

CROSS CULTURAL ISSUES IN CAREGIVING FOR PERSONS WITH DEMENTIA: DO FAMILISM VALUES REDUCE BURDEN AND DISTRESS?*

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While family caregiving for persons with dementia has been recognized as a major stressor for over twenty years, attention to the role of cultural values in influencing the stress and coping process of caregivers is rarely studied. This article summarizes individual studies from our lab group that include Latino caregivers, Korean and Korean American caregivers, Japanese American caregivers, and African American caregivers. The role of familism as a cultural value that was assumed to lead to greater acceptance of the caregiving role and to better mental health outcomes for caregivers was explored in each of these groups. Familism was found to vary across groups as expected based on acculturation to Western values of individualism. However, the relationship of familism to caregiving burden was not consistent across ethnic groups and was either independent of caregiving outcomes, or was positively correlated with distress. These results suggest that assumptions about cultural influences on caregiving need to be reexamined and explored in greater depth empirically.

Caring for a demented older relative has been recognized for some time as a source of burden and distress for the family caregiver (Zarit, Reever, & Bach-Peterson, 1980). A large literature documents the effects of caregiving on self-reported emotional distress, mostly in White caregiver samples in the U.S. (Schulz, O'Brien, Bookwala, & Fleissner, 1995). Attention to cross cultural differences among caregivers has been limited, although growing in recent years (Janevic & Connell, 2001). The potential for important differences between cultural groups is shown by the fact that African-American caregivers have often been reported to appraise caregiving as less burdensome than do White caregivers (Morycz, Malloy, Bozich, & Martz, 1987; Lawton, Rajagopal,

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Brody, & Kleban, 1992; Haley, West, Wadley, Ford, White, Barrett, Harrell, & Roth, 1995), and the lowered stress appraisal has been related to lower depression outcomes (Haley et al., 1996).

The understanding of caregiver distress is based on the stress and coping theory developed by Lazarus, Folkman, and their colleagues (Folkman, Lazarus, Pimley, & Novacek, 1987; Lazarus & Folkman, 1984). As a rule, stress and coping models include the following categories of variables: (a) contextual variables such as gender, age, caregiver's health, relationship of the caregiver to the patient, etc.; (b) demands on the caregiver: including care recipient behavior problems and functional disability; (c) the caregiver's appraisal of demands as stressful or satisfying: e.g., subjective caregiver burden; (d) the potential mediators between appraisal and outcomes: coping styles and social support, and (e) the consequences of caregiving demands: emotional distress and health outcomes.

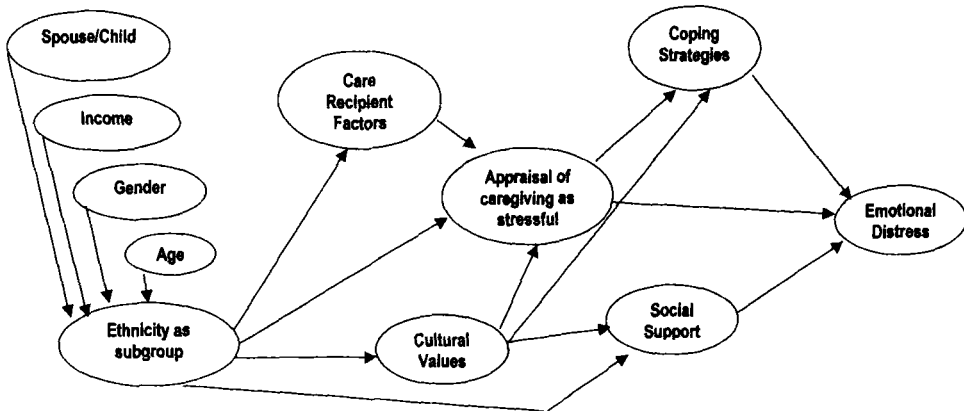
Beginning with a review by Aranda and Knight (1997), we have proposed a sociocultural stress and coping model that argues that ethnicity implies specific cultural differences that will directly affect the appraisal of caregiving as stressful, and that will change mediating variables such as coping skills (See Figure 1). The sociocultural stress and coping model adds to the typical interpretation of ethnicity as a structural status variable (i.e., ethnicity as mainly reflecting disadvantaged minority group status, which in turn is confounded with socioeconomic status, Markides, Liang, & Jackson, 1991), and reinterprets the influence of ethnicity on stress and coping as affecting: (a) other status variables because of differences between ethnic groups in the gender, relationship, and other characteristics of who provides care; (b) the demands of caregiving which may differ by group; (c) the appraisal of caregiving via cultural values which are related to the appraisal of caregiving as stressful; (d) coping styles which are affected by cultural differences; and (e) the mental health outcomes of the stress and coping process.

These "ethnicity as culture" influences can affect each stage of the stress and coping model simultaneously, and in differing directions. That is, appraisal might ameliorate emotional distress outcomes at the same time that greater frailty in the care recipient and the use of nonproductive coping styles may exacerbate distress. This conceptualization of the effects of ethnicity has the advantage of explaining the finding that African American caregivers report lower levels of burden than White caregivers, a finding that contradicts the expectation of higher burden based on the disadvantaged minority group model.

A key concept in cross cultural psychology has been the individualism/collectivism dimension which argues that North American and Western European cultures place considerable emphasis on individualism, while other cultures (both in other nations and in ethnic subgroups within Western nations) place greater emphasis on collectivism (e.g., Segall, Lonner, & Berry, 1998). As applied to family caregiving, one would expect that groups with higher

Figure 1

Sociocultural Stress and Coping Model for Emotional Distress



familism values would view caring for a frail older relative as a natural part of family life, whereas cultures high in individualism would view family caregiving as an interruption of individual life goals and plans. With immigration and acculturation, one would expect to see groups who are moving from the familism values of the home culture toward the individualism values of the new culture, and so it would be possible to study the shift in cultural values and their impact on caregiving outcomes

In this article, we offer an overview of a series of studies conducted by our lab group that applied the sociocultural stress and coping model to a group of predominately first and second generation Latino caregivers in the U.S., Korean caregivers in Korea and first generation Korean American caregivers in the U.S., a group of mostly second generation Japanese American caregivers in the U.S., and African American caregivers. In each instance, familism is considered as a potentially key cultural variable, and other cultural effects on mediating variables in the sociocultural stress and coping model are also examined. In all groups for whom English language proficiency was an issue, questionnaires were translated into the appropriate language, and back translated to check accuracy of translation. Reliability of translated scales was checked and ranged from adequate to strong in all cases.

