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The authors review the literature on ethnic minority caregivers and suggest that ethnicity and culture play a significant role in the stress and coping process for Latino caregivers. Caregivers of older Latinos face special challenges in the caregiving for individuals at higher risk for specific chronic diseases, who are disabled at earlier ages, and who have more functional disabilities. Ethnicity and culture can also influence the appraisal of stress events, the perception and use of family support, and coping behaviors. Socioeconomic class and minority group status are discussed as additional sources of variation in the caregiver stress and coping model.

Key Words: Culture, Caregiving, Stress and coping, Latinos, Hispanics, Social support

The Influence of Ethnicity and Culture on the Caregiver Stress and Coping Process: A Sociocultural Review and Analysis[1]

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Population projections for the period between 1987 to the year 2000 indicate that the increase for older Latinos is expected to be nearly five times as great as the rate of growth for the entire Anglo older adult population (76.9 vs 15.9%; U.S. Select Committee on Aging, 1989). Increasing numbers of older persons in the Latino population places unforeseen long-term care demands on Latino caregivers, yet minimal attention has been given to the issue of caregiving in this group. Since there is a dearth of research related to the stress and coping process of Latino caregivers, we propose to review the extant literature on Latino caregivers and to suggest directions for future research on how ethnicity and culture play a role in the stress and coping model for caregiving distress in this population. We will also draw from literature on related social science research, other ethnic minority caregivers, and the literature on ethnicity and aging. Since the term "Latino" is somewhat problematic given the intragroup differences likely to exist, e.g., Mexican American, Puerto Rican, Cuban, Central and South American, caution should be taken in noting sources of variation among the subgroups studied (see Appendix, Note 1). Where available, specific ethnic qualifiers will be used to relate the review results to the group under study.

This leads to the important issue of definition of terms used throughout the article. Ethnicity refers to a group's shared sense of peoplehood based on a distinctive social and cultural heritage passed on from generation to generation (Gordon, 1964). In the United States, "the core categories of ethnic identity from which individuals are able to form a sense of peoplehood are race, religion, national origin, or some combination of these categories" (Mindel, Habenstein, & Wright, 1988, p. 5). Culture, on the other hand, is defined as a group's way of life: the values, beliefs, traditions, symbols, language, and social organization that become meaningful to the group members. Such terms as acculturation and minority group status will be defined in the context of the remaining sections of the article.

Stress and Coping Models of Caregiving

The understanding of caregiver distress has come from the literature on stress research (Folkman, Lazarus, Pimley, & Novacek, 1987; Lazarus & Folkman, 1984a, 1984b; Pearlin & Schooler, 1979) and the caregiver stress process (Lawton, Moss, Kleban, Glicksman, Rovine, 1991; Pearlin, Mullan, Semple, & Skaff, 1990; Zarit, 1989). A review of work on the impact of caregiving on families of functionally dependent older adults reveals that there is some agreement on the major components which comprise a multivariate theoretical model of caregiver stress and coping (Lawton et al., 1991; Pearlin et al., 1990; Poulshock & Deimling, 1984; Schulz, Tompkins, & Rau, 1988; Zarit, 1994). In general, stress and coping models include

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the following categories of variables: a) contextual or background variables such as age, gender, socioeconomic status, relationship of the caregiver to the patient, etc.; b) primary stressors and secondary strains on the caregiver as a result of directly caring for the impaired person, and the "spillover" effects into other domains of the caregiver's life such as family and work; c) the caregiver's appraisal of demands as stressful or satisfying; d) the potential mediators of burden: coping attitudes and behaviors and social support; and e) the consequences of those demands, i.e., quality of life and physical and mental health.

We propose that ethnicity and culture play a significant role in the stress and coping process of caregivers to the elderly as a result of a) a differential risk for specific health disorders and disability, b) variation in the appraisal of potential stressors, and c) the effect on stress-mediating variables such as social support and coping. First, we will explore the possibility that ethnicity and culture change the nature of caregiving by exposing the Latino population to different risks for specific illnesses and disability.

Health Stressors on Latino Caregivers: Illness-Specific Demands and Disability

If Latinos suffer from different patterns of illnesses as they age due to genetic, environmental, and lifestyle factors, then Latino caregivers may be caring for disabled elderly persons with different types and/or levels of complications and functional disabilities than the general aged population. We turn our attention to the literature on diabetes as an illustration of how the nature of a serious chronic illness can affect late-life caregiving needs. Later, we will conclude this section by reviewing functional disability and long-term care.

Diabetes. — Non-insulin-dependent diabetes mellitus (or type II diabetes mellitus) is a significant source of morbidity in Latinos over the age of forty. Prevalence rates for non-insulin-dependent diabetes indicate that Latinos are two to five times more likely to develop diabetes than non-Latinos (Baxter et al., 1993; Hamman et al., 1989; Hanis et al., 1983; U.S. Select Committee on Aging, 1992). Obesity, socioeconomic factors, and a genetic contribution are implicated as possible explanations for the excess rates (Hazuda, Haffner, Stern, & Eifler, 1988; Marshall et al., 1993). The age-related deaths due to diabetes are especially high among Mexican Americans and Puerto Ricans, but lower for Cubans, who are only about half as likely to die from diabetes (U.S. Select Committee on Aging, 1992). Latina women are especially at risk, as evidenced by one population-based study showing that Latina females living in rural southern Colorado were 4.8 times more likely than Anglo females to have confirmed non-insulin-dependent diabetes (Hamman et al., 1989).

Reports from a study based on the same rural Colorado sample indicate that, not only do Latinos have higher diabetes prevalence rates, but that a pattern of earlier onset of approximately ten years may exist among both Latino men and women as compared with their Anglo counterparts (Baxter et al., 1993). Furthermore, once afflicted with diabetes, Latinos have a more severe form of the disease resulting in disproportionately higher rates of diabetes-related complications (U.S. Select Committee on Aging, 1992). Diabetes complications are considered medical problems that occur more often in people with diabetes than in others without diabetes. Categories of complications include: a) obesity, b) retinopathy (a diabetic eye disease which is the leading cause of blindness in the U.S.), c) peripheral neuropathy (nerve damage affecting the legs and feet), d) kidney disease requiring permanent hemodialysis, e) vascular disease resulting in stroke and heart disease, and f) amputations (American Diabetes Association, 1989; Pugh, Stern, Haffner, Eifler, & Zapata, 1988; U.S. Select Committee on Aging, 1992; Villa, Cuellar, Gamel, & Yeo, 1993). The fact that Latinos are identified at a later stage of the disease and have a more serious form of the disease once diagnosed has implications for the caregiver, as will be discussed.

