religion measures that are suitable for persons of all faiths.

The sampling frame consisted of all eligible persons contained in the Health Care Financing Administration (HCFA) Medicare Beneficiary Eligibility List (HCFA is now called the Centers for Medicare and Medicaid Services—CMS). This list contains the name, address, sex, and race of virtually everyone in the United States.¹⁰ The data collection was conducted by Louis Harris and Associates (now Harris Interactive). Interviews were conducted face-to-face in the homes of the study participants in March–August of 2001. Initial contact with study participants was made by sending a letter that outlined the purpose and nature of the study. A total of 1,500 interviews were completed.¹¹

The race of the participant was not matched with the race of the interviewer. Older blacks were oversampled so that sufficient statistical power would be available to fully probe for race differences in religion. Specifically, the sample consisted of 748 older whites and 752 older blacks. The response rate for the study was 62%. Data from the most recent Current Population Survey (CPS) by the Census Bureau was used to weight the sample by age, sex, education, and region of the country within each racial group. Missing data on all measures employed here was dealt with using multiple imputation methods in SAS.

Measures

Dependent Variables

Psychological well-being was gauged with three measures (see Krause 2005 for details). Self-esteem, a basic component of psychological well-being, was measured with a three-item scale developed by Rosenberg (1965). Specific items included: (a) “I feel I am a person of worth, or at least on an equal plane with others.” (b) “I feel I have a number of good qualities.” and (c) “I take a positive attitude toward myself.” Response categories ranged from 1=strongly disagree to 4=strongly agree.¹² Cronbach’s α for this index was .90.

Optimism was measured with the following three survey items: (a) “I’m optimistic about my future.” (b) In uncertain times, I usually expect the best.” and (c) “I feel confident the rest of my life will turn out well.” Response categories ranged from 1=strongly disagree to 4=strongly agree. The first two items are from a scale developed by Scheier and Carver (1985), while the third was developed by Krause (2002) based on qualitative research ($\alpha=.80$).

Life satisfaction was tapped with the following three items: (a) “As I look back on my life, I am fairly well satisfied.” (b) “I would not change the past even if I could.” and (c) “Now please think about your life as a whole. How satisfied are you with it.” The first two items are from the Life Satisfaction Index A (Neugarten, Havighurst, and Tobin 1961); response categories ranged from 1=strongly disagree to 4=strongly agree. The third item assessed satisfaction with life as a whole, and response categories ranged from 1=not satisfied at all to 5=completely satisfied. Because these three items did not have

identical response categories, they were converted to equivalent z-scores prior to the construction of the composite measure ($\alpha=.72$).

Key Independent Variables

Financial hardship was measured with two variables. Income (family) had a range of 1=less than \$5,000 per year to 10=more than \$80,000 per year. Because the theory concerns financial hardship, this measure was reverse coded so that larger numbers represented higher levels of financial strain. Also, due to a significant number of missing cases on this variable, multiple imputation was employed, so several cases lie outside of the stated range for this variable.

Financial strain, a subjective measure, was tapped with the following two items (Pearlin et al. 1981): (a) “How much difficulty do you have in meeting the monthly payments on (your/your family's) bills (response categories ranged from 1=none to 4=a great deal)?” and (b) “In general, how do (your/your family's) finances work out at the end of the month (response categories ranged from 1=money left over to 3=not enough to make ends meet)?” Because these two items do not have identical response categories, they were converted to equivalent z-scores prior to the construction of the composite measure ($\alpha=.76$).

Congregational support was measured with the following five items: (a) “The people in my congregation value my life experience.” (b) “Other than your minister, pastor, or priest, how often does someone in your congregation let you know they love you?” (c) “How often does someone in your congregation talk with you about your private problems and concerns?” (d) “How often does someone in your congregation express

interest and concern in your well-being?” and (e) “How satisfied are you with the emotional support you've received from the people in your church?” Response categories ranged from 1=strongly disagree to 4=strongly agree on the first item, 1=never to 4=often for the next three, and 1=completely dissatisfied to 4=very satisfied for the fifth. Given that all items ranged from 1-4, they were not transformed prior to the construction of the index despite having slightly different response answers ($\alpha=.80$). The indicators for this measure were only presented to study participants who attended church more than twice a year, resulting in valid cases for only 1,124 respondents. Since more complete data was available for the other measures, multiple imputation was used to provide values for the missing cases on this variable. Ancillary analyses revealed that the results were the same regardless of whether listwise deletion or imputation was employed, so this did not bias the findings reported below.

Secure attachment to God was tapped with six items: (a) “I have a close personal relationship with God.” (b) “I feel that God is right here with me in everyday life.” (c) “When I talk to God, I know he listens to me.” (d) “God protects me.” (e) “I look to God for strength in a crisis.” and (f) “I look to God for guidance when difficult times arise.” Response categories for the first four items ranged from 1=strongly disagree to 4=strongly agree, while they range from 1=not at all to 4=a great deal for the other two ($\alpha=.91$).

Covariates

The relationships among financial hardship, religious resources, and psychological well-being were assessed after the effects of several covariates were statistically controlled.

