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# Religion, Suffering, and Self-rated Health Among Older Mexican Americans

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***Objectives.*** The purpose of this study is to examine the relationship between religiously based beliefs about suffering and health among older Mexicans.

***Methods.*** A nationwide survey of older Mexican Americans was conducted ($N$ = 1,005). Questions were administered to assess beliefs about finding positive outcomes in suffering, the benefits of suffering in silence, other dimensions of religion, and health.

***Results.*** The findings suggest that older Mexican Americans who use their faith to find something positive in the face of suffering tend to rate their health more favorably. In contrast, older Mexican Americans who believe that it is important to suffer in silence tend to rate their health less favorably.

***Discussion.*** Moving beyond measures of church attendance to explore culturally relevant beliefs about suffering provides important insight into the relationship between religion and health among older Mexican Americans.

***Key Words:*** Health—Mexican American—Religion—Suffering.

A rapidly growing literature suggests that greater involvement in religion is associated with better physical health, better mental health, greater longevity, and the adoption of beneficial health behaviors (see Oman & Thoresen, 2005 for a review of this research). And as Levin (2001) points out, a good deal of this research has focused specifically on older people. One of the key findings in this literature reveals that old African Americans appear to derive greater the health-related benefits from religion than older Whites (Taylor, Chatters, & Levin, 2004). However, little is known about the relationship between religion and health in other racial and ethnic groups. This is especially true with respect to older Mexican Americans. The lack of attention to the relationship between religion and health among older Mexican Americans is unfortunate because recent demographic projections suggest that older Hispanics will soon overtake older African Americans to become the second largest minority group of older adults in the United States (Federal Interagency Forum on Aging Related Statistics, 2004).

The research that has been done so far with older Mexican Americans suggests that greater involvement in religion appears to convey greater health benefits (e.g., Reyes-Ortiz, Berges, Koenig, Keo, & Markides, 2008), but the measures of religion that have been used in these studies are crude. In fact, the wide majority of investigators rely solely on the frequency of church attendance to assess religion (e.g., Hill, Burdette, Ellison, & Musick, 2006). Although this is a reasonable place to start, researchers have known for some time that religion is a complex multidimensional phenomenon that should be measured with a battery of different indicators (Fetzer Institute/National Institute on Aging Working Group, 1999).

It is time to bring research on religion and health among older Mexican Americans up to the level of studies on religion and health among older adults in other racial and ethnic groups. The purpose of this study is to present findings from the first nationwide survey that was devoted solely to assessing the relationship between religion and health among older Mexican Americans.

Although there are many ways to study the relationship between religion and health among older Mexican Americans, findings from qualitative research by Krause and Bastida (2009) provide an important point of departure. Their study reveals that religiously oriented themes of pain and suffering are deeply embedded in Mexican American life. Based on these insights, the goal of the current study is to see if beliefs about religiously oriented suffering are associated with the health of older Mexican Americans.

## Religion, Suffering, and Health in Mexican American Culture

Two main themes emerged from the qualitative study by Krause and Bastida (2009) on religiously oriented suffering among older Mexican Americans. The first theme had to do with finding positive outcomes in the face of suffering, whereas the second involved suffering in silence.

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*Finding Something Positive in the Face of Suffering*

Historical forces have shaped the way older Mexican Americans respond to suffering in several ways. First, the conquest of Mexico by the Spanish created a great deal of pain and suffering (Leon, 2004). Carrasco (1990) reports the shocking extent of this problem. He indicates that in 1500, there were 25 million indigenous people living in Mexico, but due to factors, such as disease and slavery, this population was reduced to 1 million by 1600. Given these data, it is not surprising to find that Leon (2004) refers to the period of colonization as the "Mexican diaspora" (p. 198).

The deleterious consequences of colonization were exacerbated by a number of subsequent historical events, including the Mexican American War of 1848, the Mexican Revolution of 1910, and the great labor shortages during World War I. Each of these events rekindled the deleterious effects of earlier conditions of subordination and diaspora that were encountered during the Spanish colonization. The vestiges of these historical events are evident in the way contemporaneous scholars view Mexican culture, and by extension Mexican American culture. Evidence of this may be found in the work of Paz (1985). He discussed the role that solitude and suffering play in the lives of many Mexicans. Within the context of religion, solitude involves voluntarily withdrawing from the social world in order to concentrate on spiritual development. But Paz defines it differently. In his view solitude is, " . . . the feeling and knowledge that one is alone, alienated from the world and oneself . . . " (p. 195). He argues that solitude creates a dialectic: " . . . on the one hand it is self-awareness, on the other it is a longing to escape from ourselves" (p. 195). Paz then goes on to explicitly equate solitude with suffering: "Popular language reflects this dualism by identifying solitude with suffering . . . " (p. 196).

