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Purpose: The goals of this review are to synthesize what is known about caregiving among diverse groups and to identify gaps in knowledge to guide future research on caregiving. The review focuses on conceptual and theoretical approaches, sampling strategies, measurement techniques, and similarities and differences found among groups and across studies. Design and Methods: A narrative approach was used to review 59 articles published between 1980 and 2000, with particular attention to race, ethnicity, and/or culture. Primary sources of relevant articles included electronic databases, other review articles, and reference lists. Results: Caregiving experiences and outcomes varied across racial and ethnic groups. However, the use of nontheoretical approaches, nonprobability samples, and inconsistent measures among studies has limited understanding of caregiving among diverse populations. Implications: It is important that conceptualization and theorizing broaden with increasing numbers of studies that include diverse groups. Future caregiving research needs to give more attention to such issues as acculturation, assimilation, and cultural values, beliefs, and norms, while also improving theoretical and methodological rigor.

Key Words: Diverse groups, Caregiving, Literature review, Research issues

The U.S. population is rapidly aging as a result of various factors including improvements in nutrition, medical care, and technology (which increase longevity), as well as increases in wealth and education and the shift to a postindustrial society (which decrease fertility rate; Olshansky, Carnes, & Cassel, 1993). According to census data (U.S. Bureau of the Census, 2000), from 1930 to 1990 the U.S. elderly population increased from 5% to 13% of the total U.S. population. With continued population aging, those older than 65 are projected to increase to 20% of the total U.S. population by the year 2050 (U.S. Bureau of the Census, 2000). The percentage of racial and ethnic minority elders will increase at a much higher rate than that of non-Hispanic White elders over the next 50 years. From 2000 to 2050, projections indicate that the White elderly population will double, and the African American elderly population will quadruple. During this same period, the Hispanic elderly population will increase to 7 times, the Asian/Pacific Islander elderly population will increase to 6.5 times, and the elderly American Indian population will increase to 3.5 times their current numbers (U.S. Bureau of the Census, 2000).

With relatively greater numbers of elders in the population, a more in-depth understanding of how best to care for those who are dependent, especially in racially and ethnically diverse groups, is needed. In addition to the projected increase of minority elders in the future, findings have shown that the prevalence of severe functional limitations among minority elderly people is higher than found among their White counterparts (U.S. Department of Health & Human Services, 1991). The rate of institutionalization for minority elders is lower than for older Whites. And finally, some research has suggested that minorities underuse formal services to assist with caregiving, especially among African Americans and Native Americans (Caserta, Lund, Wright, & Redburn, 1987; Logan & Spitze, 1994), as compared with their White counterparts.

Given the aforementioned information, it is important to review what is known about different racial and ethnic groups and how this knowledge can inform and direct future caregiving research in diverse populations. Therefore, the major goals of this review...
article were to synthesize what is known about caregiving among diverse groups and identify gaps in knowledge. We identified these gaps by taking stock of a body of knowledge through an in-depth analysis of the literature and through an epistemological journey that illustrates what is known and how what is known about caregiving was acquired. For this purpose, we identify major content areas addressed by the reviewed articles. We also identify conceptual and theoretical approaches, describe sampling strategies, discuss measurement techniques, and report major findings on the similarities and differences among groups and across studies. Finally, based on findings from this review, we provide suggestions for conducting future caregiving research.

Methods

Approach and Search Strategy

The approach used in this review is similar to that used by other researchers (Aranda & Knight, 1997; Yee & Schulz, 2000) who reviewed the caregiving literature using a narrative as opposed to a meta-analytic approach. A narrative approach was used because, as Yee and Schulz (2000) stated, it allows for use of a range of articles that have used different methodologies to study the same problem. Use of different methodologies across studies hinders employing meta-analysis. Two earlier review articles (Connell & Gibson, 1997; Schulz, O’Brien, Bookwala, & Fleissner, 1995) were helpful in directing how best to present such a vast amount of information. Furthermore, most of the articles included in the review by Connell and Gibson were also included in this review, because it too was a review of caregiving research of various ethnic groups. This review, however, moves beyond Connell and Gibson’s by including studies of caregivers of elders who were dependent for a variety of reasons (not limited to dementia), by including articles that examined single racial or ethnic minority groups without a comparison group, and by covering a greater time span.

All articles included in this review were published in English within the past 20 years (1980–2000) in refereed professional journals. Articles were included on the basis of their focus on informal caregiving of dependent elderly people with particular attention to race, ethnicity, or culture. Comparisons among racial and ethnic groups and descriptive reports of single minority groups were examined. The majority of the studies included in this review had an aspect of race, ethnicity, or culture in the title or the abstract, which was a key to their inclusion in the review. Studies were included only if race, ethnicity, or culture were used in the conceptualization of the investigation on caregiving. Caregiving research that used race only as a control variable was excluded (e.g., Bass, Noelker, & Rechlin, 1996; Cicirelli, Coward, & Dwyer, 1992). Articles that dealt only with the caregiving of institutionalized elderly people were also excluded (e.g., Wallace, Levy-Storms, Kingston, & Andersen, 1998). In addition, articles were excluded if only the care recipients reported their views about receiving care (e.g., Bass & Noelker, 1987; Burton et al., 1995; R. C. Gibson, 1982; Miner, 1995; Norgard & Rogers, 1997). The care recipient’s viewpoint is important to understanding the totality of the caregiving process, but is beyond the scope of this review.

To find articles meeting the above criteria, we searched the following databases: Family Studies Database, Medline, HealthStar, PsycINFO, Infotrac, and ERIC. Search terms included African American, Black, White, Latino, Latina, Mexican, Hispanic, Puerto Rican, Cuban, Japanese, Chinese, Korean, Native American, Indian, American Indian, Asian, elderly, aged, caregiving, minority, race, ethnicity, culture, ethnic minorities, cultural differences, and racial differences. To supplement the search, we used reference lists from articles already chosen for inclusion in this review. The search process yielded a total of 59 articles that are included in this review. Because of the inclusion/exclusion criteria and the specific search strategy used, some relevant articles may have been omitted.

Strategies for Organizing Information

Several steps were used in organizing this review. The first step involved summarizing the studies by constructing a table containing the theory, sampling strategies, measures, and salient findings for each study selected for inclusion. The second step was to determine which topical domains of focus were most common in the study of race, ethnicity, and culture among caregivers. Topical domains were defined as common areas of research that comprise a broad framework for organizing this research. For example, a domain on negative effects could include depression, burden, and distress. At least 10 articles focusing on a common area of research composed a domain. Each of us examined the articles and made an independent determination of the domain in which each article should be placed. Then comparisons were made and consensus was reached regarding any differences. Using these guidelines, we identified four domains of research: (a) social support of the caregiver and care recipient (formal and informal); (b) the negative effects of caregiving on the primary caregiver; (c) coping with the stress of caregiving, both on the individual and the kin network level, and (d) cultural effects on caregiving (e.g., meaning, filial responsibility, and/or cultural–historical perspective). Many of the studies included in this review fit under more than one of these domains, which illustrates that different topics of caregiving research are interrelated and are studied simultaneously by researchers, as indicated in Table 1. For example, an article looking at depression among caregivers as an outcome may also examine the effects of informal support. Thus, this article would be included in both negative effects and social support domains. Allowing such overlap helps maximize our ability to discuss multiple domains despite the limited overall number of studies.
that address issues of race, ethnicity, and culture in the caregiving literature. Therefore, of the 59 articles that were reviewed, 32 were included in social support, 29 in negative effects, 13 in coping, and 20 in cultural effects.

**Domains of Research**

**Domain 1: Social Support**

**Theory.** Among the 32 articles that examined social support and caregiving, 14 used an identifiable theoretical approach, whereas 18 articles were atheoretical, relying largely on empirical generalizations. With respect to the 14 theoretical approaches, 13 articles used conceptual models and 1 used a conceptual framework (see Appendix, Notes 1–3). Although not explicitly guided by theory, the studies based on empirical generalizations may be used to develop constructs necessary for further theorizing. The conceptual models used were Andersen and Newman’s behavioral model (Cox, 1999; Kosloski, Montgomery, & Karner, 1999), the structural model of caregiving dynamics (Lawton, Rajagopal, Brody, & Kleban, 1992, p. 161), the illness help-seeking model (Levkoff, Levy, & Weitzman, 1999), the hierarchical model of support and the task specificity model (Miller & Guo, 2000), the cultural pluralism model (Thornton, White-Means, & Choi, 1993), and the stress and coping—stress process models (Cox & Monk, 1996; Dilworth-Anderson, Williams, & Cooper 1999a; Haley et al., 1996; Ho, Weitzman, Cui, & Levkoff, 2000; Wallsten, 2000; Wood & Parham, 1990; Youn, Knight, Jeong, & Benton, 1999). These conceptual models provide an analytic guide for future research because they identify constructs and their specific relationships to one another. White-Means and Thornton (1990) used the conceptual framework of utility maximization (see Table 1), which provides greater theoretical guidance by explicitly stating overarching assumptions and delineating relationships among constructs. Most of the theories used in these studies lack cultural relevance because they did not incorporate any conceptualization of race, ethnicity, or culture. Notable exceptions are the cultural pluralism model (Thornton et al., 1993) and the illness help-seeking model (Levkoff et al., 1999).

**Sampling.** Comparisons of ethnic groups were made in the majority of studies (23 of the 32), and the remaining studies used a single minority group. Among the comparative studies, 14 compared a White sample with an African American, Cuban American, Hispanic, or Mexican American sample. Two studies compared an African American sample with a Hispanic sample (Cox & Monk, 1990, 1996); one compared White, African American, and Hispanic caregivers (Kosloski et al., 1999); one compared three groups of Asian Americans (Chinese, Japanese, and Korean; Ishii-Kuntz, 1997); one compared African American, Chinese American, Irish American, and Latino caregivers (Levkoff et al., 1999); and one compared Korean, Korean American, and White American caregivers (Youn et al., 1999). Two studies compared German, Irish, English, and African American caregivers (Thornton et al., 1993; White-Means & Thornton, 1990). Another study compared African American, Chinese American, Latino, and European American caregivers (Ho et al., 2000). The studies examining only one group included samples of African American caregivers (Dilworth-Anderson, Williams, & Cooper, 1999a, 1999b; Sterritt & Pokorny, 1998; White-Means & Thornton, 1996), Hispanic caregivers (Cox & Monk, 1993), Puerto Rican caregivers (Delgado & Tennstedt 1997a, 1997b), Cuban American caregivers (Harwood et al., 2000), and American Indian caregivers (Hennessy & John, 1996).

The majority of the study samples (27 out of 32) examining social support used a convenience and purposive sampling design. Participants were recruited from senior centers, case management agencies, local health care providers, health clinics, support groups, and churches. Three studies used regional probability samples (Dilworth-Anderson et al., 1999a, 1999b; Wallsten, 2000), and two studies used a national probability sample (Thornton et al., 1993; White-Means & Thornton, 1990). The size of samples varied, from studies containing only 9 caregivers (Sterritt & Pokorny, 1998) to studies containing as many as 1,486 caregivers (Kosloski et al., 1999). There were 11 studies with fairly large samples (greater than 100) that researchers may find more useful for population comparisons between groups (Cox, 1999; Delgado & Tennstedt, 1997a, 1997b; Dilworth-Anderson et al., 1999a, 1999b; Kosloski et al., 1999; Lawton et al., 1992; Phillips, de Ardon, Komnenich, Killeen, & Rusnak, 2000; Stommel, Given, & Given, 1998; Thornton et al., 1993; White-Means & Thornton, 1996). When samples are small and nonrandomly drawn, it is difficult to make inferences about the characteristics of the population. Thus, issues of external validity are of great concern for future researchers using small, purposive samples of diverse groups. However, small samples may be the result of selecting ethnic groups that are challenging to obtain. Therefore, it is important to give some credibility to findings that provide researchers with preliminary results that could be used in future comparisons between ethnic groups that may be hard to recruit.

**Measures.** Different types of measurement scales were used to assess social support. The majority of researchers (25 out of 32) developed their own scales, using multiple items to assess social support through Likert-scale responses. Many of these studies failed to capture the multidimensional nature of social support. In particular, asking caregivers to list the number of informal helpers or to give the frequency of using informal supports or formal support services (e.g., Cox, 1993; Ho et al., 2000) does not capture the complexity of a caregiver’s support system. Some researchers chose to measure social support through established instruments and measures. Of the 32 articles
### Table 1. Summary of Caregiving Studies Examining Race, Ethnicity, and Culture

<table>
<thead>
<tr>
<th>Reference</th>
<th>Theory</th>
<th>Sample</th>
<th>Measures</th>
<th>Salient Findings</th>
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<tr>
<td>Clark &amp; Huttlinger (1998)*</td>
<td>Empirical generalizations</td>
<td>8 Mexican American female caregivers of elderly family members</td>
<td>Open-ended questions and observations</td>
<td>Two themes emerged: reciprocity and point of reckoning. Reciprocity is described as giving back to parents or other family members during one’s lifetime. It is viewed as an obligation to provide for those who provided for you. Reciprocity is taught to children both implicitly and explicitly. “Being there” and “unconditional regard” were two concepts also related to reciprocity. Point of reckoning is the point in time when the caregiver recognizes and fully accepts herself as the caregiver.</td>
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<td>Cox (1993)*</td>
<td>Empirical generalizations</td>
<td>76 Black and 88 White primary caregivers of elders with dementia selected from those who called chapters of the Alzheimer’s Association in Baltimore, MD, and Washington, DC</td>
<td>Relationship strain (Deimling &amp; Bass, 1986) Social activity restriction and depressive symptoms (three items; Deimling &amp; Bass, 1986) Caregiving competence (Pearlin et al., 1990) Single items were used to assess the quantity and quality of social support as well as caregivers’ filial responsibility.</td>
<td>Levels of relationship strain, social activity restriction, and depression did not differ significantly between groups. Black caregivers were more likely to have discussed the care recipient’s care with clergy members and friends. Black caregivers reported receiving more informal support from family and friends than White caregivers but expressed a greater need for additional help. Black caregivers expressed more strongly held beliefs of filial responsibility than White caregivers.</td>
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<tr>
<td>Cox (1999)*</td>
<td>Behavioral model of health services use (Andersen &amp; Newman, 1973)</td>
<td>150 African American and 150 White primary caregivers of elders with dementia selected from those who called chapters of the Alzheimer’s Association in Baltimore, MD, and Washington, DC</td>
<td>Emotional support (Pearlin et al., 1990) Family agreement (Pearlin et al., 1990) No. hours of assistance by the caregiver per week Caregivers’ satisfaction with their confidants Care recipient cognitive functioning (Pearlin et al., 1990) Care recipient behavior problems (Pearlin et al., 1990) Memory and Behavior Problem Checklist (Montgomery &amp; Borgatta, 1989) Center for Epidemiological Studies—Depression scale (CES-D; Radloff, 1977) Personal gain (Skaff &amp; Pearlin, 1992) Caregivers reported their planned and actual use of information and referral services and support groups.</td>
<td>White caregivers were more dissatisfied with the overall support they received from others than were African American caregivers. African American caregivers reported more family disagreement than White caregivers did. No significant differences were found between African American and White caregivers in depression, burden, stress, or strain. African American caregivers more often reported the need for information and referral services than White caregivers did. Although caregivers from both groups reported planning to use support groups (91%) and information and referral services (94%) at baseline, only 25% of White caregivers and 23% of African American caregivers had attended support groups; a year later only 27% of White caregivers and 35% of African American caregivers had used information and referral services a year later. Race did not affect the likelihood of attending support groups or using information and referral services. With the two groups combined, higher care recipient cognitive impairment and lower caregiver burden at baseline were associated with increased likelihood of having attended a support group by the third interview (1 year later). Also, higher care recipient cognitive impairment and lower functional impairment at baseline were associated with increased likelihood of having used information and referral services by the third interview (1 year later).</td>
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<td>Cox &amp; Monk (1990)</td>
<td>Empirical generalizations</td>
<td>31 Black and 19 Hispanic caregivers conveniently sampled in New York and Baltimore. Two thirds were providing care for family members with Alzheimer’s disease.</td>
<td>CES-D (Radloff, 1977) Burden Interview (Zarit, Todd, &amp; Zarit, 1986) Attitudes Toward Caregiving scale (Cox &amp; Gelfand, 1987) Single items were used to assess availability of and frequency of contact with a confidant. Assistance with specific tasks and use of specific formal services were summed. Black and Hispanic caregivers reported similar levels of burden. No significant differences were found between Black and Hispanic caregivers’ reports of physical health, strong filial responsibility, and availability of a confidant. Hispanic caregivers reported higher levels of depression than Black caregivers. Both groups reported awareness of but limited use of social support services.</td>
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<td>Cox &amp; Monk (1993)</td>
<td>Empirical generalizations</td>
<td>86 Hispanic caregivers of Alzheimer’s patients in New York City referred by community organizations, social service agencies, and medical facilities</td>
<td>CES-D (Radloff, 1977) Burden Interview (Zarit et al., 1986) Attitudes Toward Caregiving scale (Cox &amp; Gelfand, 1987) Self-reported physical health status and problems Single items to assess availability and frequency of support 29 percent of caregivers reported that their health had deteriorated as a result of caregiving. The sample mean for the CES-D was 18.5, which indicates clinical depression. These caregivers reported moderate burden scores. Relatives and friends typically did not provide any instrumental support. A strong negative relationship was found between use of professional help and depression. As burden scores increased, the likelihood of caregivers seeking professional help increased.</td>
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<td>Cox &amp; Monk (1996)</td>
<td>Stress and coping model</td>
<td>76 African American and 86 Hispanic caregivers of Alzheimer’s elders living in New York and Baltimore, MD Respondents were selected through hospital clinics, senior centers, community organizations, and local churches.</td>
<td>The Personal Strain and Role Strain subscales of the Burden Index (Zarit, Orr, &amp; Zarit, 1985) were used. Frequency of assistance with 17 caregiving tasks was summed. Frequency of visits from relatives and friends and phone conversations were assessed with single 4-point Likert items. Hispanic caregivers reported significantly higher personal strain and role strain than African American caregivers. Caregiver age was not associated with personal strain but was strongly related to role strain. The frequency of seeing relatives and friends was closely associated with personal strain, but had no impact on role strain. Speaking infrequently with supports was significantly associated with personal strain and role strain. African American and Hispanic caregivers were comparable in the frequency of assistance from their supports as well as their visits with them.</td>
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<td>Deimling &amp; Smerglio (1992)</td>
<td>Empirical generalizations</td>
<td>193 White and 51 Black caregivers selected from a longitudinal study with a purposive sample of over 300 caregiving families in the Cleveland, OH, Standard Metropolitan Statistical Area</td>
<td>Single-item questions were asked regarding the involvement and centrality of specific family members, friends, and professional service providers in the decision-making process. Physical Self-Maintenance Scale (Lawton &amp; Brody, 1969) Cognitive impairment (Deimling &amp; Bass, 1986) Findings showed that having a spouse, living with the caregiver, and the elder’s functioning had significant independent effects on whether the care recipient was involved in the decision-making process. The explanatory importance of race and income was a function of differences in elder functioning and presence of a spouse caregiver. Descriptive analysis showed that in both Black and White families other kin and professionals are rarely the most important decision makers.</td>
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Only 16% of caregivers used formal services. 51% of care recipients had only one caregiver, 21% had two caregivers, and 28% had three or more caregivers. Female caregivers reported more hours of care per week. Noncoresiding offspring had fewer hours of care per week than coresiding offspring.

