The Effect of Religious Coping on Caregiving Appraisals of Mothers of Adults With Developmental Disabilities

Helen B. Miltiades, PhD,¹ and Rachel Pruchno, PhD²

Purpose: This article explores the association between race and religious coping on caregiving appraisals for mothers who coreside with an adult child with mental retardation. Design and Methods: 71 Black and 71 White women (aged 50 or older) were matched on demographic characteristics to control for the association between race and socioeconomic status. Structural equation analysis was used to examine the relationship between race, religious coping, and caregiving appraisals. Results: Black women were more likely to use religious coping. Religious coping was associated with higher levels of caregiving satisfaction, but not with burden. Blacks experienced higher levels of caregiving satisfaction. Blacks also experienced higher levels of caregiving burden due to their poor health. Implications: The needs of Blacks should be considered when developing “best practices” in service provision. Culturally sensitive outreach approaches should not ignore the importance of faith and faith-based organizations in the lives of Blacks. Key Words: Race, Caregiving burden, Caregiving satisfaction

Caregiving satisfaction and burden have been described as the two most important elements in the caregiving process (Lawton, Moss, Kleban, Glicksman, & Rovine, 1991). The caregiving studies that have contrasted Black and White caregivers indicate that White caregivers report higher levels of burden and less caregiving satisfaction than do Black caregivers (Lawton, Rajagopal, Brody, & Kleban, 1992; Mui, 1992; Pruchno, Patrick, & Burant, 1997; Valentine, McDermott, & Anderson, 1998). This is of interest particularly because Black caregivers typically have lower incomes (Hinrichsen & Ramirez, 1992), are less well educated (Staples, 1981; Young & Kahana, 1995), are in poorer health (Gibson & Jackson, 1987; Markides, 1989; Mui, 1992; Young & Kahana, 1995), are more likely to be widowed (Hinrichsen & Ramirez, 1992; Mui, 1992), and care for relatives with higher levels of impairment (Mui, 1992; Young & Kahana, 1995) than do White caregivers. Although caregiving research has consistently documented a litany of emotional and physical effects as a function of assuming dependent care for an elderly family member (for excellent reviews see Brody, 1990; Schulz, Visintainer, & Williamson, 1990), relatively little attention has been paid to the effects that life-long caregiving has on older women who have an adult child with mental retardation.

Parents traditionally have been the primary providers and caretakers for their young children with mental retardation (Bigby, 2000; Roberto, 1993). However, recent medical and technological advances have resulted in the expectation that large numbers of children with mental retardation will not only live to adulthood but will also reach old age (Ansello & Janicki, 2000; Janicki & Wisniewski, 1985; Sison & Cotton, 1989). Because their children are living longer and fuller lives, the parents are aging in place as caregivers. The central role played by the aging mothers in the lives of their children is not surprising. A sense of parental obligation, a lifetime of caregiving responsibilities, and the tendency for women to outlive their husbands create the situation in which aging women serve as primary caregivers for their child with mental retardation. Researchers have begun to examine the stresses and gratifications (Grant, 1988; Greenberg, Seltzer, & Greenley, 1993; Pruchno, Patrick, & Burant, 1996; Pruchno et al., 1997) associated with this “perpetual parenthood” (Rowitz, 1988), but many questions remain. This article explores the association between race and religion as a possible explanation for the differences in caregiving appraisals for a sample of aging mothers who live with an adult child with mental retardation.
Attempts to explain why Black caregivers experience better psychological outcomes than do their White counterparts, despite experiencing more stressors and having fewer resources, have taken several approaches. There have been suggestions that studies may be contrasting the most fit Blacks, those who have survived to old age, with a more heterogeneous group of Whites (Gibson, 1982; J. J. Jackson, Chatters, & Neighbors, 1982; Manton, Poss, & Wing, 1979; Markides & Black, 1996; Taylor, 1985). A second, related explanation posits that Blacks may be more resilient to the psychological effects of caregiving than Whites are because they are more likely to have experienced a lifetime of adversity (Neighbors, Jackson, Bowman, & Gurin, 1983; Rodgers-Rose, 1980; Spurlock, 1984; Taylor & Chatters, 1986). In fact, some researchers have suggested that Black caregivers may even derive unique benefits and satisfactions from the caregiving role (Dilworth-Anderson & Anderson, 1994; Lawton et al., 1992). A third approach examines various cultural traditions that result in the empowerment of Black but not White caregivers. One potential culturally linked factor is the role of religion (Ellison, 1997; Taylor, 1993).

