ASSOCIATION OF FILIAL RESPONSIBILITY, ETHNICITY, AND ACCULTURATION OF FAMILY CAREGIVERS OF OLDER ADULTS

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Abstract

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With the growing numbers of Asian and Hispanic elder immigrants and their family caregivers, there is a need to understand their caregiving concerns. Researchers have identified that 1st generation immigrant caregivers face care challenges due to cultural differences and extent of acculturation to the host country. However, potential changes in level of filial responsibility and caregiving attitudes among later generations of caregivers have not been examined, which is the focus of this dissertation.

Using the 2009 California Health Interview Survey, the first paper describes the characteristics of Asian, Hispanic and non-Hispanic White American family caregivers of older adults in California. Second generation Asians and Hispanics were the youngest while 2nd generation non-Hispanic Whites were the oldest caregivers. Asian and non-Hispanic White caregivers attained a higher education level than Hispanics, but Asian and Hispanic caregivers'

educational attainment increased in later generations. The vast majority self-rated their health as good, but the later the generation of Asian and Hispanic caregivers, the poorer their health status.

The second paper examines caregiving attitudes and practices among the same racial and ethnic caregiver groups across generations. Based on Gordon's assimilation theory, respite care use, caregiving hours and duration were compared across the three groups. Non-Hispanic White caregivers showed less caregiving involvement in later generations. However, 3rd generation Asian and Hispanic caregivers used respite care the least and spent the most hours and length of care compared to earlier generations, which reveals cultural values of filial responsibility among later generations.

The final paper compares filial responsibility among 2nd, 2.5 and 3rd generations of 40 Chinese- and Japanese-American caregivers. The Suinn-Lew Asian Self Identity Acculturation scale and the Filial Values Index measured caregivers' acculturation and filial responsibility levels; these identified later generation caregivers with higher acculturation and filial responsibility scores, indicating a strong sense of filial responsibility among 3rd generation caregivers. Qualitative interviews showed similar patterns of continued caregiving involvement even after the placement of their loved ones in a long-term care facility. Future research includes analyzing more in-depth the reasons and motivations for later generation caregivers' high level of filial caregiving involvement.

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INTRODUCTION

The importance of family caregivers' contributions not only to their aging relatives, but also to society is growing as older adults' chronic conditions and frailty increase (Feinberg, Reinhard, Houser, & Choula, 2011). This trend will intensify with the aging of the baby boomers (Coughlin, 2010). There is a corresponding increase in racially and ethnically diverse family caregivers, especially among Asian and Hispanic immigrants (Leach, 2009; Markides, Salinas, & Sheffield, 2009). These elder immigrants and their caregivers bring their filial caregiving expectations and practices from their home countries to a new home. However, due to caregivers' acculturation and assimilation to the host society and its culture, these immigrant caregivers may not be able to perform their filial caregiving as fully as they might have done in their homelands.

Scholars have examined the experiences of recent immigrant caregivers (1st generation) and their caregiving practices and found racial and ethnic cultural differences in their practice patterns (Dilworth-Anderson, Williams, & Gibson, 2002; Janevic & Connell, 2001; Scharlach, Giunta, Chow, & Lehning, 2008), family's expectation toward caregiving (Chow, Auh, Scharlach, Lehning, & Goldstein, 2010; Scharlach et al., 2006, 2008) and disparities in the types and supports in service use (Chow et al., 2010; Dilworth-Anderson et al., 2002; Mausbach et al., 2004; Scharlach et al., 2006). However, samples in these studies are limited to 1st generation immigrant caregivers of color. Moreover, to the researcher's knowledge, no study has examined potential changes in caregivers' filial caregiving attitudes and practices due to their assimilation to U.S. society, especially among later generations of these immigrant caregivers (e.g., 2nd and 3rd generations of Asian and Hispanic caregivers). Based on Gordon's classical assimilation theory (1964), this dissertation, *Association of Filial Responsibility, Ethnicity, and Acculturation*

of Family Caregivers of Older Adults, explores caregivers' characteristics, attitudes, practices and sense of filial responsibility among three different racial and ethnic groups of family caregivers of older adults across three generations.

The first paper, *Characteristics and Health Status of Asian, Hispanic, and Non-Hispanic White American Family Caregivers of Older Adults across Generations*, uses the 2009 California Health Interview Survey (CHIS) to examine and compare sociodemographic characteristics and health status of 591 Asian, 989 Hispanic and 6,537 non-Hispanic White American caregivers of older adults across three successive generations. Descriptive analyses and comparisons among ethnic categories and generations are performed using chi-square and analysis of variance. Detailed sociodemographic characteristics and physical and mental health among these three racial and ethnic groups as well as immigrant generations are discussed. Implications for practice are identified and suggested.

The second paper, *Caregiving Practice Patterns of Asian, Hispanic, and Non-Hispanic White American Family Caregivers of Older Adults across Generations*, uses the same samples from the 2009 CHIS dataset. It investigates caregiving practice patterns (i.e., respite care use, weekly caregiving hours and caregiving duration) of the above three racial and ethnic groups across three successive immigrant generations. Based on classical assimilation theory, two hypotheses for each practice pattern are proposed: 1) non-Hispanic White caregivers, regardless of generations, provide less caregiving compared to Asian and Hispanic counterparts; and 2) later generations of caregivers are less involved in caregiving than earlier generations regardless of racial and ethnic groups. Comparisons of racial and ethnic groups and generations are tested using logistic regression analysis and two generalized linear models. Each caregiving practice

pattern by racial and ethnic groups and generations is discussed along with future implications for research and practice.

The final paper, *Association of Filial Responsibility, Ethnicity, and Acculturation among Asian American Family Caregivers of Older Adults*, explores further the filial responsibility of later generations of immigrant family caregivers of older adults, specifically focusing on 2nd, 2.5 and 3rd generations of Chinese- and Japanese-American caregivers. Gordon's assimilation theory guided the development of semi-structured interview questions, and 19 Chinese- and 21 Japanese-American caregivers who reside in the Seattle, Washington area were recruited. Forty face-to-face interviews explore in-depth the potential similarities and differences in caregiving attitudes of three generations of Chinese- and Japanese-American caregivers. In addition, the Suinn-Lew Asian Self Identity Acculturation scale and the Filial Values Index are used to measure these caregivers' acculturation and filial responsibility levels and test the hypothesis that the later the caregivers' generation, the more acculturated and less involved in caregiving. Future research, as well as practice implications are proposed.

With the expected growth in older populations and their increasing diversity, the need to better understand the similarities and differences of family caregivers across not only racial and ethnic groups, but also multiple immigrant generations is of great importance because elders' well-being is often dependent on their family caregivers. This dissertation addresses an under-studied aspect of caregiving - generational variation - and presents new findings at both aggregate population and individual levels.

PAPER ONE:

CHARACTERISTICS AND HEALTH STATUS OF ASIAN, HISPANIC, AND NON-HISPANIC WHITE AMERICAN FAMILY CAREGIVERS OF OLDER ADULTS ACROSS GENERATIONS

Family caregivers are the "backbone of the long-term services and support" (Feinberg & Houser, 2012, p. 1) for physically and cognitively frail older adults as their chronic conditions and functional limitations increase. The estimated value of family caregivers' unpaid services is $450 billion, totaling approximately 40 billion hours per year (Feinberg, Reinhard, Houser, & Choula, 2011). This amount will increase as the population of people age 65 and older will double from 31.5 million in 2000 to 71.5 million in 2030 (Coughlin, 2010). As the general population becomes more diverse, the number of older persons of color is also increasing, especially due to the growing number of Asian and Hispanic immigrants (Leach, 2009; Markides, Salinas, & Sheffield, 2009). Those who emigrated earlier in their lives as well as those US-born people of color also account for the increasing diversity of the older population (Leach, 2009; Markides, Salinas, & Sheffield, 2009).

Given the centrality of family caregivers to older adults' care and the increasing diversity of the older population, this paper examines sociodemographic characteristics and health status of Asian, Hispanic and non-Hispanic White American caregivers of older adults across three successive generations. It is an important topic because the negative health and economic impacts of caregiving on caregivers and other family members are well documented (Feinberg & Houser, 2012; Reinhard & Choula, 2012).

LITERATURE REVIEW

The majority of research on caregiving of older adults until the 1990s was on Caucasian, middle-class populations (Jolicoeur & Madden, 2002). However, as a result of growth in the number and diversity of older adults in the United States, more attention has been paid to the issues of race, ethnicity and culture of caregivers and their influence on caregiving practice in recent years (Pinquart & Sörensen, 2005). Reviews of caregiving literature focusing not only on different racial and ethnic groups, but also on different cultural patterns of caregiving practices and challenges have been conducted (Connell & Gibson, 1997; Dilworth-Anderson, Williams, & Gibson, 2002; Janevic & Connell, 2001). Studies since the 1990s tended to focus on African American and Hispanic American caregivers (Aranda & Knight, 1997; Aranda, Villa, Trejo, Ramírez, & Ranney, 2003). After 2000, more studies were conducted on Asian caregivers, although still a relatively small number. Compared to non-Hispanic White and Black American caregivers, Hispanic and Asian caregivers are typically more recent immigrants; thus, in addition to their language and cultural differences, they have their unique caregiving traditions and beliefs which are different from those of mainstream America (Pinquart & Sörensen, 2005).

Hispanics are the fastest growing immigrant population in the United States and their older population is growing rapidly as well (Jolicoeur & Madden, 2002). Hispanics speak a common language, Spanish, but they immigrated from a variety of countries of origin, carry diverse cultural backgrounds and are at different levels of acculturation to mainstream Western society depending on the recency of arrival in the U.S. (Jolicoeur & Madden, 2002). In a 2009 random digit dialing telephone interview survey with 1397 adults (18 years+) who provide/have provided assistance to those who were 50 years and older, Hispanic caregivers were the youngest (average age, 43 years old) compared to Asian (average age 45), African American (average age

48) and non-Hispanic White (average age 51) caregivers (National Alliance for Caregiving, 2009). The vast majority of caregivers were female (67%) and more than half of them (52%) were not married. Hispanic caregivers had less educational attainment than non-Hispanic Whites, with 14% of them having less than a high school degree compared to 3% of non-Hispanic Whites; and lower household income (56% less than $50,000) than non-Hispanic White (34%) and Asian (31%) counterparts. The vast majority of Hispanic caregivers (71%) were employed while providing care and about half (47%) lived with their children and/or grandchildren, compared to 30% of non-Hispanic White and African American caregivers. Hispanic caregivers shared caregiving duties with others (64%); however, compared to other caregivers (48% of non-Hispanic White and 43% of Asian), a higher percentage of them (61%) viewed themselves as the primary caregivers. Seventy-seven percent of Hispanic caregivers considered their health as excellent/very good/good, but 18% said that caregiving had affected their health negatively. One-third of Hispanic caregivers thought of caregiving as high stress, and they reported a higher level of burden (40%) compared to Asian caregivers (20%).

Previous literature reviews and a meta-analysis of studies on Hispanic caregivers revealed that, compared to non-Hispanic White family caregivers, Hispanic caregivers were younger in age (Jolicoeur & Madden, 2002), tended to have more perceived unmet needs, (Navaie-Waliser et al., 2001), poorer psychological health (Pinquart & Sörensen, 2005), and used religious activities as their caregiving coping strategies (Navaie-Waliser et al., 2001), especially Puerto Rican caregivers (Ramos, 2004). Hispanic caregivers used more family or kin members (Neary & Mahoney, 2005) for help rather than friends (Navaie-Waliser et al., 2001; Pinquart & Sörensen, 2005) or professional caregivers (Karlawich et al., 2011), largely due to structural and cultural barriers (e.g., language and lack of awareness of formal services and their

costs) (Pinquart & Sörensen, 2005; Wallace & Villa, 1999). An exception to the general pattern among Hispanics is that some Puerto Rican caregivers used professional services for the benefit of their loved ones (Ramos, 2004). Many Hispanic caregivers were in a sandwich generation, having other family members who are under 18 years old (Ramos, 2004), and tended to have fewer financial resources compared to their non-Hispanic White counterparts (Aranda & Knight, 1997). Although they were positive about their caregiving experiences, they showed higher levels of caregiving burden, depression and health concerns compared to non-Hispanic White caregivers (Pinquart & Sörensen, 2005).