After considering each group in turn, a summary comparison of all of the groups is presented. We close with discussion of these findings and their implications for understanding caregiving in a cross cultural context.

Latino caregivers

Aranda and Knight (1997) indicated that several factors inherent in the ethnicity and culture of Latino caregivers, such as higher care recipient frailty, emphasis on familism, and distinctive social support networks, may play a

significant role in the stress and coping process of Latino caregivers. Moreover, Latino elders report higher levels of impairment and a greater need for community-based services than the general population, suggesting that their caregivers will experience higher burden and psychological distress. However, since Latinos hold strong familism values, caregivers who place higher value on the family will be more willing to provide for the family, and consequently, will experience less burden and depression. Finally, Latino social networks are likely to be larger, composed of multigenerational households, extended family, and non-kin family, thereby mediating caregiver distress. Thus, several sociocultural factors pertaining to Latinos may influence the stress and coping process of Latino caregivers.

A key issue in understanding cultural influences on Latino caregivers is acculturation. Acculturation has been defined as choosing a mode of adaptation when dealing with issues of whether one's cultural identity is of value and should be retained, and whether positive relations with the larger society should be sought (Berry, 1980). Acculturation is perceived as multidimensional; individuals can be independently involved in both Latino and Anglo cultures.

Some studies have found that familism was negatively correlated with acculturation in samples of Mexican origin individuals, and immigrant and U.S. born Latino adolescents (Cuellar, Arnold, & Gonzalez, 1995; Gil, Wagner, & Vega, 2000). Familism was also associated with avoidance of delinquency (Sommers, Fagan, & Baskin, 1993) and lesser alcohol use (Gil et al., 2000) in Latino adolescents. Thus, among younger Latinos, familism is inversely associated with acculturation and with behavior problems.

Methods

Robinson and Knight (2002) assessed acculturation, familism, burden, and depressive symptoms in a sample of forty-eight Latino caregivers recruited from community agencies in Los Angeles. Measures used included: (1) the Acculturation Rating Scale for Mexican Americans (Cuellar, Arnold, & Maldonado, 1995), which measures Anglo and Latino orientations; (2) the Sabogal et al. (1987) familism scale, which was derived from the Bardis (1959) and Triandis et al. (1982) familism scales; (3) a modified 14 item version by Knight, Fox, and Chou (2000) of the Burden Interview scale developed by Zarit, Reever, and Bach-Peterson (1980); and (4) a modified version of the CES-D scale (O'Hara, Kohout, & Wallace, 1985), which consisted of 11 of the original 20 items.

Results

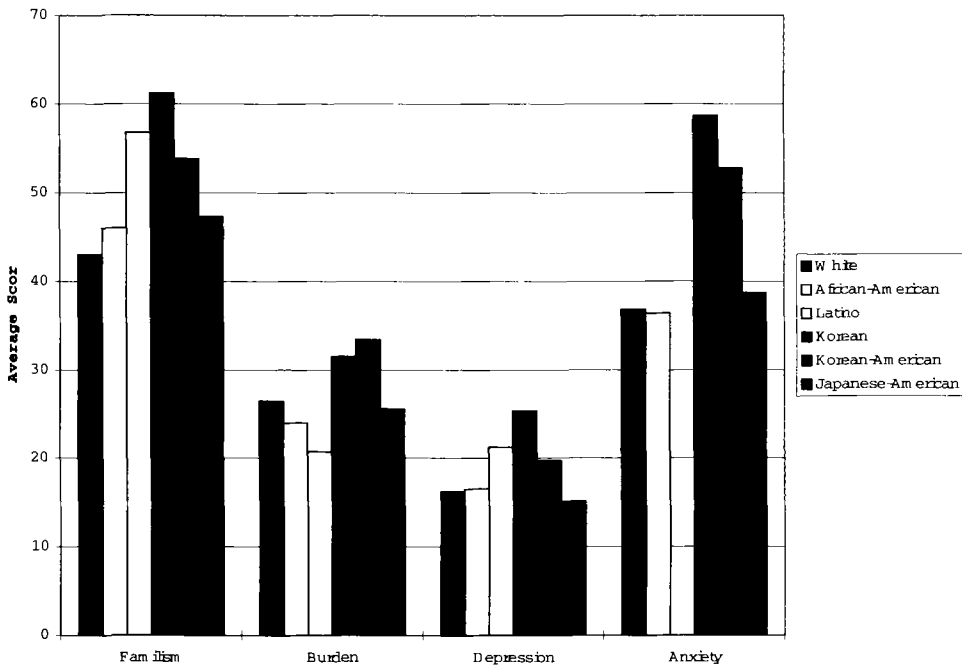
Results of Robinson and Knight's (2002) study indicated that familism was significantly associated with lower Anglo and higher Latino cultural iden-

tifications, and lesser burden, but not with depressive symptoms. Neither Anglo nor Latino cultural identification was correlated with burden or depressive symptoms. A path model in which acculturation had a direct effect on familism, familism was negatively related to burden, and burden was positively associated with depressive symptoms fit the data well. Thus, culture as measured by acculturation had little influence on the distress outcomes of Latino caregivers, but played a role in the process of caregiving by affecting cultural values such as familism, which in turn had an effect on burden.