Age was a continuous measure with a range of 65-101. Race (black=1), marital status (married=1), sex (female=1), and education (less than high school=1) were all dichotomous variables. Self-rated health was coded 1=poor to 4=excellent. To demonstrate the utility of the proximal measures of religious life employed here, it is important to show that they matter above and beyond the more distal measures of religion that are typically employed. Therefore, controls for religious attendance (coded 1=never to 9=more than once a week), Bible study (coded 1=never to 9=several times a week), and frequency of prayer (coded 1=never to 8=several times a day) are included in all models.

Cross-Product Terms

To test for the interactive influence of financial hardship and religious resources on psychological well-being, cross product terms were constructed for: (a) income (reverse coded) and congregational support; (b) subjective financial strain and congregational support; (c) income (reverse coded) and secure attachment to God; and (d) subjective financial strain and secure attachment to God. All of these measures were zero-centered prior to the construction of the interaction terms to reduce multicollinearity (Aiken and West 1991).

Missing Data

Missing data on all variables was dealt with via multiple imputation procedures using the “proc mi” command in SAS 9.1.3. The number of missing cases was small for most measures, except for income and congregational support. For these two measures,

roughly 400 cases were imputed. Ancillary analyses, using listwise deletion for missing cases on all variables, revealed that the findings were similar regardless of the how missing data was handled. Therefore, the imputation approach was used so that a significant number of cases were not lost.

Statistical Analyses

The conceptual models and hypotheses outlined above were tested in several steps. Descriptive statistics for all study variables were calculated, and a series of regression models were then estimated. Since the dependent variables employed were continuous measures of psychological well-being, ordinary least squares (OLS) regression was utilized. Both main effects of financial strain and religious variables, as well as interactive relationships between these variables, were examined.

[Table 1 About Here]

RESULTS

Table 1 shows descriptive statistics for all of the measures. For the dependent variables, self esteem has a mean of 3.44. Given that the range of this variable is 1-4, this value indicates that self-esteem is high in this sample. Similarly, the mean for optimism is 3.14 on a 1-4 scale. Life satisfaction is also high in this sample. Given that we had to standardize the items for this measure prior to the construction of the index, the range is roughly -3.09-1.39. Thus, the mean of -0.008 is high. The average age is 75, and 47% of the sample is black. Roughly 47% of the sample is married, 61% is female, and 41% has less than a high school education. Self-rated health is somewhere around fair to good,

respondents typically attend church about 2-3 times a month, participates in Bible study about once or twice a year, and prays a few times per week. The average family income is roughly \$20,000 per year, and financial strain is common, with the average respondent reporting that they have just enough money to pay their bills or only a little money left over at the end of the month. Congregational support is moderately high, with a mean of 2.75 on a scale of 1-4, while secure attachment to God is very high, with a mean of 3.54 on a 1-4 scale.

[Table 2 About Here]

Table 2 shows bivariate correlations between the key independent and dependent variables. The three measures of psychological well-being—self-esteem, life satisfaction, and optimism—are moderately to strongly correlated with each other (r 's range from .38 to .48). Financial hardship, both income and subjective financial strain, is only weakly correlated with psychological well-being in bivariate models (r 's range from -.02 to -.11). The correlation between the two measures of financial strain is .47, indicating that there is some, although certainly not complete, overlap between these two measures—i.e., they are each tapping some unique aspects of financial hardship. Congregational support and secure attachment to God are fairly strongly correlated ($r=.54$), but still likely tap something unique about religious life. They have moderate correlations with both psychological well-being (r 's range from .20 to .31) and financial hardship (r 's range from .15 to .24). These preliminary analyses provide some support for Hypotheses 1 and 2, which predicted that financial hardship and religious resources would be associated with psychological well-being. To adequately test these hypotheses, however, we need to examine multivariate models.

[Table 3 About Here]

Table 3 displays OLS parameter estimates for the analysis of self-esteem. Looking at Model 1, we see that financial strain is inversely associated with this aspect of psychological well-being. Ancillary analyses revealed that income (reverse coded) was inversely associated with self-esteem when financial strain was not included in the model. This suggests that subjective assessments of one's financial situation mediate the connection between income and self-esteem. Overall, this provides support for Hypothesis 1. Model 2 adds religious resources to Model 1. Here, we see that both congregational support and secure attachment to God have positive associations with self-esteem net of each other, financial hardship, and important control variables. This is consistent with Hypothesis 2. Hypothesis 3 claims that financial hardship and religious resources will have independent effects net of each other, and this is also supported by these findings. Hypotheses 4a and 4b both concern an interaction between financial hardship and religious resources. To test these predictions, Models 3-6 show interactions between income and congregational support, financial strain and congregational support, income and secure attachment to God, and financial strain and secure attachment to God, respectively. All four of these interaction terms are statistically significant, indicating that the effects of financial hardship vary across levels of religious resources and vice-versa.

