A sociocultural stress and coping model to explain emotional distress among caregivers of family members who have dementia across ethnic and cultural groups is presented and explored in a sample of 41 African American and 128 non-African American caregivers. In this sample, African American caregivers reported lower levels of burden but equal levels of depression and anxiety. In the structural equation model, previous reports that African Americans’ lower appraisal of caregiving as burdensome resulted in lower levels of emotional distress were confirmed. However, in this model, this pathway was counterbalanced by a tendency of African American caregivers to use emotion-focused coping and, therefore, increase emotional distress. African American caregivers were also younger and in poorer health, factors which tend to increase both burden and emotional distress outcomes. As suggested by the sociocultural stress and coping model, the influences of ethnic group variables on stress and coping processes are complex and multidirectional.

CARING for an older relative who has dementia has been recognized for some time as a source of burden and distress for the family caregiver (Zarit, Reever, & Bach-Peterson, 1980). A large amount of literature documents the effects of caregiving on self-reported emotional distress, mostly in White caregiver samples (Schulz, O’Brien, Bookwala, & Fleissner, 1995). In contrast, African American caregivers have often been reported to appraise caregiving as less burdensome than do White caregivers (Morycz, Malloy, Bozich, & Martz, 1987; Lawton, Rajagopal, Brody, & Kleban, 1992; Haley et al., 1995), and the lowered stress appraisal has been related to lower depression outcomes (Haley et al., 1996). Thus, with regard to caregiving, African Americans would seem to enjoy the protective benefits of ethnicity as culture, rather than the additive effects of disadvantaged minority group status and caregiving stress (Aranda & Knight, 1997).

The understanding of caregiver distress is based on the stress and coping theory developed by Lazarus and Folkman and their colleagues (Folkman, Lazarus, Pimley, & Novacek, 1987; Lazarus & Folkman, 1984) and first applied to caregivers by Haley, Levine, Brown, and Bartolucci (1987). In general, stress and coping models include the following categories of variables: (a) context variables such as gender, age, caregiver’s health, relationship of the caregiver to the patient, and so forth; (b) demands on the caregiver, including care recipient behavior problems and functional disability; (c) the caregiver’s appraisal of demands as stressful or satisfying, for example, subjective caregiver burden; (d) the potential mediators between appraisal and outcomes, that is, coping styles and social support; and (e) the consequences of caregiving demands, that is, emotional distress and health outcomes. In general, emotional distress outcomes have been found to be strongly affected by negative appraisals of caregiving-related stressors and by the use of emotion-focused coping styles, with weaker evidence for the role of social support and of active coping styles having an inverse effect on emotional distress outcomes (Haley et al., 1987; Pruchno & Resch, 1989; Stephens, Norris, Kinney, Ritchie, & Grotz, 1988).

Drawing upon a review by Aranda and Knight (1997), we propose a sociocultural stress and coping model that argues that ethnicity implies specific cultural differences that will directly affect the appraisal of caregiving as stressful and that will change mediating variables such as coping skills (Figure 1). The sociocultural view of stress and coping adds to the typical interpretation of ethnicity as a structural status variable (i.e., ethnicity as mainly reflecting disadvantaged minority group status, which in turn is confounded with socioeconomic status; Markides, Liang, & Jackson, 1990) and reinterprets the influence of ethnicity on stress and coping as affecting (a) other status variables, because of differences between ethnic groups in the gender, relationship, and other characteristics of who provides care; (b) the demands of caregiving that may differ by group; (c) the appraisal of caregiving by means of the cultural values related to the appraisal of caregiving as stressful; (d) coping styles that are affected by cultural differences; and (e) the mental health outcomes of the stress and coping process. These “ethnicity as culture” influences can affect each stage of the stress and coping model simultaneously and in differing directions. That is, appraisal might ameliorate emotional distress outcomes, while at the same time greater frailty in the care recipient and the use of nonproductive coping styles may exacerbate distress. This conceptualization of the effects of ethnicity has the advantage of explaining the finding that African American caregivers report lower levels of burden than White caregivers, a finding that contradicts the expectation of higher burden based on the disadvantaged minority group model.