In order to compare the results of this study to other ethnic caregiver samples recruited by our lab, the Sabogal et al. (1987) familism and CESD-11 item scores were converted to scores that could compare to the Bardis familism scores and the CESD-20 item scores used in other samples from this lab. Three items of the Sabogal et al. (1987) familism scale were similar to the Bardis (1959) scale, consequently, a 15 item Bardis familism score was derived by multiplying the average Sabogal et al. (1987) item score by 15. Similarly, the CESD-11 item score was transformed to a 20 item mean score by multiplying the average CESD-11 item score by 20. Results of these transformations can be seen in Figure 2. In Figure 2, Latinos are among the highest groups on familism, but of these groups high on familism, only Latinos are low on burden.

Figure 2

Familism, burden, and emotional distress outcomes by ethnicity



Discussion

According to Robinson and Knight (2002), it appears that culture, as measured by acculturation, does not directly affect the appraisal of caregiving as burdensome or outcomes such as depressive symptoms in the stress and coping model for Latino caregivers, but rather, it has small to negligible indirect effects on caregiving outcomes, thereby indicating limitations to the influence of culture on the caregiving outcomes of Latino caregivers. However, the fact that acculturation had small to near zero indirect effects on caregiving outcomes does not rule out the importance of culture in the stress and coping model of Latino caregivers because acculturation affected precursor variables such as familism, and familism (a cultural value) was associated with lesser burden. Thus, Robinson and Knight (2002) indicated that culture plays a significant role in the process of caregiving, but not in the emotional distress outcomes of Latino caregivers.

This lack of an association between acculturation and emotional distress outcomes found in Robinson and Knight's (2002) study, corroborated Polich and Gallagher-Thompson's (1997) findings. Furthermore, when using converted scores, this sample of Latino caregivers had similar levels of burden and depressive symptoms as compared to other Latino caregiver samples (Cox & Monk, 1990, 1993; Mintzer et al., 1992; Valle, 1994), with one exception (Harwood et al., 1998). Compared to Harwood et al's (1998) study, our sample had higher levels of depressive symptoms. This discrepancy in findings is most likely due to differences in samples; ours consisted of mostly Mexican origin caregivers whereas Harwood et al's (1998) was entirely Cuban American. It is not surprising to find that Mexican origin caregivers endorse higher depressive symptoms than Cuban Americans since elderly Cuban Americans report better health, less physical disability, and higher life satisfaction compared to other elderly Latino groups (Angel & Angel, 1992). Finally, findings of higher familism scores in our Latino sample replicated those of Cox and Monk (1990) whereby Puerto Rican caregivers endorsed significantly more feelings of filial support than African Americans. However, findings of a negative relationship between familism and burden in our Latino sample did not parallel Cox and Monk's (1993), possibly reflecting group differences in this association. Mangum, Garcia, Kosberg, Mullins, and Barresi (1994) noted many variations in attitudes, norms, practices, expectations, and stereotypes among and within racial/ethnic groups. Consequently, caution should be used in extending the results of our Latino sample to other Latino populations such as Puerto Ricans or Cuban Americans.

Korean Caregivers

East Asian cultures are widely considered to be among the highest in familism, with a cultural emphasis on Confucian values of filial piety and

respect for elders. In collaboration with Korean researchers, our lab group discovered that Korean and Korean American caregivers reported higher levels of anxiety, depression, and burden than white caregivers (Youn, Knight, Jeong & Benton, 1999), even though they were much higher in familism than White, U.S. caregivers (See Figure 2). These findings pose a problem for a simple application of the cultural value of familism to caregiver outcomes in the sociocultural stress and coping model.

Higher emotional stress among Korean caregivers could be associated with the gap between real family dynamics and traditional Korean values, which are still perceived as familism ideology among Koreans, but may not be strong enough to influence family caregiving behavior due to the Westernization and industrialization of Korea. Shin (1999) explained that traditional familism still exists as an ideology among Koreans, and so family caregiving behaviors are assessed based on this ideology. However, the changes in living arrangements and life styles that accompany social change have made it difficult to follow traditional familism values, so that family stress results from the discrepancy between ideal attitudes (familism) and actual caregiving behavior. For instance, traditional Korean familism emphasizes filial piety, so that caring for elderly parents has been identified as the adult child's (especially the eldest son's) responsibility. However, the eldest son and his wife, who live in an urban area away from their elderly parents due to their jobs, cannot offer expected levels of care to their elderly parents due to physical distance. Thus, the discrepancy between ideal attitudes (familism) and real behaviors could cause emotional distress among Korean family caregivers.

In addition, lack of social support in caring for elderly parents may explain the higher emotional distress of Korean caregivers. In our earlier study, Korean caregivers reported the lowest levels of emotional and instrumental support (Youn, et al., 1999). The level of social support for Korean American caregivers was still low, although higher than Koreans. Korean American caregivers have been reported to receive more social support from the church and other informal resources, than Korean caregivers (Koh & Bell, 1987; Moon, 1996). Although not measured in our research to date, it is also possible that negative effects of family support offered by sisters-in-law to the daughter-in-law help to account for high levels of emotional distress among Korean caregivers.

Finally, different family relationships between primary caregivers and care-receivers may be associated with high levels of emotional distress among Korean caregivers. For Koreans, the eldest son's wife is primarily responsible for caring for the elderly because the eldest son is physically and financially responsible for his parents (Choi, 1993; Youn & Song, 1992). This means that the eldest son's wife takes care of her parents-in-law due to obligation, rather than affection. Consequently, Korean caregivers may feel higher emotional stress than white caregivers, most of whom are spouses or daughters caring for their family members with affection.

In order to help explore the relationship of familism to burden and to emotional outcome variables such as anxiety and depression, Chun, Knight, and Youn (in preparation) performed regression analyses on a sample that included the Korean, Korean American, and White U.S. samples used by Youn et al. (1999), with additional Korean and Korean American caregivers added to the earlier sample.