Historically the church and religion have played a prominent role in the lives of Blacks (Lincoln & Mamiya, 1990). Researchers have referred to the bond between Black families and the church as an “enduring institution” (Berry & Blassingame, 1982). Current theories of the Black religious experience indicate that religion is an integral component of cultural values and beliefs (Spencer, 1990). These religious beliefs underlie family values (Lincoln & Mamiya, 1990) and provide meaning for life experiences (Taylor & Chatters, 1986). The influence of religion may be one reason Blacks express higher levels of filial obligation than Whites (Cox, 1995). Research indicates religion is more highly associated with overall life satisfaction for Blacks than for Whites (Thomas & Holmes, 1992). Additional research finds that Blacks report higher levels of religiosity (Chatters, Levin, & Taylor, 1992), are more likely to claim a church affiliation (Hill, 1993), attend church more frequently (Nelsen, Yokley, & Nelsen, 1971; Sasaki, 1979), and pray and read the Bible more regularly (Hirsch, Kent, & Silverman, 1972).

Recent reviews of empirical research on religion (Koenig & Futterman, 1995; Levin, 1994; Worthington, Kurusu, McCullough, & Sandage, 1996) reveal an overall positive association between religion/spirituality and mental health. However, the caregiving literature is just beginning to explore the effect of religion/spirituality in caregiver’s lives. Wykle and Segall (1991) studied a small sample of dementia caregivers. In response to an open-ended question, “Identify one special way you have used to deal with caring for your relative,” Black caregivers were more likely than White caregivers to report using a religious coping strategy. Cox (1993) assessed service use by dementia caregivers. Black caregivers were more likely to report turning to clergy for support than were White caregivers. An indirect effect of religion on perceived caregiver rewards was found for Black caregivers, but not for White caregivers (Picot, Debanne, Namazi, & Wykle, 1997). This led the authors to suggest that Blacks may use religion as a resource when dealing with stressful situations. A similar conclusion was drawn by Wood and Parham (1990), who studied Alzheimer’s caregivers. They found that Blacks were more likely to use prayer as a coping strategy than were Whites, and suggested that religion may play a salient role as a coping resource in Black culture.

In a recent study of White caregivers of elders with dementia, Chang, Noonan, and Tennstedt (1998) found that elders who used religion as a coping mechanism were more likely to have a positive relationship with the care recipients than were elders who did not use religious coping. Additionally, religious coping had a positive though indirect effect on depression and role submersion through the caregiver–care recipient relationship. Chang and colleagues (1998, p. 469) concluded that “religion plays a critical role in sustaining human relationships that are often strained by the everyday realities and necessities of providing and receiving care.” In a study of mother–child relations, Pearce and Axinn (1998) found a positive association between mother’s reports that religion was important to them and the quality of the mother–child relationship.

The literature on mental retardation that focuses on religion and/or race is sparse and fragmented (Glidden, Kiphart, Willoughby, & Bush, 1993; Rogers-Dulan & Blacher, 1995). In a study consisting of 57 primarily White caregivers of adults with mental retardation, Kaufman, Campbell, and Adams (1990) found that parents who attended church once a week or more had lower levels of caregiving stress than did parents who did not attend church as frequently. Kaufman and colleagues concluded that it was plausible that either the social or spiritual aspects of religious participation had a buffering effect on the parent’s stress level. Rogers-Dulan (1998) reached a similar conclusion in a sample of 59 Black mothers of school-aged children with a developmental disability. She found that mothers who reported higher levels of religiosity experienced less caregiving stress. In a study of residential planning of older caregivers for their adult child, Heller and Factor (1988) noted that the elder Blacks reported higher levels of religiosity than did Whites. Given that religion/spirituality appears to be associated with positive caregiving appraisals, it is not surprising that Glidden and colleagues suggested empirical research pay more attention to religion/spirituality and its possible role as a resource in the lives of caretakers.