Acculturation has also been found to have an effect on diabetes and obesity among Mexican Americans. For example, in a San Antonio, Texas-based study of Mexican Americans, Hazuda and her associates (Hazuda et al., 1988) found that higher acculturation, as measured by a multidimensional acculturation scale, had a protective effect against diabetes. More specifically, an increased level of acculturation was associated with a statistically significant decline in both obesity and diabetes for men and women alike. For women, socioeconomic status was also inversely related to obesity and diabetes, although the relationship was not as strong as that attributed to acculturation. Thus, for both sexes, "cultural factors play a more pervasive role in the development of obesity and diabetes among Mexican Americans than do purely socioeconomic factors" (p. 1298). Such findings underscore the importance that researchers address health stressors of specific subpopulations of "Latinos" (e.g., males, females, low/high acculturated, Mexican Americans, Puerto Ricans, rural/urban, etc.) and how these groups may pose similar or diverse challenges in the caregiving context as compared to the general population. Understandably, the preponderance of efforts in this area of Latino research is based on samples of Mexican Americans, who constitute almost 60% of the U.S. Latino population (Bean & Tienda, 1987).

Deserving of attention in the above-cited study is the multidimensionality of acculturation and how each dimension differentially influences various health outcomes. Specifically, of the three acculturation dimensions measured (i.e., functional integration with mainstream society, value placed on preserving Mexican cultural origin, and attitude toward traditional family structure and sex-role organization; see Hazuda, Stern, & Haffner, 1988), only attitude toward traditional family structure and sex-role organization was related to obesity in men, whereas all three scales were related to obesity in women. Furthermore, when the two remaining scales were included in the same multivariate analysis, only the effect of functional integration with mainstream society remained statistically significant in both gender groups. The findings that three separate dimensions of adult acculturation were measured and that these dimensions were differentially associated with obesity and diabetes in men and women underscore the importance of addressing multidimensionality in cultural mediators of health status.

The nature of caregiving for a family member with diabetes mellitus and its sequelae may present special challenges for the Latino caregiver. The caregiver is more likely to be caring for a diabetic family member who is corpulent, vision-impaired, having difficulties in stabilizing his or her blood glucose levels, and at risk for vascular disease, peripheral neuropathy, amputation, and end-stage renal disease (American Diabetes Association, 1989; Pugh et al., 1988; U.S. Select Committee on Aging, 1992; Villa et al., 1993). Consequently, the caregiver may be more intensely involved in tasks related to providing tangible assistance in the following areas: a) home blood glucose monitoring, b) medication administration, including injections, c) patient weight control and diet compliance, d) exercise regimen, e) pain management (due to poor circulation or nerve damage in the legs or feet), f) wound and foot care (due to chronic diabetic ulcers and infections), g) body transfers (e.g., moving patient from bed to chair, etc.), h) transportation (to health care providers, including for frequent dialysis treatments).

Aside from the tangible tasks listed above, Latino caregivers are faced with the psychosocial challenges of providing care to the diabetes-affected older adult. Focus group findings based on a study of the health status and service utilization of 35 low income older Latinos receiving health services from a primary medical clinic in the East Los Angeles area have underscored typical sources of stress: role changes in the patient-caregiver dyad, interpersonal conflicts related to treatment compliance, increased anxiety over responsibility for prevention of complex medical emergencies and their management, and an increased sense of futility related to progressive deterioration of the patient's vital organs (Aranda & Galvan, 1993). To illustrate, let us turn our attention to a case vignette reported by the Sánchez family from this study.

> Mr. and Mrs. Sánchez, an elderly couple, were both born and raised in El Paso, Texas. Mrs. Sánchez cares for her spouse who was diagnosed with non-insulin-dependent diabetes mellitus 14 years ago, and who has since had one below-the-knee amputation. She gives her spouse daily injections of insulin. The patient has poor circulation and complains of tingling and burning pain in his remaining limb which causes him excessive pain during the night. Although he is taking pain medication, he reports minimal relief. Mrs. Sánchez wakes up frequently during the night to try to comfort her spouse. She complains of lost sleep and increased anxiety over her inability to attenuate his physical pain. Mrs. Sánchez also complains of back problems which she has developed as a result of transferring and repositioning her spouse in order to avoid the formation of bed sores.

It is important to note that although Mrs. Sánchez may be facing increased demands (or a different constellation of demands) due to the nature of the diabetes-related illnesses, she, like many other Latino caregivers, has decreased access to information on the prevention, pathophysiology, diagnosis, and management of diabetes in comparison to her non-Latino White counterparts (U.S. Select Committee on Aging, 1992). Second, pre-existing cultural beliefs regarding the nature, course, and treatment of diabetes may have a significant effect on stress and adaptational outcomes. For example, in the qualitative study cited above, anecdotal information from the focus group participants supported the notion that at least for this specific sample, Latinos equated being diabetic "with eating too many carbohydrates, e.g., refined sugar and sweets, and needing to be on a diet." Thus, patients may be encouraged by family and friends to skip meals with the goal of decreasing their caloric intake. This can precipitate a serious medical crisis such as a hypoglycemic reaction in the diabetic patient and increase the caregiving demands for the caregiver. Another example of a culture-bound belief expressed by the participants is that "injections of insulin cause blindness and need for amputations." Perhaps because Latinos are diagnosed with diabetes at a later stage, diabetes-related complications are already evident, and the initiation of insulin treatments is associated with the onset of serious complications. This could have deleterious effects on treatment compliance, resulting in increased morbidity and increased caregiver demands. Whether provision of timely, accurate information can dispel these and other ideas is yet to be determined empirically.