Haley and colleagues (1996) reported the results of a structural equation model that showed that race affected stress-
STRESS AND COPING AMONG AFRICAN AMERICAN CAREGIVERS

fullness appraisals, which in turn affected depression outcomes. They also reported that African American caregivers were less likely to use both approach-coping and avoidance-coping strategies. Avoidance coping was positively associated with depression outcomes, whereas approach coping was inversely associated with depression, although the connection was smaller than for avoidance, as would be suggested by the studies summarized earlier. They speculated that White caregivers perceived caregiving as unexpected and disruptive, whereas African American caregivers perceived it as expected and natural. These same cultural influences would be expected to result in lower usage of coping strategies.

Several studies have found that the lower appraisal of caregiving as stressful by African Americans is related to lower levels of emotional distress outcomes. Mintzer and Macera (1992) found that 62% of the White caregivers but only 30% of the African American sample had Center for Epidemiologic Studies Depression Scale (CES—D) scores greater than 16 (means were 19.3 and 12.4, respectively). No differences were found in background variables. Haley and colleagues (1995) reported lower levels of depression for African Americans (mean CES—D score of 11.9 vs. 16.4 for Whites) and found no differences between African American caregivers and noncaregivers on depression. In contrast, Hinrichsen and Ramirez (1992) found lower levels of burden, but similar levels of psychological symptoms (as measured by Symptom Checklist [SCL]—90) between African Americans and Whites. In an earlier report on the same sample used in this analysis, Knight and McCallum (1998) reported finding nearly equal levels of depression between African American caregivers and White caregivers. The contrast between the consistent finding across studies of lower burden among African American caregivers and less consistent reports of lower emotional distress points to unanswered questions regarding the operation of stress and coping models in explaining emotional distress outcomes in African American caregivers. Exploring these differences within a sociocultural stress and coping framework will enhance the understanding of cultural differences and of the stress and coping process more generally.

Drawing on the preceding discussion, we propose the following conceptual model as a representation of the causal process that leads from race to psychological distress among caregivers to older dementia victims (Figure 1).

The paths of the figure imply the following hypotheses:

1. As found in other research studies, African American caregivers will experience less caregiver burden compared with other caregivers and this will suppress their levels of distress.

2. In our sample, African American caregivers have levels of distress equal to other caregivers. We do not, therefore, expect a direct effect of ethnic status on emotional distress, but represent it in the model as an alternative path that will be tested in our analysis.

3. It follows that African American caregivers will be more likely than other caregivers to rely on emotion-focused coping styles, and this will elevate their levels of distress, counterbalancing the positive effects of lower levels of burden.

METHODS

Participants

This study applies structural equation modeling to the sample reported in Knight and McCallum’s (1998) study of coping styles, depression, and cardiovascular reactivity. This sample included 41 African American caregivers and 128 non-African American caregivers of whom 110 were non-Hispanic White, 12 were Hispanic, and 5 were Asian/Pacific Islander. This sample was collected between 1990 and 1993 under the auspices of the Research Training and Information Transfer Core of the Alzheimer’s Disease Research Center—Southern California consortium.

These caregivers were recruited from a variety of referral sources including the Alzheimer’s Association of Los Angeles County, the Los Angeles Caregiver Resource Center, and the Tingstad Older Adult Counseling Center. To minimize the chance of selection pressures discouraging more stressed caregivers from participating, the interviews and cardiovascular reactivity CVR stress sessions were conducted in the caregiver’s home or at the lab, with the choice being the caregiver’s. More than 90% chose home interviews. Appointments were arranged to assure minimal possible disruption of the caregiver’s schedule and to choose times when the patient was not likely to be disruptive of the sessions.