Like Mexican Americans, African Americans have also suffered from prejudice and discrimination in American society. And research by Krause (2004) suggests that older Blacks turn to their faith as a way of dealing with these pernicious problems. More specifically, he reports that many older Blacks indicate that their faith has sustained them in the face of racial injustice and that it sustained their ancestors, as well, when they were in slavery. Moreover, this study reveals that endorsing these beliefs tends to bolster the psychological well-being of older Blacks.

Religious factors have also influenced Mexican American views on suffering. The wide majority (about 79%) of Mexican Americans adults are Catholics (Espinosa, 2008). Accounts of the benefits that are associated with suffering are deeply embedded in this faith tradition. For example, in 398 CE, Augustine wrote *Confessions*, which is considered to be one of the pillars of Catholic theology. In writing about his conversion to the faith, Augustine recalled that " . . . the disordered and darkened eyesight of my mind was from day to day made whole by the stinging salve of wholesome grief" (Augustine, 398/2007, p. 98). Ehrman is one of the leading authorities on the Christian Bible. He sums up Biblical views on suffering in the following way: "The idea that God can bring good out of evil, that suffering can have positive benefits, that salvation itself depends on suffering . . . in some ways is the core message in the Bible" (Ehrman, 2008, p. 153).

But perhaps the most important source of religiously oriented views of suffering in the Mexican American community is found in the beliefs surrounding Our Lady of Guadalupe. Elizondo (1980) provides a detailed account of how the Virgin Mary appeared to Juan Diego, a Mexican peasant, in 1531. The Virgin told Juan Diego that she had come to give faith and courage to the people of Mexico and that she would " . . . remedy all their miseries, pains, and sufferings" (Elizondo, 1980, p. 31). In this account, the realization that the Virgin of Guadalupe had suffered deeply from the death of her own Son served to strengthen the bond between her and members of the Mexican American community. Over the centuries, the Virgin of Guadalupe " . . . came to occupy a place so central to Mexican culture that any consideration of the Mexican people in general . . . must include reference to her" (Rodriguez, 1994, p. 46).

Up to this point, the reasons why suffering is deeply embedded in Mexican American culture have been discussed, but the precise nature of the beliefs that are associated with suffering are still not clear. Insight into this issue is provided by the qualitative work of Krause and Bastida (2009). The older participants in their study reported two ways in which the search for something positive in the face of suffering is imbued with religious meaning.

First, a number of older Mexican Americans indicated that suffering made them more aware of the need for God. One older Catholic woman put it this way: "If you have it all, we never need anything, nothing ever hurts, we will never remember there is a God" (Krause & Bastida, 2009, p. 117). Second, a number of respondents indicated that their own suffering made them more grateful for the suffering they believe Jesus went through for them. For example, another older Catholic woman indicated that "Many times I wonder . . . . why is God given me all these problems? But we also have to think that God (i.e., Jesus) suffered more for us than we do for Him. We have to thank Him for what He went through for us rather than question why God is allowing things to happen to me" (Krause & Bastida, 2009, p. 119).

Casting these observations in the context of the stress process shows how beliefs about suffering may influence health among older Mexican Americans. The insights provided by Krause and Bastida (2009) suggest that beliefs about suffering operate much like an ethnically specific coping response. In fact, these views about suffering represent a specific instance of a "benevolent religious reappraisal" coping strategy in which individuals search for a positive outcome in the face of adversity (Pargament, Koenig, & Perez, 2000, p. 522).

But pain and suffering among older Mexican Americans differs from the work of Pargament and colleagues (2000) in one important way. These investigators studied whether benevolent religious appraisal offsets the effects of stressors that were present in the lives of study participants when the interviews were conducted. Evaluating the joint impact of coping and stress in this way represents a "situational definition of coping" (Aldwin, 1994, p. 85). In contrast, the study of suffering among older Mexican Americans focuses solely on the coping response without regard to the level of stress that may or may not be present at the time of the interview. Aldwin (1994) refers to this approach as a "person-based definition of coping" (p. 85). Following this strategy, no attempt is made to measure contemporaneous stressors in the current study because it is assumed that the suffering that older Mexican Americans feel is a reaction to lifelong exposure to ethnic difficulty. In fact, as research by Krause (2004) with older Blacks reveals that suffering associated with race-related problems may even extend across generations. Many regard Elizondo as the founder of U. S. Latino theology (Matovina, 2010). Elizondo (2010) captured the essence of the ethnic-related suffering that Mexican Americans experience in his discussion of why many Mexican Americans identify with Jesus: "In becoming a Galilean Jew, a craftsman in an insignificant village . . . Jesus becomes one of the rejects and marginalized in society, along with the millions who suffer exclusion, segregation, and rejection simply because of ethnicity or origin" (p. 87).