The focus in the previous section on diabetes is meant to illustrate the ways in which specific differences in morbidity can influence caregiving demands. Latinos are also susceptible to a broad range of diseases leading to functional disability such as heart disease, cancer, and stroke (Markides & Coreil, 1986; Mitchell, Stern, Haffner, Hazuda, & Patterson, 1990; U.S. Department of Health and Human Services, 1990), which also warrant further investigation into their effects on the well-being of the Latino caregiver. We would also like to note that for Anglo caregivers, dementing illnesses such as Alzheimer's disease constitute a major reason for caregiving and a central focus of study in the caregiving research literature (Light & Lebowitz, 1989) as will be noted in subsequent sections of this article. While ethnic differences in the rates of dementing illnesses have been examined, the rates for dementing illnesses in the Latino population are uncertain (Gurland, Wilder, Cross, Teresi, & Barrett, 1992). Clearly, more work is needed to establish the prevalence of dementing illnesses among the Latino population, the possible risk associated with Latino ethnicity and culture, and the effect on the experience of caregiving.

Functional Disability. — In addition to differences in the types and nature of illnesses affecting older Latinos, the need for care due to illness may be more frequent among Latino older adults, and the obstacles delaying access to formal sources of care may be greater than those of the Anglo population. The need for long-term care appears to be greater among older Latinos as a result of their disadvantaged functional status: they report greater deficits in basic self-care activities (40%) than elderly people in general (23%), and in instrumental activities of daily living (54% vs 27%; Commonwealth Fund Commission, 1989). Latinos also have a higher incidence of restricted activity days (46.5 vs 38.7 for Anglos), and increased bed disability days (20.7 vs 12.9; see Villa et al., 1993; U.S. Select Committee on Aging, 1989). Furthermore, elderly Latinos report having been cared for by a family member following a hospitalization more frequently than the general elderly population (Commonwealth Fund Commission, 1989).

Although Latino elders report higher levels of impairment and a greater need for community-based services than the general population, the literature supports the conclusion that older Latinos underutilize community-based, long-term care services (Greene & Monahan, 1984; Torres, 1995; Wallace & Lew-Ting, 1992). Thus, past empirical efforts have shown that the Latino older adult has a lower functional status than the general population, requires higher levels of informal community care, and is less able to access and afford long-term care services when needed.

In summary, future research endeavors should test the hypothesis that caregivers of older Latinos may be facing special challenges in caregiving for an individual who is: a) at risk for specific diseases, such as diabetes and its numerous medical and psychosocial complications, b) disabled at an earlier age, and with a more severe form of the illness, c) afflicted with higher levels of functional disabilities, and d) less able to access long-term care services.

Appraisal of Stesssors

Caregiving Burden. — Ethnicity and culture can also influence the experience of caregiving vis-à-vis the culturally specific appraisals of the caregiving situation. While there is very little data on caregiver burden among Latinos per se, there exists a small yet growing empirical literature that compares how different cultural groups experience the strain or positive outcomes of caring for their functionally dependent elders. A study by Morycz and his associates (Morycz, Malloy, Bozich, & Martz, 1987) examined the differential impact of caregiving strain between Blacks and Whites in a sample of elderly patients from an urban geriatric assessment center. First, the data suggested that although ethnicity by itself made little difference in the amount and the experience of family burden between the Black and White groups studied, a significant interaction effect was found between ethnicity and care for a patient with a diagnosis of Alzheimer's disease: Black families were less burdened caring for a family member with dementia than were Whites and were much less likely than Whites to institutionalize a cognitively impaired family member. In fact, when the patient had Alzheimer's disease, only 12% of Blacks versus 82% of Whites institutionalized their family member.

Another important finding was that the two ethnic groups differed in terms of which caregiving tasks predicted burden. For example, Black caregivers were more burdened by the provision of assistance related to physical activities of daily living (ADLs; toileting, bathing, dressing, eating), while Whites experienced increased burden from the provision of instrumental activities of daily living (IADLs; shopping, money management, taking medications, preparing meals). Morycz and his associates also reported that socioeconomic status, which is often confounded with ethnicity, was not a significant predictor of burden, but was a significant predictor of institutionalization in the Black sample. Thus for Blacks, having insufficient financial resources and social supports predicted the disposition to admit their family member to a nursing home. This finding may reflect the tendency for public support programs (e.g., Medicaid) to encourage institutional care by underfunding community-based, in-home care.

The finding that Blacks reported lower mean levels of burden than did Whites in the care of Alzheimer's disease patients was corroborated by two studies (Haley et al., 1996; Lawton, Rajagopal, Brody, & Kleban, 1992) which found significant ethnic differences in caregiving appraisal between Blacks and Whites. In the work by Lawton et al. (1992), initial descriptive comparisons of means indicated that Black caregivers of Alzheimer's patients reported more favorable scores on traditional caregiving ideology, subjective burden, caregiving satisfaction, and caregiving as intrusion than White caregivers. When interactions were tested between background variables and ethnicity, it was found that the interaction terms of ethnicity by age and ethnicity by income significantly predicted caregiving burden and caregiving intrusion. First, older Black caregivers experienced less burden, while more burden was reported by White caregivers as their age increased. Second, higher income caregivers were more burdened than lower income caregivers in the Black sample, while Whites showed the reverse pattern. In terms of caregiving as an intrusion on life style, more highly educated Blacks reported intrusion than better educated Whites. A later study by Haley et al. (1996) showed that Black caregivers appraised caregiving as less stressful than did Whites and that this appraisal acted as a mediator of the relationship of race to lower depression. In other words, Blacks reported lower depression vis-à-vis their less distressed appraisals of the caregiving situation. The fact that intragroup as well as intergroup differences were found in terms of caregiver appraisal points to the need for formulating and testing hypotheses on interaction effects of age, income, education and other ethnic differences in the subjective caregiving experience of Latino caregivers. Such attention to subgroups of Latino caregivers can enrich our understanding of how caregiving may be appraised differently by those who are younger, better educated, and have higher incomes.