In terms of demographic differences, African American caregivers were younger than non-African American caregivers (57.3 years vs. 62.9 years), \( t (157) = 2.14, p < .05 \). They were also more likely to be children rather than spouses: 51% of African Americans were children caring for parents, whereas 61% of non-African Americans were spouses. See Table 1 for descriptive information on the sample.

Measures

A appraisal of caregiving as a burden.— Subjective burden was measured by the Burden Interview (Zarit et al.,

Figure 1. Conceptual stress-coping model: Race/ethnicity and its mediators.
Table 1. Means and Standard Deviations for Study Variables by Race

<table>
<thead>
<tr>
<th>Variables</th>
<th>White (n = 128)</th>
<th>Black (n = 41)</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
<th>t value</th>
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</thead>
<tbody>
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<td><strong>Background characteristics</strong></td>
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<td></td>
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<tr>
<td>Age of caregiver</td>
<td>62.10</td>
<td>13.03</td>
<td>57.00</td>
<td>14.28</td>
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<td>Female caregiver</td>
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<td>Self-rated health of caregiver</td>
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<tr>
<td>(1 = excellent, 4 = poor)</td>
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<td>ADL problems of care recipient</td>
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<td>5.55</td>
<td>7.22</td>
<td>5.15</td>
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<td></td>
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<tr>
<td>Behavior problems of care recipient</td>
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<td>10.19</td>
<td>25.80</td>
<td>10.25</td>
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<td><strong>Active coping</strong></td>
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<tr>
<td>Confrontive</td>
<td>10.92</td>
<td>2.53</td>
<td>11.20</td>
<td>2.83</td>
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<td>Seek Support</td>
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<td>Planful Problem Solving</td>
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<td>13.08</td>
<td>2.99</td>
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<td>Positive Reappraisal</td>
<td>15.90</td>
<td>4.51</td>
<td>17.39</td>
<td>3.90</td>
<td>1.90*</td>
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<td>Zarit Burden Interview</td>
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<td>23.29</td>
<td>10.93</td>
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<td>CES—D</td>
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<td>18.05</td>
<td>10.82</td>
<td>1.41</td>
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<td>Spierlter Trait Anxiety Scale</td>
<td>42.60</td>
<td>9.65</td>
<td>42.29</td>
<td>9.98</td>
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<td>GSI</td>
<td>15.85</td>
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<td>18.05</td>
<td>10.82</td>
<td>0.57</td>
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</tbody>
</table>

Note: ADL = activities of daily living; CES—D = Center for Epidemiologic Studies Depression Scale; GSI = General Symptom Index.

aWays of Coping subscales (Folkman & Lazarus, 1988).
bScale administered to 98 Whites and 21 Blacks.
cThe fourteen most reliable items selected from the Zarit Burden Index (see Knight et al., in press; Zarit et al., 1980).

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

1980), which is a 22-item scale that can either be self-administered or included in an interview. Items are scored from 0 to 4, with higher scores indicative of greater caregiver distress. Use of the scale is recommended for a single summary measure of the caregiver’s appraisal of the impact that caregiving has had on their lives. Internal reliability has been estimated with Cronbach’s alpha at .84, .91, and test–retest reliability was reported at .71. Validity has been estimated by correlating the total score with a single global rating of burden (r = .71; Zarit & Zarit, 1990). The Cronbach’s alpha for our sample was .92. Knight, Fox and Chou (in press) selected 14 items from the total of 22 that tap three factors of Embarrassment–Anger, Reaction to Patient Dependency, and Self-Criticism. The Cronbach’s alpha for the 14-item Burden Scale was .88.

Emotional distress.—Anxiety was measured by the Trait Anxiety Scale from the Spielberger State–Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1985). The STAI—Trait (STAI—T) is a 20-item self-administered scale that measures general anxiety level. Responses to each item in the anxiety questionnaire are given on a score from 1 to 4. The scores for trait anxiety range from 20 to 80, with higher scores indicating more anxiety. The overall median alpha coefficient for the Trait Anxiety Scale in normative samples was .92. The STAI has been shown to have excellent psychometric properties for the assessment of anxiety in elderly persons (Patterson, O’Sullivan, & Spielberger, 1980). In this sample, α = .95.