Methods

White and Korean American caregivers were living in Los Angeles or Orange County, California, and the Korean caregivers were residing in the metropolitan Kwangju area (population of about 1.4 million) located in South Korea. For the Korean American caregivers, the average duration of stay in America was 17.8 years. Most of the caregivers were interviewed at their own home or other convenient places for the caregiver. Since the caregivers arranged the interview time, interviews were not disturbed by caregiving duties.

To increase sample size, additional Korean American caregivers were recruited from various agencies such as Korean Adult Day Health Care centers and clinics, churches, and from radio advertisements. Additional Korean caregivers were added to the Kwangju sample using similar recruitment methods. This expanded sample consisted of 54 White, 64 Korean, and 53 Korean American caregivers, who were caring for demented elderly relatives in the community. The primary caregiver was defined as a person who provides at least eight hours of labor per week, or who made the main decisions for the demented patient. The majority of the primary caregivers in this sample were married women, currently living with the elderly patient.

Measures used included the Zarit Burden Interview (Zarit, Reever, & Bach-Peterson, 1980), the CES-D depression scale (Radloff, 1977), and the Spielberger anxiety scale (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1985). The participants were also asked about the number of persons available to support the caregiver with affective and instrumental support. The subscales of the Burden Interview identified by Knight, Fox, and Chou (2000), embarrassment/anger, reaction to patient dependency, and self-criticism, were used in these analyses. The Revised Memory and Behavior Problem Checklist (Teri, Truax, Logsdon, Uomoto, Zarit, & Vitaliano, 1992), which has subscales assessing memory problems, behavior problems, and care recipient depression was also used.

To examine emotional distress outcomes measured by depression and anxiety in three different groups (White, Korean American, and Korean caregivers), Chun et al. used multivariate regression analysis. Model 1 included caregiver characteristics such as physical health, relationship with care receiver, education, and age. Model 2 included patients' observable behavior problems such as memory-related problems, disruptive behavior, and depression. Model 3 added the burden subscales of patient's dependency, embarrassment/anger,

and self-criticism. Model 4 added familism. Model 5 contained the number of instrumental and emotional supports. The following section summarizes the findings of Chun et al.'s study.

Results

Depression Outcomes. In the White caregiver sample, Model 1, 2, 3, 4, and 5 explained 20.9 percent, 21.6 percent, 43.9 percent, 46.2 percent, and 49.5 percent of the variance of depression respectively. In Model 1, poor physical health significantly predicted greater depression; however, when controlling for other factors in model 2, physical health became insignificant. In Model 3 and Model 4, the child relationship, embarrassment/anger burden, and self-criticism burden factors were significant positive predictors for depression. When controlling for social support (Model 5), only child relationship and self-criticism burden factors were significant. Consequently, among White caregivers, higher embarrassment burden, higher self-criticism burden, the child relationship (as compared to being a spouse caregiver), and poor physical health were important positive predictors of depression.

In the Korean American caregiver sample, Model 1, 2, 3, 4, and 5 explained 19 percent, 33 percent, 37 percent, 37 percent, and 41 percent of the variance for depression respectively. Among the Korean American caregivers, only the caregiver's greater age was significant in predicting lesser depression in Models 1 and 2. In the Korean sample, Model 1, 2, 3, 4, and 5 explained 21 percent, 36 percent, 47 percent, 47 percent, and 59 percent of the variance for depression respectively. Higher patient's depression and lesser patient's dependence were important in explaining depression among Korean caregivers in Models 3 and 4.

In sum, it appears that depression in Korean caregivers is responsive to care recipient characteristics whereas in White caregivers it is primarily influenced by appraisal of caregiving as burdensome and by the caregiver's perceived health.

Anxiety Outcomes. In this study, among White caregivers, lower education, caregiver's poor physical health, patient's disruptive behaviors, and being the care receiver's child predicted the caregiver's higher anxiety level. In the White sample, Model 1, 2, 3, 4, and 5 explained 20 percent, 30 percent, 37percent, 37percent, and 41 percent of the variance of anxiety respectively. Among Korean American caregivers, lower education, younger age, higher patient's depression and higher embarrassment burden factors were found to be significant predictors of higher anxiety. In the Korean American sample, Model 1 and Model 2 explained 28 percent and 46 percent of the variance of depression respectively. Model 3 to Model 5 all explained 64% of the variance of anxiety respectively. Among Korean caregivers, lower education, being the care receiver's spouse, and higher embarrassment burden factor were significant predictors of higher anxiety. In the Korean sample, Model 1

and Model 2 explained 24 percent and 38 percent of the variance of anxiety respectively. Model 3 and 4 both explained 50%, and Model 5 explained 56 percent of the variance of anxiety. For anxiety, the ethnic differences in mediators of outcome changed, with patient characteristics operating for Whites, and appraisal of caregiving as burdensome playing a role for Korean and Korean American caregivers.

With regard to our focus on cultural values and especially familism, it is of note that familism was not related to either depression or anxiety in these analyses for any of the three groups. That is, while familism values are clearly different between the groups in terms of mean levels (Youn et al., 1999), it appears that familism is not associated with emotional distress outcomes such as depression and anxiety. Social support also was not significantly associated with these outcomes.

Discussion

While interesting differences between the groups emerged in these comparative regression analyses, the cultural value of familism appears to be statistically independent of depression and anxiety among Korean and Korean American caregivers. Social support, another potentially interesting variable in explaining cultural differences, was also not associated with anxiety or depression in this population. While there are significant between group differences in the mean levels of these variables, they appear not to be associated with the differences in depression and anxiety outcomes.

Our findings of higher depression and anxiety in our sample of Korean and Korean American caregivers cannot be compared to others because to our knowledge, there are no other caregiving studies in the U.S. that included these ethnic groups. Our findings of higher levels of burden in our sample of Korean and Korean American are inconsistent with the results of Lee and Sung (1998) using the Burden Interview (BI) (Zarit & Zarit, 1987). Lee and Sung reported similar levels of global burden in Korean caregivers (mean=2.87/SD=.69) as in White caregivers (mean=2.95/SD=.91). However, Lee and Sung reported higher levels of developmental and social burden in Korean caregivers than in White caregivers, when domain-specific burden was measured by Caregiver Burden Inventory (CBI) (Novak & Guest, 1989). Consequently, the investigation of domain-specific burden in future studies will be useful for understanding differences in caregiving burden between ethnic groups.