As noted above, research on Asian American caregivers is still limited compared to studies of African- and Hispanic-American caregivers (Min, Rhee, Phan, Rhee, & Tran, 2008; Mui & Shibusawa, 2008). This may be due to particular challenges in studying Asian caregivers; not only are there a variety of ethnic subgroups within the Asian race, but also each ethnic subgroup of Asians speaks different languages. In addition, both Asian and Hispanic caregivers have different immigrant generations within their ethnic subgroups. According to a survey by the National Alliance for Caregiving (2009) that included 170 Asian American caregivers, they were on average younger (average 45 years old) than non-Hispanic White caregivers (average 51), but slightly older than Hispanic counterparts (average 43). There were almost equal numbers of male (48%) and female (52%) caregivers and over half of them were married (58%). More than 75% of them were employed while providing care. Asian American caregivers were highly educated with college degrees (40%) or higher (32%). Compared to other ethnic minority caregivers (38% of both Black and Hispanic, $50,000+), they had a higher annual income (64% $50,000+). Caregiving appeared to be a shared responsibility among Asian American caregivers and 75% reported having at least one person who has shared caregiving

responsibilities. However, the amount of responsibilities was not shared equally among these caregivers. In terms of Asian American caregivers' health status, 85% rated their health as excellent/very good/good, and the vast majority (79%) reported that caregiving had not negatively affected their health. However, they rated their psychological health lower than their physical health. Although Asian American caregivers were less likely to express experiencing a caregiving burden or stressful situation (20%) compared to non-Hispanic White (30%) and Hispanic (40%) caregivers, 52% of Asian American caregivers rated caregiving as moderately to highly stressful. These mixed findings may be due to the fact that the telephone survey was conducted in English and Spanish only, and therefore, those Asian American caregivers with limited English proficiency were unable to participate in the study.

Pinquart and Sörensen (2005) conducted a meta-analysis of 116 empirical studies on differences in stressors, resources, and psychological outcomes of family caregiving among Asian, Black, Hispanic, and non-Hispanic White American caregivers from 1983 to 2004. Similar to Hispanic caregivers, Asian Americans in the 10 reviewed studies used more informal rather than formal support compared to non-Hispanic White caregivers, primarily due to language barriers. Asian Americans self-rated their health better than Hispanics but poorer than their non-Hispanic White counterparts. Similar to their Hispanic counterparts, Asian American caregivers expressed higher rates of depression compared to non-Hispanic Whites. They reported a lower quality of relationship between care recipients and themselves compared to non-Hispanic White caregivers.

Rationale for the Study

Building on previous studies of Asian and Hispanic American caregivers' sociodemographic characteristics, this paper aims to describe the overall characteristics at an

aggregate population level of Asian, Hispanic and non-Hispanic White American family caregivers of older adults in California by race and ethnicity and generation. In contrast to prior studies, it explores the similarities and differences in caregivers' sociodemographic and health status by racial and ethnic groups and immigrant generations. To the researcher's knowledge, this study is one of the few to compare racial and ethnic groups of caregivers in a population-based sample besides studies by Scharlach et al. (2003) and Sirotnik, Bockman, Neiman and Ruiz (2005), and the first one to include immigrant generation factors.

This study is limited to Asian, Hispanic, and non-Hispanic White American caregivers of older adults in California. African American caregivers were not included because of the unique reasons of their move to the U.S. (i.e., the vast majority being involuntary immigrants at certain limited periods). American Indian/Alaskan Natives were not included because of their small size and consequent statistical challenges for comparison.

METHODS

Study Data

Data were drawn from the 2009 California Health Interview Survey (CHIS) Adult 18+ dataset. The CHIS is a biennial population-based telephone health survey of California households, and one of the largest health surveys in the country. CHIS 2009 is the fifth data set in CHIS collection following 2001, 2003, 2005 and 2007 (CHIS, 2009). CHIS used a multi-stage sample design and interviewed samples from random-digit-dial telephone numbers which were assigned to both landline and cellular service. CHIS randomly selected one adult per participating household to interview throughout California.

Data were collected between September 2009 and April 2010. Five different languages - English, Spanish, Chinese (Mandarin and Cantonese), Korean and Vietnamese - were used for interviews and extensive information was collected about the health status of the overall statewide population across racial and ethnic groups. In order to reflect the population-based estimates of California counties as well as the numbers of all major ethnic groups and some ethnic subgroups, two Asian ethnic subgroups, Vietnamese and Korean, were oversampled. This oversampling strategy was completed by geographically selecting areas where high concentrations of Vietnamese and Koreans reside and using surname listings, and reached adult interviewees of 500 for each group. Other Asian ethnic groups - Chinese, Filipinos, Japanese, and South Asians - had sufficient sample sizes, and therefore, oversampling was not necessary for these groups (CHIS, 2011).

The 2009 survey covered sociodemographic information, general health conditions and status, health-related behaviors, women's health, cancer screening, diet, physical activity, health insurance coverage including child and adolescent, mental health, health and mental care service utilization and access, and public program participation. Additionally, it gathered information on subgroups of racial and ethnic groups and their immigrant generations. Thus, the 2009 CHIS dataset was ideal to examine the characteristics of Asian, Hispanic and non-Hispanic White family caregivers across racial and ethnic groups and generations. Because the CHIS 2009 is a public dataset, it was not necessary to obtain human subjects approval.

Study Sample

The 2009 CHIS Adults sample represents California's non-institutionalized community-dwelling adults 18 years and older totaling a sample of 47,614. Because one of the main purposes of the present study is to compare caregivers' immigrant generation differences, the

sample was limited to Asian (n = 4,909), Hispanic (n = 8,307) and non-Hispanic White (n = 34,205) Americans. Hispanics included Mexican, Salvadoran, South American, Guatemalan, European Hispanic, other Latino, and more than one Latino ethnic group. Asian ethnic groups are Chinese, Filipino, Korean, South Asian, Vietnamese, Japanese, and other/more than two races.

First, caregiver status: "During the past 12 months, did you provide any such help to a family member or friend?" 1 = yes, 2 = no) was used to select caregivers from this sample. "Caregiving" in this study included helping with "bathing, medicines, household chores, paying bills, driving to doctor's visits or the grocery store, or just checking in to see how they are doing." Among them, those caregivers were further selected by the relationships between caregivers and care recipients. Caregiving included all caregiving relationships (caregiver vs. father/father-in-law, mother/mother-in-law, brother/brother-in-law, sister/sister-in-law, grandparent, uncle/aunt, nephew/niece, friend/neighbor, other relative) except spousal dyads (caregivers vs. caregivers' husband/wife/spouse/partner). These relationships were recoded into five categories as caregiver vs. parents/parents-in-law, sibling/sibling-in-law, grandparent, relative, and non-relative. Final caregiver sample sizes are Asian (n = 591), Hispanic (n = 989) and non-Hispanic White (n = 6,537), totaling N = 8,117.

Measures

Sociodemographic Measures. Because CHIS data provide an extensive array of measurements including sample's birth place, which points to his/her immigrant generation, a large variety of socioeconomic variables were used in this study. Due to each cell size and the variety of categories of each measurement, some variables were recoded to have sufficient and comparable cell sizes (e.g., educational attainment, health outcomes). Variables in the present

study include age, gender (male; female), marital status (married/partnered; not married/partnered), educational attainment (high school or less; some college/college degree; college and beyond), employment status (full-time/part-time employment; unemployed), race/ethnicity (Hispanic; Asian; non-Hispanic White), annual household income, poverty level (< 200% above federal poverty level (FPL); > 200% above FPL), health insurance status (insured; uninsured), citizenship status (US-born; naturalized citizen; non-citizen), and English language proficiency (very well/well; not well/not at all). In addition, an immigrant generation variable (1st generation; 2nd /2.5 generation; 3rd and later generations) was created by the researcher based on the birth place of the caregivers and parents (US-born; foreign-born). Caregivers are 1st generation if both caregivers themselves and their parents were born in a foreign country. Caregivers are considered 2nd or 2.5 generation if caregivers were born in the U.S. and both of their parents were born in foreign countries or either parent was born in foreign country respectively. Third and later generation caregivers are those who were born in the U.S. and both of caregivers' parents were also born in the U.S.

Health Measures. Caregivers' self-rated overall health was measured by a question, "Would you say that in general your health is excellent, very good, good, fair, or poor?," and it was recoded as binary as Excellent/very good/good and fair/poor to have comparable cell sizes. More health related questions such as asthma (Has a doctor ever told you that you have asthma? Yes or no), diabetes (Has a doctor ever told you that you have diabetes or sugar diabetes?), high blood pressure (Has a doctor ever told you that you have high blood pressure?), and heart disease (Has a doctor ever told you that you have any kind of heart disease?) were also asked. Numbers of chronic health condition were calculated as no chronic disease; 1-2 chronic diseases and 3-4 chronic diseases.

Caregivers' self-rated psychological distress was assessed based on the Kessler Psychological Distress Scale (K6), which is a 6-item psychological distress measurement (Kessler et al., 2003). Questions such as "About how often during the past 30 days did you feel nervous, hopeless, restless, or fidgety, depressed, everything was an effort and worthless – would you say all of the time, most of the time, some of the time, a little of the time, or none of the time?" – were scored from 0 (none) to 4 (all of the time) Likert scale. Answers were summed, totaling from score 0 (low level of psychological distress) to 24 (high level). The optimal cut-point of K6 indicates 0-12 (1 = not having serious psychological distress) and 13 or more (2 = having serious distress) (Kessler et al., 2003). The measurement scale of the K6 Kessler Psychological Distress Scale arranges scores as the smaller the number, the better psychological status (0 = none and 4 = all the time recoded from 1-5).

Statistical Analyses

This present study is a descriptive study of the characteristics of the aggregate Asian, Hispanic and non-Hispanic White American groups of caregivers of older adults in California. All analyses were descriptive and univariate using the weighted CHIS 2009 dataset. Weighing was recommended by CHIS in order to obtain accurate variance estimations due to the complex sampling design. Data were analyzed with SAS version 9.4, which is able to handle this complex sampling design. Means and standard errors or percentages were examined to show first, the differences of sociodemographic characteristics as well as physical and mental health status of caregivers by racial and ethnic groups, and second, adding generations. *F* and Chi-square tests were conducted to compare categorical variables and one-way analysis of variance (ANOVA) tests for a few continuous variables (i.e., age, annual household income, mental health status) were used for comparisons by race and ethnicity and generations.

RESULTS

Sociodemographic Characteristics of Caregivers

Table 1.1 shows significant background characteristics across the three racial and ethnic groups of caregivers. One-way ANOVA revealed that there was a statistically significant age difference between Asian, Hispanic and non-Hispanic White caregivers ($F(2, 8114) = 418.39$, $p < .0001$). A Tukey post-hoc test also showed that there were statistically significant differences among all combinations of racial and ethnic caregivers' age groups ($p < .0001$). Hispanic caregivers were the youngest and non-Hispanic Whites were the oldest caregivers. The only characteristic which is similar among these three groups was caregivers' gender, with over 60% of them female (range from approximately 62% to 65%). More than 55% of caregivers were married or partnered at the time of the interview across the three groups ($p = .009$). Most Asian caregivers were married/partnered (approximately 63%), and Hispanic (55.5%) and non-Hispanic White (56.8%) caregivers were somewhat less likely to be married.