Depression was measured by the CES—D (Radloff, 1977). The CES—D scale is a 20-item self-report scale developed to screen for depressive symptomatology in the general population. Each response is scored from 0 to 3. Total scores range from 0 to 60, with higher scores indicating more depressive symptomology. Radloff and Teri (1986) concluded that the reliability and validity of the scale is as good or better with older adults as it is with younger adults. In this sample, α = .88.

The Brief Symptom Inventory (BSI; Derogatis & Spencer, 1985) is a short measure which can be used to calculate a measure of psychological symptoms called the General Symptom Index (GSI). The 2 week test–retest reliability for the GSI was .90. Convergent validity has been demonstrated between BSI subscales and Minnesota Multiphasic Personality Inventory (MMPI) scales (Derogatis & Spencer, 1985). In this sample, α = .96.

Although it has been a fairly common practice to measure and report anxiety, depression, and BSI scores separately, the scales are typically highly correlated. Hooker, Monahan, Bowman, Frazier, and Shifren (1998) reported a structural equation model in which CES—D, STAI, and an affect balance measure were modeled as a single mental health latent variable. We followed this approach in our modeling and considered depression, anxiety, and BSI summary scores as indicators of a latent variable of emotional distress.

Caregiver stressors.—The Memory and Behavior Problems Checklist (Zarit et al., 1980) served as the measure of patient problems or caregiver stressors. The scale asks the caregiver to report how frequently a patient who has dementia engages in problematic behaviors. This scale is an estimate of current behavioral and cognitive disruption, and not of severity of dementia. The instrument is designed to be administered by an interviewer with each item having a frequency rating from 0 to 4. Test–retest reliability has been reported as .80. Validity has been estimated by correlating the frequency measure with global estimates of the severity of cognitive impairment of patients (r = .49–.69; Zarit & Zarit, 1990). Following the logic of Pruchno and Resch (1989) and of the revised version of this scale, we divided the measure into subscales assessing activities of daily living (ADLs; eating, bathing, continence, applying make-up, or shaving; α = .84), instrumental activities of daily living (IADLs; meal preparation, phone use, money handling, cleaning house, and shopping; α = .91), memory problems (unable to do simple tasks, not recognizing familiar people, forgetting the day, and not talking; α = .54), and behavior problems (wandering, asking repetitive questions, displaying suspiciousness, losing things, not finishing things, destroying property, behaving embarrassingly, waking at night, displaying restlessness, talking excessively, endangering self or others, reliving the past, and having illusions/hallucinations; α = .78).

The Ways of Coping Questionnaire was used to measure coping styles (Folkman & Lazarus, 1988). This revised questionnaire assesses thoughts and actions individuals use to cope with stressful encounters of everyday living. The
participants were asked to complete the scale, keeping in mind caregiving in general. The subscales are Confrontive Coping, Distancing, Self-Control, Seeking Social Support, Accepting Responsibility, Escape–Avoidance, Planful Problem Solving, and Positive Reappraisal. The 63-item self-administered scale used a 4-point Likert scale to indicate the participant’s frequency of using each strategy. Reliability of the coping scales was established with Cronbach’s alphas of .61–.79. Folkman and Lazarus (1988) cited evidence of construct validity in the fact that the results of their studies were consistent with their theoretical predictions.

The eight subscales of the Ways of Coping Questionnaire have been described as forming two second-order factors: Problem-Focused (or active) Coping and Emotion-Focused Coping. There has been some inconsistency in the reported relationship of the subscales to the second-order factors (see Folkman & Lazarus, 1988; Folkman, Lazarus, Gruen, & DeLongis, 1986).