The next steps in the study of race, religion and aging as outlined by Levin, Taylor, and Chatters (1994) are comparative. However, studies in the gerontological tradition comparing racial differences in religiosity have been few for two primary reasons: lack of useful data sources and an absence of reli-
The present study used the theoretical model of caregiving appraisals developed by Lawton and colleagues (1991) to extend the research of Chang and colleagues (1998) in two important ways. First, in addition to including a measure of psychological distress, that is, caregiving burden, we included a measure of caregiving satisfaction. Second, our sample consisted of an equal number of Black and White caregivers. As noted earlier, Black and White caregiving samples often differ greatly on demographic characteristics (Haley et al., 1995), which may be one reason why difficulties abound in separating racial/cultural effects from socioeconomic effects. We had the unique opportunity to select individuals from a larger database and match them on demographic characteristics known to affect caregiving appraisals, thus creating a sample of caregivers who did not differ by race on a host of demographic characteristics. Using a matched sample allowed us to avoid using race as a statistical control (J. S. Jackson, 1989; Lawton et al., 1992) and to instead focus on the link between race, religion, relationship quality, and caregiving appraisals, without confounding historical, social, and cultural characteristics within the construct of race.

The conceptual framework for predicting caregiving burden and satisfaction is based on the model developed by Lawton and colleagues (1991). Subjective caregiving burden was defined by Lawton and colleagues (1991) as “the perception of psychological distress, anxiety, depression, demoralization, and generalized loss of personal freedom attributed directly to caregiving.” Caregiving satisfaction, on the other hand, is the perceived benefit of providing care and represents positive affect received from caregiving.

The caregiving appraisals are affected by the stressors and resources available to the caregiver. Stressors are conceptualized as being external to the caregiver and include the degree of disability and demands ensuing from the care recipient (Cantor, 1983; Lawton et al., 1991). In this model, the adult child’s maladaptive behavior is viewed as a stressor. The resources the individual has are generally viewed as being independent of the stressors. They are the characteristics that enable or impede an individual’s ability to cope with the stressors that life presents. They include the strengths that a caregiver possesses internally or can access from the environment. Consistent with definitions of resources used by Lawton and colleagues (1991) and Greenberg and colleagues (1993), resources include the physical health of the caregiver. Including a measure of health status also avoids misspecification error in models examining the relationship between religion and well-being (Levin, Chatters, & Taylor, 1995). Additionally, religion is conceptualized as a resource that acts to reduce the adverse effects of stress (Krause & Van Tran, 1989). Research indicates religious coping strategies have been used in times of acute stress (Kaye & Robinson, 1994; Salts, Denham, & Smith, 1991). The final resource, relationship quality, is conceptualized as a mediating variable between religious coping and the caregiving appraisals. The hypotheses, depicted graphically in Figure 1 are:

1. The higher the level of maladaptive behavior exhibited by the adult child, the poorer the quality of the mother–child relationship (Pruchno et al., 1996), the greater the burden experienced by the mother (Guibman, Tessler, & Willis, 1987; Heller & Factor, 1988; Pruchno et al., 1997), and the lower the caregiving satisfaction experienced by the mother (Pruchno et al., 1997).

2. Caregiving burden will be predicted by the physical health of the mother. On the basis of findings by Bradburn (1969), Lawton (1983), Blacher (1984), and Krauss (1993), we predicted that better physical health on the part of the mother would decrease the extent of caregiving burden.

3. Religious coping will have a positive effect on relationship quality (Chang et al., 1998; Pearce & Axinn, 1998).

4. The better the quality of the relationship between mother and child, the more positive the caregiving appraisals (Pruchno et al., 1996). Although Pruchno and colleagues (1996) did not find an association between relationship quality and burden, Chang and colleagues (1998) found a negative relationship between relationship quality and role submersion. Because role submersion is similar to burden, we hypothesized that relationship quality would predict negative appraisals.

5. Black mothers will report higher religiosity (Chatters et al., 1992) and worse physical health (Gibson & Jackson, 1987; Markides, 1989; Mui, 1992; Young & Kahana, 1995) than White mothers. Black mothers will report lower levels of burden and higher caregiving satisfaction than White mothers (Lawton et al., 1992; Mui, 1992; Pruchno et al., 1997; Valentine et al., 1998).