### *Suffering in Silence*

Although finding something positive in the face of suffering may bolster the health of older Mexican Americans, it is less clear if suffering in silence may help in the same way. Orsi's (2005) intriguing historical analysis of official Catholic Church doctrine provides useful insight into the potential health-related effects of suffering in silence. Orsi examined the official teachings and practices of the Catholic Church from the 1930s through the 1960s. This time frame is especially well suited for the current study because it represents the period in which many older Mexican Americans came of age. Orsi probed the ways in which Catholics were taught to deal with adversity during this era. As Orsi points out, "There was only one officially sanctioned way to suffer the most excruciating distress: with bright, upbeat, and uncomplaining submissive endurance . . . No matter how severe your suffering . . . Jesus' and Mary's were worse, and *they* never complained" (pp. 26–27, emphasis in the original). Orsi goes on to argue that "American Catholic religious teachers practiced an especially rough theodicy in which a cheerful, compliant silence was deemed the only appropriate response to human sorrow" (p. 31).

Evidence from the in-depth interviews that were conducted by Krause and Bastida (2009) is consistent with Orsi's (2005) observations. For example, one older Catholic woman stoically concluded that " . . . . she (i.e., the Virgin Mary) suffered in silence for her son. We suffer in silence for our children. With this problem I had, I did not even tell my son . . . I did not call my sisters . . . I faced it alone" (Krause & Bastida, 2009; p. 119). However, this coping strategy may come at a price, as another in-depth interview study participant pointed out: "We should not keep our suffering to ourselves. We should talk to each other and ask for help . . . " (Krause & Bastida, 2009, p. 120). In effect, this individual is arguing that suffering in silence deprives people of the social support that would typically be available to them. This is important because a vast literature specifies that social support exerts a beneficial effect on health (Krause, 2006).

## Modeling the Relationship Between Beliefs About Suffering and Health

A conceptual model was developed for this study in order to expand and elaborate upon the ways in which suffering may influence the health of older Mexican Americans (see Figure 1). The conceptual core of this model is captured by the following linkages: (1) older Mexican Americans who go to church more often will be more likely to adopt beliefs about the positive outcome of suffering and they will be more likely to believe in the importance of suffering in silence, (2) older Mexican Americans who rely on the two coping responses to deal with suffering will feel closer to God, (3) older Mexican Americans who feel closer to God will feel more optimistic, and (4) older Mexican Americans who feel more optimistic will enjoy better health. The theoretical rationale for these specifications as well as other select relationships in the model is presented briefly below.

### *Church Attendance and Coping Responses*

Berger (1967) provides valuable insight into the way in which attendance at worship services may influence the use of religious coping responses. He argues that religious beliefs and practices are socially based and maintained: "Worlds are socially constructed and socially maintained. Their continuing reality, both objective . . . and subjective . . . depends upon *specific* social processes, namely those processes that ongoingly reconstruct and maintain the particular world in question" (Berger, 1967, p.45, emphasis in the original). According to Berger, theodicies are one of the most important components in the belief systems that are maintained in religious institutions. Theodicies are religious explanations for suffering, evil, and pain in the world. Consistent with the view that the suffering of older Mexican Americans arises from social structural factors, Berger maintains that "One of the very important functions of theodicies is, indeed, their explanation of the socially prevailing inequalities of power and privilege" (p. 59). So if theodicies are socially maintained, then they must be reinforced through social interaction

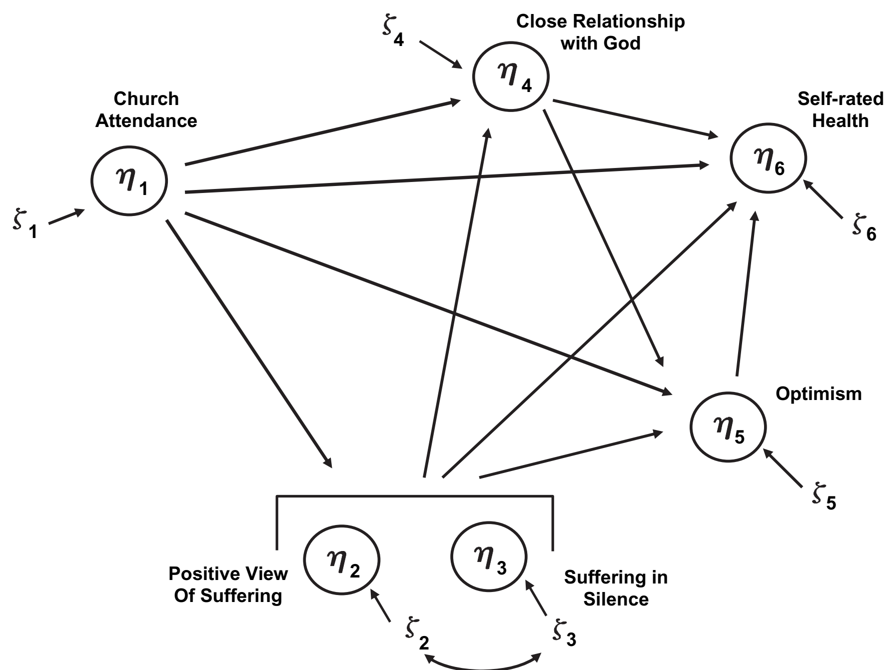


Figure 1. Religiously based suffering and health.

with like-minded religious others. And like-minded religious others are more likely to be found in church. Consequently, the more often an older Mexican American goes to church, the more often he or she will encounter like-minded religious others who help them develop and maintain theodicies about suffering.