As to caregivers' educational attainment, Asian and non-Hispanic White caregivers were very similar. The majority (56% and 57.4% respectively) obtained some college or a college degree and slightly more than 20% of them had more than a college degree (22.8% and 22.3%), followed by 21.2% and 20.3% respectively having less than a high school/high school diploma. However, Hispanic caregivers showed a different pattern from Asian and non-Hispanic White caregivers with 55.8% having lower educational attainment while only 5.4 % obtained more than a college degree. Although non-Hispanic White caregivers were the least likely to be employed (57.7%), the majority of caregivers across the three groups are currently employed (Asian, 65.1% and Hispanic, 64.1%). However, their annual household income did not reflect a similar

pattern. There was a statistically significant income difference between the three racial and ethnic groups overall ($F(2,8114) = 128.30$, $p < .0001$). A Tukey post-hoc test showed that there was no statistically significant difference between Asian and non-Hispanic White household income ($p = .818$); however, there were significant differences between Hispanic vs. Asian ($p < .0001$) and Hispanic vs. non-Hispanic White caregivers' ($p < .0001$) household income. Asian and non-Hispanic White households had much higher mean annual household income (more than $80,000/year) while the mean income of Hispanic households was $47,000/year. The percentage of caregivers living in poverty reflected their household annual income. While the majority of Asian (71.2%) and non-Hispanic White (81.3%) caregivers placed themselves at more than 200% above the Federal poverty level (FPL), for Hispanic caregivers, only 44% were 200% above FPL. Although Hispanic caregivers had the highest uninsured rate (30.3%), the majority of caregivers currently had health insurance (e.g., Asian, 87.1% and non-Hispanic White, 90.6%).

Citizenship status also showed significantly different patterns among the three groups ($p < .0001$), and correlated with caregivers' immigrant generation cohorts. The vast majority of Asian caregivers (60.2%) were naturalized citizens followed by the US-born citizens (28.8%), while almost all non-Hispanic White caregivers were US-born (93.6%). Hispanic caregivers showed somewhat mixed citizenship status with almost 50% of them US-born; however, about 30% of them were non-citizens and about 23% were naturalized US citizens. This pattern was also reflected in caregivers' English language proficiency. Although the vast majority of all caregivers across racial and ethnic groups speak English "very well/well" (range from 70% to 100%), about 30% of Hispanic and 20% of Asian American caregivers do not speak English well.

Table 1.2 shows further analyses of caregivers' sociodemographic characteristics by generations, and provides a more detailed picture of each racial and ethnic group of caregivers. Caregivers' immigrant generations presented three different patterns. Among Asian caregivers, the vast majority were 1st generation immigrants (71.2%) and about one-fifth of them (19.5%) 2nd generation. Fewer than 10 % (9.3%) of Asian American caregivers were 3rd or later generation. Among Hispanic caregivers, slightly more than half were 1st generation immigrants (52.5%), about one-third were 2nd generation (30.3%), and close to one-fifth of them (17.2%) were 3rd or later generation immigrant caregivers. However, non-Hispanic White caregivers exhibit a different pattern. The majority of non-Hispanic White caregivers (82.5%) were 3rd generation and beyond and less than one-fifth of non-Hispanic White caregivers were 1st and 2nd generation cohorts (6.4% and 11.2% respectively). In terms of mean ages by generations, again there were significant differences in their mean ages (Asian: $M = 47.3$, $SD = 14.32$; Hispanic: $M = 42.7$, $SD = 14.57$; non-Hispanic White: $M = 55.3$, $SD = 13.52$, $p < .0001$) as well as their patterns. As mentioned earlier, Hispanic caregivers tended to be younger compared to the rest of caregivers. Both mean ages of Asian and Hispanic 2nd generation caregivers were the youngest among the three generations (40.4 and 39.4 years old respectively) whereas the mean age of non-Hispanic White caregivers was the oldest (58.3 years old). As to caregivers' marital status, although the percentages of married/partnered caregivers were different across these three racial and ethnic groups, their patterns of generational distributions were quite similar - 1st and 3rd generations were more likely to be married/partnered, compared to 2nd generation caregivers. Caregivers' educational attainment patterns across generations were significantly different between Asian and Hispanic versus non-Hispanic White caregivers ($X^2(16, N = 8117) = 750.24$, $p < .0001$). While the later the Asian and Hispanic caregivers' generations, the higher education

levels were achieved, non-Hispanic White caregivers were the opposite; the later the non-Hispanic White caregivers' generation, the lower level of educational attainment. In relation to employment status, there was no consistency in generational distributions across racial and ethnic groups except 1st generation caregivers of all Asian, Hispanic and non-Hispanic White have the highest rates of employment. Both Asian and Hispanic households have higher household income as they move from 1st to 3rd generations whereas that was not the case for non-Hispanic White caregivers' households; in this instance, 1st generation households had the highest household income and 2nd generation households the lowest. In terms of poverty levels, all racial and ethnic groups showed the same pattern – the later the caregivers' generations, the fewer of them were in poverty. The percentage rates of insured caregivers again varied across racial and ethnic groups and generations; however, Asian and Hispanic caregivers were similar in their generational patterns: the later the Asian and Hispanic caregivers' generations, the higher rates of being insured (Asian: 1st 85.5%, 2nd 90.4%, 3rd 92.7%; Hispanic: 1st 60.5%, 2nd 78.3%, 3rd 82.4%) while non-Hispanic White caregivers differed with 2nd generation caregivers most likely to be insured (1st 88.3%, 2nd 93.8%, 3rd 90.4%).

Health Status of Caregivers

Table 1.3 presents the physical and mental health status of all three racial and ethnic groups of caregivers. All indicators of health status, except the number of caregivers who have asthma, showed significant differences ($p < .0001$). The highest percentage of non-Hispanic White caregivers rated their physical health "excellent/very good/good" (86.9%) followed by Asian (78.3%), and Hispanic caregivers (72.4%). But in terms of the number of chronic health conditions (i.e., having asthma, diabetes, heart disease, and high blood pressure), non-Hispanic White caregivers had the highest number of chronic conditions: 50.5% of them had one to 4

chronic conditions whereas Asian and Hispanic caregivers had fewer conditions (38.8% and 43.9% respectively). Among the types of chronic conditions, high blood pressure was the most common chronic condition across all three groups of caregivers, but non-Hispanic White caregivers had the highest rate of high blood pressure (36.1%) followed by Hispanic (28.7%) and Asian (24.5%) caregivers. Thirteen percent of Hispanic caregivers had diabetes, the highest rate among the groups, and non-Hispanic White caregivers had significantly high percentages of those who have heart disease (9.1%) compared to Asian (6.6%) and especially Hispanic (4.1%) caregivers.

As for mental health, all three groups of caregivers showed almost no severe psychological distress; Asian caregivers were the least distressed group (97.3%) compared to non-Hispanic Whites (97%) and Hispanics (95.1%). In terms of each psychological item, Table 3 shows the mean of each item score ranging from 0 to 4; the lower the score, the less frequently caregivers reported experiencing the symptom within the past 30 days. There were significant differences across three racial and ethnic groups ($p < .0001$). Hispanic caregivers reported the highest frequencies while non-Hispanic White caregivers indicated the lowest frequencies, and Asian caregivers were between the two on items assessing hopelessness (Asian: 11.2%; Hispanic 12.9%; non-Hispanic White: 7.2%), depression (Asian: 9.5%; Hispanic: 11.3%; non-Hispanic White: 5.8%), feeling that everything was an effort (Asian: 21.4%; Hispanic: 26.5%; non-Hispanic White: 18.6%), and feeling worthless (Asian: 6.4%; Hispanic: 8.2%; non-Hispanic White: 5.9%).

Table 1.4 presents caregivers' health status by race and ethnicity and generations. Asian and Hispanic caregivers showed similar generational patterns in regards to their self-rated physical health. They rated their physical health more favorably as their generations became

later, with 66% of 1st generation Hispanic caregivers' rating their health as "excellent/very good/good" to 81% of 3rd generation doing so. More Asian caregivers self-rated their health in the excellent/very good/good category from 74% of 1st generation Asian to 93% of 3rd generation. However, non-Hispanic White caregivers rated their health almost equally across generations, with 87-88% saying they had excellent/very good/good health. In regard to the number of chronic health condition, across all racial and ethnic groups, the later the caregivers' generations, the more chronic health conditions they had, with 3rd generation Asian, Hispanic and non-Hispanic White caregivers reporting more chronic conditions compared to their 1st generation counterparts.

As to caregivers' mental health, although not statistically significantly different (p = .077), among Asian and Hispanics,1st generation caregivers appeared to be the most distressed groups across racial and ethnic groups and 3rd generations to be the least psychologically distressed; a similar pattern was not seen for non-Hispanic White caregivers. In terms of types of mental health symptoms, 1st generation caregivers experienced more symptoms than their 3rd generation counterparts, and Hispanic caregivers tended to have higher mean scores compared to Asian and non-Hispanic White counterparts. Mean score differences across three generations of Asian caregivers were quite large: the later the generations, the less frequently caregivers experienced symptoms during the past 30 days. Contrary to Asian caregivers, Hispanic caregivers' mean score differences were smaller than those of Asian caregivers in all six symptoms. Non-Hispanic White caregivers also showed similar patterns with Asian and Hispanic counterparts overall and across the types of mental health symptoms, with 1st generation having higher scores compared to 3rd generation caregivers. But none of the

differences between the scores seemed to be as large as those between Asian and Hispanic counterparts.

DISCUSSION

This study sought to explore sociodemographic characteristics and physical and mental health status across three generations of Asian, Hispanic and non-Hispanic White American family caregivers of older adults who resided in California at the time of population-based survey. Statistically significant differences in sociodemographic characteristic and physical and mental health were found both across racial and ethnic groups of caregivers and across generations. These findings suggest that it is important for health care providers and practitioners to pay attention to generational differences when considering the health care needs of racially and ethnically diverse populations of family caregivers. Moreover, combining the immigrant generations of racial and ethnic groups may misrepresent and mislead the identification of health care needs of particular populations by race and ethnicity and generations.

As shown in Table 1.2, generations represented significantly different immigration patterns across racial and ethnic groups. Not surprisingly, non-Hispanic White caregivers were the most established group, with 94% of them U.S.-born whereas only 29% of Asian and 48% of Hispanic caregivers were U.S.-born. Overall, the mean ages of these three groups of caregivers were consistent with previous studies, with younger Hispanic caregivers and older non-Hispanic White caregivers (Jolicoeur & Madden, 2002; National Alliance for Caregivers, 2009). However, different generational age patterns were found across racial and ethnic groups. While 2nd generation Asian and Hispanic caregivers tended to be the youngest within those ethnic

groups, the 2nd generation was the oldest age group for non-Hispanic White caregivers. This tendency was also reflected in the percentage ratios of married/partnered caregivers, because 2nd generation Asian and Hispanic caregivers were younger compared to 1st and 3rd generation counterparts, and therefore, they were the least married/partnered groups (37% and 46% respectively). Mean ages of each generation of Asian caregivers were distinct due to their sub-ethnic compositions. For example, 1st generation Asian caregivers primarily consisted of Vietnamese (37.5%), Chinese (20.0%), followed by Korean (14.3%) caregivers. For 2nd generation, Chinese (29.6%), Japanese (18.3%), Vietnamese (15.7%) and Filipino (12.2%) are the majority of caregivers. However, 3rd generation caregivers were predominantly by Japanese caregivers (78.2%, 43 out 55 caregivers) and Chinese (7.3%, 4 out of 55), which represented their long histories of immigration and establishment in the U.S. This pattern was investigated further in the researcher's 2014 study, *Association of Filial Responsibility, Ethnicity, and Acculturation of Asian American Family Caregivers of Older Adults* which involved interviews with 40 2nd, 2.5, and 3rd generations of Chinese- and Japanese-American caregivers in the Seattle metropolitan area in order to explore their caregiving experiences and their potential caregiving behavioral changes in relation to level of acculturation to US society.

Educational attainment was higher among Asian and non-Hispanic White caregivers compared to Hispanic counterparts. This pattern was also consistent with previous studies (National Alliance for Caregivers, 2009). However, later-generation Asian and Hispanic caregivers appeared to have obtained higher levels of education. Interesting patterns were found in employment status and annual household income of Asian and Hispanic caregivers in relation to their immigrant generation. Across generations, more than 60% of Hispanic caregivers were employed and, their annual household income steadily increased as later generations acquired

higher levels of education and English language proficiency. However, Asian caregivers presented slightly different pictures. Although the highest percentage of employed Asian caregivers was 1st generation and the lowest was 3rd generation, their annual household income presented an opposite pattern, with 1st generation family households to be the lowest income and the 3rd generation the highest. Again, this pattern may be highly correlated with who were the 1st and 3rd generation Asian caregivers. As mentioned earlier, the vast majority (72%) of 1st generation Asian caregivers were new Vietnamese, Chinese and Korean immigrants who arrived to the U.S. with their 1st generation immigrant relatives who may be raising their own family members and caring for their aging parents while potentially working in lower skilled jobs due to their language barrier. Contrary to that situation, as mentioned above, 43 3rd generation Japanese-American caregivers may have already retired, but have accumulated wealth in addition to their higher educational attainment.