[Figure 2 About Here]

Given that interaction terms are difficult to interpret, it is helpful to display them graphically. Figure 2 shows the moderating effect of secure attachment to God on the relationship between subjective financial strain and self-esteem. Looking at this figure, we can see that the inverse correlation between this aspect of financial hardship and self-

esteem is reduced at higher levels of attachment to God. At very high levels, there is virtually no association between financial strain and self-esteem at all—it is completely buffered. To conserve space, the other three interactive relationships are not shown graphically, but look virtually identical to the one depicted in Figure 2. This is strong support for Hypothesis 4a.

[Figure 3 About Here]

These significant interaction terms also support Hypothesis 4b. To better understand this relationship, Figure 3 shows the moderating effect of subjective financial strain on the relationship between secure attachment to God and self-esteem. At low levels of financial strain, there is virtually no relationship between attachment to God and self-esteem. As strain increases, however, attachment becomes more important, and at high levels of strain, this religious resource has a strong positive correlation with self-esteem. Thus, religious resources may be important predictors of psychological well-being, but primarily among individuals who are suffering from financial hardship. The same is true of congregational support.

[Table 4 About Here]

Table 4 shows the findings for life satisfaction. Similar to the results for self-esteem, financial strain (inversely), congregational support (positively), and secure attachment to God (positively) all have statistically significant relationships with life satisfaction net of each other and important covariates (see Models 1 and 2). This provides additional support for Hypotheses 1, 2, and 3. Models 3-6 show the findings for the interactive effects of financial hardship and religious resources. Three of the four cross-product terms are significant for life satisfaction: income and congregational support, financial

strain and congregational support, and income and secure attachment to God. These findings provide additional support for Hypotheses 4a and 4b, and can be interpreted in the same way as the findings for self-esteem (see Figures 2 and 3).

[Table 5 About Here]

Table 5 shows the findings for optimism, which are similar to the ones for self-esteem and life satisfaction. Financial strain (inversely), congregational support (positively), and secure attachment to God (positively) all have statistically significant relationships with optimism. This provides even more support for Hypotheses 1, 2, and 3. Models 3-6 show the findings for the interactive effects of financial hardship and religious resources. Three of the four cross-product terms are significant: income and congregational support, income and secure attachment to God, and financial strain and secure attachment to God. These findings provide additional support for Hypotheses 4a and 4b, and can be interpreted in the same way as the findings for self-esteem (see Figures 2 and 3).

DISCUSSION

Drawing broadly on insights from the life stress paradigm, social capital theory, attachment theory, and the literature on the religion-health connection, this study investigated the main and interactive effects of financial hardship and religious resources on psychological well-being using data on a national sample of older adults. Several empirical findings are noteworthy: (1) financial hardship, particularly subjective assessments, has deleterious effects on psychological well-being; (2) religious resources, in the form of both congregational support and secure attachment to God, are positively

associated with well-being; (3) financial hardship and religious resources do not operate in completely independent ways, but instead interactively influence psychological well-being. With respect the final point, the negative impact of financial hardship is reduced at high levels of religious resources (a buffering effect), and the positive association between religious resources and psychological well-being accrues primarily to individuals who are suffering from financial hardship. These findings are important for several reasons.

To begin with, using data on a large probability sample of older adults, the results confirm that two different religious resources—congregational support and secure attachment to God—are linked with psychological well-being net of each other, and over and above the effects of conventional indicators of religious practice including religious attendance, Bible study, and prayer. This bears out the wisdom of social capital and attachment theories, and underscores the value of their core ideas for the sociology and psychology of religion (Ammerman 1997; Foley, McCarthy, and Chaves 2001; Kirkpatrick 2005). Attachment theory, in particular, has only recently been applied to religious phenomena, thus far with impressive results.

Perhaps the most novel and important finding in this study involves the interactive effects of both objective and subjective financial hardship and religious resources on psychological well-being. Briefly, the results show that both congregational support and secure attachment to God buffer against the deleterious effects of financial hardship. For congregational support, it is possible to speculate that religious organizations and individuals provide several benefits for persons experiencing real or perceived economic deprivation. For example, they may supply much needed material support during times of

need, such as food, help paying bills, etc. Religious messages and teachings, as well as emotional support from coreligionists, may also help deprived individuals reframe their circumstances in terms that are less threatening to the sense of self, and hence less emotionally damaging (Foley 1988; Idler 1995; Pargament 1997). This may help to offset perceived financial deprivation. Religious organizations may also shift attention and energy away from competition for material success or prestige, and toward other types of life goals and purposes, such as empathy and spiritual matters. In addition, congregations may tend to encourage non-material standards for evaluating the self and others (e.g., personal spirituality, character, or prosocial conduct). Faith communities may also mitigate feelings of perceived hardship by providing social warmth and positive reflected appraisals, thereby bolstering feelings of self-worth, personal efficacy, and hope (Ellison and Levin 1998; Koenig 1994; Krause 2005; Schieman et al. 2005).

The results also indicate that secure attachment to God mitigates the deleterious effects of both objective and subjective financial hardship on psychological well-being as well. These findings are consistent with a long tradition of theory suggesting that otherworldly rewards and relations may emotionally compensate individuals for strains and hardships, both objective and subjective, experienced in the physical realm (Flynn and Kunkel 1987; Smith, Range, and Ulmer 1991-92). Given a close relationship with a loving God, believers may be less prone to take current deprivations to heart, as threats to personal identity or the sense of self; rather, they may construct their "true" identity in religious or spiritual terms. To the extent that believers adopt a worldview that diminishes the importance of their current economic conditions, they may experience patience, gratitude, and hopefulness, which likely enhance psychological well-being.