### *Coping With Suffering and Perceived Closeness to God*

Social psychologists have argued for some time that social relationships tend to arise among people who share common experiences (e.g., Rook, 1991). To the extent that this is true, older Mexican Americans will be more likely to develop a perceived close relationship with God if they believe they share some common experience with Him. Berger (1967) identifies one common experience in his discussion of the basis of Christian theology. He argues that Christian theology was developed so that it, " . . . ensured that the suffering of Christ could be identified as the suffering on the part of God himself, while simultaneously being genuine human suffering . . . " (Berger, 1967, p. 77). So if God has suffered through Jesus and a person wants to get closer to God, then one basis for forming a relationship with Him may rest, in part, upon the perceived similarity of their own suffering and the suffering they believe God has experienced. Consequently, older Mexican Americans who search for something positive in suffering and who suffer in silence should be more likely to believe they have developed a closer perceived relationship with God.

### *Perceived Closeness With God and Optimism*

Although having a perceived close relationship with God may influence health in a number of ways, it is predicted in Figure 1 that optimism plays a key role in this process. Optimism is defined as the expectation or confidence that outcomes that are desired for the future will ultimately be attained (Peterson, 2000). Optimism is closely akin to hope (Snyder, 2000). The relationship between having a perceived close relationship with God and hope is highlighted in the work of Elizondo (2010): "We communicate easily and in a very personal way with God the father, with Mary as our mother, with Jesus . . . and with the saints . . . Their friendship is one of our deepest treasures and has enabled us to withstand the rejection of society without deep scars and to endure the suffering of oppression without giving up hope" (pp. 167–168). The views of Elizondo (2010) are consistent with the basic tenets of attachment theory. According to this perspective, an individual's fundamental sense of safety and well-being rests on the quality of the relationship they develop with an attachment figure. Typically, the caregiver (e.g., the mother) is the first attachment figure in the life of the individual, but this sense of attachment generalizes to others with advancing age (Shaver & Mikulincer, 2007). In fact, some researchers maintain that God serves as an attachment figure for many people by the time they reach adulthood (Kirkpatrick, 2005). This is important because Shaver and Mikulincer (2007) report that " . . . people who possess a stable sense of attachment security

generally feel safe and worthy . . . (and) . . . hold an optimistic and hopeful outlook on life . . ." (p. 672). Empirical support for the notion that feeling close to God is associated with greater optimism is provided by Krause (2002a).

*Optimism and Health*

A well-developed literature suggests that greater hope and optimism are associated with better health. For example, Peterson, Seligman, and Vaillant (1988) examined the effect of optimism on health over a thirty-five-year period. They found that people who were more optimistic at the baseline survey enjoyed better health over time. Similar results have emerged in religious settings. For example, Idler and Kasl (1997) report that older people who go to church more often are more optimistic and older adults who are more optimistic tend to enjoy better physical functioning over time. There are a number of reasons why older people who are more optimistic are healthier. For example, a sense of optimism promotes positive emotions that may reduce the risk of developing mental health problems (Nunn, 1996) that may, in turn, influence physical health (Cohen & Rodriguez, 1995). In addition, as Giltay Geleijnse, Zitman, Buijsse, and Kromhout (2007) report, older adults who are more optimistic tend to adopt healthier lifestyles over time.

## Methods

*Sample*

The population for this study was defined as all Mexican Americans aged 66 years and older who were retired (i.e., not working for pay), not institutionalized, and who speak either English or Spanish. The sampling frame consisted of all eligible study participants who resided in the following five-state area: Texas, Colorado, New Mexico, Arizona, and California. The sampling strategy that was used for the widely cited Hispanic Established Population for Epidemiological Study (HEPESE; Markides, 2003) was adopted for the current study. All interviews were conducted by Harris Interactive (New York). The interviews were administered face-to-face in the homes of the older study participants. Because all interviewers were bilingual, the study participants had the option of being interviewed in either English or Spanish. The majority of interviews (84%) were conducted entirely in Spanish. A total of 1,005 interviews were completed successfully. The response rate was 52%.