Conceptually, these subscales represent two underlying dimensions: active or approach coping styles (confronting the problem, seeking social support, planful problem solving, and positive reappraisal of the situation) and emotionally focused or avoidance coping styles (distancing, self-control, accepting responsibility, and escape–avoidance).

Control variables.—To control for factors that may confound the relationship between race and burden or distress outcomes, we control for the following characteristics: caregiver’s age (in years), gender (0 = male, 1 = female), and self-rated health (1 = excellent, 2 = good, 3 = fair, 4 = poor). Because income is not significantly different between the two race groups and does not predict burden, distress, or coping factors, we omit this variable from the models for the sake of parsimony.

Results

Mean Differences in Key Variables

Burden as measured by the 14-item Zarit’s Burden Interview (ZBI) was different, \( t(69) = 2.25, p < .05 \), replicating findings from other studies. African American caregivers used more positive reappraisal, \( t(77) = -1.90, p < .05 \) (one-tailed test), but also used more escape–avoidance coping than did non-African American caregivers, \( t(77) = 2.27, p < .05 \). Depression (CES—D scores) and anxiety (Spielberger Trait Anxiety Scale scores) were essentially equal between the two groups in this sample, indicating that African American caregivers in our sample reported higher levels of emotional distress than did African American caregivers in other samples reported in the literature. This could be due to differences in recruitment strategies or to regional differences. However, African American caregivers reported worse perceived physical health, \( t(77) = 2.36, p < .05 \).

Measurement Models for Constructs of Burden, Coping, and Distress

We used the statistical program AMOS (Arbuckle, 1997) to estimate parameters for the latent constructs and structural equations implied in the model. Models are assessed by inspecting the statistical significance of estimated path coefficients and goodness-of-fit statistics for the model as a whole. These statistics include the adjusted goodness-of-fit index (AGFI), the normed fit index (NFI), the root mean square error of approximation (RMSEA), and the expected cross-validation index (ECVI). Better fitting models have higher AGFI and NFI values and lower RMSEA and ECVI values. Although rules of thumb vary for these indexes, it is desirable for the AGFI and NFI values to exceed .9 (Bentler & Bonett, 1980) and the RMSEA to be below .08 (Browne & Cudeck, 1993).

All endogenous variables are standardized as \( z \) scores in order to impose a common metric on measurement coefficients. The measurement model for the latent factor Emotional Distress is manifest by the three additive scale scores for the CES—D, the GSI, and the STAI—T. The latent factor Burden is indicated by the single scale score ZBI-14, but with a factor loading fixed at .971 and the error variance fixed at .014 to account for the less than perfect reliability of the scale.

Two latent factors are estimated for the construct of coping. These correspond to Emotion-Focused Coping, indicated by four manifest variables (Distancing, Self-Control, Accepting Responsibility, and Escape–Avoidance subscales of the Ways of Coping Questionnaire) and to Active Coping, which is also indicated by four manifest variables (Confrontive Behavior, Seeking Social Support, Planful Problem Solving, and Positive Reappraisal subscales). A key strategy of the later stages of the data collection effort was to minimize respondent workload whenever possible by intentionally skipping items for some subscales. Of the manifest variables in the current analysis, the coping factors Planning, Distancing, and Self-Control were not asked of 50 subjects. A list-wise deletion of cases with any incomplete data is not desirable, because valuable information would be discarded. Thus, the skip pattern introduces complexities into the analysis if the intention is to use the full sample of 169 participants. An approach for analyzing all available data when items are intentionally omitted through the use of alternative “short” forms is outlined by McArdle (1994). In this approach the analysis is treated as a multiple group design, with each group defined by the configuration of complete and incomplete data on the variables of interest. In the current application, two samples can be so identified, one consisting of 119 participants with complete data on all variables, and another consisting of 50 participants with complete data on all except the three coping variables. In the latter sample the three variables with missing data are modeled as latent in the model, whereas the other variables are treated as manifest. To identify the model and derive summary estimates for the full sample, all parameter estimates are constrained to be equal across the two groups.