Taken together, these findings underscore an important contingent aspect of the link between religious life and psychological well-being: Both congregational support and secure attachment to God appear to function as significant emotional compensators for persons who are experiencing real or perceived financial hardship. Clearly, this implies that there are multiple pathways to emotional health, and that the absence of monetary resources does not necessarily translate into an elevated level of emotional disturbance. Although there is a rich and ample theoretical basis for such a finding, this particular type contingent relationship has been neglected in most previous work.¹³

In addition to the findings that test the hypotheses, two others deserve a mention. To begin with, the effects of religious attendance on psychological well-being are completely explained (i.e., mediated) by congregational support and secure attachment to God. This is important because much previous research has speculated that this aspect of religious life affects health by providing instrumental and psychological resources and support. These findings provide much needed empirical support for this claim. The results for prayer are also interesting. When included in models that do not contain congregational support and secure attachment to God, prayer is positively associated with psychological well-being. Once congregational support and secure attachment to God are taken into consideration, however, the effects of prayer actually become negative for self-esteem and optimism, and non-significant for life satisfaction. This is complicated, but could mean that once the supportive aspects of religious life are held constant, what remains of the connection between prayer and psychological well-being is the result of individuals with low levels of well-being praying more in an attempt to enhance their mental health.

This is purely speculative, however, and future research should delve deeper into this finding.

Like all studies, this investigation is characterized by a few limitations. First, it is based on data on older US adults who are predominately Christian. Thus, the findings cannot be generalized to other age groups or religions. Second, the cross-sectional nature of the data makes it impossible to definitively establish the causal order among the key variables. For example, although the interpretation of the findings presented here is certainly plausible, it is also conceivable that psychological well-being or financial hardship may affect one's relationships with others in their congregation and / or with God. Future research using longitudinal designs—ideally with three or more waves of data—will be required to address this limitation. Third, a reliance on self-report measures is another weakness due to the possibility of shared method variance, as well as the numerous potential biases inherent in such measures, including impression management, social desirability bias, and a lack of self-awareness. This is particularly relevant for the linkage between subjective assessments of financial hardship and self-reports of psychological well-being because response bias and reciprocal relationships may inflate the correlation between these variables (Garbarski 2009). While this may be a problem, the fact that the results reported here are similar for both objective and subjective financial hardship lends credibility to arguments concerning the importance of each.

It is also important to note that the present study focused exclusively on religious “resources,” while ignoring the possibility that certain aspects of religion may also be “stressors,” and therefore have deleterious effects on psychological well-being. A balanced approach to the study of religion and health must take into account the positive

(or salutary) and negative (or pernicious) effects of religious practice and experience. As interest in the phenomenon of spiritual struggles has expanded, a growing body of work has explored the implications of internal or intrapsychic struggles—e.g., religious doubting—for health and well-being (Ellison and Levin 1998; Pargament 2002; Pargament et al. 2001). The stress process model outlined above would predict that spiritual struggles (e.g., negative religious coping, anxious attachment to God, etc.) might exacerbate the already deleterious effects of financial hardship, and future research should examine this possibility.

Despite these weaknesses, the findings reported here do suggest a number of fruitful avenues for future inquiry. For example, although this study has focused on psychological well-being—one aspect of mental health—it will be important to extend this research to cover other outcomes, including symptoms and diagnoses of specific mental disorders (e.g., depression, anxiety, addictive disorders, etc.), as well as measures of physical health (e.g., physical limitations, hypertension, cognitive decline, pain management, mortality, etc.). In addition, future studies might profitably distinguish between relationships with religious versus non-religious others (e.g., parents, romantic partners, etc.) in order to isolate the unique effect of the former on mental health. Such work could also test the "amplification" and "compensation" hypotheses articulated by Kirkpatrick (2005) and others. Briefly, these competing arguments suggest relationships with religious others, including God, may either: (a) add to, or even multiply, the beneficial effects of non-religious attachments on mental health, thereby providing the greatest benefits to persons who enjoy secure social attachments to parents, spouses, etc.; or (b) compensate for deficits in non-religious attachments, thus affording greater

advantages to persons with insecure or anxious attachments to the non-religious others in their lives.

Future research should also address the following question: Exactly what is the relationship between objective and subjective measures of financial hardship? We know that these two variables are correlated with each other, but we also know that they tap something unique about socioeconomic deprivation. Some have argued that subjective measures of social status tap the “cognitive averaging” of SES and other social characteristics (Demakakos et al. 2008; Garbarski 2009), but exactly what these “other characteristics” might be is not known. Here, the correlation between objective and subjective financial hardship is 0.47, meaning that each explains only about 22% of the variation on the other. Future research should seek to better understand the causes and consequences of these measures.