Methods

Sample Design

Data for the analyses that follow derive from a larger study involving interviews with 996 women
(77% White, 23% Black) who had an adult child with mental retardation. The sample was recruited throughout the United States using a variety of outreach methods, including recruitment through service agencies, support groups, media, and referrals made by women who had participated in the project. Data were gathered by telephone, in interviews that lasted an average of 2 hr.

The sample for the analyses that follow was created to ensure that we were not comparing a relatively disadvantaged sample of Blacks to a more heterogeneous sample of Whites in terms of demographic characteristics. We followed the example of Haley and colleagues (1995), who matched a sample of caregivers and noncaregivers on demographic characteristics. We created a sample that did not differ by race on key demographic variables known to influence caregiving appraisals. The sample was matched by race on age, education, marital status, employment status, and per capita income, creating a group of 142 women, 71 who are Black and 71 who are White. For example, respondent #90338, a Black 55-year-old married mother who had a high school education and an annual per capita income of $4,999, was matched with respondent #85, who has the exact same demographic characteristics with the exception of being White. The educational categories were less than high school education, high school education, 2 years of college, 4 years of college, master's degree, and PhD/MD. Marital status was categorized as married, widowed, or divorced. Employment status was categorized as employed or not employed. A distinction was not made between full- or part-time employment. Per capita income was created by dividing the total household income by the number of persons residing in the household. Age was the most difficult demographic characteristic to match. Therefore we allowed the mothers to differ on age by plus or minus 10 years. An exact match was made on the other demographic characteristics (education, marital status, employment status, and per capita income). In the few cases in which more than one White mother matched a Black mother, the White mother was selected using a random number table. Cases in which two or more Black mothers matched one White mother did not occur.

Levin and colleagues (1994) suggested that the impact of race on religion may be conditional on demographic characteristics. By matching, we created a sample in which race did not predict socioeconomic status. In other words, the value of the demographic characteristics did not vary with race. In so doing, we controlled for the direct causal relationship between race and the demographic characteristics. Naturally, any indirect effects race may have on the model variables through the demographic characteristics were also controlled. In short, any racial effects in this model are not due to demographic characteristics. Because our focus is on the cultural effects of race, matching allowed us to concentrate on the theoretical model rather than untangling the relationship between race and demographic characteristics.

**Respondents**

The age of the mothers ranged from 50 to 84 (M = 64.18, SD = 7.42). Half of the mothers were married (51%); 23% were widowed, 25% were divorced, and the rest (1%) were never married. Thirty-five percent of the mothers were employed. Their total household annual income, measured in increments of $5,000, ranged from $4,000 to $70,000 (M = 12.74, SD = 2.93; variable was coded from 1 to 17 using increments of $5,000). The sample was predominately Protestant (66%) and Catholic (27%), with 2% Jewish, 6% of unspecified religion, and less than 1% without any religious affiliation. Respondents had a mean of 13.66 years of education (range = 8–18, SD = 2.26). The age of the adult child ranged from 21 to 58 (M = 34.49, SD = 7.12). Of the 119 mothers who knew the level of their adult child's retardation, 28% reported it as...
mild, 36% as moderate, and 36% as severe/profound retardation.

**Measures**

**Caregiving appraisals.**—Indicators of caregiving appraisals include both positive (caregiving satisfaction) and negative (burden) evaluations. Caregiving satisfaction was measured with a six-item scale developed by Lawton, Moss, Fulcomer, and Kleban (1982). This scale has been used in several caregiving studies (Lawton et al., 1991; Pruchno, Burant, & Peters, 1994; Pruchno & Resch, 1989). Mothers indicated the extent to which they felt a sense of satisfaction from helping their child, enjoyment of being with their child, closer to their child due to helping, a self-esteem boost because of caregiving, pleasure over their child, and that caregiving added meaning to their life. Each item was rated on a 5-point Likert-type scale ranging from 0 (never) to 5 (nearly always). Scores ranged from 15 to 30 ($M = 25.35, SD = 3.91$), with a higher score indicating greater caregiving satisfaction. Coefficient alpha for the scale was .78.