As the level of disability increased for the elder, the more informal care hours the caregivers provided.

Care recipient variables included age, gender, ADLs, IADLs, mobility tasks, residence (with caregiver or not), and the Socioeconomic Index (Nam & Powers, 1983).

Caregiver variables included relationship to care recipient, gender, marital status, employment, no. caregivers, reasons for assuming caregiving role, no. potential caregivers, hours per week of care. Hours per week for each type of informal care and formal service were summed to obtain total hours.

Puerto Rican sons were somewhat younger and much less likely to be married than the daughters. Puerto Rican sons were more likely to live with the care recipient or alone.

Formal service use by elders cared for by sons was less frequent and lower than if cared for by daughters. Sons were less likely than daughters to report they had someone to turn to for assistance or emotional support.

Sons provided similar amounts of informal care as the daughter caregivers. Distressed caregivers, as compared with those who were not distressed, had lower levels of satisfaction with their social support, experienced more role strain, rated their general health lower, and experienced less mastery in their caregiving role.

Cultural justifications for caregiving were not significantly related to distress.

Four different types of caregivers were identified: primary, secondary, tertiary, and tertiary only. These caregivers formed five different caregiving structures: primary and secondary (33%); primary, secondary, and tertiary (25%); primary only (19%); primary and tertiary (16%); and tertiary only (7%). Characteristics/needs of the care recipients, not caregivers, were significant in predicting caregiving structure.

The care recipient characteristics that predicted caregiving structure were ADL level, use of formal support, ability to meet financial needs, and no. children within 1 hr drive.

74% of the care recipients were cared for in a collectivist (involving two or more caregivers) structure, leaving only 26% of the care recipients being cared for in an individualistic (involving a single caregiver) structure.
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<th>Sample Description</th>
<th>Findings</th>
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<td>Farran, Miller, Kaufman, &amp; Davis (1997)</td>
<td>Stress and coping model</td>
<td>215 coresident caregivers of a spouse older than 60 with a diagnosis of dementia. 22 African American men, 55 African American women, 56 White men, and 82 White women were recruited from health service facilities.</td>
<td>African American caregivers appraised their caregiving situation more favorably than White caregivers and also reported lower levels of psychological distress outcomes. The best predictors of caregiver depression were being White, and having poorer physical health, behavior problem distress, greater task distress, and higher levels of spouse PADL impairments. Higher levels of provisional meaning had an independent effect on lower levels of depression and lower levels of role strain for both African American and White caregivers.</td>
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<td>Fox, Hinton, &amp; Levkoff (1999)</td>
<td>Medical anthropology and empirical generalizations</td>
<td>10 African American caregivers of an elder with dementia were recruited from local nursing homes, caregiver support groups, adult day health centers, home health agencies, and practices of private physicians.</td>
<td>Black caregivers were found to express high levels of burden and distress during retrospective qualitative interviews. These researchers discussed cultural-historical and sociopolitical factors influencing the experience and expression of burden among African American caregivers. Some of these factors included lifetimes of discrimination and economic exploitation and limited access to relevant formal support services.</td>
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<td>Fredman, Daly, &amp; Lazar (1995)</td>
<td>Conceptual model of race, caregiving context, and outcomes</td>
<td>1,062 White and 159 Black caregivers. The sample was obtained from the 1982 National Long-Term Care Survey and its supplement, the National Survey of Informal Caregivers.</td>
<td>There was a significant difference in burden between Black and White caregivers. Being older, married, female, and the care recipient’s spouse; living with the care recipient; and having poorer self-rated health were associated with burden for both groups. White caregivers were more likely to be the care recipients’ spouse, have higher education and income levels, and rate their health better than Black caregivers.</td>
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<td>Gonzalez (1997)</td>
<td>Cognitive stress and coping model (Lazarus &amp; Folkman, 1984)</td>
<td>25 African American and 25 White female primary caregivers coresiding with the care recipients, who had been diagnosed with probable Alzheimer’s disease</td>
<td>African American caregivers were more resourceful than White caregivers. African American caregivers rated disruptive behaviors as less stressful than did White caregivers.</td>
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<td>Haley et al. (1996)</td>
<td>Stress process model</td>
<td>197 primary caregivers of dementia patients related by blood or marriage and living within 50 miles of the Memory Disorders Clinic (MDC) at University of Alabama at Birmingham (UAB). 123 White and 74 African American recruited through the MDC at UAB</td>
<td>African American caregivers appraised self-care problems, memory problems, and behavioral problems as less stressful than did White caregivers. African American caregivers reported higher levels of self-efficacy for both self-care and memory and behavior problems than White caregivers. Higher levels of avoidance coping and low levels of approach coping were related to increased depression and lower life satisfaction. African American and White caregivers did not differ significantly in total number of social supports, total satisfaction with social supports, or no. visits with relatives and friends. Greater social support and activity were related to higher life satisfaction and lower depression.</td>
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<td>Reference</td>
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| Haley et al. (1995)  | Empirical generalizations | 70 Black and 105 White caregivers of elders with dementia were recruited from a memory disorders clinic. 70 Black and 105 White noncaregivers were recruited from local churches and community-based information booths. | CES–D (Radloff, 1977)  
Life satisfaction (Wood et al., 1969)  
BSI (Derogatis & Spencer, 1982)  
Cornell Medical Index (Brodman, Erdmann, Wolff, & Miskovitz, 1986)  
Self-rated health  
Multilevel Assessment Instrument (Lawton et al., 1982)  
Social Support Questionnaire, Short Form—Revised (Sarason et al., 1987) | White caregivers had the highest prevalence of clinically significant depression and symptoms of negative mental health outcomes (i.e., anxiety, hostility) compared with Black caregivers and both noncaregiver groups.  
White caregivers were twice as likely to have clinically significant elevations on the CES–D than White noncaregivers.  
Social support was greater for Black and White caregivers than for Black and White noncaregivers.  
Social support from relatives outside the home was greater among both Black and White caregivers than among noncaregivers.  
There was no evidence that Black caregivers used extended family supports to a greater extent than White caregivers or differed in satisfaction with social support. |
| Harwood et al. (1998)  | Empirical generalizations | 469 White non-Hispanic and 184 White Hispanic (85% Cuban American and 15% other Hispanic) caregivers, spousal, or adult child caregivers of patients evaluated at a memory disorders clinic in Miami and diagnosed with possible or probable Alzheimer's disease | Caregivers: CES–D (Radloff, 1977)  
Care recipients: Mini-Mental State Examination (MMSE; Folstein, Folstein, & McHugh, 1975)  
Patient psychopathology was assessed through extensive clinical interviews by psychiatrists. | Clinically significant levels of depression (CES–D scores greater than or equal to 16) were reported by 39% of the total sample of caregivers.  
A significantly higher proportion of White Hispanic caregivers were depressed (45%) when compared with White non-Hispanic caregivers (36%).  
Through the use of analysis of covariance, ethnicity, patient diagnosis of psychosis, relationship to the patient, and level of patient cognitive impairment were associated with depression among caregivers, whereas patient gender, patient diagnosis of depression, and the Ethnicity × Relationship to Care Recipient interaction were not associated with depression among caregivers.  
Logistic regression analysis, run separately for each ethnic group, showed that among the White non-Hispanic caregivers, female caregiver gender and patient diagnosis of psychosis were significant risk factors for depression. Among White Hispanic caregivers, female caregiver gender and lower patient cognitive status were risk factors for depression. |
| Harwood et al. (2000)  | Empirical generalizations | 40 Cuban American caregivers of a family member diagnosed with possible or probable Alzheimer’s disease. This sample was drawn from caregivers of patients evaluated at a memory disorders clinic in Miami. | Geriatric Center Appraisal Scales (Lawton et al., 1989), which include the Caregiving Burden Scale and the Caregiving Satisfaction Scale  
Perceived Emotional Support scale (Pearlin et al., 1990)  
General Health Index from the Medical Outcomes Trust Short Form—36 Health Survey (Ware, 1993)  
Acculturation was measured by a single item determining the caregiver’s length of residence in the United States. | Controlling for care recipient behavior disturbances and caregiver age and gender, increased perceived emotional support was a significant predictor of increased caregiver satisfaction and decreased caregiver burden. |
| Henderson & Gutierrez-Mayka (1992)  | Empirical generalizations | 37 Hispanic caregivers of patients with dementing illness. Referred by social service agencies and community organizations | Open-ended questions were asked to assess cultural meanings, norms, and beliefs regarding dementia. | Dementing illness was often seen as “crazy” among Hispanics. Some Hispanics viewed mental illness as “bad blood,” which could stigmatize the entire family.  
There was a strong cultural norm among Hispanics that women provide care to dependent elders.  
Older Hispanic family members were not likely to become involved in support groups without the influence and accompaniment of their adult children. |
Hennessy & John (1996)<sup>a,b,c</sup>

**Empirical generalizations**

33 American Indian caregivers of impaired elders. These participants were members of three focus groups of caregivers from five reservation dwelling tribes in the Southwest. The caregivers were recruited by local Title VI program directors familiar with families in the community.

Open-ended questions were used during three focus groups. Caregivers were asked to describe their caregiving burden and satisfaction and the sources of each. Open-ended questions were used to assess support received by caregivers. Caregivers were also asked to describe their cultural values, norms, and beliefs regarding caregiving.

Four major sources of burden were identified: anxiety about medical conditions, problems with difficult psychosocial aspects of care, strains on family relations, and negative effects on personal health and well-being.

Three sources of caregiver satisfaction were identified: achieving control over caregiving by developing fixed routines for managing the medical and nonmedical aspects of care, creating family consensus about the caregiving situation and its demands, including mobilizing family assistance, and obtaining periodic respite from caregiving.

Caregivers identified four desired support services: caregiver training, family support groups, case management, and respite care.

Most caregivers were part of extended families and shared a collective value orientation.

Caregiving was regarded as a reflection of the cultural ethos of interdependency and reciprocity.

Hicks & Lam (1999)<sup>a</sup>

**This study used an inductive process for theory/model building, rather than being theory driven. The model developed is called the social process of decision-making model.**

7 Chinese American families including an elder member with dementia and a member who was the elder’s primary caregiver. Recruited from local nursing homes, caregiver support groups, adult day health centers, home health agencies, and practices of private physicians.

In-depth semistructured interviews with the caregivers, ethnographic observation, and participation with the families.

Four major groups of decision makers regarding the elder’s care were identified: family members, health providers, social service staff/agencies, and the ill elder.

Five out of the seven families identified “decision making groups” in which authority is shared but not necessarily equally distributed. Three decision-making processes were identified: primary, diffuse, and catalytic.

Members of decision-making groups can be described as allies or competitors with respect to one another.

Results identified three ways culture was important in decision making:
(a) Cultural context can determine alternatives (roles, process, and outcomes); (b) the decision-making process can be guided by culturally generated tensions or patterns; (c) a variety of cultural paradigms can be evoked while decision makers compete for decision-making authority and seek to justify decisions.

Two other major influences on decision making were identified: well-being of other family members and availability of resources within the social context.

Black and White caregivers were similar on indices of appraisal, coping, professional help-seeking behavior, dementia management strategies, and psychiatric symptomatology.

Although Black caregivers reported lower levels of caregiver burden than White caregivers, they expressed a greater need for services and reported more unmet service needs.

When differences in demographics were controlled, Black caregivers reported less burden and less desire to institutionalize the demented elder than White caregivers.

White caregivers reported receiving more services exclusively from family members than did Black caregivers.

Hinrichsen & Ramirez (1992)<sup>b,c,d</sup>

**Empirical generalizations**

33 Black and 119 White caregivers of a family member with dementia were selected from various community and social service agencies.

**Burden Interview (Zarit & Zarit, 1988)**

**Symptom Checklist–90 (Derogatis, 1977)**

Caregiver desire to institutionalize a demented relative (Morycz, 1985)

**Health and Daily Living Form (Moos, Cronkite, Billings, & Finney, 1984)**

**Dementia Management Strategies Scale (Scott, Wiegand, & Niederehe, 1984)**

A four-item scale measured one’s concept of appraisals.

Indices of coping were measured using the Health and Daily Living Form (Moos et al., 1984).

Caregivers were asked which of 17 services were needed and which were being used. Unmet need was calculated by subtracting used from needed services.

Black and White caregivers were similar on indices of appraisal, coping, professional help-seeking behavior, dementia management strategies, and psychiatric symptomatology.

Although Black caregivers reported lower levels of caregiver burden than White caregivers, they expressed a greater need for services and reported more unmet service needs.

When differences in demographics were controlled, Black caregivers reported less burden and less desire to institutionalize the demented elder than White caregivers.