In an effort to make sure that the sample was representative, data on age, sex, marital status, education, country of birth, and affiliation with the Catholic Church were compared with estimates from the HEPESE Survey (Markides, 2003). Virtually identical estimates were obtained from both surveys for the following variables: age, sex, marital status, and country of birth. The level of education was somewhat higher in the current study (6.7 years vs. 4.9 years in the HEPESE), but this could be attributed to the fact that the HEPESE was conducted fifteen years before the current study, and during this time, the level of education has increased for the nation as a whole. In addition, the proportion of Catholics was somewhat lower in the current study (79% vs. 86% in the HEPESE). However, this gap could be attributed to the relatively recent wave of Mexican Americans who left the Catholic Church to join Pentecostal congregations (Fernandez, 2007).

The full-information maximum likelihood (FIML) estimation procedure was used to deal with item nonresponse. This step was taken because preliminary analysis revealed that 628 older study participants provided complete data and 253 respondents had data missing on only one study measure. The FIML procedure was used because a number of researchers argue that FIML is equivalent to more time-consuming imputation procedures, such as multiple imputation (Schafer & Graham, 2002). The data were analyzed with and without the FIML procedure. No substantively meaningful differences emerged from the two sets of findings.

Preliminary analyses reveal that the average age of the older Mexican Americans in this sample was 73.9 years ($SD$ = 6.6 years), approximately 44% were older men, the average number of years of schooling was 6.7 ($SD$ = 3.8 years), and approximately 79% were affiliated with the Catholic Church.

*Measures*

The core measures in this study are provided in Table 1. All the religion measures, with the exception of church attendance, were developed for this study with an abbreviated version of the item development strategy outlined by Krause (2002b). More specifically, open-ended in-depth interviews were conducted with 52 older Mexican Americans who reside in South Texas (see Krause & Bastida, 2009). New closed-ended items to assess religion were devised from these interviews. The items were translated and back translated from English into Spanish by a team of bilingual investigators. Following this, the quality of the newly devised closed-ended items was evaluated with 51 cognitive interviews that were conducted with a new sample of older Mexican Americans. This involved presenting study participants with the new closed-ended items followed by a series of open-ended questions that were designed to see if they understood the questions in the intended manner. Finally, the closed-ended questions were again evaluated with 51 pretest interviews that were conducted with a new sample of older Mexican Americans.

*Self-rated health.*—Self-rated health was assessed with three widely used indicators. A high score on these items reflects more positive self-assessments of health. The

Table 1. Core Study Measures

| Measure |
|---|
| Church attendance |
| How often do you attend religious services?[a] |
| Positive outcome in suffering[b] |
| Pain and suffering make us more aware of how much we need God. |
| Pain and suffering deepen my faith and make it stronger. |
| The pain and suffering I experience is nothing compared to the pain and suffering that Jesus went through. |
| The pain and suffering I experience makes me feel grateful to Jesus for the pain and suffering He endured for me. |
| Suffer in silence[b] |
| It is best to suffer in silence. |
| Suffering in silence makes us grow stronger. |
| God will reward those who suffer in silence. |
| Suffering in silence helps us avoid becoming a burden to others. |
| Perceived close relationship with God[b] |
| I have a close personal relationship with God. |
| I feel that God is right there with me in everyday life. |
| When I talk to God, I know He listens to me. |
| Optimism[b] |
| I always look on the bright side of things. |
| I'm optimistic about my future. |
| In uncertain times I usually expect the best. |
| I feel confident the rest of my life will work out well. |
| Self-rated health |
| How would you rate your overall health at the present time?[c] |
| Would you say your health is better, about the same, or worse than most people your age?[d] |
| In general how satisfied are you with your health?[e] |

[a] This item is scored in the following manner (coding in parenthesis): *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), and *several times a week* (9).

[b] These items are scored in the following manner: *strongly disagree* (1), *disagree* (2), *agree* (3), and *strongly agree* (4).

[c] This item is scored in the following manner: *poor* (1), *fair* (2), *good* (3), and *excellent* (4).

[d] This item is scored in the following manner: *worse* (1), *about the same* (2), and *better* (3).

[e] This item is scored in the following manner: *not at all satisfied* (1), *somewhat satisfied* (2), and *very satisfied* (3).

overall mean, which was computed by adding all three items together, is 7.2 (*SD* = 1.8). Means are provided for all multiple item constructs in order to give a sense of the distribution of the multiple item scales as a whole. However, when the model in Figure 1 was estimated, a full measurement model was specified in which each observed item was treated as a separate indicator of the underlying latent variable it was thought to assess.

*Church attendance.*—The measure of church attendance reflects how often older study participants attended worship services in the past year. A high score represents more frequent attendance. The mean level of church attendance is 5.2 (*SD* = 2.8).

*Positive aspects of suffering.*—Four indicators were developed to determine whether older Mexican Americans try to find something positive in the suffering they experience. A high score stands for a greater use of this coping strategy. When the four items are added together, the mean is 14.0 (*SD* = 2.1).