Future research on Korean caregivers should also explore other potential explanatory variables such as coping styles, quality of social support, and perhaps other cultural values, such as filial piety. It would also be helpful to have noncaregiver comparison groups. It is possible that Koreans are higher on depression and anxiety independent of caregiving status. Kuo (1984), for example, found Korean Americans to have substantially higher CES-D scores than other Asian American groups.

Japanese American Caregivers

In describing caregiving in Japanese traditions, it is helpful to understand three culturally specific elements that may affect stress and coping styles of older Japanese Americans. First, anecdotally, traditional Japanese culture discourages burdening others (Asian and Pacific Older Adults Task Force, 1998). "Gaman" or "perseverance" is a specific cultural value often considered a strength, so as not to cause trouble or impose a burden to others. For example, when issues and problems arise such as emotional distress, a caregiver from Japanese culture may try to hold it within the self, or perhaps within the family. In addition, "Shikataganai" or "it cannot be helped" is a phrase and conceptual approach frequently used to redress emotional strain caused by difficulties and injustices that one must face. Finally, filial piety refers to Asian specific values that describe parent care and parent-child relationship derived from Confucian doctrine (Cheung, Lee, & Chan, 1994; Ho, 1994), which characterizes children's paramount concern for their parents' well-being and manifests in respect, conformity to parents' desires, and a caring attitude and behavior toward parents (Yang, 1988).

With regard to culture and recent U.S. immigration history, Japanese Americans are among the most acculturated subgroups of Asian Pacific Islanders (Lin-Fu, 1994; Nickens, 1991), with an incremental acculturation from the Issei (first generation immigrants) to later-born generations. Later-born generations are more likely to assimilate into the dominant culture and depart from Japanese traditions (Wooden, Leon, & Toshima, 1988). In addition, compared to the later born siblings, firstborn *Nisei* were more likely to hold strong Japanese family values (Manaster, Rhodes, Marcus, & Chan, 1998). This multifaceted concept of acculturation raises a question regarding the effects of dementia caregiving on psychological well-being of Japanese American caregivers, who are caught between the mainstream and traditional Japanese cultures. Given these arguments, the purpose of this section is to examine how specific cultural values relate to Japanese American caregivers' emotional distress and coping styles.

Method

This study examined cultural factors and their association with caregiving distress and coping styles in a convenience sample of Japanese American caregivers reported in Nakao and Knight (in preparation). The sample discussed here consisted of 20 Japanese American caregivers recruited in California and Hawaii through various community agencies, including Little Tokyo Service Center in Los Angeles, CA, Rancho Los Amigos Medical Rehabilitation Center in Downey, CA, and Leahi Adult Day Care in Honolulu, HI. A newspaper article was also used to seek volunteer participants in a Southern California bilingual newspaper and a community magazine. All partici-

pants identified themselves as the primary caregiver of their non-institutionalized older family member. They were caring for an older relative who had a physician-confirmed diagnosis of dementia as reported by the caregiver. Japanese American caregivers were provided questionnaires for self-administration, or an in-person interview was conducted upon request and at the caregiver's convenience. The great majority (80%) chose the self-administration type. The participants were adult children caring for their mothers (45%), followed by spouses caring for husbands and wives (20%, respectively).

To assess caregiver burden and emotional distress among Japanese American caregivers, we used the same measurements for burden, familism, depression, and anxiety used with the other ethnic groups described in this article. Because acculturation consists of at least two distinct components, behaviors and values (Kim, Atkinson, & Yang, 1999), we used two acculturation scales designed to measure behavioral acculturation and value acculturation.

The Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA, Suinn, Ahuna, & Khoo, 1992; Suinn, Richard-Figueroa, Lew, & Vigil, 1987) measures adherence to traditional culture among Asian Americans. The scale has a core set of 21 common items including demographics and behavioral acculturation. The final acculturation score is the average of the item response scores (Scale score: 1 to 5), low scores reflect low behavioral acculturation, while a high score reflects high behavioral acculturation to U.S. mainstream culture. The question categories include ethnicity, spoken language, language preference, generation, birthplaces of the respondent, the respondents' parents, and the grandparents, and the place that the respondents were raised. Demographic variables in the original scale such as gender and age were not asked to avoid redundancy.

The Asian Value Scale (AVS) serves as the measure of acculturation in Asian cultural values (Kim et al., 1999). The AVS is a 36-item self-administered scale employing a 7-point Likert scale developed to assess adherence to Asian specific cultural values. Total scores could range from 36 to 252 for the full-scale instrument, with higher scores indicating a person holds stronger Asian cultural values, the opposite of SL-ASIA. The scale is comprised of six factors including conformity to norms, family recognition through achievement, emotional self-control, collectivism, humility, and filial piety. The present study used the total score of AVS for analysis.

Results

Reported in Figure 2 are the results of depression, anxiety, and familism of all the ethnic groups discussed in this article. An examination of mean levels of key variables showed that this group of Japanese American caregivers was similar to African American caregivers in levels of familism and burden and had relatively low levels of depression and anxiety. One could also interpret the stepwise lowering of familism, and possibly of depression and anxiety among Koreans, Korean Americans, and Japanese Americans as the conse-