The majority of Asian, Hispanic and non-Hispanic White American caregivers self-rated their health as good; however, the later the generation, the more chronic conditions they reported. This pattern may have to do with age differences since advancing age is associated with more chronic conditions, and the likelihood of increased access to health care and diagnostic workups for non-Hispanic White caregivers. First generation Asian caregivers had the fewest chronic health conditions among the three generations while 3rd generation caregivers had the highest number of chronic diseases. Similar patterns were found among Hispanic caregivers; 2nd generation caregivers were the healthiest with no chronic disease (59.3%) whereas 3rd generation counterparts appeared to have the poorest health. These patterns may be due in part to their dietary changes and daily lifestyle as they assimilated to an American lifestyle. The incidence of chronic health conditions of Asian and Hispanic caregivers,

particularly asthma, heart disease, and high blood pressure, also seemed to reflect their assimilation patterns because the later the caregivers' generations, the more likely that caregivers had these chronic conditions. Contrary to patterns of Asian and Hispanics, non-Hispanic White caregivers did not show as wide a difference in the percentage rates of number of chronic health conditions and types of chronic conditions across generations. Non-Hispanic White caregivers tended to have heart disease and high blood pressure, but their rates were almost identical among the three generations. This is likely because the non-Hispanic White population has been long established in the U.S. and therefore, few differences can be observed generationally.

The mental health of Asian and Hispanic caregivers again showed similar patterns but in opposite directions from their physical health conditions across generations. In general, the later the caregivers' generation, the better their mental health and the less frequently they felt nervous, hopeless, restless, depressed, and worthless. These patterns are understandable since as the later generations of caregivers became more assimilated to the U.S., they would have gone through the U.S. education systems, have less problem in speaking and understanding English, have larger social networks, and have become familiar with the U.S. health care systems.

Study Limitations

The present study has several limitations. This is a cross-sectional study which means that the caregivers' responses were based on their conditions at the time of the interviews. There may also be historical and societal conditions that are different across generations. Furthermore, it is a secondary data analysis using sample populations who lived in California, had working phone lines or portable phones, and were able to participate in phone interviews at particular times. Interviews were also conducted in five languages only - English, Spanish, Chinese (Mandarin and Cantonese), Korean and Vietnamese. Although these are major languages spoken

by a large portion of immigrants in California, caregivers who speak other languages (e.g., Japanese and Tagalog) may not have been able to participate in the survey. Other than the simultaneous consideration of race and ethnicity and generation (i.e., Tables 2 and 4), findings in this study are bivariate because no other characteristics are held constant, and to the extent that the characteristics being compared are correlated. Therefore, some of the relationships might be confounded, as a result of correlation. Without comparison to a sample of non-caregivers, whether or not the differences found in this study are the reflections of and unique to caregivers is unknown. Thus, interpretation of findings from this study must be done with caution and any causal conclusions should not be drawn. Due to its location, California is an ethnically and racially diverse state, attracts newcomers and continuously receives Asian and Hispanic immigrants. As a result, California's racial and ethnic group composition is unique and does not represent the population compositions of the United States, and thus, findings of this study may not be generalizable to racial and ethnic groups in other areas.

CONCLUSION

Despite these limitations, this study not only provides information on racial and ethnic differences of Asian, Hispanic and non-Hispanic White American family caregivers of older adults, but also contributes to the knowledge base on the heterogeneity of sociodemographic characteristics and health status across three generations. The findings reveal generational differences between as well as within each racial and ethnic group in terms of sociodemographic characteristics and health status. The strengths and vulnerabilities distinctive to each racial and ethnic group and its generation point to the necessity of researchers and practitioners' understanding the recency of each group's immigration to the U.S.

Furthermore, there are diverse sub-ethnic groups of Asians and Hispanics who speak different languages and have different cultures. Therefore, it is important to explore their sociodemographic and health differences between sub-ethnic groups and across generations at the aggregate racial and ethnic subgroup levels because combining several sub-ethnic groups of Asians and Hispanics with multiple generations may not reflect the real representation of Asian and Hispanic American family caregivers of older adults. Practitioners and clinicians need to be aware of such differences when working with these caregivers. Program planners need to be aware of generational differences across racial and ethnic groups of caregivers and ensure that linguistically, culturally and generationally appropriate assistance will be provided to diverse groups of family caregivers.

Table 1.1
Caregivers' Sociodemographic Characteristics by Race/Ethnicity

	Asian (n=591)	Hispanic (n=989)	Non-Hispanic White (n=6537)	*p*
Age, years, mean (SE) (range 18-85)	47.3 (.589)	42.7 (.463)	55.3 (.167)	<.0001*
Gender, %				
Male (n = 2912)	38.1	37.0	35.5	.337
Female (n = 5205)	61.9	63.0	64.5	
Marital Status, %				
Married/Partnered (n = 4634)	62.9	55.5	56.8	.009
Not married/Partnered (n = 3483)	37.1	44.5	43.2	
Educational Attainment, %				
Less than High School/HS (n = 2007)	21.2	55.8	20.3	<.0001
Some College/College (n = 4467)	56.0	38.8	57.4	
More than College (n = 1643)	22.8	5.4	22.3	
Employment Status, %				
Employed (Full-/Part-time)(n = 4793)	65.1	64.1	57.7	<.0001
Unemployed (n = 3324)	34.9	35.9	42.3	
Annual Household Income, $, mean (SE)	81,265 (2716.2)	47,762 (1514.8)	82,940 (823.2)	<.0001*
Poverty Level, %				
<200% FPL (n = 1950)	28.8	56.2	18.7	<.0001
>200% FPL (n = 6167)	71.2	43.8	81.3	
Insurance Status, %				
Insured (n = 7129)	87.1	69.7	90.6	<.0001
Uninsured (n = 988)	12.9	30.3	9.4	
Citizenship Status, %				
US-Born Citizen (n = 6759)	28.8	47.5	93.6	<.0001
Naturalized Citizen (n = 909)	60.2	22.8	5.0	
Non-Citizen (n = 449)	11.0	29.7	1.4	
English Language Proficiency, %				
Very well/Well (n = 7693)	80.2	70.3	99.8	<.0001
Not well/Not at all (n = 424)	19.8	29.7	.2	

Note. SE = Standard error
* Results of F tests; others are based on chi-square tests.

Table 1.2
Caregivers' Sociodemographic Characteristics by Race/Ethnicity & Generation

	Asian (n=591)	Hispanic (n=989)	Non-Hispanic White (n=6537)	*p*
Generation, Count (%)				<.0001
1st generation (n = 1358)	421 (71.2)	519 (52.5)	418 (6.4)	
2nd generation (n = 1144)	115 (19.5)	300 (30.3)	729 (11.2)	
3rd+ generation (n = 5615)	55 (9.3)	170 (17.2)	5390 (82.5)	
Age, years, mean (SE) (range 18-85)				<.0001*
1st generation	48.4 (.638)	44.2 (.551)	55.1 (.637)	
2nd generation	40.4 (1.631)	39.4 (.957)	58.3 (.564)	
3rd generation	52.8 (1.475)	44.1 (1.198)	54.9 (.181)	
Gender, %, Male (n= 2912)				.656
1st generation	36.3	36.0	34.0	
2nd generation	43.5	38.0	37.0	
3rd generation	40.0	38.2	35.4	
Marital Status, %				
Married/Partnered (n= 4634)				<.0001
1st generation	69.1	61.5	57.2	
2nd generation	37.4	45.7	51.6	
3rd generation	69.1	54.7	57.5	
Educational Attainment, %				
Less than High School/HS (n = 2007)				<.0001
1st generation	22.6	69.4	16.5	
2nd generation	23.5	43.0	18.2	
3rd generation	5.5	37.1	20.9	
Some College/College (n = 4467)				
1st generation	55.8	27.7	58.4	
2nd generation	53.0	49.3	55.8	
3rd generation	63.6	54.1	57.5	
More than College (n = 1643)				
1st generation	21.6	2.9	25.1	
2nd generation	23.5	7.7	25.9	
3rd generation	30.9	8.8	21.5	
Employment Status, %,				
Employed (Full-/Part-time)(n = 4793)				<.0001
1st generation	66.7	65.3	60.8	
2nd generation	62.6	61.7	54.7	
3rd generation	58.2	64.7	57.9	
Annual Household Income, $, mean (SE)				<.0001*

1st generation	77,364 (3129.9)	35,987 (1741.7)	86,447 (2483.1)	
2nd generation	84,243 (6474.0)	56,603 (2810.1)	81,214 (898.8)	
3rd generation	104902 (9225.2)	68,108 (4385.1)	82,903 (727.2)	
Level, %, <200% FPL (n = 1950)				<.0001
1st generation	31.6	71.7	21.3	
2nd generation	25.2	43.0	20.3	
3rd generation	14.5	32.4	18.3	
Insurance Status, %, Insured (n = 7129)				<.0001
1st generation	85.5	60.5	88.3	
2nd generation	90.4	78.3	93.8	
3rd generation	92.7	82.4	90.4	

Note. SE = Standard error

* Results of F tests; others are based on chi-square tests.

Table 1.3
Caregivers' Health Status by Race/Ethnicity

	Asian (n=591)	Hispanic (n=989)	Non-Hispanic White (n=6537)	*p*
Self-Rated Physical Health, %				<.0001
Excellent thr Good (n = 6861)	78.3	72.4	86.9	
Fair/Poor (n = 1256)	21.7	27.6	13.1	
Number of Chronic Health Conditions, %				<.0001
0 (n = 4152)	61.3	56.1	49.5	
1-2 (n = 3705)	37.1	41.1	47.1	
3-4 (n = 260)	1.7	2.8	3.4	
Type of Chronic Health Condition, %				
Asthma (n = 1308)	12.9	14.2	16.7	.10
Diabetes (n = 760)	8.0	13.1	8.9	<.0001
Heart Disease (n = 672)	6.6	4.1	9.1	<.0001
High Blood Pressure (n = 2786)	24.5	28.7	36.1	<.0001
Self-Rated Mental Health, %				.006
Psychological Distress K6 <13 (n = 7859)	97.3	95.1	97.0	
Psychological Distress K6 >13 (n = 258)	2.7	4.9	3.0	
Mental Health Status, mean, (SE) (range 0 – 4)*				
Felt Nervous	.816 (.036)	.976 (.031)	.871 (.011)	.597
Felt Hopeless	.467 (.033)	.532 (.027)	.314 (.008)	<.0001
Felt Restless	.673 (.038)	.957 (.033)	.819 (.012)	.189
Felt Depressed	.335 (.029)	.431 (.025)	.230 (.008)	<.0001
Felt Everything an Effort	.760 (.044)	.881 (.037)	.673 (.012)	<.0001
Felt Worthless	.261 (.027)	.299 (.024)	.222 (.008)	<.0001

Note. SE = Standard error
Results are based on chi-square tests.
*0 = none of the time; 1 = a little of the time; 2 = some of the time; 3 = most of the time; 4 = all of the time