*Suffering in silence.*—Four items were also used to assess suffering in silence. A high score reflects a greater tendency to suffer in silence. The overall mean, which was computed by adding the four items together, is 10.8 (*SD* = 2.8).

*Perceived close relationship with God.*—The participants in this study were presented with three indicators that measure the extent to which they have developed a perceived close personal relationship with God. A high score denotes a greater tendency to feel closer to God. The overall mean, which was formed by adding the three items together, is 10.8 (*SD* = 1.5).

*Optimism.*—A sense of optimism was measured with four items. Two come from the scale developed by Scheirer and Carver (1985). The other two indicators were devised by Krause (2002a). A high score represents greater optimism. When the four items are added together, the mean is 13.3 (*SD* = 2.0).

*Demographic control variables.*—The relationships among the measures in Figure 1 were estimated after the effects of age, sex, education, and country of birth were controlled statistically. Age was measured in a continuous format, and education reflects the number of years of schooling. In contrast, sex (1 = *men*; 0 = *women*) and migration status (1 = *born in Mexico*; 0 = *born in the United States*) were coded in a binary format.

### Data Analysis Procedures

The model depicted in Figure 1 was estimated with Version 8.80 of the LISREL statistical software program (du Toit & du Toit, 2001). The maximum likelihood estimator was used during this process. However, use of this estimator rests on the assumption that the observed indicators in the study model have a multivariate normal distribution. Preliminary tests (not shown here) revealed that this assumption had been violated in the current study. Following the recommendations of du Toit and du Toit (2001), departures from multivariate normality were handled by converting raw scores on the observed indicators to normal scores prior to estimating the model (see p.143).

## Results

### Fit of the Model to the Data

Because FIML was used to deal with item nonresponse, the LISREL software program only provides two goodness-of-fit measures. The first is the FIML chi-square (1,535.448 with 177 *df*, $p < .001$). Unfortunately, this statistic is not very informative because the sample for this study is large. However, the second goodness-of-fit measure is more useful—the root mean square error of approximation

Table 2. Factor Loadings and Measurement Error Terms for Multiple Item Measures ($N$ = 1,005)

| Construct | Factor loading[a] | Measurement error[b] |
|---|---|---|
| Positive outcome in suffering | | |
| Need God[c] | .904 | .182 |
| Deepen my faith | .838 | .297 |
| Nothing compared to Jesus | .498 | .752 |
| Grateful to Jesus | .559 | .688 |
| Suffer in silence | | |
| Best to suffer in silence | .857 | .266 |
| Silence makes us grow | .882 | .223 |
| God will reward | .780 | .391 |
| Avoid becoming a burden | .641 | .589 |
| Close relationships with God | | |
| Have close relationship | .717 | .486 |
| God is right there | .956 | .086 |
| He listens to me | .826 | .317 |
| Optimism | | |
| Bright side | .805 | .353 |
| Optimistic about future | .797 | .365 |
| Expect the best | .731 | .465 |
| Work out well | .641 | .589 |
| Self-rated health | | |
| Rate overall health | .646 | .583 |
| Most people your age | .678 | .540 |
| Satisfied with health | .757 | .427 |

[a] The factor loadings are from the completely standardized solution. The first-listed item for each latent construct was fixed to 1.0 in the unstandardized solution.

[b] Measurement error terms are from the completely standardized solution. All factor loadings and measurement error terms are significant at the .001 level

[c] Item content is paraphrased for the purpose of identification. See Table 1 for the complete text of each indicator.

(RMSEA). The RMSEA value for the model in Figure 1 is .087. As Kelloway (1998) reports, values below .10 indicate a good fit of the model to the data.

*Reliability of the Study Measures*

Table 2 contains the factor loadings and measurement error terms that were derived from estimating the study model. These coefficients provide preliminary information about the reliability of the multiple item indicators. Kline (2005) recommends that items with standardized factor loadings in excess of .600 tend to have good reliability. As the data in Table 2 indicate, the standardized factor loadings range from .498 to .956. Only two coefficients are below .600. The difference between the first coefficient (.559) and the recommended value of .600 is trivial. The second coefficient was .498. However, as shown in the following paragraph, this relatively low factor loading did not compromise the reliability of the entire scale in which it is embedded.

Although obtaining information about the reliability of each item is useful, it is also helpful to know something about the reliability for the multiple item scales as a whole. These estimates can be computed with a formula provided by DeShon (1998). This procedure is based on the factor loadings and measurement error terms in Table 2. Applying the procedures described by DeShon to these data yield the following reliability estimates for the multiple item constructs in Figure 1: positive aspects of suffering (.803), suffering in silence (.871), perceived close relationship with God (.875), optimism (.833), and self-rated health (.736).