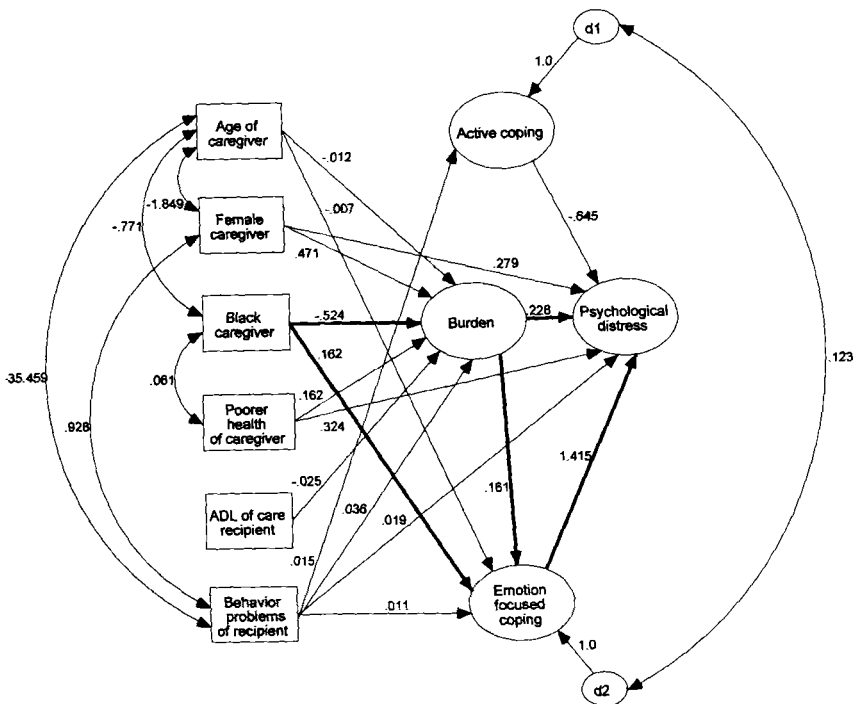
quence of increasing levels of acculturation from East Asian cultural values to Western cultural values, since Japanese Americans have the longer history of residence in the U.S..

We then calculated bivariate correlations of caregiver's distress, familism, and acculturation variables including SL-ASIA and AVS. Results revealed no significant association between familism and SL-ASIA, however, there was a significant relationship between familism and AVS ($r = .59, p < .01$). Additionally, a significant positive relationship appeared between AVS and burden ($r = .46, p < .02$), indicating Japanese American caregivers tended to report higher burden as they hold stronger Asian cultural values. A significant negative relationship was also found between SL-ASIA and patient dependency, a subscale of caregiver burden ($r = -.51, p < .05$). In other words, when a person is less acculturated to the dominant culture, he or she was more likely to feel burden for patient dependency.

Although familism was marginally associated with the total depression score ($r = .25$), we found significant relationships between familism and specific

Figure 3

Fitted causal model of burden, coping, and distress among caregivers in Knight et al. (2000). Paths showing indirect effects of race on distress are shown in bold.



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factors that constitute depressive symptoms. First, a positive association emerged between familism and somatic symptoms of depression ($r = .42$, $p < .05$), suggesting that a higher familism score was associated with higher somatic effects such as sleep disturbances and loss of appetite. Additionally, we found a negative relationship between familism and subjective well-being ($r = -.50$, $p < .05$). Lastly, familism and AVS respectively had significant associations with interpersonal isolation at the 0.05 level ($r = .47$ and $r = .39$, respectively).

Discussion

The primary finding of cultural values and caregivers' stress among Japanese Americans was that Asian cultural values were highly associated with familism and caregiver burden, specifically reaction to patients' dependency. While we had started these investigations expecting that familism would have a buffering effect on caregivers' emotional distress, our findings with this pilot sample of Japanese American caregivers suggest that familism values are associated with higher depression scores in this group. Since this is the first study to examine sociocultural factors in Japanese American caregivers, findings should be viewed as preliminary until further replication with a larger sample of Japanese American caregivers.

African American Caregivers

Studies of the stress process of African American caregivers have found that they experience less caregiver role strain (Mui, 1992), and less burden (Hinrichsen & Ramirez, 1992; Fredman, Daly, & Lazur, 1995; Allen-Kelsey, 1998) as compared to their White counterparts. Past literature has also shown that African American dementia caregivers have lower levels of depression (Haley et al., 1995; Lawton et al., 1992), or levels of emotional distress equal to White caregivers (Knight & McCallum, 1998; Hinrichsen & Ramirez, 1992; Cox, 1999).

Two samples studied by our lab group have shown that African American caregivers have lower levels of burden but similar levels of depression and anxiety as White caregivers (Knight & McCallum, 1998; McCallum, 2002). In the second sample, African American caregivers showed higher levels of familism (McCallum, 2002). However, when contrasted with the other groups discussed in this article, African Americans and Whites appear more similar than different on these variables. As seen in Figure 2, the obvious contrast on familism, depression, and anxiety would be between Whites, African Americans, and Japanese Americans on one hand, and Koreans, Korean Americans and Latinos on the other.

Using the same sample as Knight and McCallum (1998), Knight et al. (2000) used structural equation modeling to elucidate the relationships among key stress and coping model variables. Their results were that race group or ethnicity

was not directly related to emotional distress. As can be seen in Figure 3, the effects of ethnicity on caregiver distress were mediated through appraisal and coping, with the effects operating in opposite directions. On one hand, belonging to the African American group was associated with decreased burden, which led to lower levels of distress. On the other hand, African American ethnicity was also related to increased use of emotion focused coping, which was related to higher levels of distress. There was no relationship between ethnicity and active coping. It seems that for African American caregivers, the benefit of appraising the demands of caregiving as less stressful is cancelled out by coping that is not helpful, so that depression levels equal those of the non-African American caregivers who appraise the caregiving events as more burdensome, but who use other coping strategies.

Health effects in African American and White caregivers

The majority of the studies on caregiving focus on the emotional effects of caregiving, and evidence for emotional distress is clear. The potential physical health effects of caregiving are receiving increased attention. Caregivers of dementia sufferers have reported physical symptoms and health declines, but the relationships between distress and physical health are less clear than for mental health outcomes, and results have been thus far inconclusive (Schulz et al., 1995). Knight and McCallum (1998) suggest that cardiovascular reactivity (CVR) is a health indicator that is immediately responsive to stress and is related to disease endpoints for the cardiovascular system.