Subjective burden was measured by the nine-item scale developed by Lawton, Kleban, Moss, Rovine, and Glicksman (1989). Subjective burden experienced from the caregiver role included the caregiver’s perception of the extent to which her health, wellbeing, social life, and personal relationships had been negatively affected because of the demands of the caregiver role. Respondents reported the extent to which their lives were affected by their caregiver role using a 5-point scale, ranging from 0 (never) to 5 (nearly always). Higher scores indicated more burden. The scale ranged from 9 to 37 ($M = 18.96, SD = 6.64$). The Cronbach alpha was .86.

**Stressors.**—The frequency of maladaptive behaviors was assessed using a measure that was based on the American Association of Mental Retardation Adaptive Behavior Scale: Residential and Community—Part 2 (Nihira, Leland, & Lambert, 1993). The mothers reported the frequency (never, rarely/occasionally, frequently) with which their child exhibited 19 behaviors during the month preceding their interview. Behaviors assessed included threatening physical violence, inconsiderate behavior, rebellious attitude, poor reactions to criticism/frustration, attention-demanding behavior, and emotional instability. Behaviors were summed to form a composite measure of maladaptive behavior. Higher scores indicated that the child was more likely to exhibit each behavior. The range was 0 to 25 ($M = 6.41, SD = 5.31$). The coefficient alpha for the scale was .85.

**Resources.**—The mother’s self-rated health was measured with a four-item scale. The first item, “How would you rate your overall health?” ranged from 4 (excellent) to 1 (poor). The remaining items, “Is your health now better, about the same, or not as good as it was three years ago?” “Does your health stand in the way of your doing things?” and “Would you say that your health is better, about the same, or not as good as most people your age?” ranged from 3 (not at all) to 1 (a great deal). The final scale ranged from 4 to 13 ($M = 9.18, SD = 2.06$). Coefficient alpha was .76.

The quality of the relationship between mother and child was measured using three questions developed by Gronvold (1988). Each question was measured on a 4-point Likert scale. Questions included assessments of the quality of the current relationship, the extent to which mothers feel close to their child, and the extent to which they get along with their child. An additional item, with responses ranging from 1 (never) to 5 (nearly always), asked how often the mother felt that she loved her child very much. Scores ranged from 12 to 17 ($M = 15.64, SD = 1.46$), with higher scores indicating a better relationship. Coefficient alpha was .69.

Religious coping was measured with an eight-item scale. Six questions were measured on a 5-point Likert scale. These questions asked how often during the month the mothers prayed for guidance, sought God’s help, prayed for strength, found comfort in religion, put their trust in God, and prayed more than usual when dealing with problems with their child. The remaining two questions, measured on a 4-point Likert scale, asked whether the mother believed her religion helped her to accept her child’s disability and whether having a child with a developmental disability had brought the mother closer to God. Scores ranged from 6 to 32 ($M = 26.11, SD = 6.17$), with higher scores indicating higher religious coping. Coefficient alpha was .91.

**Procedures**

Structural analysis using the AMOS program (Arbuckle, 1995) was used to test the hypothetical model depicted in Figure 1. The proposed model, which includes seven constructs, is complex, and the latent constructs have only one indicator. The concern is that a model having only one indicator for a construct may be underidentified empirically and may have constructs that correlate too low or factor loadings that are too small (Kenny, 1979). This was not the case with the current model as indicated by the significant correlations (see below) and paths of the indicators of these constructs. However, the recommendation made by Liang, Lawrence, Bennett, and Whitelaw (1990) to estimate measurement error (rather than combining measurement and structural models in one analysis), enabling single indicators of model elements to be used rather than multiple indicators, was followed. The procedure for adjusting measurement error used the formula developed by Werts, Linn, and Jöreskog (1974) and Wheaton, Muthen, Alwin, and Summers (1977) in which the measurement error variances are fixed as variance times (1 – reliability). These procedures result in squared multiple correlations that were equal to the reliability estimates and correct for known unreliability among measured variables. Because race is a
relatively objective measure, the decision was made to treat the variable as not having random error.

Results

Preliminary analyses were conducted to determine whether the demographic variables, which were used to match the sample, were associated with the other model variables. Bivariate correlations (not shown) revealed that income and education were the only demographic characteristics to correlate significantly with mother’s self-rated health. A structural equation model (not shown), which included both income and education as predictors of the mother’s health, was analyzed. Including income and education did not alter the significant relationships between the other model variables. Because the focus of this article is not on the demographic predictors of religious coping and caregiving appraisals, the decision was made to exclude income and education from the theoretical model. This had an added benefit of increasing the degrees of freedom, which is of importance given our moderate sample size.