In sum, this study has made a fresh contribution to the growing literature on religion and mental health by examining the links between financial hardship, religious resources, and psychological distress among older adults. Viewed broadly, the results underscore the value of integrating research on religion with the larger literature on stress processes and resources, as well as insights from social capital and attachment theories. It is hoped that future research will replicate and extend these findings to cast new light on the complex causes of psychological well-being in later life.

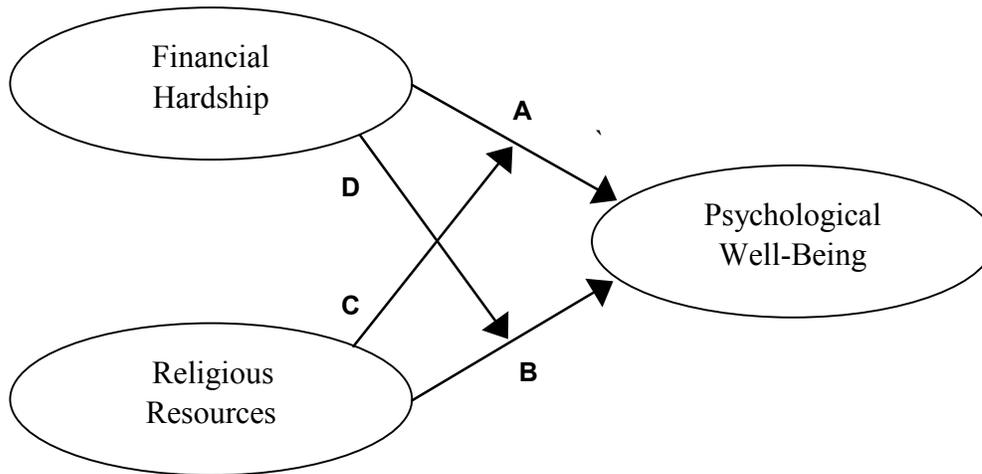
Figure 1: Conceptual Model

Table 1: Descriptive Statistics

Variable	Mean	St Dev	Range
Self-Esteem	3.442	0.496	1-4
Life Satisfaction	-0.008	0.808	-3.09-1.39
Optimism	3.144	0.538	1-4
Age	75.166	6.657	65-101
Race (Black=1)	0.465	-	0-1
Marital Status (Married=1)	0.473	-	0-1
Sex (Female=1)	0.618	-	0-1
Education (<HS=1)	0.406	-	0-1
Self-Rated Health	2.410	0.872	1-4
Religious Attendance	5.729	2.720	1-9
Bible Study	2.860	2.804	1-9
Prayer	5.763	1.881	0-9
Income (Reverse Coded)	6.374	2.489	1-10
Financial Strain	-0.010	0.897	-2.02-2.13
Congregational Support	2.750	0.793	1-4
Secure Attachment to God	3.536	0.583	1-4

Notes: N=1500

Estimated on multiply-imputed data. Some measures contain standardized items (see text for details).

Table 2: Bivariate Associations

	Self-Esteem	Life Satisfaction	Optimism	Income (Reverse Coded)	Financial Strain	Congregational Support	Secure Attachment to God
Self-Esteem	1.000						
Life Satisfaction	0.377	1.000					
Optimism	0.484	0.420	1.000				
Income (Reverse Coded)	-0.042	-0.066	0.062	1.000			
Financial Strain	-0.067	-0.108	-0.020	0.470	1.000		
Congregational Support	0.237	0.200	0.265	0.157	0.163	1.000	
Secure Attachment to God	0.269	0.233	0.311	0.239	0.147	0.538	1.000

Notes: N=1500

Table 3: OLS Parameter Estimates from the Regression of Financial Hardship, Religious Resources, and Covariates on Self-Esteem

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	3.496 ***	3.816 ***	3.791 ***	3.790 ***	3.803 ***	3.806 ***
Age	-0.003	-0.002	-0.002	-0.002	-0.002	-0.002
Race (Black=1)	0.151 ***	0.120 ***	0.117 ***	0.119 ***	0.113 ***	0.115 ***
Marital Status (Married=1)	-0.035	-0.046 +	-0.047 +	-0.047 +	-0.048 +	-0.045 +
Sex (Female=1)	-0.020	-0.030	-0.033	-0.034	-0.036	-0.034
Education (<HS=1)	-0.025	-0.021	-0.024	-0.022	-0.023	-0.021
Self-Rated Health	0.063 ***	0.063 ***	-0.061 ***	0.061 ***	-0.062 ***	0.060 ***
Religious Attendance	0.021 ***	0.007	0.006	0.007	0.006	0.006
Bible Study	0.017 ***	0.013 **	0.013 **	0.013 **	0.013 **	0.013 **
Prayer	0.020 **	-0.024 **	-0.021 *	-0.022 *	-0.020 *	-0.022 *
Income (Reverse Coded)	-0.010	-0.016 *	-0.015 *	-0.015 *	-0.014 *	-0.014 *
Financial Strain	-0.036 *	-0.038 *	-0.038 *	-0.043 **	-0.038 *	-0.047 **
Congregational Support	-	0.056 **	0.058 **	0.059 **	0.050 **	0.057 **
Secure Attachment to God	-	0.207 ***	0.210 ***	0.209 ***	0.239 ***	0.238 ***
Income*Congregational Support	-	-	0.017 **	-	-	-
Financial Strain*Congregational Support	-	-	-	0.042 *	-	-
Income*Secure Attachment to God	-	-	-	-	0.031 ***	-
Financial Strain*Secure Attachment to God	-	-	-	-	-	0.114 ***
Adj. R2	0.100	0.134	0.138	0.136	0.141	0.144