Research on Latino Caregivers. — It is conceivable that ethnicity and culture may also help predict burden among other ethnic groups, including those of Latino origin. For example, in a cross-sectional comparative study, Valle, Cook-Gait, and Tazbaz (1993) found significant differences between Latino and Anglo caregivers to dementia-affected older adults living in the greater San Diego, California area in their reactivity to the caregiving role. The Latino sample (n = 38), which was mainly Mexican American, appeared to react more strongly than the Anglo sample (n = 52) both to the overall caregiving situation and to the overall tasks of caregiving, even though the caregiving responsibilities between both groups were similar. Not only did they report feeling generally more bothered, Latinos were more likely than the Anglos to report feeling bothered or upset by, a) such specific tasks as feeding, dressing, toileting, etc., and b) the person's "problem" behaviors, such as hiding things and constantly reliving the past. No differences were found in response to "difficult or dangerous" behaviors such as incontinence, wandering, and combativeness.

Other research has supported the greater psychological distress in response to specific aspects of the caregiving context by Latino and Black caregivers (Cox & Monk, 1993; Hinrichsen & Ramírez, 1992; Mui, 1992; Wykle & Segal, 1991). Cox and Monk (1990, 1993) undertook a comparative study of Latino (n = 86) and Black (n = 76) caregivers to dementia-affected older adults in New York City. Approximately half of the Latino sample was Puerto Rican and the remainder were from Cuba or Central or South America. The researchers found that Latino caregivers perceived their caregiving responsibilities to be a greater burden than did Blacks (mean scores on the Zarit Burden Interview of 36.6 and 23.4, respectively, which were roughly equal to that found for White samples in previous studies (30.8 and 33.6; Zarit, Reever, & Bach-Peterson, 1980; Zarit, Todd, & Zarit, 1986 respectively). It should be noted that the test of significant differences in levels of burden reported did not control for the degree of the older person's memory, behavior, and ADL impairment.

Empirical data available on the overall physical and mental health of Latino caregivers is limited and inconclusive. In a report based on statewide data about caregivers of brain-impaired adults served by the Caregiver Resource Centers in California, ethnic minority caregivers (the majority of whom were Latinos) were significantly more likely to be in fair to poor health than non-minorities (60% compared to 48%), and to report high levels of depressive symptomatology (73% vs 68% using a cutoff score of 16 on the Center for Epidemiological Studies Depression Scale [CES-D]; Friss, Whitlatch, & Yale, 1990). The researchers concluded that the ethnic minority caregivers were "younger, poorer, more likely to be in the labor force juggling multiple responsibilities, and in significantly worse physical and mental health" (p. 106).

Cox and Monk (1990) examined the caregiving experiences of Black and Latino families of dementia victims. Latino caregivers had significantly higher scores than Blacks on the CES-D (mean scores of 19.7 vs 9.74). In the only study found which compared both caregiving and noncaregiving Blacks and Whites, Haley and his associates (Haley et al., 1995) found that only White caregivers had elevated CES-D scores as well as similar patterns for psychological distress. Black caregivers did not differ significantly from either Black or White noncaregivers.

Mintzer and his colleagues (Mintzer et al., 1992), found no significant differences in the level of depression between Cuban American and Anglo daughters of dementia patients living at home in the greater Miami, Florida area. In a Santa Clara County, California study, Yañiz (1990) interviewed Latino caregivers of both physically and dementia-affected elderly and found that 40% of the Latino caregiver sample had CES-D scores in the clinical range. Valle et al. (1993) found significant differences in self-reported health, with Latino caregivers reporting lower perceived health than the Anglo caregivers. On the other hand, no significant differences were found in depression as measured by the CES-D.

Generalizability from the studies cited is limited due to nonrandom sampling, small sample size, and possible cultural biases of the CES-D. The use of the CES-D in Latino populations at times has resulted in exaggerated scores among Latinos, especially among groups characterized as poor, less educated, Spanish-speaking, and female (Aneshensel, Clark, & Frerichs, 1983; Roberts, 1980; Taussig, Harris, Cervantes, & Rosin, 1995; Vega, Kolody, & Valle, 1986; Vega, Warheit, Buhl-Auth, & Meinhardt, 1984), yet reasons for the elevated scores are still being debated. The existing research indicates that Latino caregivers experience significantly poorer health than their Anglo counterparts, while the data supporting differences in psychological distress is equivocal. It can be hypothesized that Latino caregivers experience at least similar and possibly higher levels of burden and depression as compared to Anglos.

It is important to note that the studies on Latino caregivers to date have been exploratory and based on relatively small, cross-sectional, convenience samples. The degree of representativeness and generalizability is therefore compromised. Future work should build on these previous efforts by utilizing larger, randomly selected samples in different regions of the U.S. and measured over time.

Differential Appraisal of Stressors Among Latinos. — The issue of cultural differences in the perception of stressful events outside of the realm of caregiving per se has been examined in Latino populations. These studies have indirect implications for the appraisal of caregiving stress by Latinos. Cervantes and Castro (1985) reviewed studies from the life change event literature, which has implications for ethnic differences in the appraisal of stressful situations. One study, which utilized the Social Readjustment Rating Scale, looked at the difference between Mexican Americans, Blacks and Anglos in their assessment of the amount of adaptation required by certain life change events (Komaroff, Masuda, & Holmes, 1968). Overall, Blacks gave the life change items higher stress ratings than the other two groups, which may be explained by the lower rating given by Blacks to the criterion item of "getting married." The converse was true for Mexican Americans who responded with lower stress ratings for all other items than the criterion item of "getting married." As summarized by Cervantes and Castro, marriage may have been perceived as requiring more adjustment because of its concomitant changes in the family and extended kinship network.

Whether caregiving for a functional dependent older adult would also carry a higher stress rating by Latinos due to changes in that familial support network is still unclear and in need of empirical testing. As noted earlier, Latino caregivers for demented relatives appear to have levels of burden and depression that are higher than Black caregivers and equal to Whites. The processes that lead to these levels of distress might result from distinct appraisals of the nature and scope of caregiving. Empirical examination of the relative importance of caregiving life events and the appraisal of their benefits and/or consequences is clearly needed.

Another study examined differences between Mexican-origin respondents and Anglos in their perception of the change required on 95 specific life events (see Hough, 1985; Hough, McGarvey, Graham, & Timbers, 1981). The El Paso-Ciudad Juarez border area study found that the Mexican-origin sample (i.e., sample comprised of Mexican nationals in Ciudad Juarez and Mexican-origin Latinos living in El Paso) tended to rate events as requiring significantly more change if the event involved social advancement, e.g., social, economic, and geographic mobility. Anglos rated higher those events which involved negative social interactions within the nuclear family but not of others outside the immediate family, e.g., death of spouse, marital separation or divorce rated as of more concern to them than functional or instrumental events. It may be that changes in upward economic and geographic mobility may reflect "a move out of the larger social structure upon which the Mexican respondents depend and live and thus represent a crucial disruption of that support structure" (Hough, 1985; p. 117), which is less true of the social environment of other Anglo groups. It is unclear whether the same results would hold in other regions of the U.S. or with other Latino-origin groups.