Table 1.4
Caregivers' Health Status by Race/Ethnicity and Generation

	Asian (n=591)	Hispanic (n=989)	Non-Hispanic White (n=6537)	*p*
Self-Rated Physical Health, %				<.0001
Excellent/Very Good/Good (n = 6861)				
1st generation	74.1	66.1	87.6	
2nd generation	87.0	78.7	87.8	
3rd generation	92.7	80.6	86.8	
Number of Chronic Health Condition, %				<.0001
0 Chronic Disease (n= 4152)				
1st generation	64.4	57.8	54.1	
2nd generation	55.7	59.3	48.0	
3rd generation	49.1	45.3	49.3	
1-2 Chronic Diseases (n= 3705)				
1st generation	34.2	40.3	43.3	
2nd generation	42.6	37.3	47.2	
3rd generation	47.3	50.0	47.4	
3-4 Chronic Diseases (n= 260)				
1st generation	1.4	1.9	2.6	
2nd generation	1.7	3.3	4.8	
3rd generation	3.6	4.7	3.3	
Type of Chronic Health Condition, %				
Asthma (n = 1308)				<.0001
1st generation	9.3	10.4	10.3	
2nd generation	23.5	16.0	16.2	
3rd generation	18.2	22.4	17.3	
Diabetes (n = 760)				.040
1st generation	6.7	11.9	6.7	
2nd generation	6.1	9.0	7.1	
3rd generation	7.3	14.1	7.8	
Heart Disease (n = 672)				<.0001
1st generation	5.7	5.0	8.9	
2nd generation	7.0	2.7	11.1	
3rd generation	12.7	4.1	8.8	
High Blood Pressure (n = 2786)				<.0001
1st generation	23.3	25.8	32.8	
2nd generation	20.0	25.0	37.7	
3rd generation	29.1	34.7	33.2	
General Mental Health, %				
Psychological Distress, K6 >13				.077
1st generation	3.3	5.4	2.9	
2nd generation	1.7	4.3	3.4	

3rd generation	.0	4.1	2.9	
Type of Mental Health Condition, mean, (SE) (range 0 – 4)*				
Felt Nervous				.268
1st generation	.803 (.044)	1.027 (.045)	.964 (.048)	
2nd generation	.887 (.080)	.927 (.054)	.830 (.034)	
3rd generation	.764 (.093)	.906 (.066)	.869 (.012)	
Felt Hopeless				<.0001
1st generation	.506 (.041)	.626 (.041)	.359 (.036)	
2nd generation	.444 (.068)	.433 (.044)	.317 (.026)	
3rd generation	.218 (.062)	.418 (.059)	.310 (.009)	
Felt Restless				.048
1st generation	.627 (.044)	1.012 (.046)	.758 (.051)	
2nd generation	.896 (.089)	.900 (.061)	.823 (.037)	
3rd generation	.564 (.112)	.888 (.080)	.823 (.013)	
Felt Depressed				<.0001
1st generation	.392 (.038)	.534 (.038)	.254 (.032)	
2nd generation	.252 (.054)	.340 (.040)	.248 (.024)	
3rd generation	.073 (.035)	.277 (.055)	.226 (.008)	
Felt Everything an Effort				<.0001
1st generation	.796 (.055)	.846 (.050)	.718 (.051)	
2nd generation	.809 (.091)	.897 (.070)	.654 (.036)	
3rd generation	.382 (.088)	.959 (.095)	.671 (.014)	
Felt Worthless				<.0001
1st generation	.285 (.034)	.320 (.033)	.263 (.034)	
2nd generation	.252 (.055)	.260 (.039)	.207 (.022)	
3rd generation	.091 (.039)	.306 (.063)	.220 (.008)	

Note. SE = Standard error

Results are based on chi-square tests.

*0 = none of the time; 1 = a little of the time; 2 = some of the time; 3 = most of the time; 4 = all of the time

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PAPER TWO:

CAREGIVING PRACTICE PATTERNS OF ASIAN, HISPANIC, AND NON-HISPANIC WHITE AMERICAN FAMILY CAREGIVERS OF OLDER ADULTS ACROSS GENERATIONS

A rapid increase in the number and diversity of elder populations and its consequential increase in family caregivers, who assist physically and mentally challenged family members in the U.S., has raised several points of concerns. These include disparities in formal caregiver support service use (Dilworth-Anderson, Williams, & Gibson, 2002; Janevic & Connell, 2001; Scharlach, Giunta, Chow, & Lehning, 2008), and the types and sources of support that caregivers received (Chow, Auh, Scharlach, Lehning, & Goldstein, 2010). Some studies have reported that non-Hispanic White caregivers compared to minority counterparts, use more formal caregiver services (Dilworth-Anderson et al., 2002; Mausbach et al., 2004; Scharlach et al., 2006) while others reported a higher level of service use by caregivers of color (Schoenberg, Coward, & Doughterty, 1998). Another found no association between caregivers' race and ethnicity and their rate of service utilization (Brown, Friedemann, & Mauro, 2012; Scharlach et al., 2008). Generally, the frequency of informal caregiving support is similar between non-Hispanic White caregivers and caregivers of color (Scharlach et al., 2008); however, the types of service used vary by racial and ethnic groups (Chow et al., 2010). Some scholars have identified possible factors that might explain these racial and ethnic differences in service use. Caregiving practice patterns and attitudes by racial and ethnic cultural variation have been examined, and some common themes such as cultural norms of caregiving and family's expectation toward caregiving (Chow et al., 2010; Scharlach et al., 2006, 2008) have been identified.

In regard to cultural norms, knowledge about issues of acculturation among caregivers is relatively limited. Moreover, to the researcher's knowledge, no studies have explored potential

changes in caregivers' behaviors due to their assimilation to U.S. society. Prior research identifies distinct changes in the sociodemographic characteristics of Asian and Hispanic caregivers across three generations (Miyawaki, 2014). Thus, it is not unreasonable to think that caregiving beliefs, attitudes and practice patterns would change with later generations of caregivers due to their assimilation to the U.S. In order to effectively serve this racially and ethnically growing population of family caregivers of older adults, it is imperative to take a deeper look at assimilation issues so that we will be able to develop not only racially and ethnically specific, but also generationally appropriate, caregiving policy and practices. Thus, the purpose of this study is to explore and compare caregiving practice patterns among Asian, Hispanic and non-Hispanic White American family caregivers of older adults across three generations.

LITERATURE REVIEW

With the overall growth in number and diversity of older populations and their caregivers, awareness of variations in caregiving attitudes and behaviors among different racial and ethnic groups of caregivers has increased in recent years (Connell & Gibson, 1997; Dilworth-Anderson, Williams, & Gibson, 2002; Janevic & Connell, 2001; Pinquart & Sörensen, 2005). Studies focusing on immigrant caregivers such as Hispanic (Aranda & Knight, 1997; Aranda, Villa, Trejo, Ramírez, & Ranney, 2003) and Asian American caregivers (Kong, 2007; Mokuau & Tomioka, 2010; Sun, Ong & Burnette, 2012) have been conducted. These have concluded that caregiving experiences and their outcomes vary not only across racial and ethnic groups, but also within groups, and therefore, generalizations about specific caregivers should

not be made. However, basic knowledge of racial and ethnic caregivers' culturally-based care attitudes and beliefs can avoid misunderstanding and/or misinterpretation (Lehman, n.d.).

Caregiving Attitudes of Hispanic American Caregivers of Older Adults

The majority of Hispanic caregivers are in a sandwich generation caring for their aging parents as well as their own children (Ramos, 2004). Despite this position, Hispanic family caregivers tend to use fewer caregiving services (Crist & Speaks, 2011; Dilworth-Anderson et al., 2002; Mausbach et al., 2004; Scharlach et al., 2006) and professional caregivers (Karlawich et al., 2011) and to rely more on family or kin help (Navaie-Waliser et al., 2001; Pinquart & Sörensen, 2005) compared to non-Hispanic White counterparts. This may be due to their lack of awareness of caregiver services, fewer financial resources (Pinquart & Sörensen, 2005), structural barriers such as language (Wallace & Villa, 1999), and limited availability of culturally-appropriate service (Dilworth-Anderson et al., 2002; Scharlach et al., 2006).

Hispanic cultural values and beliefs about caregiving appear to affect their caregiving practices and attitudes. *Familism*, which is one of the core values of Hispanic culture, places family over the individual and plays a major role in their caregiving practice; it has been identified as a reason why they do not use home care services (Crist et al., 2009; Crist & Speaks, 2011). Within the value of familism, caregivers' filial obligation and reciprocity to their aging parents and/or aging family members are expected in order to respect and pay back the love and support extended to them while growing up (Blieszner & Hamon, 1992; Crist et al., 2009). Hispanic caregivers compared to their non-Hispanic White counterparts tend to support and endorse filial responsibility. Filial responsibility refers to the sense of obligation that adult children feel regarding assisting their aging parents (Blieszner & Hamon, 1992). Not acting upon filial responsibility is considered as shame to the family (Gallagher-Thompson et al., 2003).

Gender is also an important factor in Hispanic caregiving culture. A traditional Hispanic family tends to have distinct and strictly defined male and female roles within a family, and children are socialized to assume their gendered roles while growing up. Traditional Hispanic culture expects men to play strong, honorable and responsible roles, and provide and protect the family and community (*machismo/caballerismo)* (Arciniegra, Anderson, Tovar-Blank, & Tracey, 2008) while women are to be moral, humble, devoted and even to suffer for the family (*marianismo*). Accordingly, they believe that women should care for their aging family members (Gallagher-Thompson et al., 2003; Herrera, Lee, Palos, & Torres-Vigil, 2008; Jolicoeur & Madden, 2002; Llanque & Enriquez, 2012; Pinquart & Sörensen, 2005). Some studies showed that Hispanic families have wider extended networks of informal caregivers among which they share care responsibilities (Aranda & Knight, 1997; Connell & Gibson, 1997; Dilworth-Anderson et al., 2002) compared to non-Hispanic White counterparts. However, Phillips and colleagues (2000) reported that Mexican-American caregivers have smaller available networks compared to non-Hispanic White caregivers. Contrary to research on the value of familism, Kosloski, Schaefer, Allwardt, Montgomery and Karner (2002) found that Hispanic caregivers utilized respite service the most compared to non-Hispanic White and African American caregivers if the services were targeted toward Hispanics and their family values. In such instances, culturally appropriate and specifically designed service to meet the need of Hispanic family caregivers (i.e., family-centered) can result in greater use of services.

Studies of Hispanic American caregivers' caregiving attitudes of filial responsibility in relation to their acculturation and assimilation to U.S. society are limited (Rudolph, Chavez, Quintana & Salinas, 2011). Despite Hispanics' strong cultural beliefs and caregiving practices, some evidence of changes by generation has been reported, however. Snowden and Yamada

(2005) found an association between acculturation and help-seeking attitudes, reporting that U.S.-born Mexican-Americans are more likely to use health care professionals compared to Mexico-born counterparts. In contrast, Rudolph, Chavez, Quintana and Salinas (2011) identified mixed results regarding the level of filial responsibility. Mexican-American female college students strongly endorsed filial responsibility, reflecting traditional Hispanic cultural role expectations of familismo and marianismo. However, receiving an American (Western) education and becoming assimilated to the host country appeared to influence filial attitudes of some Mexican-American students. These students endorsed both individualistic and collectivistic values (Rudolph, Cornelius-White, & Quintana, 2005), especially among a later generation (2nd generation) of Mexican-American female students (Rudolph, Chavez, Quintana, & Salinas, 2011). Rudolph et al.'s study (2011) on gender and generations of Mexican-American college students suggests that biculturalism seems to affect values of filial responsibility and familismo. Jolicoeur and Madden's study (2002) showed similar results: compared to more acculturated caregivers (2nd generation English-speaking Mexican-Americans), less acculturated counterparts (1st generation Spanish-speaking Mexican caregivers) were less satisfied with all aspects of their caregiving roles. Although the acculturated group of Mexican-American caregivers acknowledged that they may not fully meet the needs of care recipients because of the time required, they were pleased with the level of their involvement in filial responsibility. The attitudes by the later generation of Mexican-American caregivers may reflect different approaches to the family caregiver role.

Caregiving Attitudes of Asian American Caregivers of Older Adults

Respect for elders and the practice of filial piety are embedded in Asian culture, due largely to Confucian philosophy (Weng & Nguyen, 2011). *Filial piety* is defined as "the notion

of respect and care for elderly family members and of family reciprocity" (Chappell & Kusch, 2007, p. 30), and filial piety and filial obligation are used interchangeably in this paper. Because Confucian ideology emphasizes each family member's specific social role and obligation to the family, Asian cultures are family-centered and place importance on interdependence and conformity within the family (Weng & Nguyen, 2011). Similar to the Hispanic cultural value of familism, the family's welfare often precedes that of individuals, and elders are well respected and regarded as authority figures in Asian cultures. Not bringing shame to the family name and maintaining face in the community are so important that personal matters are usually kept private within the family (Weng & Nguyen, 2011). Caring for their aging parents by adult children has been the Asian cultural norm not only as a child's obligation, but also an expression of gratitude to the parents (Chappell & Kusch, 2007).