We test the adequacy of the two-dimensional structure of coping styles by comparing the fit of a model in which all eight of the coping variables load on one factor to a more restricted alternative model that loads only four variables on each factor as shown in Figure 2. The former model has a reasonable fit (\( \chi^2 [36, N = 169] = 84.4, p < .001; \) AGFI = .815; NFI = .754; RMSEA = .090; ECVI = .685), but the two-dimensional model fits substantially better based on all goodness-of-fit indices (\( \chi^2 [34, N = 169] = 54.3, p < .015; \) AGFI = .877; NFI = .842; RMSEA = .060; ECVI = .529).
To assess all latent variables in the model, we first consider the fit of a baseline model consisting of the four latent factors (Active Coping, Emotional Coping, Burden, and Distress) all of which are free to correlate. This model has a marginally acceptable fit ($\chi^2 [94, N = 169] = 169.3, p < .001; \text{AGFI} = .806; \text{NFI} = .776; \text{RMSEA} = .069; \text{ECVI} = 1.361$) and all factors are significantly associated with each other. The measurement model coefficients are reported in Table 2. It is important to note that the three indicators representing distress (CES—D, GSI, and STAI) are approximately of the same magnitude (1.00, 1.02, and 0.80, respectively) signifying that a good factor solution has been obtained.

Direct and Indirect Effects

We test the adequacy of the structural causal model by first examining a fully recursive model, including race and control variables, where all unidirectional paths are freely estimated. The covariance between the disturbance terms of Active Coping and Emotional Coping is also estimated. Ten covariances among the control and race variables are restricted to zero based on inspection of the correlations among these exogenous variables. This model yields a marginally acceptable fit ($\chi^2 [227, N = 169] = 380.9, p < .001; \text{AGFI} = .743; \text{NFI} = .661; \text{RMSEA} = .064; \text{ECVI} = 3.047$), though it should be noted that the model includes many insignificant structural paths. When insignificant paths are restricted to zero and the model re-estimated, this fitted model yields a better overall fit than the previous one ($\chi^2 [239, N = 169] = 394.6, p < .001; \text{AGFI} = .751; \text{NFI} = .650; \text{RMSEA} = .062; \text{ECVI} = 2.985$). Although some of the fit statistics of this model, particularly the NFI, could use improvement, it is noteworthy that the RMSEA is below

---

**Figure 2. Multiple group latent variable measurement model for those with complete data on coping and those with incomplete data on coping.**

- **Complete data**
  - Active Coping
    - Confrontive
    - Seek Support
    - Planful Problem Solving
    - Positive Reappraisal

- Emotion-Focused Coping
  - Distancing
  - Self-Control
  - Accepting Responsibility
  - Escape-Avoidance

- **Incomplete data**
  - Active Coping
    - Confrontive
    - Seek Support
    - Planful Problem Solving
    - Positive Reappraisal

- Emotion-Focused Coping
  - Distancing
  - Self-Control
  - Accepting Responsibility
  - Escape-Avoidance
the recommended threshold of .08 for deciding model preference. Further, the ratio of chi-square to degrees of freedom is 1.65, well below the value of 5.0 suggested by Marsh and Hocevar (1985) for deciding on model adequacy. Indeed, we obtained AGFI and ECVI values comparable to those of other researchers estimating similar models to describe coping styles, differ between the two studies. Although Emotion-Focused Coping and Avoidance Coping styles are examples of culturally transmitted values and behaviors, rather than being indexes of disadvantaged minority group status.

The direction of the effects of ethnicity on coping styles, and, therefore, indirectly on emotional distress, are different between this study and the Haley and colleagues (1996) report, however. African American ethnicity was positively related to the greater use of Emotion-Focused Coping in this study and, therefore, indirectly increased emotional distress. Haley and colleagues found that African Americans in their study used lower levels of all coping styles. In this sample, the use of Emotion-Focused Coping appears to counterbalance the effects of lower appraisal of caregiving as stressful and, therefore, yields a net result of equal emotional distress.