Hough and his associates (Hough, 1982; Hough, McGarvey, Graham, & Timbers, 1981; Hough, 1985) in a follow-up survey, found that Mexican-origin respondents on both sides of the El Paso-Ciudad Juarez border area reported more illness symptoms if the event occurred to significant others in their environment. In this sample, those Mexicans living in Ciudad Juarez were more likely to be distressed by events happening to others than to themselves as compared to both Anglos and the Mexican Americans living on either side of the border. Perhaps, as summarized by Cervantes and Castro (1985)

> extended social support networks are of much greater importance for Mexicans relative to Anglo respondents and that the disruption of these networks is associated with a greater expression of illness by Mexicans. Such an explanation is consistent with the ratings by Mexican respondents that migratory and social mobility life events require more change since such events would obviously be disruptive of extended family networks (p. 23).

Further attempts at analyzing the differential appraisals of life change events, their direct and indirect effects on the individual, and their examination across subgroups of Latinos are sorely needed. However, the work summarized by Cervantes & Castro would seem to indicate that group differences in the appraisal of life change events may be due to ethnic and cultural background. Latino caregivers of frail elderly persons may be likely to experience the relative's illness as more distressing if it requires reorganization or relocation of the family system. It is also likely that the distress may reach beyond the "primary caregiver." If so, differences in culture and its associated world view between these groups and those Mexican Americans living further into the interior of the U.S. as well as those of later generation Latinos must be examined. Thus, key hypotheses requiring further testing are: a) Among Latinos, the family system, rather than a designated primary caregiver, is at risk of emotional distress and physical illness; b) Such factors as socioeconomic status, acculturation, and geographical and generational differences are likely predictors of the perception of life change events; and c) The relative importance attributed to caregiving in relation to other change events can be explained in part by the perception of the consequences to the existing social networks and the fulfillment of cultural norms and filial responsibilities.

Social Support From the Family

Care provided by family and friends, or what has been termed the informal support system, continues to be the traditional source of assistance for elderly persons even today. Previous writers have discussed Latino natural support structures and their viability for providing assistance during acute enduring stress (Becerra & Shaw, 1984; Bengtson, 1979; Sotomayor & Randolph, 1988; Valle & Vega, 1980). There is reason to believe that Latino social structures are at least as supportive as those of the mainstream culture, although many have criticized the over-romanticization of the Latino family (Korte, 1982; Leonard, 1967; Maldonado, 1975; Mendes de Leon & Markides, 1988; Rubel, 1966). In any case, most writers are in agreement that the Latino kinship network is an important source of social support for the Latino older adult and a key mediator of stressful life events (Bastida, 1988; Cantor, 1979; Carp, 1969; Dowd & Bengtson, 1979; Sotomayor & Applewhite, 1988; Sotomayor & Randolph, 1988; Szapocznik & Hernández, 1988; Torres-Gil, 1978; Valle & Mendoza, 1978). However, special attention must be given to variations in social support: variation as a result of ethnic memberships in specific subgroups of Latinos, and as a result of multiple network members' exposure to caregiving events. The following review is based on social support provided solely by the informal support system comprised of spouses, children, and other relatives, in contrast to quasi-formal and formal support provided by civic and religious groups and government and private programs.

Latino older adults do rely on family members for functional support following health-related crises. For example, in a randomized national survey of 2,299 elderly Mexican Americans, Cuban Americans, and Puerto Ricans living in the U.S. (Commonwealth Fund Commission, 1989), evidence was found to corroborate previous studies and anecdotal accounts that elderly Latinos rely more heavily on informal sources of support after release from the hospital than they do on organized services: 77% of the Latino survey respondents with long-term impairments received help from a spouse or child, and only 14% cared for themselves. On the other hand, less than 60% of the general elderly population relied on family post-hospitalization support and up to 30% cared for themselves following hospitalization (Commonwealth Fund Commission, 1989; Louis Harris & Associates, 1987). Competing hypotheses to explain why older Latinos rely more on informal supports include cultural preferences, language limitations, and institutional exclusions. Hypothesis-driven empirical research is clearly needed to help clarify these complex issues relevant to the availability of and reliance on informal supports as well as the satisfaction with these supports.

Acculturation and Social Support. — Subgroups of Latinos differ in terms of attitudes regarding support of the elderly. For example, groups that differ in terms of acculturation and recency of immigration play a role in the nature, quantity, and scope of social support from the Latino family. Acculturation refers to the process of cultural change resulting from continuous intergroup contact. In this change process, individuals whose primary cultural learning has been in one culture modify their beliefs, values, and behaviors and absorb the cultural behaviors and characteristic patterns of living from another host or mainstream culture. For example, Zuniga de Martínez (1980) reported on the attitudes of Mexican Americans in the San Diego area regarding support of the elderly and found that as acculturation increased, traditional attitudes regarding familial support of the aged decreased. Although beyond the scope of this article, more recent discussions on the dynamics of acculturation emphasize that acculturation does not occur along a simple continuum of traditional versus mainstream cultural norms, but is multidirectional and can occur differentially across several life domains, e.g., family, work, religion, etc. (Keefe & Padilla, 1987; Valle, 1989). In the Zuniga de Martínez study (1980), weakened reliance on the family was correlated with a departure from identification with Mexican cultural heritage, loss of contact with relatives in Mexico, longer U.S. residency, and English-language ability. Thus, Zuniga de Martínez posits that although Mexican culture is maintained by the closeness to Mexico for many Mexican Americans, for those most affected by acculturation processes, there will be a trend toward less familial support of elderly persons.