For Asian caregivers, caregiving is an expected stage in their lives (Ho, Friedland, Rappolt, & Noh, 2003) and a cultural, lifelong reciprocal obligation for aging parents (Hsueh, Hu, & Clarke-Ekong, 2008; Jones, Zhang, Jaceldo-Siegl, & Meleis, 2002; Kimura & Browne, 2009; Spitzer, Neufeld, Harrison, Hughes, & Stewart, 2003; Tang, 2011). Holland, Thompson, Tzuang, and Gallagher-Thompson (2010) observed Asian caregivers' positive caregiving self-efficacy based on their strong beliefs of filial responsibility. Jones et al. (2001, 2002, 2003) identified the association between Asian caregivers' role integration (i.e., role satisfaction) and overall positive physical health and personal growth. Lai (2007, 2009a, 2009b, 2010) and Kim and Theis (2000) discussed how caregivers' strong internalization of filial responsibility positively influenced their attitudes about caregiving, mediated their depressive symptoms, and even improved their health. Some caregivers rejected the idea of caregiving as a burden (Spitzer et al., 2003) and emphasized the psychological reward of caring (Zhan, 2004).

Similar to Hispanic caregivers, Asian caregivers tend to use more informal than formal support, especially within their family members (Funk, Chappell & Liu, 2011; Ho et al., 2003; Jones et al., 2002; Jones, Zhang, & Meleis, 2003) because of their cultural beliefs and/or cultural taboos to use outside formal services (Han, Choi, Kim, Lee, & Kim, 2008; Jones et al., 2002, 2003; Kong, Deatrick, & Evans, 2010; Lai, 2007, 2010; Levy, Hillygus, Lui, & Levkoff, 2000; Spitzer et al., 2003; Strumphf, Glicksman, Goldberg-Glen, Fox, & Logue, 2001; Zhan, 2004). This pattern is strongly associated with caregivers and care recipients' language barriers (Han et al., 2008; Kong, Deatrick, & Evans, 2010; Strumphf et al., 2001; Vickrey, Strickland, Fitten, Adams, Ortiz, & Hays, 2007; Zhan, 2004) and a lack of linguistically appropriate and culturally sensitive formal services (Han et al., 2008; Kim, 2009; Jones et al., 2003; Spitzer et al., 2003; Tang, 2011; Zhan, 2004). Some female caregivers (Spitzer et al., 2003) stated that caregiving responsibilities cannot be transferred to outsiders because caregiving is a women's role, but also acknowledged that culturally sensitive services are not readily available. Having the support of a large family rather than a network of friends (Casado & Sacco, 2012; Han et al., 2008; Lee & Bronstein, 2010; Yong & McCallion, 2003) alleviated their caregiving burden; however, Korean-American caregivers reported having less social support compared to non-Hispanic White caregivers (Youn, Knight, Jeong, & Benton, 1999). Because of Asian Americans' smaller network associated with their immigrant status, sharing of caregiving responsibility has expanded to include adult sons and husbands (Jones et al., 2002) and children (Kobayashi, 2000).

The number of studies of Asian American caregivers' caregiving attitudes of filial responsibility in relation to their acculturation and assimilation to the host country is limited, however. Similar to Hispanic caregivers, the vast majority of Asian caregivers are immigrants, and thus, face challenges of acculturation and adjusting to new roles and changes from Asian to

Western beliefs, values, and priorities (Ho et al., 2003; Jones et al., 2003). Due to their immigrant status and financial necessity, many Asian caregivers, the majority of whom are women, are forced to work outside of the home and play multiple roles as part of a sandwich generation (Jones et al., 2002, 2003; Kim & Theis, 2000; Lai, 2007; Lee & Farran, 2004; Spitzer et al., 2003), face role conflicts (Ho et al., 2003; Jones et al., 2003), and are unable to practice their filial responsibility as fully as they did in their homelands.

Challenges faced by all Asian caregivers seem to reflect their immigrant generation and thus length of residence in the host country. More recently immigrated Asian caregivers (e.g., Chinese, Filipino, Korean and Vietnamese caregivers) tend to experience greater acculturation and assimilation challenges compared to a later generation immigrant group of caregivers (e.g., 2nd and 3rd generation Japanese-American caregivers). More acculturated groups of caregivers are open to the idea of using formal caregiver services (Young, McCormick, & Vitaliano, 2002a, 2002b); however, caregivers' persistent, continuous, passed-on sense of the cultural value of filial responsibility is also found among later generations of Japanese-American caregivers (Kobayashi, 2000; Kobayashi & Funk, 2010). Moreover, some Japanese- and Chinese-American families hire bilingual Japanese or Chinese paid-caregivers as their fictive kin (e.g., unrelated by birth or marriage) to care for their loved ones at their homes (Hsueh et al., 2008; Lan, 2002; Young et al., 2002a). In some cases, acculturation has negatively influenced the willingness of some Asian American children in terms of their filial caregiving duties (Weng & Nguyen, 2011), due to a weakening of the younger generation's filial obligation (Yamaguchi & Silverstein, 2003).

As shown in previous studies of both Hispanic and Asian American caregivers, there seem to be some changes in caregivers' attitudes by generations. Differences in a sense of filial

responsibilities and expectations among the three generations - caregivers' parent(s), caregivers, and caregivers' children (Han et al., 2008; Ho et al., 2003; Jones et al, 2002, 2003; Kim, 2009) - are commonly mentioned among Asian American caregivers. Therefore, it is important to examine further the generational differences of the level of a sense of caregivers' filial responsibility between 1st and later generations of caregivers in order to develop culturally and generationally appropriate practice models.

THERORETICAL FRAMEWORK

The classical assimilation theory may help explain the caregiving patterns of recent immigrant caregivers. Historically, scholars have studied second generation immigrants' educational attainment, economic outcomes (earnings) and English-language proficiency in order to measure their adaptation (level of assimilation) to American society. Compared to foreign-born immigrants (1st generation), U.S.-born second generation children have shown noticeable improvements in educational attainment, earnings and language proficiency (Ramakrishnan, 2004).

Classical Assimilation Theory

During the 1920s, sociologists from the Chicago School debated the classical assimilation theory on adaptation and mobility of immigrant groups. Gordon (1964) introduced seven stages of the assimilation process: 1) cultural/behavioral (i.e., acculturation); 2) structural; 3) marital (i.e., amalgamation); 4) identificational; 5) attitude-receptional; 6) behavior-receptional; and 7) civic assimilation. Stage one of cultural/behavioral assimilation, acculturation, indicates that new immigrants adopt the language of the host-country and acquire the host-country's customs and values. During stage two of structural assimilation, immigrants are accepted into large scale

institutions in the host society such as schools and corporate employers. In stage three, marital assimilation constitutes intermarriage between members of the majority and new immigrants. The fourth stage of identificational assimilation posits that new immigrants develop a sense of identity that is closely connected to the host society. The fifth, attitude-reception assimilation, stage represents absence of prejudice and stereotyping toward immigrant groups. Stage six, behavior-receptional assimilation, means that there is no intentional discrimination toward immigrants in the host society and the seventh, the last stage of assimilation - civic assimilation - occurs when no value and power conflicts exist between the majority and immigrant groups.

Gordon's assimilation theory was developed based on the first wave of pre-1920 immigrants, primarily from Europe. He discussed assimilation as part of social processes into a new society that all immigrants go through, and it is assumed that assimilation was necessary in order for immigrants to pursue socioeconomic upward mobility (Greenman & Xie, 2008). He argued that the "Anglo-conformity" theory demands the complete renunciation of the immigrant's ancestral culture and favors the Anglo-Saxon behavior and values. Classical assimilation theory states that both the immigrant and majority groups will merge in a straight-line, and by time and generations, will start sharing similar norms, cultural values, behaviors, and characteristics. He also claimed that among these seven stages of the assimilation process, the 2nd stage of structural assimilation is the key dimension, which represents the stage of "the disappearance of the ethnic group as a separate entity and the evaporation of its distinctive values" (p. 81). Thus, the classical assimilation theory concludes that the longer immigrants reside in the host society (i.e., the later the generations), the greater the similarities between the immigrant and majority groups (Brown & Bean, 2006).

In relation to assimilation theory, language is one measure that has been shown to be applicable for all immigrants and their subsequent generations (Alba, Logan, Lutz, & Stults, 2002). The three-generation process of Anglicization (Veltman, 1983, 1990) has shown one critical pattern of assimilation to the language of U.S. society, English. The model of Anglicization occurs: 1) 1st immigrant generation learns English while speaking their mother tongue at home; 2) their 2nd generation children grow up to be bilingual, conversing in English outside of home but speaking their immigrant parents' native language at home; and 3) their 3rd generation offspring become monolingual English-speaking, although they might have some knowledge of their grandparents' mother tongue. This model of three-generation linguistic assimilation was developed based on the first wave of European immigrants. Similar linguistic patterns (Alba, Logan, Lutz, & Stults, 2002) as well as lessening emphasis on their cultural traditions (Waters & Jiménez, 2005) have been found among 3rd and later generations of new immigrant groups of color (e.g., Chinese, Cuban, Mexican).

Based on assimilation theory proposed by Gordon (1964), this study examines the similarities and differences of caregivers' practice patterns among Asian, Hispanic and non-Hispanic White caregivers of older adults and across three different immigrant generations. According to assimilation theory, all immigrant groups across different races and ethnicities will acculturate and assimilate to the mainstream culture of the host country by time and generations. Despite the traditional, family-centered, collectivism emphasis of caregiving culture – Asian finial responsibility and Hispanic familismo, an individualistic approach of the host country may influence the attitudes of Asian and Hispanic immigrant caregivers, and thus assimilation theory helped frame the research questions and hypotheses.

Study Purpose/Goals/Rationale

Given the lack of prior research on generational differences of caregivers' caregiving practice patterns, this study aimed to examine the associations by three generations of Asian, Hispanic and non-Hispanic White American caregivers of older adults in California at a population level, using the 2009 California Health Interview Survey (CHIS) Adult dataset (described in more detail below). Based on assimilation theories (Alba & Nee, 2003; Gordon, 1964; Portes & Rumbaut, 2001; Portes & Zhou, 1993), three variables of caregiving patterns (i.e., respite care use, average hours of caregiving, caregiving duration) were computed and compared across generations. To the researcher's knowledge, no study has examined the generational differences of caregiving practice patterns at an aggregate population level of multiple racial and ethnic groups. Thus, this study not only examines a theoretical perspective of caregiving by assimilation, but also contributes to our understanding of caregiving patterns across generations.

Using the above assimilation theory, three study aims and their hypotheses are:

Aim 1: To examine the association between respite care use and caregivers' race and ethnicity and generation, net of caregivers' age, gender, marital status, education, living situation, availability of alternative caregivers, employment, and health status.

Hypothesis 1a: Non-Hispanic White caregivers use more respite care compared to Asian and Hispanic counterparts.

Hypothesis 1b: Third generation caregivers use more respite care compared to 1st and 2nd counterparts.

Hypothesis 1c: The same generational pattern of respite care use exists within Asian, Hispanic and non-Hispanic White caregivers.

Aim 2: To examine the association between caregiving hours and caregivers' race and ethnicity and generation, net of caregivers' age, gender, education, marital status, living situation, availability of alternative caregivers, employment, and health status.

Hypothesis 2a: Non-Hispanic White caregivers spend less caregiving hours compared to Asian and Hispanic counterparts.

Hypothesis 2b: Third generation caregivers spend less caregiving hours compared to 1st and 2nd counterparts.

Hypothesis 2c: The same generational pattern of caregiving hours exists within Asian, Hispanic and non-Hispanic White caregivers.

Aim 3: To examine the association between caregiving duration and caregivers' race and ethnicity and generation, net of caregivers' age, gender, education, marital status, living situation, availability of alternative caregivers, employment, and health status.

Hypothesis 3a: Non-Hispanic White caregivers spend shorter caregiving duration compared to Asian and Hispanic counterparts.