They did a study of 110 White and 44 African American caregivers of family members with dementia. They examined the relationships of induced stress, positive reappraisal coping (as measured by Ways of Coping scale, Folkman & Lazarus, 1988), and self-reported depression with CVR. The participants received two types of stress tasks – a mental arithmetic task and relating a story about a recent caregiving event that the caregiver thought was stressful. Before (baseline) and during these tasks, the participants' blood pressure (BP) and heart rate were taken. CVR was shown if there was a significant difference between the participants' baseline scores and the scores obtained during the tasks. Initial analyses established reactivity for heart rate in response to both stress tasks, but not for blood pressure. Multiple regression analyses revealed that for White caregivers, both the use of positive reappraisal as a coping style and higher levels of self-reported depressed mood were related to higher levels of heart rate reactivity (HR-R) for both stress tasks. In contrast, the same two variables were associated with lower HR-R to the caregiving story task for African American caregivers. The authors suggested that African American culture supported the use of positive reappraisal and so it was protective with regard to the HR-R stress response. White culture is less consistent with positive reappraisal of caregiving and so attempting to use this coping style produced higher physiological stress. The inverse

association of self-reported depressed mood and HR-R suggests a potential dissociation between emotional distress and physiological distress in African American caregivers.

Methods

Recently, the lab group has investigated coping, depression, and cardiovascular reactivity to induced stress conditions in a second, independent sample of African American and White dementia caregivers ($n=41$ and 54 respectively; Flynn Longmire & Knight, in preparation). Measures are the same except that coping was measured by the COPE scale (Carver, Scheier, & Weintraub, 1989), which distinguishes between religious coping and positive reappraisal, unlike the Ways of Coping scale which combines religious coping and positive reappraisal items. A factor analysis of the COPE scale, done by McCallum (2002), identified three factors that were used in this study. The factors are active coping, faith-oriented coping, and disengaged coping.

Results

Preliminary findings show that CVR was found in both stress tasks for systolic and diastolic blood pressure, but not for heart rate in this sample. (Heart rate measures were lost for a sizable portion of this sample due to equipment failure.) There was a significant Depression \times Positive Reappraisal interaction term; as reported depression increased, the association between positive reappraisal and diastolic blood pressure reactivity to the arithmetic task also increased. Faith-oriented coping was associated with decreased systolic blood pressure reactivity during the mental stressor, independent of race group. Greater reported active coping was related to less systolic blood pressure reactivity to the serial arithmetic task, but there was a trend for a significant interaction with race that indicates that this effect may hold only for White caregivers. Lastly, there was a trend for African American caregivers in that higher depression was related to less diastolic blood pressure reactivity to the arithmetic task, a finding which is similar to the dissociation of HR-R and depressed mood found in the Knight and McCallum (1998) sample discussed above. In separate analyses using only the female caregivers in this sample and using level of BP during baseline and during stress tasks rather than difference scores, McCallum (2002) found that coping and social support variables were associated with CVR in African American, but not in White caregivers. He also found that familism was associated with higher levels of CVR.

Discussion

The results from these two samples seem to suggest that reported emotional distress and physiological stress outcomes are often inversely related

among African American caregivers. It also appears that the relationship of coping, social support, and cultural values to CVR is stronger in African American caregivers. Finally, familism appears to have no effects for White caregivers and negative effects on CVR for African American caregivers, a finding which echoes the finding of negative effects (with depressed mood) of familism in our sample of Japanese American caregivers.

The depression findings for our African American and White samples are consistent with previous studies showing no significant differences in levels of depression for African American and White caregivers (Cox, 1999). Other studies have found that White caregivers report significantly higher levels of depression than African American caregivers (Haley et al., 1995, 1996). Differences in findings may be a consequence of sample size and recruitment, geography, and/or measures used (Dilworth-Anderson, Canty Williams, & Gibson, 2002; Janevic & Connell, 2001).

Our findings on burden also compare to the literature showing that White dementia caregivers tend to appraise the caregiving experience as more stressful than their African American counterparts (Fredman, Daly, & Lazur, 1995; Hinrichsen & Ramirez, 1992). However, Knight et al. (2000) also found that the coping strategies of the African Americans in their sample attenuated the effects of a less burdensome caregiving experience. This seems to indicate that mediators such as coping need to be included in future studies examining the relationship between race and distress.

Our findings on cardiovascular differences between African American and White caregivers cannot be compared to other caregiver studies because to our knowledge, there are no other studies examining cardiovascular reactivity in an ethnically diverse sample of caregivers. Two studies including only White caregivers did not find differences between caregivers and matched controls unless the caregivers were hypertensive or had low social support (Uchino, Kiecolt-Glaser, & Cacciopo, 1992; Vitaliano et al., 1993). This notwithstanding, the next phase of research in this area needs to consider CVR in African American and White caregivers as compared to a noncaregiver control group.

Cross Cultural Comparisons of Familism, Burden, and Emotional Distress

The set of studies and preliminary data discussed in this paper show mixed results for the role of the cultural value of familism as a potential explanation of ethnic group and cross national differences in burden and distress among caregivers. Familism values show expected contrasts across groups with White caregivers significantly lower than all other groups. It also seems that familism follows the expected relationship with acculturation to Western values. Highest levels were reported by Koreans, first generation Korean Americans, and first and second generation Latinos. Japanese Americans were lower on familism, reflecting a greater acculturation within the U.S. African-Americans,

in the U.S. for centuries, are most similar to Whites on familism values, although still statistically significantly higher on this measure.

The results supporting familism as an explanation of burden and distress differences are less consistent and generally not supportive of this hypothesis. Latinos and African Americans show the hypothesized pattern of mean differences with higher familism and lower burden, but Latinos show higher depression and African Americans are equal to Whites on depression and anxiety in these samples. Japanese Americans show higher familism but roughly equal levels of burden and emotional distress. Koreans and Korean Americans show higher familism but also higher levels of burden and distress.