We conducted t tests to determine if the mean levels of the model variables differed by race. Of particular interest to this study is that the mean levels of caregiving burden and caregiving satisfaction did not differ by race. The maladaptive behaviors exhibited by the adult child also did not differ by race. The matched sample however exhibited some differences. Blacks had higher mean levels of religious coping and relationship quality than Whites did. The mean level of the mother’s self-reported health was lower in the Black sample than in the White sample. The results of the t tests for the model variables are in Table 1.

The t tests and chi-square tests by race did not indicate significant differences in the following demographic characteristics: child’s age, number in the household, the gender of the child, the adult child’s functional abilities (measured as instrumental activities of daily living [IADLs] and activities of daily living [ADLs]), the amount of care (the number of tasks) given by the mother for both IADLs and ADLs, the number of hours the mother provides caregiving, formal service use (a count of the number of services used), informal support (count of family help for the adult child’s IADLs and ADLs), level of caregiving satisfaction, and being Black.

Bivariate correlations for the matched sample are found in Table 2. Being Black was associated with lower self-rated health, higher relationship quality, and higher levels of religious coping. Higher burden was associated with more maladaptive behaviors, mother’s self-rated health, poorer relationship quality, and being White. Higher caregiving satisfaction was associated with lower levels of maladaptive behavior, religious coping, better relationship quality, and being Black.

Prior to testing the conceptual model, we conducted two separate multiple regression analyses to determine the extent to which the variables (mother’s health, child’s maladaptive behaviors, relationship quality, religious coping, and race) contributed to caregiving burden and caregiving satisfaction (see Table 3). The regression analysis explained 36% of the variance in caregiving satisfaction. Significant predictors were the child’s maladaptive behaviors, relationship quality, and religious coping. Mothers who reported better relationship quality and higher levels of religious coping had higher levels of caregiving satisfaction. Mothers who reported higher levels of the child’s maladaptive behavior had lower levels of caregiving satisfaction. The model explained 22% of the variance in caregiving burden. Mothers who were in better health and had better relationship quality experienced lower levels of burden. Mothers who reported that their child had high levels of maladaptive behavior experienced higher levels of burden.

The structural equation (AMOS) analysis was run on all hypothesized paths. Multiple indices of fit were used to evaluate the fit of the data to the model. An overall chi-square index was used to assess the degree of fit between the estimated and observed covariance matrices. Lower values indicate better fitting models. Additional model fit indices included a normed goodness-of-fit index in which .90 was the lowest acceptable value (Arbuckle, 1995) and the root mean square error of approximation (RMSEA). Browne and Cudeck (1993) stated that a value equal to or less than .05 indicates a close fit of the model.

Table 2. Bivariate Correlations Among Model Variables

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<td>Mother’s self-reported health</td>
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Note: Correlations greater than .20 are significant at the p < .01 level; those greater than .16 are significant at the p < .05 level; those greater than .13 are significant at the p < .10 level.