*Substantive Findings*

The substantive findings that emerged from estimating the model in Figure 1 are provided in Table 3. These results indicate that older Mexican Americans who attend church more often are more likely to search for something positive in the face of suffering ($\beta = .149$, $p < .001$). But in contrast, attending worship services more frequently is not associated with suffering in silence ($\beta = -.004$, *n.s.*). Taken together, these results suggest that only some religiously oriented coping responses may be endorsed during formal worship services.

As hypothesized, the findings in Table 3 suggest that older Mexican Americans who search for something positive in suffering report they have developed a perceived close relationship with God ($\beta = .372$, $p < .001$). But suffering in silence does not have the same effect ($\beta = .018$, *n.s.*). Consistent with the remaining study hypotheses, the findings indicate that older Mexican Americans who have a perceived close personal relationship with God are more optimistic ($\beta = .408$, $p < .001$) and older people who are more optimistic are more likely to rate their health in a favorable way ($\beta = .272$, $p < .001$).

An additional finding in Table 3 helps bring the results involving suffering into sharper focus. The results suggest that net of the intervening effects of perceived closeness to God and optimism, suffering in silence, is associated with less favorable health ratings ($\beta = -.139$, $p < .001$), but looking for something positive in the face of suffering is not significantly associated with health ($\beta = -.013$, *n.s.*). These findings reveal that searching for something positive in suffering and suffering in silence are two different coping responses. Further evidence of this is found by turning to the correlation between these measures. This coefficient (not shown in Table 3) suggests that the two coping responses are not significantly related ($r = .061$, *n.s.*).

The data in Table 3 suggest that finding something positive in suffering does not have a statistically significant direct effect on health ($\beta = -.013$, *n.s.*). Moreover, the overall indirect effect of positive suffering on health (not shown in Table 3) is also not statistically significant ($\beta = .027$, *n.s.*). However, it is important to reflect on the precise nature of this coefficient. The overall indirect effect is formed in Figure 1 by summing three different pathways that link finding something positive in suffering and health. The magnitude of the first pathway (i.e., specific indirect effect), which operates through feelings of closeness with God, is trivial ($\beta = .015$). However, the remaining specific indirect effects are important because they suggest that finding something positive in the face of suffering may be associated with

Table 3. The Relationship Between Suffering and Health ($N$ = 1,005)

| | Dependent variables | | | | | |
|---|---|---|---|---|---|---|
| Independent variables | Church attendance | Positive suffer | Suffer silence | Close with God | Optimism | Health |
| Age | −.120[a]*** (−.051)[b] | .090** (.008) | .117** (.013) | .086** (.006) | .011 (.001) | .024 (.002) |
| Sex | −.133*** (−.753) | −.165*** (−.203) | .016 (.023) | −.085** (−.082) | .046 (.044) | .075* (.082) |
| Born in Mexico | −.001 (−.002) | −.111** (−.137) | .171*** (.249) | −.086* (−.083) | −.018 (−.017) | −.116** (−.128) |
| Education | .008 (.006) | −.193*** (−.030) | −.150*** (−.027) | .014 (.002) | .070 (.008) | .032 (.004) |
| Church attendance | | .149*** (.032) | −.004 (−.001) | .147*** (.025) | .040 (.007) | .101** (.019) |
| Positive suffering | | | | .372*** (.290) | −.105** (−.082) | −.013 (−.011) |
| Suffer silence | | | | .018 (.012) | .056 (.037) | −.139*** (−.105) |
| Close with God | | | | | .408*** (.409) | .039 (.044) |
| Optimism | | | | | | .272*** (.309) |
| Multiple $R^2$ | .033 | .095 | .086 | .223 | .156 | .151 |

[a] Standardized regression coefficient (i.e., beta coefficients).
[b] Metric (unstandardized) regression coefficient.
*$p < .05$; **$p < .01$; ***$p < .001$.

health in different ways. More specifically, one specific indirect effect operates from positive suffering through optimism. The coefficient associated with this pathway (β = −.029) suggests that older Mexican Americans who are more likely to find something positive in suffering tend to rate their health less favorably (unfortunately, the LISREL software program does not provide tests of significance for specific indirect effects). But, in contrast, the other specific indirect effect points to the opposite conclusion. This pathway links positive suffering and health through feelings of closeness to God and optimism. These results suggest that older Mexican Americans who find something positive in suffering tend to rate their health in a more favorable way (β = .041). Taken together, these findings reveal that finding something positive in suffering is associated with health in positive as well as negative ways. But of the two, the magnitude of the positive linkage appears to be greater (i.e., it is 41% larger).