Notes: N=1500

+p<0.10 **p<0.05 ***p<0.01 ***p<0.001

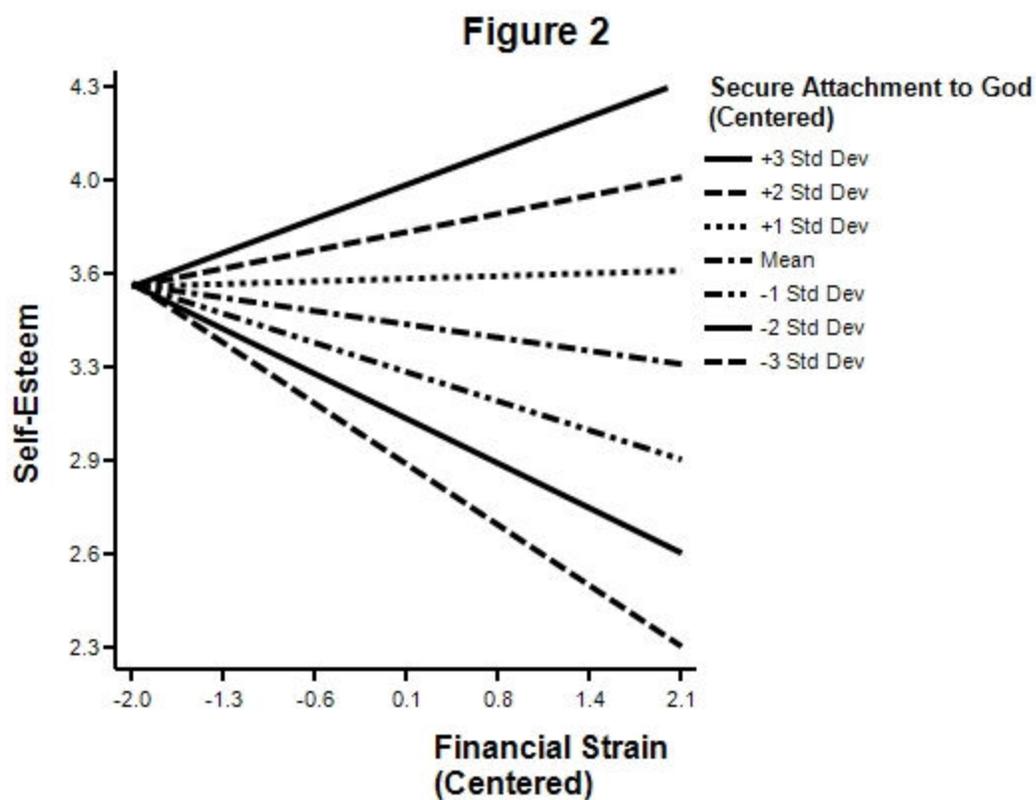


Figure 3

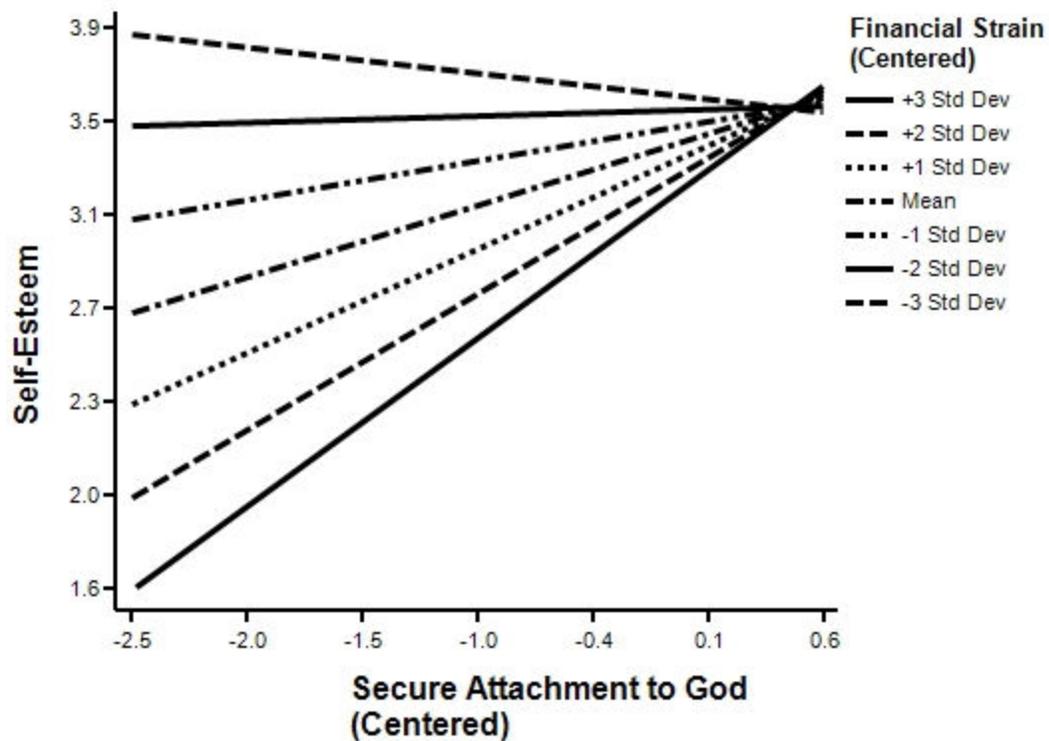


Table 4: OLS Parameter Estimates from the Regression of Financial Hardship, Religious Resources, and Covariates on Life Satisfaction

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	-0.506 ***	-0.045 ***	-0.097 ***	-0.107 ***	-0.059 ***	-0.050 ***
Age	0.005	0.006 +	0.006	0.006 +	0.006 +	0.006 *
Race (Black=1)	0.114 **	0.068	0.063	0.066	0.060	0.066
Marital Status (Married=1)	0.085 +	0.072	0.070	0.069	0.070	0.073
Sex (Female=1)	0.067	0.056	0.050	0.046	0.049	0.054
Education (<HS=1)	0.134 **	0.142 **	0.137 **	0.142 **	0.140 **	0.142 **
Self-Rated Health	-0.212 ***	-0.213 ***	-0.211 ***	-0.209 ***	-0.213 ***	-0.212 ***
Religious Attendance	0.015 +	-0.009	-0.009	-0.007	-0.009	-0.009
Bible Study	0.023 **	0.016 *	0.016 *	0.016 *	0.016 *	0.016 *
Prayer	0.055 ***	-0.006	0.000	-0.002	-0.002	-0.005
Income (Reverse Coded)	-0.010	-0.017	-0.016	-0.015	-0.016	-0.016
Financial Strain	-0.087 ***	-0.092 ***	-0.092 ***	-0.106 ***	-0.093 ***	-0.097 ***
Congregational Support	-	0.118 ***	0.122 ***	0.125 ***	0.112 ***	0.118 ***
Secure Attachment to God	-	0.264 ***	0.269 ***	0.267 ***	0.300 ***	0.278 ***
Income*Congregational Support	-	-	0.035 ***	-	-	-
Financial Strain*Congregational Support	-	-	-	0.100 ***	-	-
Income*Secure Attachment to God	-	-	-	-	0.034 **	-
Financial Strain*Secure Attachment to God	-	-	-	-	-	0.050
Adj. R2	0.111	0.137	0.143	0.143	0.140	0.137

Notes: N=1500

+p<0.10 **p<0.05 ***p<0.01 ***p<0.001

Table 5: OLS Parameter Estimates from the Regression of Financial Hardship, Religious Resources, and Covariates on Optimism