Immigration status and recency of immigration are approximate indices of acculturation factors that can potentially influence social support and social networks (Keefe, 1980; Keefe & Padilla, 1987; Sabogal, Marin, Otero-Sabogal, Marin, & Peréz-Stable, 1987). The preponderance of work in the area of Latino family relations has focused on the Mexican American experience, number of social ties, and the dynamics of the cultural value of familism. Keefe and her associates (Keefe, 1980; Keefe & Padilla, 1987) have found that usage of primary kin networks was positively correlated with generation level. Mexican Americans have the same cultural preference for interacting with relatives whether born in the U.S. or Mexico, but the potential number of local social ties increases with the length of stay in the U.S. Native-born individuals or immigrants living in the U.S. for an extended length of time can count on more primary and secondary kinship ties (Keefe & Padilla, 1987). Recent immigrants, on the other hand, may be vulnerable to stress given the geographical remoteness from their natural support networks in their country of origin. However, they may be held accountable by distant family members who have traditional notions on how the older adult should be cared for. Since these hypotheses have yet to be tested empirically, research is necessary in order to ferret out the effects of recency of immigration on the social networks and the experience of caregiving.

For Latinos, conflicts within the family may be indicative of stress due to variation in acculturation level across a) the multiple caregivers (the elder's spouse, adult children, siblings, other caregivers; b) the relevant life domains (family, work, school, religion, health, leisure); and c) the developmental family life cycle changes (child launching, retirement, death, and dying). To illustrate,

> Mr. Alarcón is originally from El Salvador and has been living in the U.S. for the past 20 years. The spouse of an Alzheimer's disease patient, Mr. Alarcón refused to give consent to his wife's physician for her brain to be autopsied upon death. According to Mr. Alarcón, such a procedure is considered of-

fensive to the couple's long held cultural and religious beliefs. According to Mr. Alarcón, the body should be intact after death for the resurrection of the body into "el más allá" (the world after). Yet, he feels pressured by his more acculturated adult children to acquiesce to the request on grounds that it would provide more conclusive evidence regarding the diagnosis. He continues to express that respect for his wife's spiritual beliefs has greater primacy than obtaining information about the source of her memory loss. At times he feels both angry and guilty when his family accuses him of "being a stubborn, old-fashioned *macho*" (see Appendix, Note 2).

Other acculturation conflicts within the caregiving context can arise regarding who becomes identified as the primary caregiver, how serious is the impairment of the elder, which formal service or institution should be accessed for assistance, and when treatments should be implemented, to name only a few (Aranda, 1994). Indeed, more analytic efforts are needed to test the differential effects of acculturation on the perceived attitudes, availability of support, and enacted support toward care of elderly family members across Latino subgroups.

Familism and Social Support. — Other researchers argue that Latinos hold familism values despite variations due to acculturation, recency of immigration, and sociodemographic variables (Sabogal et al., 1987; Keefe & Padilla, 1987). The cultural value of familism, or "a strong identification and attachment of individuals with their families (nuclear and extended), and strong feelings of loyalty, reciprocity and solidarity among members of the same family" (Sabogal et al., 1987, pp. 397–398), has been discussed in the literature and may have implications regarding family care for older Latinos.

Sabogal et al. (1987) measured familism values in a comparison sample of nonelderly Latinos in the San Francisco area (Mexican Americans, Cuban Americans, Puerto Ricans) and non-Latino Whites. The study identified three separate dimensions of familism and their relative resiliency to acculturation changes: 1) family obligations (the individual's perceived obligation to provide material and emotional support to the family), 2) perceived support from the family (the perception of family members as reliable providers of help and support to solve problems), and 3) the family as referent. Perceived support from the family showed the most resiliency to acculturation as compared to the other two dimensions. Nevertheless, even though the highly acculturated Latino groups' adherence to attitudes regarding family obligations and family as referents were lower than the low acculturated, they still had higher ratings than the non-Latino White group. The authors note that the results add support to the hypotheses that a) some familism values decrease in importance as acculturation and exposure to the U.S. culture increase, and b) the similarity in the level of adherence to familism values among the three Latino groups is consistent with the idea that familism is a central value for Latinos.

Ethnic differences in perceived caregiver availability were not supported in a San Antonio, Texas study using a random sample of young-old (65–74 years old) Mexican Americans (n = 309) and non-Latino Whites (n = 340; Talamantes, Cornell, Espino, Lichtenstein, & Hazuda, 1996). Also, there were no overall significant ethnic differences in perceived caregiver availability between Mexican Americans and non-Latino Whites in either middle- or upper-SES neighborhoods. Nevertheless, the authors report that the number of children modified ethnic differences in perceived caregiver availability among middle- and upper-SES Mexican Americans and non-Latino Whites, such that, among those with two or fewer children, Mexican Americans were more likely to have a perceived available caregiver. Conversely, among those with three or more children, Mexican Americans were less likely to report caregiver availability than non-Latino whites. In summary, future research must examine the complex cultural dimensions that influence social support-as-mediator of stress and the intragroup differences potentially influenced by acculturation and its correlates, i.e., recency of immigration, generational status, place of birth, language preference.

The study of informal social supports and social networks go beyond the scope of consanguine ties and may help us understand the complexity of Latino network configurations (Talamantes et al., 1996; Valle et al., 1989). One dementia study commissioned by the federal Office of Technology Assessment (Valle et al., 1989), explored the social network/caregiver configuration of dementia-affected ethnic minority elderly from four groups: American Indian, Japanese Americans, African Americans and Latinos. Close to one third of the primary caregivers sampled were "non-kin," such as friends, neighbors, and paid personal care workers. While Black caregivers had the highest rate of friends and neighbors, Latinos reported the highest rate of paid homemakers. Valle and his colleagues suggested that multiple network actors may mean a form of task distribution across caregivers and/or the absorption of more persons into the attendant stressors of caregiving. The stronger likelihood of relying on non-family caregivers has been found to increase as more children are present for young-old Mexican Americans in the San Antonio, Texas area (Talamantes et al., 1996). Although the family is still the primary category of caregiving individuals for Latinos, the idea that paid personal care workers may have a role in the caregiving of elder Latinos has not been addressed in the literature. It is still unclear, however, which factors influence the absorption of non-kin persons and personal care workers into the Latino family system and to what extent culture may exert a role.