Correlations and regression analyses address the issue of whether these mean differences reflect associations of familism with burden and distress. The picture is mixed and contradictory of the hypothesized role of familism as an explanation of lower levels of burden and distress. Among Latino and Japanese caregivers we found support for measures of acculturation to Western values predicting lower levels of familism. Among Latinos, Hispanic values orientation was associated with lower burden but had no impact on depressed mood. Among Japanese Americans, Asian values were associated with higher burden, and familism was also associated with higher depression scores, both relationships opposite to what we had hypothesized. Among Whites, Latinos, Koreans, Korean Americans, and African Americans, there were no significant relationships of familism to emotional distress outcomes. Among African Americans, familism was correlated with higher CVR responses to induced stress. On the whole, it appears that familism values, rather than providing a supportive cultural context for caregiving, are either unrelated to burden appraisals and distress outcomes or actually are positively associated with higher levels of burden and, for some groups, with worse mental or physical health.

What would explain these unexpected findings? Several alternatives can be offered, each needing additional research to clarify which may be accurate. First, it is possible that familism values tend to be more reflective of obligation than of affection, genuinely felt connection to family, and willingness to care for older frail family members. There is anecdotal evidence for this with regard to Asian cultural values, which confer the responsibility on the oldest son's wife who may experience considerable conflict with both the parents-in-law being cared for and with the sisters-in-law who may offer advice and criticism without offering assistance.

A second possibility is that familism, or this specific measure of familism, may be the wrong construct. The measure is intended to tap a dimension of familism to individualism that would be consistent across differing cultures. In Asian cultures with roots in Confucian values, measures specifically designed to tap filial piety and respect for elders may be more appropriate. Although less obviously salient in other cultures, these values also may be present in non-Asian cultures and even in the U.S. (Sung, 1994). On the other hand, the differing findings among the groups included in this review may suggest

that different values are at work in different cultures. This line of thought would lead us to attempt to define and measure what aspects of Latino cultural values are relevant to caring for frail elderly, and to the same process but potentially different outcomes for African American cultural values.

A third alternative is that cultural values, while intrinsically interesting, are not the operative factors influencing mental health and physical health outcomes among caregivers. In our work with African-American caregivers, coping styles and social support have emerged as strong correlates of both classes of outcomes. Cultural differences may be operating through influences on choice of coping styles and influences on social support quantity and quality (e.g., Knight et al., 2000; McCallum, 2002) rather than through the influence of cultural values on burden appraisals as hypothesized initially.

Limitations

Although the term Latino is used in this paper as a way of describing our diverse Latino sample, Latinos are not a homogenous group. The composition of elderly Hispanic subgroups in the U.S. include: 50 percent Mexican American, 17 percent Cuban American, 11 percent Puerto Rican, 12 percent Central/South American origin, and 10 percent from other Latino backgrounds (U.S. Bureau of the Census, 1998). In addition, Hispanic groups differ substantially in socioeconomic status and in the salience of minority status (i.e. Mexican Americans and Puerto Ricans fare worse than Cuban Americans; Mintzer, Rubert, & Herman, 1994). Consequently, differentiation of subgroups within Latinos is highly desirable; however, our cell sizes were too small for meaningful subgroup analysis.

Another issue to consider is that only the primary caregiver was included. Caregiving systems can be individualistic (only one caregiver) or collectivist (two or more caregivers) (Dilworth-Anderson, Williams, & Cooper, 1999; Pyke & Bengtson, 1996). A review of research on caregivers among diverse groups found that informal support networks among African American caregivers are more likely to include a friend or a neighbor as an important helper, and White caregivers are more likely to only use immediate family members (Dilworth-Anderson et al, 2002). Compared to White elders, Latinos are more likely to live in three-to-four person households, and to receive care from a spouse and another relative (unpublished study by Mintzer *et al* described in Mintzer *et al* (1994)). The responsibilities of additional caregivers to African American elders range from tasks similar to the primary caregiver but without being in charge of making decisions for care recipient's care and support, to only being responsible for a specific task such as grocery shopping (Dilworth-Anderson et al., 1999). In contrast to African Americans, the responsibilities of additional caregivers to Latino elders are more gender based (i.e. sons are in charge of financial affairs, minor home and car repairs while daughters provide personal care; Sotomayor & Randolph, 1988). Consequently, it is quite possible that lower levels of burden found in our African American and Latino samples

reflect the assistance of additional caregivers to the primary caregiver, or as has been proposed by Williams and Dilworth-Anderson (2002), a linkage to formal support by these additional caregivers.

Findings of our studies can only be generalized to caregivers of persons with dementia, a sample that is not representative of the broader population of informal caregivers. Since cultural issues and familism are relevant to all caregivers, the data provided in this paper limit generalization to caregivers of dementia. Furthermore, as is true of most research to date on ethnic issues in caregiving, the data from our lab group reviewed here are based on cross sectional studies of convenience samples, mostly referred from service agencies. This suggests further caution in generalizing the results, especially since there may be ethnic differences in help seeking and in willingness to participate in research that are confounded with ethnic differences in caregiving. The lack of noncaregiver control samples also limits conclusions in that we cannot know whether differences among groups may reflect national or ethnic group differences that are independent of caregiving status. Future research should move in the direction of longitudinal studies with larger samples, probability sampling of caregivers, and noncaregiver control groups. Such studies would be large, expensive, and require considerable resources.

Summary

This set of studies from our lab group provides a start toward improved scientific understanding of cultural differences in caregiving. To our knowledge, this is the first report to systematically measure cultural values and to compare multiple ethnic groups on a common set of measures. The results suggest that the attribution of group differences to familism values was likely responsive to the obvious and systematic differences between groups on these values and the compelling conceptual obviousness that persons high on familism values would make good and happy caregivers. However, like many such obvious relationships, the data do not support this one. In these samples, familism is at best independent of mental health and health outcomes and in some ethnic groups appears to lead to worse outcomes.

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