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	3.063 ***	3.432 ***	3.399 ***	3.429 ***	3.418 ***	3.427 ***
Age	-0.001	0.000	0.000	0.000	-0.001	-0.001
Race (Black=1)	0.166 ***	0.130 ***	0.127 ***	0.130 ***	0.123 ***	0.128 ***
Marital Status (Married=1)	-0.021	-0.035	-0.036	-0.035	-0.036	-0.034
Sex (Female=1)	-0.011	-0.023	-0.026	-0.023	-0.028	-0.024
Education (<HS=1)	0.021	0.025	0.022	0.025	0.023	0.025
Self-Rated Health	-0.098 ***	-0.098 ***	-0.097 ***	-0.098 ***	-0.098 ***	-0.097 ***
Religious Attendance	0.025 ***	0.009	0.008	0.009	0.008	0.008
Bible Study	0.023 ***	0.019 ***	0.019 ***	0.019 ***	0.019 ***	0.019 ***
Prayer	0.022 **	-0.028 **	-0.024 *	-0.028 **	-0.025 **	-0.027 **
Income (Reverse Coded)	0.013 +	0.007	0.007	0.007	0.008	0.008
Financial Strain	-0.045 **	-0.046 **	-0.046 **	-0.047 **	-0.046 **	-0.050 **
Congregational Support	-	0.062 **	0.064 **	0.062 **	0.056 **	0.062 **
Secure Attachment to God	-	0.241 ***	0.244 ***	0.241 ***	0.274 ***	0.255 ***
Income*Congregational Support	-	-	0.022 ***	-	-	-
Financial Strain*Congregational Support	-	-	-	0.004	-	-
Income*Secure Attachment to God	-	-	-	-	0.031 ***	-
Financial Strain*Secure Attachment to God	-	-	-	-	-	0.054 *
Adj. R2	0.129	0.166	0.172	0.166	0.173	0.168

Notes: N=1500

+p<0.10 *p<0.05 **p<0.01 ***p<0.001

ENDNOTES

¹ Recent work has shown that subjective assessments of one's socioeconomic position are influenced, but not entirely predicted, by occupational position, education, household income, satisfaction with standard of living, past financial experiences, and feelings of financial security regarding the future (Singh-Manoux, Adler, and Marmot 2003).