Clearly, in other studies, non-kin caregivers were more prominent in Black samples (Lawton et al., 1992) as compared to their Anglo counterparts, which may indicate a greater tendency toward inclusiveness in the caregiving role of individuals outside the primary kin network. This inclusivity may extend toward paid homemakers or attendants who may be regarded as part of the family system as well. Future work should focus on comparing different population groups on the inclusivity of social networks to include nonconsanguine members, the type of care provided by these members in contrast to blood kin, the relative importance of each in mediating caregiving stress, and the realms of decision making (legal, financial, ethical) across these two types of kinship networks. Current models of informal support in caregiving are implicitly rooted in Anglo cultural norms and may place too much emphasis on nuclear family, blood ties, and the primary caregiver roles when applied to other cultures.

Coping Attitudes and Behaviors

Once the event is appraised as being stressful, the choice of specific types of coping may also be determined by the individual or group's previous coping experiences. The idea that caregivers differ in their coping attitudes and behaviors is not a new notion, yet few studies focus on the role of ethnicity and culture in explaining possible variations. An important exception is Haley et al. (1996) in which Blacks were found to use both less approach and less avoidance coping than White caregivers, a difference which the authors attributed to the lower appraisal of caregiving as a stressor. Valle and his associates (1993), studied the coping styles of Latino (mostly Mexican American) and Anglo caregivers in San Diego and found that significant differences remained in several categories after controlling for contextual variables such as age, income, and education: Latinos were less prone to talking about their situation or sharing their private feelings; they were less likely to obtain professional help; tended to keep others from knowing how bad things were with regard to their caretaking situation; and relied more on their faith or praying about their problems. Turning to one's religious faith has also been supported in studies of Black caregiver samples (Segall & Wykle, 1988-89; Wood & Parham, 1990).

Cultural definitions of the self may also influence the choice of coping behaviors. Landrine (1992) contrasts the "indexical" meaning of the self that is common among non-Western cultures (including U.S. American ethnic cultural minorities), with the Western "referential" concept of the self. She argues that

> the referential self of Western culture is construed as an autonomous entity . . . presumed to be a free agent . . . to make all sorts of choices and decisions of its own . . . construed as determining the actions — the behaviors — of the body in the world. The self is unconsciously assumed to be morally responsible: The self in Western culture is the final explanation for behavior, and is responsible for behavior. It is taken for granted that the self will claim responsibility for its actions and for the consequences of its actions in the world (p. 404).

Using Landrine's definition, we can expect that the individual with this orientation will more likely rely on coping behaviors geared toward self-fulfillment, self-development, and self-actualization. In this process, Landrine argues, the self seeks to control its environment by changing situations and others to meet one's needs. Failure to take control and further the self is construed as a failure and a sign of helplessness, passivity, low self-efficacy, and poor self-esteem. This has implications for the caregiving role to the degree that the individual with a referential self-orientation may perceive the caregiving experience as a threat to his sense of control which then threatens the definition of an independent selfhood.

Conversely, non-Western cultures define the self as embedded in social roles and less likely to view individual control of others and situations as part of his or her coping repertoire. The indexical self of many U.S. ethnic cultural groups is seen as

> . . . constituted by social interaction, contexts, and relationships. . . . Because the indexical self exists only in and through interactions, it cannot be described per se, without reference to specific, concrete encounters with others. Thus, the indexical self has no enduring, trans-situational characteristics, no traits or desires or needs of its own in isolation from its relationships and contexts . . . the person is the role he or she occupies because family and community are prior to individuals. Families and communities — rather than individuals — have goals, desires, and needs. . . . Thus, these social-role-selves do not have rights (to privacy, autonomy, and self-determination), but duties and obligations to perform their role well for the larger units. . . . Role failure or violation is the loss of the self . . . the self tends to be seen as not responsible for behavior (Landrine, 1992, pp. 406–408).

Thus, if the sociocentric self consists of different persons and forces (natural and supernatural), the individual may perceive that he or she has less control over actions and circumstances as determined by fate, God, spirits, and the social group. This self-concept would lead to different role-actualizing responses than the responses that are dictated by a Western notion of an independently existing self. Instead, behaviors toward self-fulfillment and self-actualization take on a new meaning: self-actualizations occur in social contexts or for the good of the group or ancestral family. Thus, Landrine's argument coupled with the previously discussed findings that Latinos may be more sensitive to network crises and disruption, pose certain possibilities: Does caregiving for a frail, functionally dependent older adult directly affect the socially-embedded self, the use of coping attitudes and behaviors, and the evaluation of success or failure in the role of caregiving? Does the absence of need to control situations and people give the caregiver the freedom to continue in the caregiving role by attenuating the pressures of responsibility for those things not under his or her control, and thus, experiencing less self-doubt and sense of failure?

Culture, Socioeconomic Status, and Minority Group Membership: A Cautionary Note

Sorting ethnic and cultural variables from other status variables is problematic given the underclass position and minority group status of certain ethnic groups in the U.S. (Valle, 1989). Many differences in stress outcomes among certain cultural groups can be attributed to socioeconomic and minority group status factors. Culture, as defined earlier, refers to a group's way of life as manifested by those elements of the group's history, tradition, values, and social organization that are meaningful to the individual members. For example, U.S. Anglos represent a number of diverse and distinct ethnic origins. Yet, certain non-Anglo groups, because of their shared cultural values and/or physical characteristics, are stigmatized, deemed inferior, and barred from equal access to power in U.S. society; thus they are considered a disadvantaged ethnic minority group (Greene, 1994). Historically, these groups have been identified as Blacks/African Americans, Asian Americans/Pacific Islanders, Latinos/Hispanics, and Native Americans/American Indians. Although disadvantaged minority group status is often intertwined with membership in ethnic groups, it is conceptually distinct as evidenced by the fact that many cultural groups are not presently identified as disadvantaged minority group members although they may have been in the past (groups of Irish, Italians, Eastern Europeans, etc.).