Hypothesis 3b: Third generation caregivers spend shorter caregiving duration compared to 1st and 2nd counterparts.

Hypothesis 3c: The same generational pattern of caregiving duration exists within Asian, Hispanic and non-Hispanic White caregivers.

METHODS

Study Data and Sample

The data set for this study was the 2009 California Health Interview Survey (CHIS) Adult 18+ dataset. It is a biennial population-based telephone health survey of California households,

and one of the largest health surveys in the country. CHIS 2009 is publicly available; and therefore, no human subjects approval was necessary to conduct this study. CHIS used a multi-stage sample design and interviewed samples from the random-digit-dial landline and cellular telephone numbers. CHIS randomly selected one adult per participating household to interview (California Health Interview Survey, 2011b).

Interviews were conducted in 2009 and 2010 in five languages: English, Spanish, Chinese (Mandarin and Cantonese), Korean and Vietnamese. Data on the health status of the overall statewide population across racial and ethnic groups were collected, totaling a sample of 47,614. Vietnamese and Korean samples were oversampled in the CHIS 2009 dataset in order to reflect the population estimates of California counties (California Health Interview Survey, 2011a). The CHIS 2009 survey covered participants' sociodemographic information, general health conditions and status, health-related behaviors, women's health, cancer screening, diet, physical activity, health insurance coverage, mental health status, health and mental care service utilization and access, and public program participation. CHIS 2009 was the only year in the CHIS dataset series that asked long-term care and caregiving questions (i.e., under the Health Care Utilization and Access, Violence section). The 2009 CHIS dataset not only contained health and caregiving data, but also included these data by subgroups of racial and ethnic groups and their immigrant generations.

For the purpose of the study, only Asian (n = 4,909), Hispanic (n = 8,307) and non-Hispanic White (n = 34,205) American samples were drawn from the dataset. Hispanics included central and south American (e.g., Mexican, Salvadoran, Guatemalan, etc.) as well as European Hispanic Americans. Asian ethnic groups in the dataset were Chinese, Filipino, Korean, South Asian, Vietnamese, Japanese, and other/more than two races. African Americans

were not included in the study sample because most did not arrive in the US as immigrants. Their numbers of 1st (n = 23) and 2nd/2.5 generations (n = 13) are too small as a comparison group. American Indian/Alaskan Natives (n = 607) and Native Hawaiian/Pacific Islander (n = 90) were also excluded from the dataset due to the small size of their overall populations, and thus, there may not have large enough numbers of caregivers of these groups.

From this sample, caregivers were selected by a question: "During the past 12 months, did you provide any such help to a family member or friend?" (yes; no). "Caregiving" roles included "bathing, medicines, household chores, paying bills, driving to doctor's visits or the grocery store, or checking in to see how they are doing." Secondly, caregiving relationships between caregivers and care recipients were examined by asking, "What is this person's relationship to you?", and only filial/familial caregiving relationships between caregivers and care recipients (caregivers vs. father/father-in-law; mother/mother-in-law; brother/brother-in-law; sister/sister-in-law; grandparent; uncle/aunt; nephew/niece; friend/neighbor; other relative) were further selected into samples. Spousal (caregivers vs. their husband/wife/spouse/partner) and caregivers versus their child(ren) dyads (caregivers vs. their sons/daughter; son-in-law/daughter-in-law; grandchild) were excluded. Finally, these dyads were recoded into the following five categories: parents/parents-in-law; sibling/sibling-in-law; grandparent; relative; and non-relative. Final sample sizes were Asian (n = 591), Hispanic (n = 989) and non-Hispanic White (n = 6,537) caregivers (N = 8,117).

Measures

Caregiving Measures. There are two sets of caregiving measures: caregiving conditions and caregiving practice patterns. Caregiving conditions include number of care recipient(s): "How many people have you provided care for in the past 12 months?" (1 person; 2 persons; 3 or

more persons), and caregiver/care recipient relationship (parent(s)/parent(s)-in-law; sibling(s)/sibling(s)-in-law; grandparent; other relative(s), etc.), caregivers' living situation with care recipient(s): "Does/Did your care recipient live with you when you were taking care of (him/her)?" (yes; no) are some of caregiving conditions variables. In addition, for availability of an alternative caregiver, caregivers were asked, "If you were unable to help your care recipient, is/was there someone else who would do the things you do/did?" (yes; no).

The three research questions address the variables of caregiving practice patterns: respite care use, caregiving hours and caregiving duration. A question about their respite care use was, "Have you ever used a service for respite care to temporarily take care of your care recipient so you could get some time away?" (yes; no). When needed, the interviewer explained the definition of respite care as "Respite care is short term care that helps a family take a break from the daily routine and stress of helping with the care of another. It can be given in the person's home or in a choice of out of home settings. It can range from a couple hours per week to a few weeks." Questions on the average caregiving hours per week: "In a typical week, about how many hours do/did you spend, on average, helping your care recipients?" and the caregiving duration: "How long have you been taking/did you take care of your care recipient because of his/her disability or illness?", were also variables of caregiving practice patterns.

Sociodemographic Measures. Sociodemographic measures in the study are caregivers' age, gender (male; female), marital status (married/partnered; not married/partnered), educational attainment (high school or less; some college/college degree; college and beyond), employment status (full-time/part-time employment; unemployed), race/ethnicity (Hispanic; Asian; non-Hispanic White), and immigrant generation (1st generation; 2nd /2.5 generation; 3rd and later generations). In order to have adequate sizes of cells, 10 categories of educational attainment

were collapsed and recoded to three categories as less than high school; some college/college; and more than graduate education. The researcher constructed an immigration generation variable calculating from caregivers and caregivers' parents' birth place. The 2nd and 2.5 generations were also collapsed into one category of generations. Some scholars argue that 2nd and 2.5 generations should be treated as two separate categories (Ramakrishnan, 2004). However, based on the definition of 2nd generation as "those who were born in the U.S. and at least one of their parents was born outside the U.S. (Gans, 1992; Portes & Zhou, 1993), historically, the 2.5 generation has been combined with 2nd generations in most studies (Ramakrishnan, 2004). Additionally, they are combined here to make more appropriate sample sizes of each aggregate racial and ethnic group of caregivers. Third generation refers to those U.S.-born caregivers to both U.S.-born parents.

Health Measures. The question, "Would you say that in general your health is excellent, very good, good, fair, or poor?" was used to measure caregivers' self-rated overall health. Because of the sizes of small cells (i.e., 3rd generation Asian poor health = 1; 3rd generation Asian fair health = 3; 3rd generation Hispanic poor health = 8, etc.), they were recoded binary as Excellent/very good/good and fair/poor.

Statistical Analyses

First, descriptive analyses using chi-square tests were run to compare caregivers' caregiving conditions: the number of care recipients, caregiver/care recipients' relationships, caregivers' living situation with care recipients, and the availability of alternative caregivers across generation by racial and ethnic groups. Secondly, caregiving patterns were compared. A descriptive analysis of respite care use, mean comparisons with 95% confidence intervals of average weekly caregiving hours and caregiving duration by racial and ethnic groups with all

generations together as well as by generation with all racial and ethnic groups together were examined. Last, mean comparisons with 95% confidence intervals of average weekly caregiving hours and total caregiving duration in months across racial and ethnic groups and generations were computed separately.

A logistic regression analysis was performed to investigate research Aim 1: to examine the association between respite care use and caregivers' racial and ethnic groups and generations. The dependent variable is respite care use while independent variables are caregivers' racial and ethnic groups and immigrant generations. Caregiver's age, gender, marital status, educational attainment, caregiving condition variables such as living situation with care recipient (co-residence), caregiver's employment status, and health status are covariates. Two generalized linear model regressions were used for Aim 2 and Aim 3 due to continuous dependent variables. These models examined the associations between caregiver's average caregiving hours per week and the caregiving duration in months (dependent variables) for Aim 2 and 3 respectively. Caregivers' race and ethnicity and generation remain as independent variables controlling for the same covariates with Aim 1: caregiver's age, gender, marital status, education, caregiving condition variables, employment status, and health.

For Aim 1, SAS version 9.4 PROC LOGISTIC and for Aims 2 and 3 PROC GLM procedures were used to conduct analyses. In the CHIS 2009, weights have been applied to the sample data in order to compensate for the selection biases and produce representative estimates of the non-institutionalized statewide population from each sampling stratum (California Health Interview Survey, 2011c). Thus, all the results presented in this paper are weighted estimates unless stated otherwise.

In summary, this study, based on assimilation theory, explored and compared caregiving patterns among Asian, Hispanic and non-Hispanic White American family caregivers of older adults in California across three generations at a population level. First caregivers' caregiving conditions: number of care recipients, caregiver and care recipient's relationships, caregiver's living situation with care recipient, and availability of alternative caregivers were examined and compared by racial and ethnic groups across generation to lay the ground. Then regression analysis was used to investigate similarities and differences across racial and ethnic groups and generations in terms of caregiving pattern variables: respite care use, average weekly caregiving hours, and caregiving duration, controlling for sociodemographic factors and caregiving conditions.

RESULTS

Characteristics of Caregivers

In regards to the number of care recipients that each caregiver provides care for, there was no statistically significant difference between generations and racial and ethnic groups (p =.258). The vast majority of caregivers provided assistance to one care recipient (over 60%), followed by two care recipients (about 25%).

Table 2.1 shows that there were significant variations (p <.0001) in the relationship between caregiver and care recipient by generations and across racial and ethnic groups. Overall, the most frequent caregiving relationship was parent/parent-in-law and adult child across all generations and racial and ethnic groups. Asian caregivers had the highest percentage of this dyad across generations (50%-70%). Non-Hispanic White caregivers followed Asian caregivers but with lower percentage (46%-54%) while Hispanic caregivers showed the smallest

gap between generations (38%-51%). Conversely, non-Hispanic White caregivers seemed to provide care for non-relatives in all generations (27%-34%) at higher rates compared to other racial and ethnic groups except 1st generation Hispanic caregivers (37%), and rarely assisted any grandparents (3%-7%) compared to Asian (6%-22%) and Hispanic (4%-21%) counterparts.

Statistically significant differences in residential situation between caregiver and care recipient are shown in Table 2.2 (p <.0001). Across racial and ethnic groups and generations, the majority of caregivers did not live with care recipients. While between 20 to 35 percent of Asian caregivers across generation and 26 to 33 percent of Hispanic caregivers co-resided with their care recipients, only 14 to 18% of non-Hispanic White caregivers lived with their care recipients. With respect to generations, the later the generation Asian caregivers became, the less they tended to cohabit with their care recipient whereas Hispanic and non-Hispanic White caregivers did not seem to have any clear patterns across generations.

In terms of the availability of alternative caregiver (Table 2.3), statistically significant variations between racial and ethnic groups, as well as generations were observed (p =.023). The vast majority of caregivers had alternative caregivers available, scoring over 80% across racial and ethnic groups; however, non-Hispanic White caregivers appeared to have the lowest rate of available alternatives. Asian and Hispanic caregivers showed similar availabilities rating between 84-93% and 82-87% across generations respectively. The rates of respite care use (Table 2.3) also showed statistically significant differences (p =.009). Although overall across racial and ethnic groups and generations, the majority of caregivers used respite care at a low rate (average 12.7%), non-Hispanic White caregivers on average used the most (over 10% across generations) and both Asian and Hispanic caregivers used respite care less.

Last, the average number of caregiving hours (per week) and caregiving duration (in months) by racial and ethnic groups (all generations together) and generations (all racial and ethnic groups together) are shown in Tables 2.4. There was only a slight variation in both caregiving hours and caregiving duration across racial and ethnic groups and generations. Hispanic caregivers, on average, spent the most hours in caregiving (21.7 hours per week) while Asian caregivers spent the least (17.8 hours/week). In terms of generations, all three generations spent, on average, almost the same amount of hours in caregiving (between 18.4 – 19.5 hours/week). The caregiving duration varied more than did caregiving hours across racial and ethnic groups. Asian caregivers tended to care for the most months, accounting for 40.1 months on average whereas Hispanic caregivers cared for 28.4 months. With respect to generations, all three generations spent about the same length of time (33 to 34 months on average).