The measures, and therefore the constructs used to describe coping styles, differ between the two studies. Although Emotion-Focused Coping and Avoidance Coping seem to be similar conceptually, the scales composing these

<table>
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<tr>
<th>Latent variables</th>
<th>Indicators</th>
<th>Loading coefficients</th>
<th>Measurement errors</th>
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<td>.014*</td>
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<td></td>
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<td>1.000*</td>
<td>0.801</td>
</tr>
<tr>
<td></td>
<td>Self-Controlg</td>
<td>1.441</td>
<td>0.595</td>
</tr>
<tr>
<td></td>
<td>Accept Responsibilityh</td>
<td>1.579</td>
<td>0.488</td>
</tr>
<tr>
<td></td>
<td>Escape–Avoidanced</td>
<td>1.686</td>
<td>0.403</td>
</tr>
<tr>
<td>Emotional Distress</td>
<td>CES—D1</td>
<td>1.000*</td>
<td>0.329</td>
</tr>
<tr>
<td></td>
<td>Trait Anxietyf</td>
<td>0.807</td>
<td>0.545</td>
</tr>
<tr>
<td></td>
<td>GSP</td>
<td>1.036</td>
<td>0.292</td>
</tr>
</tbody>
</table>

Note: All indicators have been transformed into standardized scores.

*The fourteen most reliable items selected from the Zarit Burden Index (see Knight et al., in press; Zarit et al., 1980).

bEstimates constrained on the basis of the reliability estimate from fourteen selected Zarit Burden Index items.

cMultiple group method with equality constraints used to simultaneously model complete and incomplete coping subscale data. Disturbance terms for Active Coping and Emotion-Focused Coping are correlated at .116 (p < .01).

dWays of Coping subscales (Folkman & Lazarus, 1988).

eParameter estimates constrained to 1.0 for scaling purposes.

fCenter for Epidemiologic Studies Depression Scale (Radloff, 1977).

gSpielberger Trait Anxiety Scale (Spielberger et al., 1985).

hGlobal Symptom Index (from BSI; Derogatis & Spencer, 1985).

The measures, and therefore the constructs used to describe coping styles, differ between the two studies. Although Emotion-Focused Coping and Avoidance Coping seem to be similar conceptually, the scales composing these

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Burden</th>
<th>Active Coping</th>
<th>Emotion-Focused Coping</th>
<th>Emotional Distress</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exogenous variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black caregiver</td>
<td>−0.532***</td>
<td>0.017</td>
<td>0.195*</td>
<td>−0.067</td>
</tr>
<tr>
<td>Age of caregiver</td>
<td>−0.013**</td>
<td>−0.006</td>
<td>−0.007*</td>
<td>−0.008</td>
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<td>Female caregiver</td>
<td>0.506***</td>
<td>0.182</td>
<td>0.156</td>
<td>0.239</td>
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<tr>
<td>Poor health of caregiver</td>
<td>0.165*</td>
<td>0.024</td>
<td>0.004</td>
<td>0.345***</td>
</tr>
<tr>
<td>ADL of care receiver</td>
<td>−0.021</td>
<td>0.010*</td>
<td>0.006</td>
<td>0.005</td>
</tr>
<tr>
<td>Behavior problems of care receiver</td>
<td>0.036***</td>
<td>0.010*</td>
<td>0.010*</td>
<td>0.017***</td>
</tr>
<tr>
<td><strong>Mediating variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burden</td>
<td>0.067</td>
<td>0.192**</td>
<td>0.247**</td>
<td>−0.610**</td>
</tr>
<tr>
<td>Active Coping</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotion-Focused Coping</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The fit of the model to the data is $\chi^2(227, N = 169) = 380.9$, GFI = .799, AGFI = .743. ADL = activities of daily living.