Latinos are considered an ethnic minority group in the U.S., which is partly evidenced by their disadvantaged status in the labor market. According to Bean and Tienda (1987), "most studies of ethnic variation in labor market position acknowledge the importance of ascribed characteristics, such as birthplace, national origin and race in determining the employment opportunities of nonwhite people (p. 282)." One result of ethnic stratification in labor market processes is the over-representation of Latino workers in unskilled and service jobs across the U.S. (Bean & Tienda, 1987). This has implications for Latino caregivers of functionally disabled older adults. For example, occupational role strain, which has been identified as a source of caregiving stress (Pearlin et al., 1990), may be greater among Latino caregiving families who are not covered by employee benefits such as sick leave, dependent leave, compensatory time, or even time off during the day to make phone calls related to the care of the elderly person. Such employee benefits can alleviate some of the cross-pressures of reconciling work and caregiving responsibilities. To illustrate, caregivers employed in the garment industry may get paid on a piecework basis which provides a built-in disincentive to take time off from work. Seasonal migrant workers do not have the physical, on-the-job amenities (e.g., access to telephones) to facilitate dialogue with formal care agencies and services which are frequently inaccessible during evening hours.

On the other hand, culture may have a beneficial impact on well-being, especially for the aged (Simic, 1985). If true for Latino caregivers, this effect may counterbalance in part the stresses of caregiving. For example, although clearly not conclusively settled at this time, the evidence cited in this review suggests that the effects of disadvantaged minority group status are outweighed by other factors for Blacks. To illustrate, in the Lawton et al. study (1992), Black caregivers tended to be less burdened than Whites even though they were disadvantaged economically and educationally, while more advantaged Blacks reported more burden. This finding is reminiscent of Burnam's data indicating that higher levels of acculturation for Latinos are associated with higher six-month and lifetime prevalence rates of mental disorder. Also, U.S.-born Mexican Americans, who tended to have high levels of acculturation, experienced higher lifetime psychiatric prevalence rates than their immigrant counterparts (Burnam, Hough, Karno, Escobar, & Telles, 1987).

The effects of discrimination and oppression could also have far-reaching implications for the development of certain coping expectancies. For example, the choice of specific types of coping may also be determined by the individual or group's previous coping experiences. For U.S.-based ethnic minorities, the socio-historical-political realities may influence the coping strategies developed over time, such as perceived fatalism as an adaptive response to the severe stress faced by disadvantaged minorities and as enhancing self-efficacy in effecting positive outcomes (Varghese & Medinger, 1979). Varghese and Medinger propose that fatalism, or a generalized expectancy for external control of reinforcement in the form of fate, chance, or other forces outside the individual's control, may protect a person "from the severe depression and anxiety that would ensue were he or she to assume complete personal responsibility for the stressful, poverty-related circumstances present in his/her life (p. 96)." Thus, perceived fatalism over threatening circumstances may be functional given the socially imposed gaps in resources that exist for the Latino caregiver to counter these circumstances.

Further research is needed to analyze the confounding effects of ethnicity and culture, socioeconomic class, and minority group status and to clarify the relative contributions of each to be tested in predicting well-being among Latino caregiver groups. Key hypotheses can address how ethnicity and culture are likely to a) influence the differential risk for specific disorders and disability, b) affect the appraisal of illness and problem behaviors, c) influence coping attitudes and behaviors, d) set expectations regarding social support and filial care, and e) provide larger social networks of both kin and non-kin helpers. On the other hand, to the extent that caregiving Latinos are disadvantaged socioeconomically and subordinated within the larger society, caregiving is predicted to be complicated by lower income and education, restricted access to health care and employment benefits, and by institution-based exclusions from long-term care programs and services.

Summary: Ethnicity, Stress, and Coping

In summary, the stress and coping model has provided a framework for reviewing literature related to caregiving in the Latino population. This literature suggests that Latino caregivers are as distressed as are Anglo caregivers. In part, the sources and types of incapacity may be different since Latinos suffer from different chronic medical diseases. Rates of functional dependency are higher for Latinos as well. We have also seen that ethnicity and culture can influence whether cognitive impairment or physical impairment is perceived as being stressful between Blacks and Whites. It is hypothesized that caregiving may be compared to a different life event anchor point and evaluated differently by Latinos, specifically as it impacts on the social network. As a corollary, appraisal of stress in the Latino population may depend on the degree of disruption to the family rather than on the interference with the individual's perceived control over life circumstances. Latino social networks are likely to be larger, composed of more multigenerational households, extended family, and non-kin "family," including personal care workers. We hypothesize that these larger networks also lead to greater exposure to other stressors with the likelihood of receiving support from the network over time being unclear at this time. Another hypothesis is that social support from family may function differently from that among Anglos with the family members/systems acting as caregivers and experiencing distress. We would also hypothesize that coping behaviors differ, with less emphasis on control and greater emotional regulation, although more evidence on specific differences is needed.

Empirical examination of the determinants of caregiver reactions and coping among ethnic minority groups is clearly in its infancy stage. Illustrations of caregiving by Latino families to older adults provide provocative areas of inquiry into potential sources of variation in the caregiving experience of other U.S. ethnic groups. As noted throughout this article, many conceptual and methodological issues remain. Future research must also focus on improvements in sampling, research design, and standardization of major study variables.

As service programs begin to address the growing ethnic and cultural diversity of this country (Aranda, 1990), there is a pressing need for cross-cultural research on caregiving to examine possible ethnic and cultural differences in terms of the illnesses which cause frailty and disability, the appraisal of stressors, and the use of specific coping behaviors and social support systems in moderating the impact of stressors. Such research is likely to show that ethnic and cultural differences affect many aspects of caregiving. Education, policy, and service delivery must address these differences using sound empirical research so that policies and programs are based on actual differences rather than assumptions, stereotypes, or the inappropriate generalizations of existing paradigms to other culturally distinct groups.

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Appendix

Note 1. The term "Latino" is used here as an ethnic group label for several groups which share various commonalties such as Latin American origin, indigenous group ancestry, the Spanish language, religious and cultural values, etc. It is apparent that although many similarities exist, to some degree such a term sacrifices the individual identities of each Latino ethnic group comprised of their respective national and sociopolitical history, immigration patterns, class structure, regional differences, customs and traditions, and the like.

Note 2. Macho, as used in this sterotypical context, is the Spanish-language term given to patriarchal and male dominance in relationships and decision making. The original use of the word reflected a more positive view of male roles as encompassing honor, respect, and self-sacrifice for family members and others. The material for the vignette in which this term was used was taken from anecdotal accounts provided from the first author's clinical social work practice in the Los Angeles area.