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<tr>
<td>Hinton &amp; Levkoff (1999)*</td>
<td>Empirical generalizations</td>
<td>40 caregivers of elders with dementia (10 African American, 10 Chinese American, 10 Irish American, and 10 Latino). Recruited from local nursing homes, caregiver support groups, adult day health centers, home health agencies, and practices of private physicians</td>
<td>Open-ended ethnographic interviews with primary caregivers of a relative with dementia</td>
<td>Three major story types emerged: (a) African American, Chinese American, and Irish American caregivers told stories in which Alzheimer’s was described as a disease that took away the person they knew—it took the elder’s self or identity; (b) a subset of Chinese American caregivers told stories of how their families managed the confusion and disabilities of the elder as an expected part of aging; (c) a subset of Latino caregivers used the biomedical label of Alzheimer’s disease but told stories of their elder’s problem relating to tragic losses, loneliness, and lack of family members taking responsibility. The narratives of these four ethnic groups combined Western biomedical and ethnic cultural information.</td>
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<td>Ho, Weitzman, Cui, &amp; Levkoff</td>
<td>Stress process model</td>
<td>120 caregivers of elders with dementia (32 African American, 25 Chinese American, 31 Latino, and 32 European American) recruited from service agencies, physician referrals, Alzheimer’s Association, and public advertisements</td>
<td>Service utilization: 18 services marked 1 if being used and 0 if not Service need: 18 services marked 1 if needed and 0 if not Unmet need: total of need items not being used Noncaregiving stressors: 21 items with yes responses summed (Levkoff, Levy, &amp; Weitzman, 1999) Care recipient cognitive status: 8 items summed Caretaker Obstreperous Behavior Rating Assessment (COBRA; Drachman, Swearer, O’Donnell, Mitchell, &amp; Maloon, 1992) ADL (Katz, Ford, Moskowitz, Jackson, &amp; Jaffe, 1963) IADL (Lawton &amp; Brody, 1969) CES-D (Radloff, 1977)</td>
<td>Latino caregivers reported the highest overall unmet need among the four groups with significant differences from reports by European American and African American caregivers. IADL and noncaregiving stressors were the only two variables that helped predict service use. Ethnicity did not predict service use and the Ethnicity × Noncaregiving Stressors interaction was not significant. Unmet needs were predicted by ethnicity, COBRA subscale of ideas/personality, and noncaregiving stress. Again, the Ethnicity × Noncaregiving Stressors interaction was not significant. CES-D scores did not predict service use or unmet need.</td>
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<tr>
<td>Ishii-Kuntz</td>
<td>Empirical generalizations</td>
<td>107 Chinese, 115 Japanese, 92 Korean American adult child–parent pairs; recruited by mail and follow-up phone calls from lists of members of Asian associations and organizations. These were not all caregivers.</td>
<td>Provision of financial, service, and emotional support were assessed by using several items and summing them for a total frequency. Adult child’s financial resources Filial obligation (five-item scale) Parents’ embeddedness in a social network (single item) Elderly parents’ need for assistance (six-item scale)</td>
<td>Korean adult children provided services and emotional support to elderly parents more frequently than Chinese and Japanese American adult children. Filial obligation is a significant predictor of financial support among all three groups. The adult child whose parents were not strongly embedded in the supportive network of relatives and friends was more likely to provide various services to his/her parents. Elderly parents with greater need for assistance received more frequent support from their adult child. For Chinese and Korean Americans, stronger filial obligation increased the frequency of emotional aid to parents.</td>
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<tr>
<td>Knight &amp; McCallum</td>
<td>Empirical generalizations</td>
<td>110 White and 44 African American caregivers of elders with dementia, recruited from a variety of referral sources (e.g., Alzheimer’s Association, Caregiver Resource Center)</td>
<td>CES-D (Radloff, 1977) Motivation Distortion scale from the Cattell 16 Personality Factor inventory, Form C (Cattell, Eber, &amp; Tatsuoka, 1988) Positive Reappraisal scale of the Ways of Coping Questionnaire (Folkman &amp; Lazarus, 1988) Cardiovascular reactivity was assessed by repeated measures of heart rate and blood pressure.</td>
<td>African American and White caregivers did not report significantly different levels of depression. African American caregivers reported making positive reappraisals more often than White caregivers. Positive reappraisal appeared to be effective in reducing stress among African American caregivers, but not among White caregivers. Different interaction patterns were found between African American and White caregivers among the depression, positive reappraisal, and heart rate reactivity variables during the stressful caregiving story phase of the study.</td>
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</table>
Knight, Silverstein, McCallum, & Fox (2000)  
**Sociocultural stress and coping model**  
| 41 African American, 110 non-Hispanic White, 12 Hispanic, and 5 Asian/Pacific Islander caregivers recruited from a variety of referral sources (e.g., Alzheimer’s Association, Caregiver Resource Center) | Burden Interview (Zarit & Zarit, 1988)  
CES-D (Radloff, 1977)  
BSI (Derogatis & Spencer, 1982)  
The Memory and Behavior Problem Checklist (Zarit & Zarit, 1988)  
The Ways of Coping Questionnaire (Folkman & Lazarus, 1988) | There was no significant difference in depression between African American and White caregivers, although White caregivers’ mean CES-D score was 2.21 points higher than African American caregivers’ mean CES-D score. Burden scores were higher for White than for African American caregivers. African American caregivers used more positive reappraisal than White caregivers. African American caregivers also used more escape–avoidance and emotion-focused coping than did White caregivers.

Kosloski, Montgomery, & Karner (1999)  
**Andersen’s Behavioral model**  
(Andersen & Newman, 1973)  
| 1,486 White, 703 African American, and 758 Hispanic caregivers of elders with Alzheimer’s. The sample was recruited from 14 state Alzheimer’s agencies. | Use of four services (adult day care, in-home respite, meal services, and home health care)  
ADL (Katz et al., 1963)  
IADL (Lawton & Brody, 1969) | For Whites, increasing need for assistance with IADLs was related to a need for day care use, whereas for Blacks a decreasing need for Black caregivers increased their use of in-home respite when there was increasing age of the elder and they were working either part- or full-time jobs. Hispanic caregivers who cared for younger elders and who were less likely to be employed used more in-home respite. Among Hispanics, both spouses and adult children were less likely to use meal services, although older elders were more likely to use meal services than younger elders.

Lawton, Rajagopal, Brody, & Kleban (1992)  
**Structural model of caregiving dynamics**  
| 472 White and 157 Black caregivers of a family member with dementia recruited from a network of support groups as well as through social agencies and public media | CES-D (Radloff, 1977)  
Positive affect (Bradburn, 1969)  
Traditional caregiving ideology (Lawton et al., 1989)  
Caregiving Satisfaction (5 items with ratings summed for a total score)  
Caregiving Mastery (6 items summed)  
Perceived intrusion (4 items summed) | Black caregivers reported a greater sense of traditional caregiving ideology and caregiver satisfaction and mastery than White caregivers. Black caregivers reported less subjective burden and depression and lower perception of intrusion on their lives than White caregivers. White caregivers were more likely to be caring a spouse, and Black caregivers were more often caring for a sibling, other relative, or friend.

Levkoff, Levy, & Weitzman (1999)  
**Illness help-seeking model**  
| 40 caregivers of elders with dementia (10 African American, 10 Chinese American, 10 Irish American, and 10 Latino). Recruited from local nursing homes, caregiver support groups, adult day health centers, home health agencies, and practices of private physicians | Open-ended ethnographic interviews with primary caregivers of a relative with dementia.

With respect to Stage 2 (explanatory models for symptom appraisal) of the help-seeking model, African American and Irish American caregivers generally used a biomedical model of attribution, and Chinese American and Puerto Rican American caregivers more often used a folk model of attribution.

With respect to Stage 3 (decision to seek care), African American and Puerto Rican American caregivers were often sole decision makers, with little help from other family members. Irish American caregivers reported that decision making was generally shared among several family members.

Chinese American caregivers reported varying degrees of compliance with the traditional Confucian rule that decisions should be made by the eldest male family member.

With respect to Stage 4 (contact with care providers), Chinese American and Puerto Rican American caregivers reported turning to ethnic organizations for support. African American caregivers primarily used mainstream services but expressed some dissatisfaction related to cultural misunderstandings. (Continued)
Table 1. Summary of Caregiving Studies Examining Race, Ethnicity, and Culture (Continued)