Table 1. t Tests by Race for the Model Variables

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<th>Variable</th>
<th>Black</th>
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<td>Burden</td>
<td>18.06</td>
<td>6.85</td>
<td>19.87</td>
<td>6.35</td>
<td>-1.639</td>
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<tr>
<td>Caregiving satisfaction</td>
<td>25.86</td>
<td>3.67</td>
<td>24.83</td>
<td>4.11</td>
<td>1.574</td>
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<tr>
<td>Relationship quality</td>
<td>15.89</td>
<td>1.33</td>
<td>15.39</td>
<td>1.54</td>
<td>2.041*</td>
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<td>Religious coping</td>
<td>28.18</td>
<td>5.25</td>
<td>24.06</td>
<td>6.35</td>
<td>4.22*</td>
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<tr>
<td>Child problem behaviors</td>
<td>5.72</td>
<td>5.72</td>
<td>7.10</td>
<td>4.81</td>
<td>-1.556</td>
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<td>Mother’s self-reported health</td>
<td>8.70</td>
<td>2.11</td>
<td>9.66</td>
<td>1.90</td>
<td>-2.841**</td>
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*p < .01; **p < .05.
Whereas the summary statistics in the theoretical model, \( \chi^2(9, N = 142) = 12.89, p = .17 \), comparative fit index (CFI) = .99, RMSE = .06, suggest a relatively good fit of the data to the model, four of the paths (from child behavior problems to caregiving satisfaction, race to caregiving satisfaction and burden, and religious coping to relationship quality) were not significant. Additionally, modification indices indicated a direct relationship between religious coping and caregiving satisfaction. The nonsignificant paths were dropped one at a time, and a path was added from religious coping to caregiving satisfaction. Reestimation of these paths resulted in a better fitting model, \( \chi^2(12, N = 142) = 13.68, p = .32 \), CFI = .99, RMSE = .03. The model explained 33% of the variance in caregiving burden and 65% of the variance in caregiving satisfaction. The standardized total effects of race on burden and satisfaction were .06 and .07, respectively. The standardized total effect of religious coping on caregiving satisfaction was .22. The standardized total effects of child behavior problems on caregiving burden and satisfaction were .43 and -.24, respectively. The standardized total effects for relationship quality on caregiving burden and satisfaction were -.29 and .77, respectively. Results are shown in Figure 2.

The results from the structural equation analysis build on the multiple regression analysis and provide support for the primary study objective. Being Black is associated with higher levels of religious coping. Higher levels of religious coping are directly associated with higher levels of caregiving satisfaction. Higher levels of relationship quality are also associated with caregiving satisfaction and caregiving burden. However, higher levels of religious coping are not associated with lower levels of caregiving burden as hypothesized. Religious coping did not predict relationship quality as hypothesized.

The direct relationship between race and caregiving satisfaction and burden was not substantiated. Similarly, the adult child’s maladaptive behaviors did not predict caregiving satisfaction. The adult child’s maladaptive behaviors were associated with higher levels of caregiving burden and lower levels of relationship quality. Finally, being Black was associated with worse physical health. Lower levels of physical health were associated with higher levels of burden.

The relatively small sample size of 142 participants suggests the potential for instability in the model. The extent of instability, however, is testable using the Hoelter critical N (CN). Hoelter’s (1983) CN is the largest sample size that should be used to accept the model. The general rule of thumb suggested by Hoelter is that a CN of 200 or greater yields a satisfactory fit at a .05 significance level. The final model yielded a CN of 217, indicating a satisfactory fit.

**Discussion**

This study examined the relationship between race, religious coping, relationship quality, and caregiving appraisals in a sample of aging mothers who coreside with an adult child with mental retardation. The sample of Black and White mothers were matched on demographic characteristics, creating a sample that did not vary by race on demographic characteristics. This
increases our confidence in interpreting racial differences as cultural effects, rather than attributing the differences to socioeconomic status.

The model provides some support for a cultural effect of religious coping. Blacks are more likely to use religious coping. Blacks also experience higher levels of caregiving satisfaction because of the indirect influence of religious coping. For some mothers, religion may give meaning to having a child with a disability (Krauss & Seltzer, 1993) by providing a framework for explaining normative events. Researchers in the field of mental retardation have suggested religion may play an important role in the parent’s acceptance of a child with a disability (Crnic, Friedrich, & Greenberg, 1983). Religious coping in our model, which includes a measure of religious acceptance, is positively associated with caregiving satisfaction. Our model findings indicate that as a resource, religious coping frames the caregiving experience in a positive manner.

However, religious coping does not directly or indirectly influence caregiving burden. Religious coping does not appear to act as a buffer against everyday stress. Perhaps religious coping is a useful resource in times of acute stress or illness (Wheaton, 1985). It is surprising that religious coping does not reduce caregiving burden for Black mothers. Proctor (1995, p. 24) explained that Black people “carved out a distinctive style of Biblical interpretation.” For them, faith was a means of transcending pain and oppression. Blacks believe that God will help them bear their daily burdens, and that they are not struggling through life alone. Thus, religion helps Blacks accept burden, but may not reduce burden. An alternate explanation suggested by Rosenthal (1986) is that caregiving demands are so strenuous that cultural factors do little to alleviate the feelings of caregiving burden.