² The magnitude of this relationship may be even stronger than it is for other aspects of religion, including service attendance and other congregation-based activities (Hill and Pargament 2003; Pargament 1997).

³ Since the sample is predominately Christian, our language follows the characteristics of this monotheistic tradition.

⁴ In the attachment theory literature, several different types of attachment have been identified, including secure/avoidant and anxious (Ainsworth et al. 1978). The data employed here does not have a good measure of anxious attachment to God, so only secure/avoidant attachment is theorized and empirically examined.

⁵ The theory argues that based on repeated experience with caregivers, infants and children develop mental models that guide their expectations and responses to future interactions (Kirkpatrick 1998). Although childhood attachments are important, people with insecure childhood attachments can experience secure attachments late in life that change their mental models.

⁶ The research on attachment theory and God leads to the question of how individuals' personal relationship history and religious affiliation may affect the style of their relationship to God. Preliminary research on relationships among childhood attachment, adult love, and religion suggests complex patterns of both correspondence and compensation (Kirkpatrick and Shaver 1990; Kirkpatrick and Shaver 1992; Kirkpatrick 1997, 1998; Granqvist 1998; Granqvist and Hagekull 2000; Beck and McDonald 2004). Research to date has been limited by use of different measures of religion and relationship to God, nonrepresentative samples, and mostly cross-sectional data.⁶

Although human and divine relations clearly differ in substantial ways, the attachment theory framework could provide some insights into important dimensions and functions of religion. (Note: Exploratory research by Kirkpatrick and Shaver (1992) found adult attachment style and attachment to God to be strongly related only for individuals' reporting an insecure childhood attachment to their mothers.)

⁷ Also less loneliness for women (Kirkpatrick, Kellas, and Shillito 1993).

⁸ Older people are more likely to use positive religious coping than are younger people, but the reasons are not known (Pargament 1997).

⁹ A study by Koenig, George, and Siegler (1988) using a sample of adults age 55 to 80 from the Second Duke Longitudinal Study found that personal/private cognitions (e.g., prayer, faith) were the dominant type of religious coping behavior.

¹⁰ It should be emphasized that people are included in this list even if they are not receiving Social Security benefits. Nevertheless, some older people are not in the database because they do not have a Social Security number. This may be due to factors such as illegal immigration. A five-step procedure was used to draw the sample. First, once each year researchers at CMS draw a 5% sample of names from their master file. These names are selected with a simple random sampling procedure. The sampled names

include individuals who are 65 years of age or older. However, by the time the field period for the present study began, individuals in the 5% file were approximately 66 years of age. It is for this reason that the study population was defined earlier as all people who were 66 years of age or older. In the second step of the sampling procedure, the 5% file was split into two subfiles—one containing older Whites and the other containing older Blacks. Each file was sorted by county and then by zip code within each county. Then, in the third step, an *n*th interval was calculated for each subfile based on the total number of eligible records. Following a random start, 75 *n*th selections were made in each file. In the fourth step of the sampling strategy, primary sampling units (PSUs) were formed by selecting approximately 25 names above and 25 names below each case identified in Step 3. Finally, in the last step, sampled persons within each PSU were recruited for an interview with the goal of obtaining about 10 cases per PSU.

¹¹ The average interview lasted 60 minutes. Participants were paid \$30 for participating in the study.

¹² Our feelings of self-worth are influenced by our relationships with others and their regard for us. If people feel that they have a close personal relationship with God, this caring and supportive relationship may have a beneficial effect on self-esteem. Koenig, McCullough and Larson (2001) reviewed 29 studies that investigated the relationship between self-esteem and religion (primarily among Judeo-Christian populations); 12 studies found higher self-esteem among individuals with greater religious involvement, 10 found no association, and 1 reported a negative association. In a national study of older Americans, Krause (1995) identified a nonlinear U-shaped relationship between religious coping and self-esteem; self-esteem was highest among adult adults with the most and least use of religious coping and relatively lower among elderly people with modest levels of religious coping.

¹³ Even though this study did not focus on prayer, a brief discussion of this aspect of religious life is nonetheless warranted. In the analyses presented above, prayer generally has an inverse relationship with psychological well-being. What might this mean? Even though the causal order is impossible to determine in this cross-sectional study, this finding may be interpreted in the following ways. Perhaps individuals who pray more frequently are seeking, but in some cases never finding, a secure connection with God, and thus suffer from psychological distress. This may emerge from the unsatisfying or unsettling nature of prayer experiences in this context. Unrequited love or unsuccessful help-seeking may even imply a strained relationship with God, which is one aspect of spiritual struggle (Exline 2002; Pargament 2002). An alternative issue is that of reverse causation. In this case, the findings for prayer may suggest that individuals who have lower levels of psychological well-being may pray more often, perhaps because they are seeking comfort from the causes of mental distress. Future longitudinal work will be required to shed light on this complex relationship.