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<td>Macera et al. (1992)c</td>
<td>Empirical generalizations</td>
<td>20 Black and 62 White primary caregivers of an elder with dementia. Recruited from support groups and a statewide Alzheimer’s registry</td>
<td>Burden scale consisting of 15 items. Each item asked if the care recipient needed assistance with a particular task, if the caregiver provided that assistance, and if the caregiver found that to be stressful. Items for which the caregiver answered yes to all three were summed for a total score.</td>
<td>Burden scores were significantly higher for White than for Black caregivers. For White caregivers, the relationship to the care recipient was significantly related to level of burden; spouse caregivers reported higher burden than other relative caregivers. Black caregivers who reported incomes of $20,000 or more had significantly higher burden scores than those who reported incomes less than $20,000. Providing assistance with transportation, eating, and toileting was more stressful for White than for Black caregivers.</td>
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<tr>
<td>McAuley (1998)c</td>
<td>Empirical generalizations</td>
<td>13 respondents (aged 60 and older) were interviewed individually. Two group interviews were conducted (one with 7 older women and one with 3 men, 2 of whom were older than 60). Respondents were selected from a combination of purposive and opportunity approaches.</td>
<td>Ethnographic and historical methods were used. The primary source of information regarding caregiving was obtained through ethnographic interviews focused on the ways in which these communities responded to the need for care of elder members. Most, but not all, of those interviewed were involved in providing care to older community members. No distinction was made as to whether someone was a primary caregiver.</td>
<td>Three contextual themes emerged relating to the development of parallel services: “a) an expectation of limited outside support, b) strong community self-reliance, and c) the special status of elders in the communities” (p. 447). Four parallel services were identified and described. These were neighbor-to-neighbor assistance, the post office, the RSVP club, and the nontechnical medical care program. Each of the four services stemmed from historical and cultural phenomena in these communities.</td>
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<tr>
<td>Miller, Campbell, Farran, Kaufman, &amp; Davis (1995)c</td>
<td>Stress process model</td>
<td>77 Black and 138 White caregivers of spouses with dementia recruited from Alzheimer’s disease clinics, Veterans Affairs hospital programs, community home-care programs, adult daycare centers, and Black churches</td>
<td>CES-D (Radloff, 1977) Caregiver Global Role Strain scale (Archbold et al., 1990) Behavior Problem Upset Index (Niederehe &amp; Fruege, 1984) Sense of Control (Mirowsky &amp; Ross, 1990) Caregiving Mastery (Lawton et al., 1989)</td>
<td>White caregivers were more upset by their spouses’ disruptive behaviors, were more depressed, and reported higher levels of role strain than Black caregivers. High levels of role strain were associated with being White, higher behavior problem upset, and greater task distress. Sense of control was negatively related to depression for both groups of caregivers.</td>
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<td>Miller &amp; Guo (2000)b</td>
<td>Hierarchical compensatory model of support and the task-specificity model of Litwak (1985)</td>
<td>21 African American men, 55 White men, 52 African American women, and 82 White female caregivers were recruited through various referral and community agencies.</td>
<td>Helper level measures were derived from the concentric circle approach (Antonacci &amp; Akiyama, 1987). Social support was measured on five types of support from a single-item question: ADLs</td>
<td>African American female caregivers nominated adult children and other relatives as the largest categories in their helper networks, whereas African American male caregivers were more likely to rely on friends and neighbors. Both White men and women reported adult children and friends/neighbors as their largest source of helpers. White caregivers reported larger helper networks and were more likely to use formal resources than were African Americans. The only gender difference in caregiving tasks was that male caregivers were more likely to help their spouses in and out of bed. Male caregivers and African American caregivers were more likely to deny any difference between being a male or female caregiver than their female and White counterparts. Male caregivers were less likely to refer to caregiving in terms of emotional work. For many spouse caregivers, the sanctity of the spouse relationship was paramount in decisions regarding caregiving. Equal proportions of African Americans and Whites mentioned work as a female-related component of caregiving.</td>
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<tr>
<td>Miller &amp; Kaufman (1996)a</td>
<td>Empirical generalizations</td>
<td>215 caregivers of spouses with dementia: 22 African American men, 56 White men, 55 African American women, and 82 White women. Respondents were recruited through social service agencies and community organizations.</td>
<td>Three open-ended questions were asked in order to assess caregivers’ perceptions of gender-based differences in caregiving and gender-based advantages/disadvantages in caregiving. Caregiving tasks were assessed by summing ADLs and IADLs for which the caregiver provided assistance.</td>
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<td>Study Details</td>
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<td>Mintzer et al. (1992)</td>
<td>Empirical generalizations</td>
<td>13 Cuban American Hispanic and 15 non-Hispanic White daughters</td>
<td>CES-D scores were not significantly different between non-Hispanic Whites and Cuban American Hispanics. Only 13% of non-Hispanic White care recipients resided with the caregivers, whereas 75% of Cuban American care recipients resided with the caregiver. Overall awareness and use of services did not differ between the two groups. Cuban American Hispanic caregivers were more likely to be aware of financial aid services than non-Hispanic White caregivers.</td>
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<td>Morycz, Malloy, Bonich, &amp; Martz (1987)</td>
<td>Empirical generalizations</td>
<td>715 White and 95 Black caregivers of patients seen at a community-based geriatric assessment center in Pittsburgh, PA</td>
<td>Burden was experienced quite similarly by Blacks and Whites, and family burden was found to be a social problem in about one quarter of all cases. Best predictors for caregiving burden were (a) falls/gait disturbances, (b) dementia, (c) deficits in ADL functioning, (d) living arrangements, and (e) lack of social support. Black caregivers were less likely than White caregivers to experience burden with a family member with dementia. Black caregivers were less likely than White caregivers to institutionalize a family member with dementia (12% for Blacks and 82% for Whites).</td>
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<td>Mui (1992)</td>
<td>Conceptual framework from role theory</td>
<td>581 daughters who were primary caregivers of elderly parents (80% White, 20% Black) recruited from the National Long-Term Care Channeling Demonstration, 1982–1984</td>
<td>White caregivers reported a mean role strain score significantly higher than Black caregivers, and Black caregivers reported higher role demand. Perceived unavailability of support had a strong impact on role strain for Black caregivers but had no influence for White caregivers. For White caregivers, a poor parent–daughter relationship had a significant influence on role strain, but not for Black caregivers.</td>
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<td>Nkongo &amp; Archbold (1995)</td>
<td>Empirical generalizations</td>
<td>14 female and 3 male African American caregivers were recruited from outpatient clinics, churches, and referral from other caregivers.</td>
<td>Reasons for caregiving were classified into three categories: familial, relational, and personal. Familial reasons included duty, maintaining family integrity, and role modeling. Relational (past and present) reasons included reciprocity, affection, and respect. Personal reasons included beliefs (e.g., belief in God), values (e.g., caring for one’s own and harmony), and attitudes (e.g., dislike of institutions). The caregivers also reported a belief in God as an important reason for caregiving. Irish American caregivers tended to regard their ethnic friends and neighbors (communities) as providing a safe and secure place for their demented elder to live. Latino caregivers’ expressions of their experiences were shaped by themes of failed searches for the elusive American dream. Their stories were tales of sadness and struggle with caring for a demented elder falling in line with other difficult circumstances. Latino caregivers expressed how migration puts people at risk for aging and illness because of its effects on family structure and relationships.</td>
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<td>Ortiz, Simmons, &amp; Hinton (1999)</td>
<td>Medical anthropology and empirical generalizations</td>
<td>10 Irish American and 10 Latino caregivers of an elder with dementia were recruited from local nursing homes, caregiver support groups, adult day health centers, home health agencies, and practices of private physicians.</td>
<td>In-depth open-ended qualitative interviews with the caregivers and review of immigration and community histories. Irish American caregivers tended to regard their ethnic friends and neighbors (communities) as providing a safe and secure place for their demented elder to live. Latino caregivers’ expressions of their experiences were shaped by themes of failed searches for the elusive American dream. Their stories were tales of sadness and struggle with caring for a demented elder falling in line with other difficult circumstances. Latino caregivers expressed how migration puts people at risk for aging and illness because of its effects on family structure and relationships.</td>
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| Phillips, de Ardon, Komnenich, Killeen, & Rusinak (2000) | Empirical generalizations | 196 Mexican American caregivers and 165 non-Hispanic White caregivers of community-dwelling elders who were 55 years or older. The participants were recruited from social service agencies, advertising, and referrals from other caregivers | Acculturation Rating Scale (Cuellar, Harris, & Jasso, 1980)  
Income comfort (single item)  
Caregiver Help Scale (Phillips, 1996)  
Arizona Social Support Interview Schedule (Barrera, 1981)  
Caregiving Burden Scale (Poulshock & Deimling, 1984)  
Caregiver's Performance Evaluation (Cantril, 1965)  
Desire for termination (single item)  
Severity of Caregiver's Disease Scale (Phillips, 1996)  
Caregiver's perception of elder's health (single item)  
PSMS and IADLs (Lawton & Brody, 1969)  
Short Portable Mental Status Questionnaire (Pfeiffer, 1975) | Mexican American caregivers provided less help than non-Hispanic White caregivers, and spouses provided more help than adult children.  
Mexican American caregivers identified significantly fewer networks available to provide support than their non-White Hispanic counterparts.  
Adult child caregivers used significantly less support than non-Hispanic White adult children.  
Mexican American caregivers perceived less social restriction burden than their non-Hispanic White counterparts.  
For elder-caregiver–family relationship change, Mexican American caregivers felt fewer burdens than non-Hispanic White caregivers. |
| Picot (1995a)                  | Choice and social exchange theory                 | 83 African American female caregivers of elders with memory loss or confusion recruited from various agencies serving elders and from media advertisements | Picot Caregiver Rewards Scale (PCRS)—24-item scale                                                                 | Lower education and older age among caregivers were associated with greater rewards. |
| Picot (1995b)                  | Combined concepts from choice and social exchange theory and stress and coping theory | 83 African American female caregivers of elders with memory loss or confusion recruited from various agencies serving elders and from media advertisements | PCRS (Picot, 1995a)  
Cost of Care Index (Kosberg, Cairl, & Keller, 1990)  
Jalowiec Coping Scale—Subscales: Confrontive, Palliative, Emotive (Jalowiec, 1988)  
Modified Wood Social Support Questionnaire (Wood, 1987) | The most frequently used coping strategy was prayer/divine trust, which was part of the Palliative Coping subscale. The second most common was the confrontive strategy of maintaining control over the situation.  
The emotive strategies of drinking and taking drugs were the least often reported coping strategies.  
Among various sources of help, God was seen as most helpful, even with physical care of the care recipient.  
Social support quality was the only significant predictors of confrontive coping.  
Appraisals of perceived rewards were the only significant predictors of palliative coping.  
Appraisals of perceived costs were the only significant predictors of emotive coping. |
Geriatric Scale of Recent Life Events (Kiyak, Liang, & Kahana, 1976)  
Four items were used as indicators of religiosity. | Black caregivers perceived more rewards than White caregivers, and less educated caregivers perceived more rewards than more educated caregivers.  
The mediation models showed a significant mediating effect of comfort from religion and prayer.  
Race had both direct and indirect effects on perceived caregiver rewards.  
The indirect effect was mediated by comfort from religion and prayer. |
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<td>Segall &amp; Wykle (1988–1989)</td>
<td>Empirical generalizations</td>
<td>59 African American primary caregivers of dementia sufferers recruited from local social service agencies and service providers</td>
<td>Inventory of Coping Strategies (Kiyak, 1986) Family Assessment of Caregiving to Relatives (Noelker &amp; Poulshock, 1982)</td>
<td>25% of caregivers indicated the most difficult problem they encountered in caregiving was managing problem behaviors (i.e., wandering, uncooperativeness, and outbursts). 17% of caregivers indicated the most difficult problem they encountered in caregiving was inadequate respite for the caregiver. 65% of caregivers reported that their way of coping with caring for a confused elder was through prayer, faith in God, and religion.</td>
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<td>Smergilia, Demling, &amp; Barresi (1988)</td>
<td>Empirical generalizations</td>
<td>193 White and 51 Black caregivers selected from a longitudinal study with a purposive sample of more than 300 caregiving families in the Cleveland, OH, Standard Metropolitan Statistical Area</td>
<td>Single items were used to assess the availability, proximity, and contact of the elder care recipient with nuclear kin; the centrality of specific kin, friends, and formal sources of assistance; the centrality of specific kin, friends, and agency and professional personnel in the decision-making process related to the elder's care.</td>
<td>Black adult child caregivers reported a significantly greater number of proximate siblings than White caregivers. Black caregivers were more likely to report a friend or neighbor as a very important helper than White caregivers. White caregivers were more likely to report the elder as the most important decision maker than Black caregivers, and Black caregivers were more likely to report an adult child as the most important decision maker.</td>
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<td>Sterritt &amp; Pokorny (1998)</td>
<td>Empirical generalizations</td>
<td>9 African American primary caregivers of family members with Alzheimer's disease in the southeastern United States</td>
<td>Six open-ended questions were used to explore the caregiver's perspective on caregiving. Qualitative analysis was used.</td>
<td>Four major themes emerged from the analyses: caregiving as a traditional value, caregiving as an act of love, social support as a mediator of caregiving burden, and caregiving as a female role. Caregivers often ranked God as their primary source of social support. Information on special programs or trial medical drugs for the dependent elder was often received from family members living far away and not from the physician.</td>
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<td>Stommel, Given, &amp; Given (1998)</td>
<td>Empirical generalizations</td>
<td>112 White and Black primary caregivers who are part of the home care studies conducted in Michigan. Caregivers were matched on the basis of whether the care recipient came from the same study and had the same number of functional deficits in ADLs, mobility, and incontinence. Caregivers (per the care recipient) were recruited from community agencies or community hospitals</td>
<td>Several items were constructed to determine the division of caregiving labor with respect to 19 activities. When appropriate, the caregiver was asked who provided requisite care.</td>
<td>White caregivers were more than three times as likely to be the sole caregiver. African American caregivers were more likely than White caregivers to share hands-on care with secondary helpers, and they were also more likely to look to other helpers to completely take over certain assisted activities. African American caregivers were less likely to engage in household chores alone; they tended to prefer additional helpers. Overall, caregivers who cared for highly impaired care recipients were less likely to be the sole care providers.</td>
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<tr>
<td>Strong (1984)</td>
<td>Stress and coping model</td>
<td>10 American Indian and 10 White caregivers of disabled elders were matched for sex, income levels, and geographic location. For each group there were eight women and two men recruited from social and community agencies serving rural congregations.</td>
<td>Coping strategies (Pearlin &amp; Schoolder, 1978) adapted to fit the caretaking situation that was derived from 11 dimensions used to define caregiving.</td>
<td>Eight of the White caregivers discussed control as relevant to their situation, and only two of the American Indian caregivers referred to control. Six of the White respondents talked about feeling angry or frustrated at times, but only one of the American Indian respondents did so. Five of the American Indian caregivers but only one White respondent used the dimension of loss. American Indian caregivers more often reported use of stress management than their White counterparts. Passive forbearance in the stress management category was reported significantly more often by the American Indian than by the White respondents.</td>
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<td>Thornton, White-Means, &amp; Choi (1993)\textsuperscript{a,b}</td>
<td>Cultural pluralism model</td>
<td>737 respondents were used from the 1983 supplemental survey of caregivers from the 1982 National Long-Term Care Survey. The sample included German (174), Irish (197), English (177), and Afro-American (189) caregivers of elders who were not institutionalized and who required assistance with ADL.</td>
<td>The caregiver network was generated by asking the caregivers to identify other relatives or friends who regularly cared for the elderly person in question. The size of the network was a summation of the number of caregivers identified as helpers. The composition variable was dichotomized to those containing immediate and nonimmediate family members and those with only immediate family members.</td>
<td>Among Afro-Americans, those who were not married, those with higher incomes, and those who lived with caregivers were more likely to have smaller networks than were their respective counterparts. White ethnic caregivers were more likely to use immediate family members in their network than were Black caregivers. Among White caregivers, ADLs were the only factor significantly related to turning to nonimmediate family members for assistance. Afro-American men, nonmarried elders, and those living with the caregiver were more likely to include nonimmediate family members in their network than were their married and female counterparts and those elders not living with a caregiver.</td>
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<tr>
<td>Wallsten (2000)\textsuperscript{b}</td>
<td>Stress process theory</td>
<td>Sample drawn from the EPESE, a longitudinal study based on a stratified sample. 68 African American and 49 White caregivers, 57 African American and 58 White noncaregivers selected from a five-county area of the central Piedmont of North Carolina</td>
<td>Physical health was measured by self-ratings of four dimensions taken from the OARS Multidimensional Functional Assessment Questionnaire (OMFAQ) Duke OMFAQ (Fillenbaum, 1988) Behavioral Problem Checklist (Niederehe, 1988) The Mutuality Scale (Archbold et al., 1990) Shortened version of the Social Network Interview (Pagel, Erdly, &amp; Becker, 1987)</td>
<td>Caregivers and African Americans reported greater need for help with ADLs than noncaregivers and Whites, respectively. Male caregivers provided significantly lower mutuality ratings than male noncaregivers, and female caregivers provided significantly lower mutuality ratings than female noncaregivers. For social support, although African American caregivers reported higher numbers than African American comparisons, the number of social supports for African American and White caregivers was similar. For noncaregivers, Whites reported significantly greater numbers of people in their network than African Americans. African American caregivers reported lower levels of stress than White caregivers did. African American women reported higher levels of reward than White caregivers did. There was no statistically significant difference in depression between the two groups, although 25% of African American caregivers scored 16 or higher on the CES–D and 33% of White caregivers scored 16 or higher on the CES–D.</td>
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<td>White, Townsend, &amp; Stephens (2000)\textsuperscript{c}</td>
<td>Empirical generalizations</td>
<td>261 White and 56 African American primary caregivers. All caregivers were married adult daughters who were employed and did not reside with the care recipients. Caregivers were recruited through advertisements in various media including newspapers, radio, brochures, posters, and newsletters of businesses and social organizations.</td>
<td>CES-D (Radloff, 1977) Parent Care Stress (Stephens &amp; Townsend, 1997) Parent Care Rewards (Stephens &amp; Townsend, 1997) Parent Care Mastery (Christensen, Stephens, &amp; Townsend, 1998) Quality of Relationship with Impaired Parent—emotional support (Kinney &amp; Stephens, 1989) and emotional undermining (Vinokur &amp; Vinokur-Kaplan, 1990)</td>
<td>Caregivers and African Americans reported greater need for help with ADLs than noncaregivers and Whites, respectively. Male caregivers provided significantly lower mutuality ratings than male noncaregivers, and female caregivers provided significantly lower mutuality ratings than female noncaregivers.</td>
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<td>Study</td>
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<td>White-Means &amp; Thornton (1990)</td>
<td>Utility maximization model</td>
<td>767 respondents were used from the 1982 National Long-Term Care Survey. The groups compared were German, Irish, English, and Afro-American. These were caregivers of elders who were not institutionalized and who required assistance with ADLs.</td>
<td>A single question was asked to assess number of caregiving hours. Limited leisure was dichotomized if respondent gave a positive answer to a single question.</td>
<td>German, Irish, and English American caregivers contributed significantly fewer hours to caregiving than Afro-Americans. Leisure hours decreased as IADLs increased for German, Irish, and Afro-American caregivers, not for English caregivers. For Germans and Irish only, the relationship of the impaired elder to the caregiver significantly determined the number of hours caregivers contributed to caregiving. When the elderly care recipient was an immediate family member, both groups increased their hours of caregiving.</td>
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<td>White-Means &amp; Thornton (1996)</td>
<td>Empirical generalizations</td>
<td>130 African American caregivers were randomly selected from the Regional Medical Center of Memphis; 63% of care recipients received Medicaid; 44.6% received formal in-home services; and the other 55.4% received only informal help.</td>
<td>General Well-Being Assessment, revised (Chi, White-Means, &amp; McClain, 1991): this scale has three subscales: Depression, Life Satisfaction, and Physical Depreciation. Burden was assessed using a four-item instrument with yes/no answers; an aggregate measure was developed.</td>
<td>Depression levels were significantly lower for African American caregivers who had formal support than for African American caregivers who did not. Physical depreciation levels were significantly higher for caregivers who had formal support than for those who did not. Immediate family members faced less physical depreciation than nonimmediate family members. Greater burden lowered life satisfaction and increased physical depreciation. The more caregivers perceived physical or emotional burden, the lower the caregivers' overall sense of well-being.</td>
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<td>Wood &amp; Parham (1990)</td>
<td>Stress and coping model</td>
<td>85 female primary caregivers of an elder with Alzheimer's disease: 36 Black (10 rural &amp; 26 urban) and 49 White (23 rural &amp; 26 urban) caregivers were selected from Alzheimer family support groups and community and social agencies.</td>
<td>Relative Stress Scale (Greene, Smith, Gardiner, &amp; Timbury, 1982) was used to measure caregiver burden. A 13-item checklist (adapted from Conway, 1985) measured behavioral coping responses. Cognitive coping responses were measured using a 13-item scale (adapted by Conway, 1985). Several items were developed to measure social support. The items were grouped into three subscales: Instrumental Support, Respite, and Psychosocial Support.</td>
<td>Spousal caregivers reported the highest levels of burden, with adult child caregivers and extended family members reporting less burden. Urban caregivers of both races used more cognitive coping strategies than did rural White caregivers. Black caregivers used positive reappraisal of the difficulty of the situation more often than White caregivers. Among urban caregivers, Blacks had more social supports than Whites. God was considered as much a part of the informal support system of Black caregivers as family, friends, and neighbors.</td>
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<td>Wykle &amp; Segall (1991)</td>
<td>Empirical generalizations</td>
<td>20 White and 20 Black primary caregivers of family members with dementia recruited from community and social service agencies.</td>
<td>Langner Psychological Distress Scale (Langner, 1962) Caregiving Hassles Scale (Kinney &amp; Stephens, 1989) Coping Questionnaire for the Elderly (Kiyak, 1986) An open-ended question was also used to assess ways of coping.</td>
<td>Black caregivers were significantly more likely to answer yes to two of the items on the Langner Psychological Distress scale than the White caregivers. Black caregivers reported their most difficult problem with caregiving was a lack of temporary relief. White caregivers reported their most difficult problem with caregiving was handling negative emotions such as guilt. 80% of Black caregivers reported that they used prayer, faith, or religion as a special way to cope with caregiving; none of the White caregivers reported this. White caregivers reported that they used acceptance of changes (25%), help from professionals (20%), emotional release (20%), and problem solving (15%) as a special way to cope with caregiving.</td>
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Table 1. Summary of Caregiving Studies Examining Race, Ethnicity, and Culture (Continued)

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<th>Reference</th>
<th>Theory</th>
<th>Sample</th>
<th>Measures</th>
<th>Salient Findings</th>
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| Youn, Knight,     | Stress process model                        | 44 Korean, 32 Korean American, and 54 White American primary caregivers of an elder with dementia. Caregivers were recruited through local service organizations and newspaper articles. The Korean American and White American caregivers were recruited from California, and Korean caregivers were recruited from the metropolitan Kwangju area located in southwestern Korea. | Burden Interview (Zarit, Reever, & Bach-Peterson, 1980)  
Familism (Bards, 1959)  
CES-D (Radloff, 1977)  
State Anxiety Scale (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1985)  
Instrumental Social Support (single item)  
Emotional support (single item) | Familism was highest in Korean caregivers and lowest in Whites, with Korean Americans in the middle.  
Korean and Korean American caregivers both reported higher levels of burden and anxiety than White American caregivers.  
Korean caregivers reported higher levels of depression and of anxiety than White American caregivers.  
High levels of familism did not seem to buffer the Korean and Korean American caregivers from burden, depression, and anxiety.  
Slightly less than one fifth of the White and Korean American caregivers reported that they had no emotional helper, whereas more than two fifths of the Korean caregivers reported no emotional helper.  
Korean caregivers also reported fewer instrumental helpers than did White or Korean American caregivers.  
Korean American caregivers reported more social support than Korean caregivers, but less than White caregivers. |
| Jeong, & Benton,  |                                             |                                                                      |                                                                                                   |                                                                                                                                                  |
| (1999)             |                                             |                                                                      |                                                                                                   |                                                                                                                                                  |
| Young & Kahana     | Conceptual model of caregiving              | 125 White and 55 African American caregivers of patients recently discharged from the hospital following recovery from myocardial infarction | Burden Interview (Zarit et al., 1980)  
Depression Subscale of the Symptom Checklist (Derogatis, Lipman, & Covi, 1973)  
Multilevel Assessment Inventory (Lawton et al., 1982)  
Caregiving Perceotion Scale (Young & Kahana, 1995) to assess positive or negative attitudes toward caregiving | African American caregivers had lower burden scores than White caregivers.  
African American caregivers were more receptive to caring for an ill elder.  
Race did not account for variance in burden or depression when controlling for other contextual factors.  
Factors predicting burden were being female, being younger, caring for a sicker patient, and having less favorable attitudes toward caregiving.  
Factors predicting depression were being younger, being in better health, and having less favorable attitudes toward caregiving. |
| (1995)             |                                             |                                                                      |                                                                                                   |                                                                                                                                                  |

Notes: ADL = activity of daily living; IADL = instrumental ADL; PADL = physical ADL; SF-36 = Short-Form 36; OARS = Older Americans Resources and Services; PSMS = Physical Self-Maintenance scale.