These results are consistent with previous research which shows that the positive and negative aspects of the caregiving experience have differing antecedents (Bradburn, 1969; Lawton, 1983). Specifically, “uplifts” (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982) create a positive caregiving experience and are associated with caregiving satisfaction, but not caregiving burden. Religious coping, then, may also be conceptualized as an uplift. In this respect religious coping is seen as an inner resource that helps the mothers frame caregiving in a positive light.

Although the correlations indicate a positive association between being White and burden, bivariate correlations do not control for the other variables in the model. Thus, contrary to previous research (Connell & Gibson, 1997), we find a positive relationship between being Black and caregiving burden. The structural equation model indicates that the indirect effect of race on burden is positive. This is due to the relationship between race and self-rated health. Black mothers are more likely to rate their health as poor, and mothers in poor health are more likely to experience higher levels of burden. This suggests that Blacks may experience higher levels of caregiving burden than do their White counterparts. Whereas theoretical concerns have been expressed regarding the double jeopardy hypothesis (Markides & Mendel, 1987), this research indicates that caregiving may be more difficult for Black mothers. Even after ensuring that the Black mothers were not disadvantaged in socioeconomic terms, we found that they still had fewer resources, in terms of physical health, than the White mothers. This work highlights the importance of considering whether race is a proxy variable for socioeconomic status and the need to consider the interaction between race and socioeconomic status (J. S. Jackson, 1989). Furthermore, this research indicates a need for an in-depth exploration of cultural or other factors that explain the negative relationship between being Black and caregiving burden given their relatively disadvantaged status.

As in any cross-sectional study, interpretations of causality must be made with caution (Kenny, 1979), as Lee and Hershberger (1990) and MacCallum, Wegener, Uchino, and Fabrigar (1993) noted, it is quite possible to fit models with different directions of causation to the same correlational data. It is somewhat encouraging, however, that the data provide support for the proposed theoretical model. These findings are limited by the voluntary nature of the sample and the inherent bias associated with self-selection. Because the sample is nonrandom, generalizability of findings from these analyses is limited by characteristics of the people participating in the study. The mothers in this sample had an unusually high educational level. This may be an artifact of the matching process, as we did not have many White mothers with lower educational levels. Additionally these findings are limited to mothers whose children have some degree of cognitive impairment.

Although these analyses focus on the effects of race and cultural values, intraracial differences were not specified. Thus, the tremendous diversity that characterizes the Black population (Taylor, Chatters, Tucker, & Lewis, 1990) was not captured in this model. Future work should focus on variation within cultural groups to validate the substantive findings. Similarly, religion is a multidimensional concept (Chatters et al., 1992). Whereas other dimensions of religious involvement may influence caregiving appraisals, we choose to focus on religion as a coping mechanism. From a conceptual standpoint, if religion aids in accepting the child’s disability, then the mother–child relationship should be strengthened through the use of religious coping strategies. Future research should explore the multidimensional nature of religion and its effect on the various elements of the caregiving process. It is possible that organizational religion, for example, would have an effect on caregiving appraisals particularly if the mother’s social support network is composed of church friends. Additionally, future work should consider developing culturally sensitive measures of religion and/or spirituality.

Another limitation is the lack of variability in the measure of relationship quality. Because the ob-
served ranges were so small, it is difficult to find significant relationships. Relationships may have been underestimated. This may be another reason why a significant link was not found between religious coping and relationship quality.

Lastly, even after matching on the demographic characteristics, it is still possible that we might not be measuring cultural and racial differences (Hinrichsen & Ramirez, 1992). Researchers have suggested that race may even be a proxy variable for other factors, such as family structure (Young & Kahana, 1995). As such, there may be unspecified factors that explain the model results.

Nevertheless, these findings have important implications for practice. These analyses show that Blacks do experience negative outcomes from the caregiving situation. Although they do draw on inner resources to help them view the caregiving experience in a positive light, their religious strength does not buffer against burden. Blacks remain a relatively underserved population from the perspective of the social service delivery system. Because Blacks may experience higher levels of burden because of their poor health, they should not be marginalized from "best practices" in service provision. Their tendency to draw on religious strengths indicates that outreach efforts should be developed that are culturally and racially sensitive. Faith-based organizations may be an important cultural resource that is often overlooked.

References