It would be helpful to briefly review the influence of the demographic control variables on religious involvement, even though no hypotheses were developed for them. This information is useful because so little is known about the religious involvement of older Mexican Americans. The first set of findings involves the education. The results indicate that the level of education that was attained by older Mexican Americans is not associated with how often they attend worship services (β = .008, *n.s.*). However, the findings further reveal that older Mexican Americans with fewer years of education are more likely to search for positive aspects of suffering (β = −.193, $p < .001$), and they are also more likely to suffer in silence than their more highly educated counterparts (β = −.150, $p < .001$). The results suggest that as Mexican Americans move through late life, they are more likely to look for something positive in suffering (β = .090, $p < .01$) and they are more likely to suffer in silence (β = .117, $p < .01$). However, care should be taken in viewing these results because it is not possible to tell if they reflect age or cohort effects. The results further reveal that compared with older women, older men are less likely to search for something positive in suffering (β = −.165, $p < .001$), and they are less likely to have developed a perceived close relationship with God (β = −.085, $p < .05$). Finally, older study participants who were born in Mexico are less likely to look for something positive in suffering (β = −.111, $p < .01$), more likely to suffer in silence (β = .171, $p < .001$), and less likely to have a perceived close relationship with God (β = −.086, $p < .01$).

## Discussion

In his insightful book on Mexican American Catholicism, Fernandez (2007) underscores the central role of suffering in the Mexican American ethos: "The Christ of Hispanic passion symbolism is a tortured, suffering human being. The image leaves no room for doubt . . . . (but) he is not just another human who suffers unfairly at the hands of evil humans. He is the divine Christ, and that makes his innocent suffering all the more dramatic . . . " (p. 102). Fernandez goes on to point out that " . . . a vanquished people (can) relate to a suffering Christ" (p. 102). These observations suggest that focusing on the interface between religion and suffering may provide an important way to begin building a more sophisticated literature on the relationship between religion and health among older Mexican Americans.

Carefully crafted measures were developed for this study in order to see if two religiously oriented views of suffering are associated with the health of older Mexican Americans: finding something positive in the face of suffering and suffering in silence. Empirical support was found for the following hypotheses. First, the data suggest that older Mexican Americans who attend worship services more often tend to look for something positive in the face of suffering, but they are not more likely to suffer in silence. Second, the results indicate that searching for something positive in suffering is associated with developing a perceived close relationship with God, but similar findings failed to emerge with respect to suffering in silence. Third, the data reveal

that older Mexican Americans who believe they have a close relationship with God are more optimistic and older Mexican Americans who are more optimistic tend to rate their health more favorably.

Probing the data more deeply by exploring the specific indirect effects of finding something positive in suffering on health provides a more complex picture of the nature of this coping response. The findings from one specific indirect effect suggest there is a negative relationship between positive suffering and health, whereas the results provided by another specific indirect effect point to the opposite conclusion. A theoretical rationale for the positive effects was provided earlier, but the negative association between positive suffering and health was not anticipated. Some preliminary insight into this relationship may be found by returning to the way in which positive suffering is measured. Some of the items that assess this construct ask study participants to compare their suffering with that of Jesus. But in order to do so, they must reflect back (and maybe even relive) the difficulties they have encountered. This may be an unpleasant experience that may have an adverse effect on health. However, this explanation must be viewed cautiously because the data are cross sectional.

The findings further reveal that older Mexican Americans who are inclined to suffer in silence tend to rate their health in a less favorable way. These results, which are consistent with an extensive literature on avoidance coping, suggest that retreating from significant others during difficult times and exerting little personal effort to resolve a problem are ineffective responses that may have deleterious effects on health and well-being (Aldwin, 1994).

Although the findings from the current study may have contributed to the literature, a substantial amount of research remains to be done. An emphasis was placed in the current study on the relationship between suffering and health in the sample taken as a whole. However, it would be important to know if the relationship between suffering and health varies by gender. Moreover, the participants in this study were sampled from five states, including Texas and California. Greater insight into the relationship between suffering and health may be obtained by assessing whether there are regional variations in the data. Finally, justification for studying suffering in silence was based on the teachings of the Catholic Church. It is important to know if the relationships among the variables in the study model vary according to whether a person affiliates with the Catholic Church.

As in any study, there are limitations in the current study. One significant limitation arises from the fact that the data are cross sectional. As a result, the temporal ordering among the constructs in Figure 1 was based on theoretical considerations alone. For example, it was hypothesized that people who are optimistic have better health. But it is possible to reverse the causal ordering by arguing that health determines optimism. Similar issues arise in the proposed relationships between church attendance and suffering, suffering and having a perceived close relationship with God, and having a close perceived relationship with God and optimism. A better sense of the temporal ordering among these constructs awaits data that have been gathered at more than one point in time.

Although there are shortcomings in the work presented above, perhaps the greatest contribution of the current study arises from the fact that it shows how exploring the complex interface between religion and health among older Mexican Americans adds breadth and depth to a literature that has been primarily concerned with older Whites and older Blacks. Probing the ways in which the relationship between religion and health varies across racial groups provides a way for social gerontologists to leave a wider societal imprint on research in this field.

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