© Cultural role.
© Social support.
© Negative effects.
© Coping.
in this domain, 7 used established instruments such as the Social Support Questionnaire (Dilworth-Aderson et al., 1999a; Haley et al., 1995, 1996), Awareness and Utilization of Community-Based Services (Mintzer et al., 1992), the Perceived Emotional Support Scale (Pearlin, Mullan, Semple, & Skaff, 1990), the Arizona Social Support Interview schedule (Phillips et al., 2000), and the shortened version of the Social Network Interview (Wallsten, 2000). Using an established measure, such as the Social Support Questionnaire, allows researchers not only to determine the number of potential helpers but also to determine caregivers’ satisfaction with the level of social support received.

Findings.—The articles reviewed on social support focused on two primary areas: informal and formal support. Fifteen out of 32 articles examined informal support, 5 articles examined formal support, and 12 examined both informal and formal support among caregivers. The majority of findings suggested that minority caregivers have a more diverse group of extended helpers than do non-Hispanic Whites. Despite the widely held view that minority caregivers receive more social support from their families and friends than do non-Hispanic White caregivers, the articles reviewed in this domain did not support this view. Although minority caregivers used formal services at various levels, they expressed a greater need for formal support services than non-Hispanic White caregivers.

Informal Support. Four studies reported that informal social support was more diverse for African American caregivers than for White caregivers (Cox, 1993; Lawton et al., 1992; Smergla, Deimling, & Barresi, 1988; Wood & Parham, 1990). For example, Smergla and associates reported that African American caregivers were more likely than White caregivers to report a friend or a neighbor as a very important helper. Lawton and colleagues (1992) found that White caregivers were likely to be caring for a spouse, whereas African American caregivers were often caring for a sibling, other relative, or friend. Thornton et al. (1993) conducted a study with White ethnic (German, Irish, and English American) and African American caregivers. They found that White ethnic caregivers were more likely to rely on only immediate family members in their networks than African American caregivers. Levkoff and colleagues (1999) also included Irish Americans in a qualitative study and found that although these caregivers sought social support from religious organizations, many reported being dissatisfied with the support they received. Wood and Parham (1990), who examined only female caregivers, found that African Americans, unlike Whites, were likely to include God as part of their informal support system. Similarly, in a qualitative study examining only African American caregivers (Sterritt & Pokorny, 1998), participants ranked God or religion as their first source of informal support followed by family, friends, and neighbors. The formal healthcare system was used last by caregivers.

Aside from the diverse caregiver–care recipient relationships (e.g., adult–child, friend) found among minority caregivers as compared with White caregivers, Hinrichsen and Ramirez (1992) found that White caregivers received more support services from their family members than African American caregivers. Wallsten (2000) and Haley and colleagues (1995), however, found that African American and White caregivers had similar numbers of informal caregivers in their social support networks. The results from these studies also showed that African American caregivers had more persons in their networks than their non caregiving counterparts. Haley and colleagues reported that both African American and White caregivers expressed lower levels of satisfaction with the quality of their social support, decreased visitation with others, and lower levels of social activity than their non caregiving counterparts. Through the use of non caregiving controls, the findings reported by both Wallsten and Haley and colleagues provide needed evidence on how the caregiving experience varies between racial groups and how these groups vary from their non caregiving counterparts.

In regards to specific caregiving tasks, Stommel and colleagues (1998) reported that African American caregivers shared caring responsibilities with other helpers more often than White caregivers. However, when they controlled for other potential confounds (e.g., caregiver age, number of functional impairments of the care recipient) they found that African American and White caregivers shared caring responsibilities with others at similar levels, but African American caregivers were more likely than White caregivers to be the sole provider of care. This finding illustrates the importance of controlling for factors that could potentially affect the pattern of social support. The researcher is then able to explain the observed differences attributed to the caregiver’s situation. Future research also needs to test for potential interaction effects of race, socioeconomic status, and health.

Findings on social support networks among other ethnic and racial groups are similar to those found for African Americans. Like African Americans, Asian Americans’ informal networks consist of both family and friends (Ishii-Kuntz, 1997) but are not necessarily larger than the caregiver networks of other racial and ethnic groups. For example, Youn and colleagues’ (1999) study of Korean, Korean American, and White American caregivers shows that Korean American caregivers, primarily daughter caregivers, reported having more social support than Korean caregivers but less social support than White caregivers. Phillips and colleagues (2000) found that Mexican American caregivers had smaller social networks than non-Hispanic White caregivers. Harwood and colleagues (2000) examined Cuban American caregivers and found that the caregivers’ perceived amount of emotional support (from family and friends) and age were predictive of their level of satisfaction with their social support network. This finding supports the idea that if the caregiver perceives social support is available, positive outcomes are experienced. Comparing
African American and White caregivers, Cox (1999) found that White caregivers tended to be more dissatisfied with their overall support than African American caregivers, although both groups reported similar amounts of informal support.

The role gender plays in examining social support to dependent elders is another area that is explored in this domain. In particular, informal caregiving has focused primarily on women as the primary and sometimes the only caregiver. Delgado and Tennstedt (1997b), however, examined both sons and daughters in their research on Puerto Rican caregivers. Their qualitative findings illustrate that sons often provided financial management and transportation, whereas daughter caregivers provided more personal care (e.g., bathing, dressing). In addition, Delgado and Tennstedt discovered that Puerto Rican sons provided similar amounts of informal care as the daughters, although daughters were more likely to have someone to turn to for assistance or emotional support than sons. Generalizability of these findings is limited due to specific characteristics of the sample (e.g., coresidence of caregiver and care recipient, caregiver unemployment and marital status). Haley and colleagues (1995) examined African American and White caregivers and their noncaregiver counterparts and also found that male caregivers were likely to have fewer social supports in the household than female caregivers. Among noncaregivers, however, women were found to have fewer social supports within the household than men. In general, Haley and colleagues reported that women received more visits from relatives and friends than did men. Future studies examining the effect of gender on caregiving experiences are needed to further validate these findings and better understand the cultural importance of gender in providing social support to elders and their caregivers in racial and ethnic groups.

Caregivers increased their level of informal social support on the basis of the level of elder dependency. For instance, Delgado and Tennstedt (1997a) found that, among Puerto Rican caregivers, as the number of elders’ disabilities increased, the number of hours of informal care increased for caregivers. Ishii-Kuntz (1997) also found that Chinese, Japanese, and Korean American parent–adult child pairs provided more care when the elder needed assistance. These studies illustrate the importance of acknowledging how care recipients’ health affects caregiving support networks, which in turn affect how caregivers and care recipients use their informal helpers. Further, recent research has shown that the amount of informal social support is related to the use of formal services (Auslander & Litwin, 1990; Bass & Noelker, 1987; Williams & Dilworth-Anderson, 2002). As a result, to understand the unique social support circumstances of different racial and ethnic caregivers, researchers need to more critically examine the characteristics of both elders and their primary caregivers, the multiple helpers in support networks, and the use of formal services by care recipients and caregivers.

**Formal Service Use.** Findings have shown that African American and Hispanic caregivers are similar in how often they used informal and formal support to assist with caregiving to elders with dementia (Cox & Monk, 1996). Both of these groups used more informal as opposed to formal support services (Cox & Monk, 1990). Three other studies reported that minority caregivers expressed a greater need for formal social support services than non-Hispanic White caregivers (Cox, 1993, 1999; Hinrichsen & Ramirez, 1992). Between Chinese American and Puerto Rican caregivers, Levkoff and colleagues (1999) found that language and cultural barriers led caregivers to use ethnic-oriented organizations for support. In addition, Miller and Guo (2000) found that White caregivers were more likely to use formal support resources than African American caregivers. However, in a qualitative study, Levkoff et al. (1999) discovered that African American caregivers used mainstream formal services but expressed dissatisfaction with the support due to cultural misunderstandings. Such dissatisfaction points to the need to develop more appropriate, culturally relevant formal support services for use by different ethnic groups.

Delgado and Tennstedt (1997a) examined Puerto Rican caregivers and found that only 16% of their sample used formal care services. The two most frequently used services were home health aide and homemaker services. Deimling and Smerglia (1992) descriptively illustrated that when caregivers and elders were in the process of making care-related decisions, both African American and White caregivers rarely used formal service providers. Ho and colleagues (2000) examined Latino, African American, Chinese American, and European American caregivers and found that Latino caregivers had more medical service needs than European American caregivers. However, these researchers did not find any significant differences in overall formal service needs across the four groups. Hinrichsen and Ramirez (1992) also found no differences in service needs between African American and White caregivers. However, in regard to unmet needs, Ho and colleagues (2000) found differences across ethnic groups. African Americans had fewer unmet medical needs, whereas Chinese American and European American caregivers had more unmet mental health needs. Finally, Latino caregivers had more unmet social service needs. The findings reported by Ho and colleagues are limited, however, because of the small sample used in the study (see Table 1). Additional studies comparing Latino, African American, Chinese American, and European American caregivers and their formal service use are needed to validate the findings.

Receiving formal social support was considered beneficial to caregivers as their caregiving role became more challenging. White- Means and Thornton (1996) found that African American caregivers’ depression levels were significantly lower if they received formal support. It was noted that not all caregivers came into the study with the same resources. In particular, some caregivers were already receiving some
formal support, possibly due to the care recipients’ level of dependency, and other caregivers were not. Therefore, depression levels reported may not be totally due to the caregiving experience. As a result, comparing depression levels of caregivers who already receive formal support to those of caregivers who do not could be misleading. Dilworth-Anderson et al. (1999a) found that African American caregivers who were not distressed had higher levels of satisfaction with their social support system. Further, Dilworth-Anderson et al. (1999b) reported that care recipients’ use of formal support services predicted their informal caregiving structure. In particular, as the number of formal services used by the care recipient increased, care was more likely to be provided in the largest caregiving structure that included three types of caregivers (i.e., primary, secondary, and tertiary) than in smaller structures that included one or two types of caregivers. Most caregivers in this study were providing care in a collectivist rather than an individualistic caregiving structure (collectivist involves two or more caregivers, whereas individualistic involves only one caregiver). Qualitative findings have shown that American Indian informal caregivers also shared a collectivist value orientation to giving care to their dependent elders (Hennessy & John, 1996).

Minority caregivers reported a desire or need for varying types of formal support services despite similar usage and lower burden scores as compared with White caregivers. For example, Mintzer and colleagues (1992) found that Cuban American adult daughter caregivers reported a need for more support services that included caregiving training, family support groups, case management, and respite care. They also reported that awareness and use of formal services did not differ between Cuban American and White non-Hispanic adult daughter caregivers. Cox (1999) examined White and African American caregivers over time and found that a high percentage of both groups reported planning to use information and referral services and/or support groups, but a year later most had not followed through on using these services. Cox found that caregivers who used information and referral services did not report a change in level of burden, whereas caregivers who did not use the service reported an increase in burden. Care recipients’ higher levels of cognitive impairment and lower levels of functional impairment were associated with greater likelihood of caregivers using information and referral services. In addition, higher levels of care recipient cognitive impairment and lower levels of caregiver burden were associated with increased likelihood of attending a support group. Hinrichsen and Ramirez (1992) found that despite reporting lower levels of burden, African American caregivers expressed a greater need for formal support services than White caregivers. Finally, Cox and Monk (1993) found that there was a strong negative relationship between the use of professional help and depression among Hispanic caregivers.

In summary, 18 of the articles reviewed in this domain were primarily atheoretical, using empirical generalizations, whereas the other 14 articles had a theoretical focus. Researchers using theoretical models most often used stress and coping–stress process models. More culturally relevant and theory-driven research would provide a useful guide on how to examine the findings across studies, especially when comparing different ethnic groups. There were several racial group comparisons conducted. However, 11 studies used the common comparison of African American and White caregivers. Because of the small number of studies that compared other ethnic groups, generalizations about these groups are limited. Comparisons between African American and White caregivers should not be considered the standard; thus, more research should identify and study other racial and ethnic groups to expand the findings reviewed in this domain in addition to making within-group comparisons. Overall, studies in this domain illustrate that ethnic minority caregivers have more diverse informal networks than their White counterparts and, in general, minority caregivers use informal services similarly and formal services less than nonminority caregivers.

Domain 2: Negative Effects

Theory.—This domain includes articles that address depression, burden, role strain, psychological distress, and relationship strain. More than half of the articles (15 out of 29) identified in this domain were atheoretical, relying heavily on empirical generalizations (see Table 1). Of the remaining 14, 12 articles used conceptual models and 2 used conceptual frameworks. The conceptual models used were stress and coping–stress process models (Cox & Monk, 1996; Farran, Miller, Kaufman, & Davis, 1997; Fredman, Daly, & Lazur, 1995; Haley et al., 1996; Ho et al., 2000; Knight, Silverstein, McCallum, & Fox, 2000; Miller, Campbell, Farran, Kaufman, & Davis, 1995; Wood & Parham, 1990; Youn et al., 1999), Andersen and Newman’s (1973) behavioral model of health services use (Cox, 1999), a “structural model of caregiving dynamics” (Lawton et al., 1992, p. 161), and a “conceptual model of race, caregiving context, and outcomes” (Young & Kahana, 1995, p. 226). Mui (1992) used a conceptual framework taken from role theory, and Dilworth-Anderson et al. (1999a) used a conceptual framework combining a contextual approach and stress process theory (see Table 1). In this domain, the use of theory has been important in guiding hypothesis testing and the methods through which they have been tested. Two of these theoretical approaches (Dilworth-Anderson et al., 1999a; Young & Kahana, 1995) provided some specificity with regard to race and culture, whereas the remaining approaches in this domain did not explicitly conceptualize race, ethnicity, or culture. However, stress and coping–stress process models can be made culturally relevant (see discussion of this in the Future Direction section). The studies based on empirical generaliza-
tions lacked theoretical guidance and were mostly exploratory in nature. The value of these studies must be recognized, but the findings should be viewed with some caution without more theoretically based hypothesis testing.

**Sampling.** Various groups were studied in the articles investigating negative effects of caregiving. Eighteen of the articles compared African American and White caregivers (see Table 1). Five articles compared Hispanic caregivers to one other group of caregivers; 2 of these compared Hispanic and African American caregivers (Cox & Monk, 1990, 1996), and 3 compared Hispanic caregivers and non-Hispanic White caregivers (Harwood et al., 1998; Mintzer et al., 1992; Phillips et al., 2000). One article compared three groups of caregivers—Korean American, Korean, and European American (Youn et al., 1999), and 1 article examined four groups—Latino, European American, African American, and Chinese American caregivers (Ho et al., 2000). The remaining 6 articles examined only one ethnic group. Three articles examined only African American caregivers (Dilworth-Anderson et al., 1999a; Fox, Hinton, & Levkoff, 1999; White- Means & Thornton, 1996); 2 examined only Hispanic caregivers (Cox & Monk, 1993; Harwood et al., 2000), and 1 examined American Indian caregivers (Hennessy & John, 1996).

Only a few (3 out of 29) articles on negative effects used random samples. Two used national probability samples (Fredman et al., 1995; Mui, 1992), whereas Dilworth-Anderson and colleagues (1998a) used the Established Populations for the Epidemiological Study of the Elderly in North Carolina to recruit caregivers. The remaining 26 articles used purposive and convenience samples. These samples, much like those examining social support, were recruited largely from community organizations, social service agencies, medical facilities, and advertisements in newspapers and on radio stations. The use of purposive and convenience samples limits generalizability, accuracy of statistical findings, and comparability across studies. It is very difficult to determine the populations represented by these samples.