*p < .05; **p < .01; ***p < .001.
latent factors differ. Emotion-Focused Coping was comprised of the Self-Control, Distancing, Accepting Responsibility, and Escape-Avoidance subscales of the Ways of Coping measure. In the Haley and colleagues (1996) study, Avoidance Coping loaded on Cognitive Avoidance, Resigned Acceptance, Alternative Rewards, and Emotional Discharge scales from the Coping Responses Inventory (Moos, 1988). Emotion-Focused Coping describes a style of emotional control, self-blame, and escapist thinking and behavior, whereas Avoidance Coping appears to include a mix of avoidant thinking, acceptance, and emotional expression.

Although the difference is likely due in part to the different constructs assessed, the outcomes with regard to emotional distress differ between the samples as well. Since this sample of African American caregivers shows a level of depression and of the latent construct of Emotional Distress, which is equal to that of non-African Americans, the difference in the models is more than simple measurement differences. Although the measurement differences preclude direct comparisons of the coping mechanisms, we would speculate that the difference in outcomes may in fact be due to a greater use of ineffective Emotion-Focused Coping styles by African American caregivers in our sample. Further research is needed to determine whether this could be due to regional differences (Southern vs. Western states, with differing histories and social contexts for African Americans) or large metropolitan areas compared with mid-size urban areas (Los Angeles vs. Birmingham and vicinity). In either case, the discrepancies remind researchers that generalizing to all African American caregivers in the United States from existing research samples would be premature.

The relationship of ethnicity to control variables is also of interest. African Americans tend to be younger, which in turn tends to increase Burden and the use of Emotion-Focused Coping. They also report poorer subjective health,
which in turn increases Burden and the level of emotional distress. The direct, presumably culturally based, effect of ethnicity on Burden appears to be partly compensated for by the younger age and the poorer health of African American caregivers. If they were of equal age and health as non-African American caregivers, the mean level difference in Burden would be even larger. In this instance, other background differences between the groups partly disguise the true difference in Burden between the two groups.

The relative youthfulness of African American caregivers may help to explain the greater use of Emotion-Focused Coping. The use of escapist coping strategies has been found to be more common among younger adults (e.g., Aldwin, Sutton, Chiara, & Spiro, 1996; McCrae, 1989), although it is unclear whether this is a developmental change in coping or is related to changes in stressors, cohort effects, or other influences. The direct and indirect effects of increased poor health on emotional distress provides an additional reason for the nearly equal emotional distress outcomes between African Americans and other caregivers, given the lower Burden appraisals among the former.

Limitations

As is characteristic of much of caregiving research on cultural issues, this study relies on the comparison of relatively small convenience samples. Caution should be used in generalizing these results to the larger populations of African American and non-African American caregivers. These caregivers were recruited through social service agencies and a research center offering a variety of services to caregivers. Generalizing to non-help-seeking caregivers would not be advisable. The relatively small size of the samples limits the power of comparisons between groups and, therefore, failures to find statistically significant differences should not be seen as indicating similarity of the groups. Finally, the use of cross-sectional data calls for caution in interpreting the directionality of covariance relationships.

Summary

Nonetheless, the results of this analysis confirm and extend modeling of stress and coping processes among caregivers and add to previous research on African American caregivers of family members with dementia. In general, these results support the hypotheses and the sociocultural stress and coping model. The appraisal of caregiving as stressful is considerably lower among African American caregivers and is related to lower levels of emotional distress. However, as predicted by the model, other aspects of ethnicity and other group differences counterbalance this influence and explain the equivalence of emotional outcomes between the two groups. In this sample, African American caregivers are in poorer health and use more Emotion-Focused Coping strategies, both of which lead to higher levels of emotional distress.

Acknowledgments

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Address correspondence to Dr. Bob G. Knight, Andrus Gerontology Center, University of Southern California, Los Angeles, California 90089-0191. E-mail: bknight@usc.edu

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