**Measures.** The majority of the studies in the negative effects domain used established measures and scales to assess the level of negative outcomes experienced by caregivers, but the same measures were not used across studies. The most commonly used measure of depression was the Center for Epidemiological Studies–Depression scale (CES–D; Radloff, 1977), which was used in 15 studies (Cox, 1999; Cox & Monk, 1990, 1993; Farran et al., 1997; Haley et al., 1995, 1996; Harwood et al., 1998; Ho et al., 2000; Knight & McCallum, 1998; Knight et al., 2000; Lawton et al., 1992; Miller et al., 1995; Mintzer et al., 1992; White, Townsend, & Stephens, 2000; Youn et al., 1999). Several scales were used to measure burden among caregivers. These included several versions of Zarit and colleagues’ (1980, 1986, 1988) Burden Interview (Cox, 1999; Cox & Monk, 1990, 1993, 1996; Hinrichsen & Ramirez, 1992; Knight et al., 2000; Youn et al., 1999; Young & Kahana, 1995), the Family Burden Instrument (Morycz, Malloy, Bozich, & Martz, 1987), the Caregiver Burden Scale (Harwood et al., 2000), and the Relatives’ Stress Scale (Wood & Parham, 1990). Other researchers developed instruments for burden using various combinations of items. The Global Severity Index of the Brief Symptom Inventory (Derogatis & Spencer, 1982) was used in three studies (Dilworth-Anderson et al., 1999a; Haley et al., 1995; Knight et al., 2000) to address general psychological distress, and various measures were used to assess strain (i.e., Relationship Strain [Cox, 1993]; Personal Strain and Role Strain [Cox & Monk, 1996]; Caregiver Global Role Strain [Miller et al., 1995]; Global Role Strain [Mui, 1992]). The use of established measures provides more confidence in the validity and reliability of findings. Furthermore, studies that use the same measures can be more easily compared with one another, allowing for more in-depth examination of sample-specific findings across studies.

**Findings.** Depression and burden were the two main areas of focus in studying the negative effects of caregiving. Eight articles measured caregiver depression, 10 articles measured caregiver burden, and 7 additional articles measured both depression and burden. Other areas of negative effects that were examined included four studies examining role strain (Cox & Monk, 1996; Farran et al., 1997; Miller et al., 1995; Mui, 1992) and three examining more generalized psychological or emotional distress (Dilworth-Anderson et al., 1999a; Farran et al., 1997; Wykle & Segall, 1991). One study focused on relationship strain (Cox, 1993), and one examined satisfaction as well as burden (Phillips et al., 2000). Overall, some findings have shown that depression and burden were higher among White caregivers than among African American caregivers, whereas others found no difference. Depression was similar between White caregivers and Hispanic caregivers, and burden was similar between Hispanic caregivers and African American caregivers.

**Depression.** A total of 14 studies examined depression among caregivers. Most of the studies comparing two or more groups began with some simple bivariate results examining mean differences in depression scores. Most of these comparisons did not involve controlling for other factors (e.g., socioeconomic status or sex). However, some studies went on to control for other factors when conducting regression analysis or path analysis. Six studies compared White and African American caregivers and reported no difference in depression between the two groups (Cox, 1993, 1999; Knight & McCallum, 1998; Knight et al., 2000; White et al., 2000; Young & Kahana, 1995). The other 4 studies comparing these two groups found that White caregivers were significantly more depressed than African American caregivers (Farran et al., 1997; Haley et al., 1995, 1996; Lawton et al., 1992; Miller et al., 1995) and comparison
groups of White and African American noncaregivers (Haley et al., 1995).

Several potential reasons can be noted for the inconsistency in mean differences in depression between African American and White caregivers. First, sample sizes varied across these studies. With the exception of two studies by Cox (1993, 1999), the studies that found no difference in depression had smaller numbers of African American caregivers (56 or fewer) compared with the studies that found a difference (70 or more). Sample size is important because of its relationship to effect size and power in statistical analyses. Second, two of the studies that found no difference between African American and White caregivers (Cox, 1993; Young & Kahana, 1995) used scales other than the CES-D. Cox (1993) used “three items assessing the extent of nervousness, irritability, and feelings of sadness” (p. 35) to measure depression. Young and Kahana (1995) used the depression subscale of the Symptom Checklist (Derogatis, Lipman, & Covi, 1973). Third, the samples used in these studies differed not only in geographical location in the United States, but also in recruitment methods. The two studies by Knight and colleagues (Knight & McCallum, 1998; Knight et al., 2000) used samples that were recruited exclusively from formal service providers, which included an older adult counseling center. The samples used in the two Cox (1993, 1999) studies were recruited exclusively from among those who had contacted a branch of the Alzheimer’s Association. The caregivers in these samples may represent a more clinical population than those in the studies that found a difference in depression between African American and White caregivers, whose referral sources included community organizations and self-referral through responses to advertisements. Finally, the study by Young and Kahana (1995) examined primary caregivers of patients recently discharged from a hospitalization following myocardial infarction, whereas the other nine studies examined caregivers of elders with dementia.

The remaining studies examining depression among caregivers could not be compared to the same extent as those comparing White and African American caregivers because there were not multiple studies examining the same groups. Cox and Monk (1990) found that Hispanic caregivers had higher levels of depression than African American caregivers. Mintzer et al. (1992) found no difference in depression levels between Cuban American Hispanic and non-Hispanic White caregivers using a very small sample, whereas Harwood et al. (1998), using a much larger sample, found that a significantly higher proportion of White Hispanic (mostly Cuban American) caregivers was clinically depressed when compared with White non-Hispanic caregivers. White-Means and Thornton (1996), examining only African American caregivers, found that depression levels were significantly lower for caregivers receiving formal support than for those not receiving formal support (mean level of depression was not reported). Youn et al. (1999) reported that there was no significant difference in depression scores between Korean American and White American caregivers.

Findings from multivariate analyses conducted in several studies examining depression are particularly important to note because of their conceptual and methodological sophistication. Knight and McCallum (1998) performed a unique study that included an “objective” assessment of caregiver psychophysiological stress. Despite finding no mean difference in depression between African American and White caregivers, Knight and McCallum did find other differences. They found that African American caregivers who reported high levels of depression and high positive reappraisal had the least change in heart rate when telling a story about their most stressful time caregiving. For White caregivers, the opposite was found. That is, White caregivers who reported high levels of depression and high positive reappraisal had the greatest changes in heart rate while telling of their most stressful time. Thus, the relationships among depression, positive reappraisal, and heart rate reactivity were found to operate differently for African American and White caregivers. Knight and McCallum pointed to cultural differences that may relate to positive reappraisal increasing stress among Whites while decreasing stress among African Americans. Haley et al. (1996) found that the relationship between race and depression was mediated by caregivers’ appraisals of stress and coping. Furthermore, they found that stressfulness appraisals were affected by race directly and indirectly, through self-efficacy appraisals. Finally, Lawton and colleagues (1992) reported that for African American caregivers, greater burden was directly associated with greater depression. They also reported that burden mediated the relationships between depression and caregiver physical health, amount of time spent caregiving, and caregiving satisfaction for African American caregivers. All of these relationships were found for White caregivers. In addition, there was a direct relationship between caregiver physical health and depression, and burden mediated the relationship between impaired persons’ symptoms and depression among White caregivers. Lawton and colleagues used path analysis to examine their proposed conceptual model separately for each group and found no significant difference in model fit between the two groups, despite differences in the significance of some paths between groups. Testing models separately for each group is recommended when using different racial or ethnic groups in a study.

Burden. Among the 18 studies examining burden, 9 compared African American caregivers and White caregivers. Five studies found that White caregivers reported significantly higher burden than African American caregivers (Fredman et al., 1995; Hinrichsen & Ramirez, 1992; Knight et al., 2000; Lawton et al., 1992; Macera et al., 1992). The remaining 4 studies found no difference in burden scores between African American and White caregivers (Cox, 1999; Morycz et al., 1987; Wood & Parham, 1990; Young & Kahana, 1995). However, when Morycz and col-
leagues looked exclusively at caregivers of relatives with dementia in their sample, they found that White caregivers reported significantly higher levels of burden than African American caregivers. Thus, these researchers concluded that dementia caregiving could create differential risk for burden between African American and White caregivers.

Fox and colleagues (1999) directly challenged these findings regarding African Americans’ experiencing lower levels of burden when compared with White caregivers. These researchers conducted a qualitative study in which African American caregivers provided in-depth discussions of their caregiving experiences. The challenge issued by Fox and colleagues was directed toward the limited ability of existing studies to address the complexities of cultural analyses of caregiving burden. They stressed the importance of integrating personal and family histories and larger sociopolitical factors into such analyses. Contrary to many reports of low levels of stress and burden among African American caregivers, Fox and colleagues found that “these caregiver accounts speak of deep frustration and trauma. They are stories full of burden and loss, emptiness and alienation. These aspects of African American caregivers’ experience have not been adequately captured in comparative social gerontology on caregiver burden” (p. 520).

The other seven articles examining burden (Cox & Monk, 1990, 1993; Harwood et al., 2000; Hennessy & John, 1996; Phillips et al., 2000; White-Means & Thornton, 1996; Youn et al., 1999) did not compare White and African American caregivers but studied single racial or ethnic minority groups or compared other groups. Cox and Monk (1993) investigated burden among Hispanic caregivers and reported moderate burden scores. Among these caregivers, as burden scores increased the likelihood of seeking professional help with caregiving also increased. Harwood et al. (2000) studied a sample of Cuban American caregivers and found that increased perceived emotional support was a significant predictor of increased caregiver satisfaction and decreased caregiver burden when other factors were controlled. Phillips et al. (2000) did not report mean differences in global burden scores between White American and Mexican American caregivers. Instead, they reported mean differences in burden subscale scores; Mexican American caregivers were found to have lower mean scores on the Social Restriction and the Relationship Change subscales than White American caregivers. Hennessy and John (1996), in a study of American Indian caregivers, found that feelings of burden were associated with anxiety about medical conditions, problems with difficult psychosocial aspects of care, strains on family relations, and negative effects on personal health and well-being. White-Means and Thornton (1996) examined burden among African American caregivers and found that the mean burden score for the sample indicated relatively low burden, but as caregivers’ level of perceived physical or emotional burden increased, their sense of general well-being decreased. White-Means and Thornton also found that greater burden lowered life satisfaction and increased physical depreciation. Comparing a sample of African American and Hispanic caregivers, Cox and Monk (1990) found no significant difference in burden scores. Finally, Youn et al. (1999) found that Korean and Korean American caregivers did not differ from one another in burden scores, but both groups had significantly higher burden scores than White American caregivers.

Role Strain. Four studies in the negative effects domain examined role strain (Cox & Monk, 1996; Farran et al., 1997; Miller et al., 1995; Mui, 1992). Cox and Monk (1996) found that Hispanic caregivers reported significantly higher role strain and personal strain than African American caregivers. Older age and higher frequency of phone contact with those in the support network were related to lower role strain for Hispanic and African American caregivers. In addition, lower care recipient activities of daily living (ADL) deficits, higher frequency of face-to-face and phone contact with those in the support network, and lower caregiver income were related to lower personal strain for both groups. Farran et al. (1997) examined role strain among African American and White caregivers and found that the best predictors of caregiver role strain were being White, having greater behavioral problem distress, greater task distress, and higher levels of spouse physical activities of daily living (PADL). These predictors were the same for depression, with the addition of having poorer physical health. Farran and colleagues (1997) reported significantly lower levels of both provisional and ultimate meaning for White caregivers as compared with African American caregivers. They also found that higher levels of provisional meaning had an independent effect on lower levels of depression and lower levels of role strain for both groups of caregivers, whereas ultimate meaning did not have a significant effect. Miller et al. (1995) found that White caregivers reported higher levels of role strain than African American caregivers. They also used a measure of caregiving mastery (the caregiver’s perception of his or her competence in caregiving) and found that it was a significant predictor of role strain (as mastery decreased, role strain increased).

Mui (1992) examined role strain, role demand, and role conflict among a sample of African American and White female caregivers of dependent elderly parents. She found that White caregivers reported significantly higher mean role strain scores than African American caregivers, and African American caregivers reported significantly higher role demand than White caregivers. She also found that caregivers’ perceptions of being in poorer physical health and their perception of unavailability of respite support predicted role strain among African American caregivers but not among White caregivers. On the other hand, a poor parent–daughter relationship predicted role strain among White caregivers but not among African American caregivers.

Relationship Strain. Relationship strain was a topic
of focus in only one article (Cox, 1993), which reported that levels of relationship strain did not differ significantly between African American and White caregivers. However, both groups of caregivers reported rather high levels of relationship strain. Relationship strain was captured by Cox through a composite measure including the “caregiver’s feelings of being pressured, angry, depressed, manipulated, strained, resentful, depended upon, and the feeling that the relationship had a negative effect on other family members” (p. 35).

**Psychological Distress.** Three articles focused on global outcomes of psychological distress in assessing negative effects of caregiving (Dilworth-Anderson et al., 1999a; Farran et al., 1997; Wykle & Segall, 1991). Dilworth-Anderson et al. (1999a) found that 20% of African American caregivers in their sample experienced high levels of psychological distress. Among these caregivers, those who were distressed reported being less satisfied with the social support they received, reported greater role strain, rated their general health lower, and reported less mastery of caregiving than those who were not distressed. Farran and colleagues (1997) found that African American caregivers reported significantly lower levels of emotional distress than White caregivers. Furthermore, African American caregivers appraised their caregiving situation more favorably than White caregivers and reported lower levels of psychological distress outcomes. In contrast, Wykle and Segall (1991) found that African American caregivers were significantly more likely than White caregivers to be distressed (determined by a greater proportion of African American caregivers answering “yes” to two of the seven items from the Langner Psychological Distress Scale; Langner, 1962). In this situation, the study by Farran and associates may warrant more confidence owing to its larger sample size and comparisons based on caregivers’ scores on an entire burden scale as compared with the smaller sample and incomplete scale comparisons in the Wykle and Segall study.

In summary, articles in this domain were often guided by empirical generalizations; however, when guided by theory, stress and coping–stress process models were typically used. Inconsistent operationalization of constructs, however, makes comparisons across studies inconclusive. For example, Haley et al. (1996) reported that African American caregivers had less depression (CES–D) than White caregivers, whereas Cox (1993) reported no difference in depression (three-item measure) between African American and White caregivers. These results are in direct contrast to one another, but in this example, the contradiction may have more to do with the different measures used than with differences in samples or true differences in depression. It is important that more work be done to develop and test measures that are sensitive to various ways in which caregiving may have negative effects on different ethnic groups of caregivers (as noted by Fox et al., 1999).

Findings in this domain regarding the relationships among numerous variables (including race and eth-

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**Domain 3: Coping**

**Theory.**—We identified 13 articles that focused on types of coping strategies used by caregivers. Unlike those in the previous domains, most of the studies (10 out of 13) included in the coping domain were theoretically based. Stress and coping–stress process models were used as the only theoretical approach in 6 of the articles (Gonzalez, 1997; Haley et al., 1996; Knight & McCallum, 1998; Knight et al., 2000; Strong, 1984; Wood & Parham, 1990). Farran et al. (1997) combined an existentialist theoretical framework with stress process theory. Picot, Debanne, Namazi, and Wykle (1997) used an eclectic theoretical approach that incorporated assumptions and concepts from stress process theory, Reed’s transcendence paradigm, and choice and social exchange theory. Picot (1995a) used choice and social exchange theory, and Picot (1995b) combined stress and coping with choice and social exchange theory (see Table 1). All of the theoretically based articles in this domain used stress and coping–stress process models either alone or in combination with other theories. This is a departure from the wider variety of theoretical approaches seen in the other three domains. However, the use of stress and coping–stress process models in the articles in this domain was not accompanied by rigorous attempts to make the theoretical underpinnings more culturally relevant.

**Sampling.**—The majority (9 out of 13) of the samples used in the coping domain compared African American and White caregivers’ strategies and effectiveness in dealing with the challenges of caregiving. Of the remaining 4 studies, 3 examined only African
American caregivers (Picot, 1995a, 1995b; Segall & Wykle, 1988–1989) and 1 compared American Indian and White caregivers (Strong, 1984). Due to the samples used in the studies in this domain (i.e., 12 out of 13 including African American caregivers and 9 of these comparing with White caregivers), not much can be said about coping among minority groups other than African American. The majority of these studies (12 out of 13), as was the case in the previous two domains, used purposive, convenience samples. The 1 remaining study (Picot et al., 1997) used a random-digit dialing process in order to obtain a random sample from a large metropolitan area in the midwestern United States.

Measures.—A variety of measures were used in the coping domain, and each relates specifically to the research problem or questions under investigation. Thus, no one measure was identified as more reliable or appropriate than any other in assessing coping among caregivers. Several studies used established measures or inventories of general coping strategies (Gonzalez, 1997; Haley et al., 1996; Hinrichsen & Ramirez, 1992; Knight & McCallum, 1998; Knight et al., 2000; Picot, 1995b; Segall & Wykle, 1988–1989; Wood & Parham, 1990). In addition, researchers used measures of coping strategies specific to caregiving (Farran et al., 1997; Hinrichsen & Ramirez, 1992; Strong, 1984). Two articles (Segall & Wykle, 1988–1989; Wykle & Segall, 1991) used an open-ended question to allow caregivers to report one “special way” they dealt with caregiving difficulties. Strong (1984) also used open-ended questions to assess coping strategies and compared these responses to responses on close-ended questionnaire items. Spirituality and religiosity were assessed as coping strategies by asking caregivers to report the frequency with which they attended religious services, listened to or watched religious broadcasts, read religious materials, and prayed (Haley et al., 1996; Picot et al., 1997). In other studies, spiritual or religious coping strategies were expressed in response to open-ended questions regarding coping and social support among African American caregivers (Segall & Wykle, 1988–1989; Wood & Parham, 1990; Wykle & Segall, 1991). Another coping strategy, social support, was measured using established scales of informal support, formal support, or both (Haley et al., 1996; Hinrichsen & Ramirez, 1992). Caregiving appraisals were generally assessed by asking caregivers to rate the degree to which they found various caregiving tasks troubling or stressful (Haley et al., 1996; Hinrichsen & Ramirez, 1992; Knight et al., 2000; Wood & Parham, 1990). In addition, Knight and McCallum (1998) assessed positive reappraisal through the use of seven items from the revised Ways of Coping Questionnaire (Folkman & Lazarus, 1988).

Findings.—The studies in this domain addressed coping among caregivers of dependent elders in a variety of ways. For the purposes of this review, four major areas of focus in the coping domain were identified. These include use of established coping strategies inventories, and the examination of spirituality and religiosity, social support, and caregiving appraisals as coping resources. The following section addresses findings in each of these areas separately.

Coping Strategies. As discussed in the Measures section, several studies in this domain used established coping strategies inventories, which assessed caregivers’ general approaches to handling problems. Strong (1984) found that American Indian caregivers were more likely than White caregivers to use stress management strategies, especially the passive forbearance strategy. Knight et al. (2000) conducted a study that was well developed theoretically and demonstrated methodological rigor. They found that African American caregivers reported using more emotion-focused coping (a latent construct including an Escape-Avoidance Coping subscale on which African American caregivers also scored higher) than White caregivers. Haley and colleagues (1996) also conducted a theoretically and methodologically rigorous study and found that African American caregivers reported higher levels of avoidance coping and lower levels of approach coping than did White caregivers. These levels of coping were associated with greater negative effects (increased depression and decreased life satisfaction). Thus, the relationship between greater negative effects and caregiver race was mediated by coping strategies. In contrast, Hinrichsen and Ramirez (1992) found no significant differences in the use of different coping strategies between African American and White caregivers. Using a sample of African American caregivers, Picot (1995b) found that quality of social support predicted confrontive coping, appraisals of perceived rewards predicted palliative coping, and appraisals of perceived costs predicted emotive coping.

In a study comparing urban and rural African American and White caregivers, Wood and Parham (1990) found that urban African American caregivers used more behavioral coping strategies than rural African American caregivers. Also, urban African American and White caregivers used more cognitive coping strategies than rural African American and White caregivers. Finally, Farran and colleagues (1997) used an existentialist framework to guide their study. This theoretical framework shaped the research questions that were asked, the conceptual model that was proposed, the specific measures that were used, and the interpretation of results, providing a fine example of the application of theory at every level of the research process. They found that provisional and ultimate meaning (positive psychological resources that may be used for coping) were higher for African American caregivers than for White caregivers, and the effects of provisional and ultimate meaning on negative outcomes were the same for African American and White caregivers. Thus, if finding meaning does operate as a coping strategy, it has similar results for both groups of caregivers.
Spirituality and Religiosity. Findings show that African American caregivers cope with difficulties of caregiving with prayer, faith in God, and religion (Picot, 1995b; Picot et al., 1997; Segall & Wykle, 1988–1989; Wood & Parham, 1990; Wykle & Segall, 1991). Furthermore, differences were found between African American and White caregivers’ use of spirituality and religiosity as a way of coping with the demands of caregiving. Wood and Parham (1990) reported that African American caregivers, unlike White caregivers, reported God to be a part of their informal support to the same extent as family, friends, and neighbors. Wykle and Segall (1991) used an open-ended question that asked caregivers to identify one special way they dealt with caregiving. Eighty percent of the African American caregivers reported that prayer, faith, or religion was their special way of coping, whereas none of the White caregivers answered in that way. Picot (1995b) found that a palliative coping strategy of prayer and divine trust was used more often than any other coping strategy for African American caregivers. The second most common strategy reported by these caregivers was maintaining control over the situation. Picot and colleagues (1997) found that African American caregivers reported higher religiosity than White caregivers, and religiosity influenced perceived caregiver rewards for both groups. Both Picot studies (Picot, 1995b; Picot et al., 1997) provide examples of how to conceptualize constructs with the integration of cultural information. Her examinations of religiosity and spirituality among caregivers incorporated cultural constructions of beliefs and practices among White and African American caregivers, which in turn strengthened the interpretations of findings. Finally, Haley et al. (1996) found no difference between African American and White caregivers on items regarding spirituality and religiosity.

Social Support. In the following articles, social support was explicitly conceptualized as a coping resource. For example, Wood and Parham (1990) posited that “use of social support may be appropriately considered as a coping strategy” (p. 326), and Picot (1995b) wrote, “Social support was conceptualized as a coping resource” (p. 150). In general, White caregivers were found to report using formal social support as a way of coping with caregiving more often than African American caregivers (Wood & Parham, 1990; Wykle & Segall, 1991). However, Hinrichsen and Ramirez (1992) found no difference in professional help seeking between African American and White caregivers. Picot (1995b) found that African American caregivers reported God to be their most helpful source of support, even with respect to help with physical care. Haley et al. (1996) found no difference between African American and White caregivers’ use of or satisfaction with informal support as a way of coping with the demands of caregiving, but they found that White caregivers were more likely than African American caregivers to report seeking guidance and support as a form of behavioral coping (one of eight domains in the Coping Responses Inventory; Moos, 1988). Although the studies mentioned earlier provide a first step, much more conceptual work is needed to understand how social support is used as a coping resource or strategy among diverse groups of caregivers. In particular, information is needed on the cultural interplay between social support and other coping resources or strategies to clarify the part social support plays in the process of coping among caregivers.

Caregiving Appraisals. Findings have shown that African American caregivers tend to use more positive reappraisal than White caregivers when dealing with the difficulty of caring for a dependent elder (Farran et al., 1997; Haley et al., 1996; Knight & McCallum, 1998; Knight et al., 2000; Wood & Parham, 1990). Haley and colleagues (1996) found that caregivers’ appraisals and other coping responses mediated the effects of race on well-being. They also found that African American caregivers appraised self-care problems, as well as memory and behavior problems, as less stressful than did White caregivers. Likewise, Knight and McCallum (1998) found that African American caregivers used positive reappraisal more often than White caregivers, and positive reappraisal was effective in reducing stress for African American caregivers but not for White caregivers. However, Hinrichsen and Ramirez (1992) found that African American and White caregivers were similar on indices of appraisals. Finally, Picot (1995a) assessed African American caregivers’ appraisal of rewards of caregiving and found that lower education and older age were associated with greater rewards. These findings point to potential cultural factors that may affect one’s view of caregiving as problematic or not. However, more attention to the mechanisms and pathways through which culture shapes appraisals is needed.

In summary, the studies in this domain are mostly theoretical, using stress and coping stress process models. However, factors in the models were operationalized differently across studies, making it difficult to compare results. Most of these studies used purposive, convenience samples of only African American and White caregivers, which seriously limits the generalizability of findings. More diverse samples and random samples are needed in order to generalize stress process findings to caregivers in diverse groups. In addition, more in-depth conceptualization and testing of coping instruments among diverse groups of caregivers are necessary. The findings in this domain point to the efficacy of using spirituality-religiosity measures and stress appraisal measures in studies comparing African American and White caregivers. Authors of these studies pointed to cultural characteristics of African American caregivers and White caregivers to explain differences. For example, Knight and McCallum (1998) wrote,

Ethnic differences were interpreted as providing support for the view that African American cultural values support a view of caregiving as a valued part of family life, whereas white cultural values tend to see the familial obligation of caregiving as disruptive of individual life goals. (p. 220)
Domain 4: Cultural Effects

Theory.—The vast majority (14 out of 20) of the articles in this domain were atheoretical, relying instead on empirical generalizations to guide the research. Three articles, however, reported using conceptual models. These models included the structural model of caregiving dynamics (Lawton et al., 1992), the stress and coping model (Strong, 1984), and the cultural pluralism model (Thornton et al., 1993). Although different models were used in each of these studies, they equally provided adequate conceptual guidance needed for the purposes of each investigation. Three studies used conceptual frameworks: Dilworth-Anderson and associates (1999a) used a contextual approach informed by a stress and coping model; Fox et al. (1999) and Ortiz, Simmons, and Hinton (1999) used a medical anthropological approach. The conceptual framework in Dilworth-Anderson and colleagues (1999a) provided more direct theoretical guidance than the approach used by Fox and colleagues and Ortiz and associates. For example, Dilworth-Anderson and colleagues outlined five specific components of their contextual approach, gave examples of variables reflecting each context, and used measures in their research that were representative of each context of their approach. Finally, Hicks and Lam (1999) used grounded theory in order to develop inductively the social process of decision-making model (see Table 1). A benefit of using grounded theory in this study is that it provided the needed theoretical building blocks for examining Chinese Americans in future studies.

Sampling. The majority of the studies (17 out of 20) used nonprobability samples. However, 1 study used a national probability sample (Thornton et al., 1993), and 2 other studies used a regional probability sample (Dilworth-Anderson et al., 1999a, 1999b). These probability samples, unlike some of the small community-based samples discussed later, allow for greater generalizability of findings. A variety of cultural groups, using comparative and noncomparative samples, were investigated to understand cultural effects on caregiving. We did not find that one sampling strategy was more useful than the other in assessing these studies. Instead, we found that the research questions asked and the hypotheses tested best determined the adequacy of the samples used. Therefore, all of the studies discussed used samples that reflected the research questions asked and hypotheses that were tested.

Eleven of the articles examined only one ethnic or racial group: Hicks and Lam (1999) studied Chinese Americans, whereas Clark and Huttlinger (1998), Cox and Monk (1993), and Henderson and Gutierrez-Mayka (1992) investigated Hispanic caregivers. An Asian American sample was investigated by Ishii-Kuntz (1997). Hennessy and John (1996) studied an American Indian sample. Five studies used samples of only African American caregivers (Dilworth-Anderson et al., 1999a, 1999b; Fox et al., 1999; McAuley, 1998; Nkongo & Archbold, 1995). Three articles compared African American caregivers to another group: Cox and Monk (1990) compared African American and Hispanic caregivers, whereas 2 articles compared African American and White caregivers (Lawton et al., 1992; Miller & Kaufman, 1996). Three articles included multiple racial and ethnic groups: Levkoff and colleagues (1999) and Hinton and Levkoff (1999) studied African American, Chinese American, Irish American, and Puerto Rican American caregivers; Thornton et al. (1993) studied three White ethnic groups (German, Irish, and English American) and a group of African Americans. The remaining 3 articles assessed various groups of caregivers. Ortiz et al. (1999) studied Latino and Irish American caregivers; Youn et al. (1999) compared Korean, Korean American, and White caregivers; and Strong (1984) compared American Indian and White caregivers.

Measures.—Three studies (Cox & Monk, 1993; Dilworth-Anderson et al., 1999a, 1999b) used structured (quantitative) measures of culture, which provided methodological rigor and guidance for assessing culture. In other articles, cultural effects (e.g., values, norms, and beliefs) were assessed qualitatively through open-ended questions (e.g., Miller & Kaufman, 1996), focus groups (e.g., Hennessy & John, 1996), and ethnographic interviews (e.g., Henderson & Gutierrez-Mayka, 1992) that allowed researchers to assess what respondents identified as aspects of their culture that influenced their caregiving to older family members. The remainder of the articles in this domain inferred cultural differences by using race and ethnicity as a proxy for cultural values, beliefs, and norms. Inferring culture from a variable such as race, as noted in some sociological literature, is very problematic given that race is a socially constructed category that provides only a limited view of one’s life based on race identification (Hayward, Crimmins, Miles, & Yang, 2000; Kington & Smith, 1997). Thus, much caution should be taken when using caregiving research that lacks a clear conceptualization and measure of culture.

Findings.—Findings on cultural effects were primarily reported on cultural values, norms, perceptions, and meanings. These results show that culture affects caregiving experiences. Findings on values and norms provide evidence that individuals and groups use explicit rules and guidelines that influence who provides care to elders as well as interactions between caregivers, family members, and social institutions. Results reported on perceptions about and meanings assigned to disease by cultural groups show the link between their values and norms and their perceptions and meanings used to understand and interpret caregiving experiences.

Cultural Values and Norms. Most researchers found that cultural groups have values about reciprocity (giving back), filial obligation, and a sense of responsibility for providing care to older family members.
For example, Cox and Monk (1993) and Clark and Huttlinger (1998) found that cultural values and norms governed familial relationships and the care of the elderly people among Hispanics, where the extended family was expected to provide care to older relatives. Youn et al. (1999) found that Korean families unlike White families, have specific beliefs about familial roles, wherein daughters-in-law are expected to serve as primary caregivers to older family members. Findings reported by Hennessy and John (1996) and Strong (1984) have shown that American Indians strongly value giving back to those who have provided for them in the past. Further, Ishii-Kuntz (1997) found that reports of strong filial obligation were related to increased frequency of emotional aid to parents for both Korean Americans and Chinese Americans. Although all of these studies on values and norms provided useful information on the different groups under investigation, more discussion is needed on defining and measuring values and norms in caregiving research.

Cultural Perceptions and Meanings. Cultural perceptions about illness and disease that shape the meanings groups assign to a dependent person with an illness were investigated by several research groups (Fox et al., 1999; Henderson & Gutierrez-Mayka, 1992; Hinton & Levkoff, 1999; Ortiz et al., 1999). Some researchers (e.g., Henderson & Gutierrez-Mayka 1992; Nkongo & Archbold, 1995) have suggested that culturally based illness meanings assigned to different diseases are a part of a larger belief system (values and norms) that helps define caregivers and their responses to an ill relative. For example, Henderson and Gutierrez-Mayka (1992) found that Hispanics viewed elders with dementia as being “crazy” or having “bad blood,” a stigma that may be shared by the entire family. Such cultural meanings among caregivers created barriers to seeking assistance outside the family system (Henderson & Gutierrez-Mayka, 1992). The study by Fox and colleagues (1999) of African American caregivers shows a need to look beyond “just” contrasting groups in interpreting diseases such as Alzheimer’s disease, and to examine how macrostructural factors (sociopolitical and historical) shape different groups’ perceptions of and meanings they assign to an illness, which can influence caregiving experiences and outcomes. This study by Fox and colleagues (1999), when compared with the studies noted previously, provided more conceptual and methodological direction on how to address issues of culture in caregiving research as it pertains to meanings and perceptions of illness and disease. Of particular interest is the anthropological approach they used that allowed for using grounded theory in data collection and interpretation. This enabled them to use the words or voices of the participants in their study to give meaning to their experiences. Thus, these researchers were less likely than others to make conceptual and interpretive leaps about illness meanings and perceptions without the voices of the participants in their study.

In summary, the majority of studies in the cultural effects domain were atheoretical. Little attention was given to defining culture from a sociohistorical perspective, through which issues of acculturation and assimilation would be considered, such as voluntary or involuntary immigrant status of minority groups in American society (Ogbu, 1993). Culture was most often measured implicitly or inferred by researchers; however, a few studies used structured instruments (Cox & Monk, 1993; Dilworth-Anderson et al., 1999a, 1999b) or inductively measured culture through qualitative approaches (e.g., Fox et al., 1999). As expected, samples in this domain of research included various racial, ethnic, or cultural groups. Researchers typically used convenience samples. Only three studies used a probability sampling design. Findings primarily focused on two areas of research: (a) cultural values and norms and (b) perceptions and meanings.

Summary and Direction for Future Research

During the 20-year span that this review covers, researchers have primarily focused on four areas or domains of research when studying caregiving among ethnic minority groups: social support, negative effects, coping, and cultural influences. Almost half (28 out of 59) of the studies in this review used an identifiable theoretical approach. The remaining studies relied primarily on empirical generalizations to guide studies that were largely exploratory in nature. The studies that were guided by explicit theoretical approaches consisted mostly of conceptual models, which were used as analytic tools to illustrate relationships among variables. The conceptual models and frameworks used by researchers provided a vocabulary of defined terms for other researchers to use that show how major concepts are related to one another in light of a particular research problem or question. Stress and coping–stress process models were the most common conceptual models used in these studies. The remainder of the studies used a wide variety of approaches such as the structural model of caregiving dynamics, choice and social exchange theory, and the hierarchical compensatory model, to name a few. The other studies, guided by empirical generalizations, provided less direction for researchers with no definite expectations about what an observation should look like. However, empirical generalizations are useful, in that the data collected may lead to the development of new theoretical foundations more appropriate for a particular research problem among specific groups.

Nonprobability sampling designs were used in the vast majority (51 out of 59) of the articles. A few studies used national or regional probability samples. Only 1 study (Strong, 1984) in the coping domain had a sample including caregivers who were not White or African American. The measures used among the studies in this review followed along lines similar to those of theory use and sampling; that is, there is little consistency across studies. However, patterns can be
seen within domains. For example, the majority of the articles in the social support domain used measures that had not been previously established to assess both informal and formal support. In the negative effects domain, two instruments were used in several studies—the CES-D and versions of Zarit and colleagues' (1980, 1988) Burden Inventory. However, no established measure was used in common across studies in the coping domain. In the cultural effects domain, open-ended questions and ethnographic interviews were often used to assess cultural aspects of caregiving. A few studies used quantitative measures to assess different cultural or ethnic differences. Most often, culture was inferred through racial and ethnic group categorization; that is, race and ethnicity were used as a proxy for culture. In addition, although some established measures were used in each domain, most of them have not been tested for cultural relevance or sensitivity across groups.

Although findings reported in this review varied on the basis of which domain of research was discussed, a connection can be made in summarizing the major findings reported in each domain. The majority of research reported that caregivers to older ethnic minorities use more informal than formal support in their caregiving and that close and distant family members as well as the extended family provide the majority of this support. This finding supports those reported in the cultural effects domain, which show that cultural values and norms direct feelings of obligation and reciprocity in providing care to older ethnic minorities. In addition, some researchers reported that social support could be used by caregivers to reduce negative effects associated with caregiving (e.g., depression, burden, or strain).

Formal services were rarely used by caregivers to older ethnic minorities, which is not fully explained by the research reported in this review. A few suggestions can be gleaned from what is reported in the literature, such as (a) caregivers may avoid seeking help because of feelings of shame, (b) obligation may preclude help seeking outside the family, or (c) formal services may not be perceived as culturally sensitive or relevant. For minority caregivers, findings have also shown that providing support was viewed as part of their cultural socialization. Other research has suggested that caregivers may even appraise, reframe, and interpret the situation of dependency such that outside support is not an option for them. In some instances, findings have shown that certain groups may interpret symptoms of diseases such as dementia as normal (Hinton & Levkoff, 1999). Thus, the illness is not addressed through formal support and interventions outside the family. Minority caregivers were also less likely to use formal services as a coping strategy compared with their White counterparts.

Other findings reported in the negative effects and coping domains show the link between these two domains. Several studies in the negative effects domain found that African American caregivers were less depressed and/or burdened in their role as compared with Whites, whereas others found no differences between the two groups. Possible reasons for discrepancies include sample size, recruitment strategies, geographic region, and the use of different measures across studies. Studies in the coping domain linked higher levels of spirituality and religiosity (more common among African American caregivers) with lower depression and burden. Further, the use of different coping strategies and appraisals of the situation by African American caregivers led to different levels of depression and burden when compared with White caregivers. The cultural role domain can be linked here as well, because findings on cultural values, norms, expectations, and feelings of obligation and reciprocity have shown that these factors may encourage a positive appraisal of caregiving experiences for caregivers of older ethnic minorities. Most important, some researchers found that although diverse groups have similar belief systems, the context in which these systems are experienced is an important factor to consider in interpreting findings.

Given the findings reported in this review, where do we go from here? Although the four domains of research (social support, negative effects, coping, and cultural influences) identified in this review provide valuable information on caregiving among diverse populations, they also highlight gaps in our knowledge base. There are other areas of knowledge (e.g., physical health effects and positive outcomes of caregiving) that did not constitute domains in our review of the caregiving literature but warrant further attention. Some researchers (Ferraro & Farmer, 1996; Ferraro, Farmer, & Wybraniec, 1997) have noted that understanding the physical health effects of caregiving is of major concern for ethnic minority caregivers because of long-term health risks they often bring to the caregiving situation. Regarding positive outcomes of caregiving, Picot and colleagues (1997) and Picot (1995a, 1995b) have highlighted the need to assess both the costs and the rewards caregivers experience in their role as caregivers to dependent elders. Additional support for this research focus is shown in findings reported by Farran et al. (1997). They found that caregivers who assigned positive meanings to their roles fared better in terms of depression and role strain. Furthermore, Lawton et al. (1992) found that African American caregivers, as compared with their White counterparts, expressed the feeling that caregiving was less intrusive in their lives. We propose that such positive experiences and effects of caregiving will be viewed as an important research topic when researchers better conceptualize and theoretically frame caregiving beyond a strictly burdensome or negative experience as highlighted by the negative effects domain.

We also strongly suggest, as Antonucci and Cantor (1994) proposed, that future research on family support and caregiving for minority older people should include conceptual frameworks and theoretical perspectives that are culturally relevant. Cultural relevance speaks to frameworks or perspectives, such as life course, symbolic interaction, social constructivism, and the use of anthropological approaches, that
allow for capturing the cultural–historical background (values, beliefs, identities, and meanings assigned to experiences) and sociopolitical conditions (economic status and access to goods and services) of diverse groups. These frameworks and perspectives also allow for defining and giving meaning to certain concepts (e.g., burden and coping) from a cultural frame of reference.

As they are the most commonly used conceptual models among the studies in this review, it is important to discuss how stress and coping–stress process models can be made more culturally relevant. First, because of differences in the levels and effects of independent variables in stress process models across ethnic groups, it would be more productive to model the stress process separately for each group included in a multiple regression study. When caregivers are combined in the same regression model, race or ethnicity is used as an independent variable with its significance primarily hinging on racial or ethnic differences in levels of the dependent variable. Further, in such regression analyses, race or ethnicity serves as a control influencing the significance of other variables. In these cases, significance of other independent variables is difficult to interpret in relation to race or ethnicity. A similar case can be made for modeling ethnic groups separately when conducting path analysis or structural equation modeling. Overall model fit for the separate models, particularly when the number of caregivers differs between ethnic groups, fails to determine whether the same model fits each group separately. When one group is larger than the other, the lack of fit for the smaller group may be washed out by the larger group’s good fit. These techniques, when compared with multiple regression, certainly allow greater interpretation of the influence of race or ethnicity on other constructs in the model, but assessing overall fit remains problematic. It is important to note that use of path analysis and structural equation modeling requires much larger sample sizes than multiple regression in order to place confidence in the results. Second, constructs that measure an aspect of culture (e.g., the Cultural Justifications for Caregiving scale; Dilworth-Anderson, 1995) should be included in stress process models. Measures of constructs attempting to assess culture that will be valid and reliable across groups are extremely difficult to create. Nevertheless, more work is needed in this area. Third, the use of qualitative data to inform findings from quantitative stress process models can be invaluable when examining cultural similarities and differences across groups. When qualitative data are placed within a broader theoretical framework such as symbolic interactionism (within which stress process models also fit), explicit connections can be made between the qualitative and the quantitative findings (Gibson, 2001). This also can be a first step toward the development of measures of cultural constructs mentioned earlier.

Immigration and migration issues are also important when theorizing about diverse populations. Ogbu (1993) suggested that the entrance of diverse groups into a society shapes their cultural development and experiences. Thus, voluntary immigrants versus those groups who enter into a society involuntarily (slaves) or groups who are part of the society but exist as a “conquered people” (Native Americans) have different social, economic, and political positions in a society. It is suggested here that when we as researchers use race as a proxy for understanding the issues noted earlier, the underlying meaning of racial and ethnic diversity is not fully conceptualized in our research. It is also evident that there is a need to separate the diversity within such populations as Hispanics and Asians because of their different histories and cultural backgrounds. These different histories reflect differences in norms, values, and cultural rules that help define a people, thus influencing how they care for dependent family members. There is also a need to disaggregate samples of White caregivers to identify distinct cultural and ethnic identities among them. For example, Greek, Irish, and Italian Americans have similar but also distinct cultural backgrounds that may influence a family’s approach to caregiving for its dependent elder members.

Sampling is also an important topic of concern for studying caregiving to minority elders. Sampling issues for this discussion include examining existing approaches on who should be included in a caregiving study among ethnic minority groups. For example, this review suggests multiple caregivers may need to be included in caregiving research because ethnic minority families usually give care in an extended family system where it is likely that multiple caregivers, and not just a primary caregiver, play central roles in providing care to dependent elders. The use of a comparative approach, where a non caregiving sample is used in the research, is also notably lacking in the caregiving literature. For example, the use of non caregivers as controls allows for determining whether or not the outcomes of interest (e.g., depression or social support) are associated with caregiving. Further, the discussion on comparative samples includes assessing when and how to compare one ethnic group to another. As mentioned in each of the domains of literature reviewed, some studies include a single group and other studies compare White samples with at least one ethnic group. We suggest that more in-depth research is needed on single ethnic groups that provide knowledge on how best to compare different ethnic groups. As previously mentioned, we recommend that different models are needed for each racial and ethnic group to determine how relationships among variables are shaped by race, ethnicity, and culture. There is also a need for more studies that examine gender effects among caregivers. Although some studies included men in their samples, the numbers of male caregivers were often insufficient to test for gender effects.

When using measures in caregiving research that includes diverse samples, more attention needs to be paid to the cultural relevance and sensitivity of instruments. In other words, do the questions reflect the lives and experiences of the group under investiga-
tion? And do the questions capture the cultural nuances, often the unspoken words and meanings of a group, to know that the appropriate question has been asked? Only a few researchers in this review addressed such issues by providing information on how they validated the use of certain instruments for each racial and ethnic group in their research (Cox & Monk, 1993; Picot, 1995a, 1995b). Because little, if any, information was provided by researchers on cultural relevance of measures throughout most of their discussion on measurement, caution should be taken when deciding what instruments or measures work best for diverse populations of caregivers. Presently, there is a need to evaluate if and how existing instruments used in caregiving research address issues of cultural relevance. Reliability of instruments across groups is also a concern. Researchers often fail to report reliability coefficients by ethnic group in addition to the overall sample. We further suggest that new instruments and measures are needed that incorporate the cultural values, norms, and beliefs of racial and ethnic minorities.

Given the diversity among the groups discussed in this review, we believe that no one method is best or most appropriate for studying caregiving among ethnic minorities and other ethnic groups. We propose that multimethod approaches (e.g., quantitative and qualitative interviews, observations, and focus groups) be used to provide different types and levels of information (Dilworth-Anderson & Burton, 1999; Myers, 1996) about the caregiving experiences and outcomes of diverse populations. These different methods are helpful in the development of instruments and refinement of those already being used. Multimethod approaches can also help fill the gaps in our understanding inherent in the use of single-method approaches (e.g., close-ended surveys). For example, ethnographic interviews and information from focus groups can be used to help identify issues, develop questions for surveys, develop scales, and interpret findings.

Several analytic issues are also important to future research on caregiving among diverse populations. We propose that instead of using race as a proxy for understanding ethnic and cultural differences in caregiving, future research should include, as LaVeist (1994) suggested, variables that allow for understanding the sociocultural characteristics (e.g., socioeconomic status, discrimination, and economic exploitation) of racial and ethnic minorities (Hayward et al., 2000; Stack & Burton, 1993). This will, in turn, provide more explanatory power regarding outcome measures. When interpreting findings from studies that include diverse samples, attention needs to be given to within- as well as between-group differences and similarities. For example, Lawton et al. (1992) found that African American caregivers with less education reported more caregiving intrusion than those who had more education, whereas the opposite was true for White caregivers. In addition, they found that African American caregivers with higher incomes also reported more burden. However, White caregivers who reported higher incomes reported less burden. Furthermore, significantly different scores on an instrument measuring depression do not necessarily indicate cultural difference between two racial or ethnic groups. Likewise, similarities in scores do not indicate a lack of cultural difference between two racial or ethnic groups. There are several reasons for this; first, using race or ethnicity as a proxy for culture ignores cultural differences (e.g., various levels of acculturation) within racial and ethnic categories. Therefore, specific measures of culture are necessary to assess differences between groups living in a multicultural society. Second, the processes through which levels of depression are affected often represent differential cultural influences across groups. Third, findings of statistically significant mean differences are contingent on sample sizes, variance of measures, and the use of various controls (e.g., socioeconomic status). Finally, the experience of depression is shaped by culture (Kleinman, Eisenberg, & Good, 1978). Thus, similar levels of depressive symptomatology between racial and ethnic groups may be experienced quite differently as a result of differences in cultural context. Accurate interpretation of such findings will require integrating cultural constructs into our conceptual frameworks and theoretical perspectives. When this integration takes place, we move from a static and limited view of culture as race toward a more dynamic view of culture as it shapes and is shaped by racially and ethnically diverse groups of caregivers.

A related analytic issue deals with the use of control variables, particularly socioeconomic status, in caregiving research using ethnic minority samples. For example, the status of current caregiving research includes controlling for socioeconomic status without disentangling the relationship between race or ethnicity and socioeconomic status. Future studies need to capture the multiple pathways and circumstances of caregivers’ lives to better understand particular outcomes of caregiving. These pathways include duration of experiencing discrimination, poverty, and lack of access to health care, all of which may be highly related to race and socioeconomic status. Some researchers have suggested that until we can disentangle these relationships, through the use of longitudinal research, we must exercise caution in our interpretation of findings when controlling for such factors as socioeconomic status or income (Kington & Smith, 1997; Williams, 1996, 1997).

Overall, we believe that this review offers information on where we have been, where we are, and where we could go when conducting future research on caregiving to an increasingly diverse older population. Thus, we can build on the strengths of existing studies reviewed in this article and improve on what we have identified as limitations in our knowledge base. Most important, we can approach our research with a more sensitive eye for inclusiveness that captures the rich diversity among older care recipients and their caregivers as our society continues to change demographically and culturally.


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Appendix

Notes

1. A conceptual model is an analytic guide for examining specific relationships (Doherty, Boss, LaRossa, Schumm, & Steinmetz, 1993).

2. A conceptual framework is a set of assumptions and ideas about the fundamental features of the social world. It serves as a guide to selecting areas of focus and modes of inquiry (Doherty et al., 1993).

3. Empirical generalizations provide a summary of research findings that are linked to other research findings and to some more general ideas about the research topic. These generalizations are then used to guide the methodology of the study for which they are being used (Doherty et al., 1993).