Table 2.5 shows the comparison of average weekly caregiving hours and caregiving duration across racial and ethnic groups and generations separately. For caregiving hours, Hispanic caregivers spent longer hours per week across all three generations and their 3rd generation caregivers spent almost 4 hours more per week compared to the other two generations. Although Asian caregivers, on average, spent fewer hours per week than both Hispanic and non-Hispanic White caregivers, Asian caregivers presented very similar patterns with their Hispanic counterparts. On average, 3rd generation Asian caregivers spent the most hours per week in caregiving followed by 1st generation caregivers, and 2nd generation counterparts spent the least amount of caregiving hours. Non-Hispanic White caregivers reported the least variation in caregiving hours across three generations (approximately between 18-19 hours per week). In terms of the number of caregiving months, all three racial and ethnic groups as well as three generations reported different patterns. Asian caregivers cared many

more months for their care recipients across generations (ranging from 35 to 47 months) while Hispanic caregivers tended to spend a shorter caregiving duration (between 24 to 33 months), and non-Hispanic White caregivers showed a very narrow range across generations (34 to 36 months on average).

Respite Care Use (Aim 1)

Table 2.6 shows the results of logistic regression analysis predicting respite care use as an overall model. There was a significant difference of respite care use between Hispanic caregivers compared to non-Hispanic White counterparts. Hispanic caregivers used respite care .71 times less (p =.005) than non-Hispanic White caregivers, but no statistically significant difference was found between Asian and non-Hispanic White caregivers (Hypothesis 1a). There was also a significant difference between 3rd generation caregivers and 1st generation counterparts in the respite care use indicating that 3rd generation caregivers used respite care 10% more (p =.038) than 1st generation caregivers. No difference was found in the usage of respite care between 2nd and 1st generation caregivers (Hypothesis 1b). When controlling for other sociodemographic variables, there was no statistically significant differences between racial and ethnic groups and generations in terms of respite care use. Each additional year of age increases, there is 1% (p =.0003) increase of respite care use. Married/partnered caregivers used 1.23 times (p =.004) more respite care compared to non-married/partnered caregivers. Caregivers with more than college education, compared to less than high school educated counterparts, used 1.63 times (p <.0001) more respite care. Those caregivers who co-resided with their care recipients also used 1.43 more (p <.0001) respite care than those who lived separately with the care recipients.

Table 2.7 presents the results of respite care use across racial and ethnic groups and generations separately. For generational differences, there was no statistically significant difference in respite care use among the three racial and ethnic groups. However, when controlling for sociodemographic variables, there was a significant difference of respite care use between 3rd generation and 1st generation non-Hispanic White caregivers - 3rd generation used 1.37 times (p <.05) more respite care compared to 1st generation counterparts - whereas no difference was found among Asian and Hispanic caregivers (Hypothesis 1c). In addition, analyses of interaction between race and ethnicity and generation showed no statistically significant differences (results not shown). For Hispanic and non-Hispanic White caregivers, each additional year of age increases, 2% (p <.05) and 1% (p <.01) increase of respite care use respectively. Married/partnered non-Hispanic White caregivers used 1.26 times more (p <.01) respite care compared to non-married/partnered caregivers, while no statistically significant difference was found among Asian and Hispanic caregivers. In terms of education of caregivers, non-Hispanic White caregivers who attained more than a college degree compared to less than high school educated caregivers used 1.88 times more respite care (p <.001). Non-Hispanic White caregivers who lived with their care recipients used respite care 1.50 times more than non-Hispanic White caregivers who did not co-reside with their care recipients (p <.001); however Asian and Hispanic caregivers' living situation with their care recipient did not seem to have any relation to their use of respite care. Healthy Hispanic caregivers used .51 times less (p <.01) and healthy non-Hispanic White caregivers used 1.38 time more (p <.05) respite care while no health difference was found among Asian caregivers.

Caregiving Hours (Aim 2)

Table 2.8 shows the results of generalized linear model predicting caregiving hours of an overall model. Hispanic caregivers compared to non-Hispanic White counterparts spent 3.11 hours per week more hours in caregiving (p = .01), but no statistically significant difference in caregiving hours was found between Asian and non-Hispanic White caregivers (Hypothesis 2a), and regardless of racial and ethnic groups, all generations, on average, spent about the same caregiving hours per week (Hypothesis 2b). When controlling for sociodemographic variables, no statistically significant differences between racial and ethnic groups and generations was found in caregiving hours. Each additional year of age increases, there is .12 hours (p <.0001) increase of caregiving hours, and on average, male caregivers spent 4.83 hours/week less caregiving hours (p <.0001) than female caregivers. Married/partnered caregivers used spent 1.64 less caregiving hours (p = .036) compared to non-married/partnered counterpart, and some college/college educated and more than college educated caregivers compared to less than high school educated counterparts spent 2.33 hours (p =.016) and 3.49 hours (p =.004) less in caregiving hours respectively. Caregivers who co-resided with their care recipients spent 21.13 hours (p <.0001) more caregiving hours per week, but if they have alternative caregivers, they spent 6.27 less caregiving hours (p <.0001). Caregivers who were employed also spent 1.97 less hours (p =.017) in caregiving.

Table 2.9 shows a summary of the results of caregiving hours by generations across Asian, Hispanic and non-Hispanic White caregivers. No statistically significant differences in caregiving hours were found among generation across racial and ethnic groups of caregivers (Hypothesis 2c). Additional analyses of interaction between race and ethnicity and generation revealed no statistically significant differences (results not shown). For Asian and Hispanic

caregivers, each additional year of age increases, the time spent in caregiving increased by an average of .42 hours (p =.0002) and .28 hours (p =.0009) per week while age did not seem to matter for non-Hispanic White caregivers. Hispanic and non-Hispanic White male caregivers spent on average 5.48 hours (p =.026) and 4.92 hours (p <.0001) per week less than female counterparts in caregiving hours, but among Asian caregivers, the genders did not show statistically significant differences in their caregiving hours per week. Only non-Hispanic White married/partnered caregivers compared to non-married/partnered caregivers showed a significant difference in caregiving hours (2.04 less hours per week for married/partnered caregivers, p =.018). In relation to caregivers' educational attainment, non-Hispanic White caregivers (2.92 hours for college educated, p =.008 and 3.64 hours for more than college educated caregivers, p =.006) were found to spend less hours in caregiving while educational attainment did not have any statistically significant association among Asian and Hispanic caregivers. Caregivers who co-resided with their care recipients were uniformly found to spend many more hours in caregiving – 10.89 hours (p =.0005) for Asian, 25.52 hours (p <.0001) for Hispanic and 21.68 hours (p <.0001) for non-Hispanic White caregivers. Although the availability of alternative caregivers helped significantly in terms of caregiving hours for Asians (less 11.25 hours per week, p =.007) and non-Hispanic Whites (less 6.63 hours per week, p <.0001), there was no difference for Hispanic caregivers. Only non-Hispanic White employed caregivers spent 2.15 hours (p =.018) less caregiving hours compared to non-employed caregivers.

Caregiving Duration (Aim 3)

Table 2.10 shows the results of generalized linear model predicting caregiving duration of an overall model. Hispanic caregivers compared to non-Hispanic White counterparts spend 5.69 months shorter caregiving duration (p =.003), but Asian caregivers spend 6.01 months

longer than non-Hispanic White caregivers (p =.012) (Hypothesis 3a). No statistically significant generational difference was found in caregiving duration regardless of race and ethnicity (Hypothesis 3b). When controlling for sociodemographic variables, Asian caregivers spent 9.93 months longer caregiving duration and that remained statistically significant (p =.0004). Each additional year of age increases, there is .47 months (p <.0001) increase of caregiving duration. Male caregivers, on average, spent 4.01 months longer in caregiving (p =.002) compared to female caregivers, and if caregivers lived with care recipients, they spent 5.82 months longer caregiving duration (p =.0003) than those who did not live with their care recipients. But those caregivers who had alternative caregivers spent 7.85 months shorter caregiving duration (p <.0001) compared to caregivers without any alternative caregivers. Healthy caregivers spent 5 months shorter caregiving duration (p =.005) compared to caregivers with poor health.

Table 2.11 shows the results of a generalized linear model for caregiving duration by generation across racial and ethnic groups of caregivers separately. Hispanic 2nd generation caregivers spent 9.12 months (p =.013) longer than Hispanic 1st generation caregivers; however, no other statistically significant association was found across generation in Asian and non-Hispanic White caregivers (Hypothesis 3c). Additional analyses of interaction terms between race and ethnicity and generation showed no association (results not shown). Controlling for sociodemographic variables, the same pattern was found. Second generation Hispanic caregivers spend 11.78 months longer caregiving duration compared to 1st generation counterparts and that was statistically significant (p =.0002). Across groups, age was highly associated with the length of caregiving. The older the caregivers, the more months caregivers provided caregiving, .66 months for Asian (p =.0009), .49 months for Hispanic (p <.0001), and non-Hispanic White

caregivers .45 months longer (p <.0001). Caregivers' gender and marital status were not associated with caregiving duration across three racial and ethnic groups. Only the non-Hispanic White college educated caregivers compared to non-college-educated caregivers showed a statistically significant difference, resulting in 4.95 less months in providing care (p =.006). Asian and Hispanic caregivers who co-resided with their care recipients provided more months of caregiving (16.68 months (p =.003) for Asian and 11.44 months (p =.002) for Hispanic) while no difference was found among non-Hispanic White caregivers. On the other hand, having alternative caregivers resulted in fewer caregiving months (8.82 months, p <.0001) for only non-Hispanic White caregivers, whereas no association was found between the availability of alternative caregivers and the length of caregiving period among Asian and Hispanic caregivers. Healthy Hispanic and non-Hispanic White caregivers provided an average of 8.29 months (p =.026) and 5.41 months (p =.010) less caregiving duration than less healthy Hispanic and non-Hispanic White counterparts respectively, while health of caregivers did not show any significant association with caregiving duration among Asian caregivers.

DISCUSSION

Hispanic caregivers used less respite care compared to non-Hispanic White caregivers, and 3rd generation caregivers compared to 1st generation counterparts used more respite care in an overall model, which partially supported the hypotheses. But when controlling for sociodemographic variables and examining racial and ethnic groups separately, only a comparison between 3rd generation non-Hispanic White caregivers and 1st generation counterparts showed expected results (p <.05). This result was unexpected because previous studies have shown some support for the researcher's hypothesis across these three racial and

ethnic groups (Jolicoeur & Madden, 2002; Rudolph, Chavez, Quintana, & Salinas, 2011; Snowden & Yamada, 2005; Young, McCormick, & Vitaliano, 2002a, 2002b). With this sample, the hypothesis was supported only by non-Hispanic White caregivers, as 3rd generation non-Hispanic White caregivers utilized significantly more respite care services compared to their 1st generation counterparts (p <.05). To the contrary, 3rd generation Asian and Hispanic American caregivers used less respite care compared to 1st generation counterparts. These results may be influenced by the binary measurement of this variable (1 = yes; 2 = no), where frequency of use was not measured: if a respondent used respite care even once, they would be counted as a user. Thus, further investigation is necessary to accurately measure the frequency of usage of respite care services.

In relation to caregiving hours, Hispanic caregivers spent significantly more and Asian caregivers, although not statistically significant, also spent more caregiving hours compared to non-Hispanic White counterparts, which supported this hypothesis in an overall model. In terms of generational differences, non-Hispanic White caregivers' hours were in an expected direction, supporting this hypothesis; the later the caregivers' generations, the less caregiving hours were spent compared to earlier generations of counterparts. However, results in the opposite direction were found among Asian and Hispanic caregivers, indicating that 3rd generation Asian and Hispanic caregivers, compared to 1st generation counterparts, appeared to spend more hours. This pattern is consistent with some previous studies (Crist et al., 2009; Kobayashi, 2000; Kobayashi & Funk, 2010; Rudolph, Chavez, Quintana, & Salinas, 2011), and may be an indication that their traditional filial practices persist across generations, despite acculturation.

The caregiving duration differed among racial and ethnic groups but not across generations, and again the results were mixed. Hispanic caregivers spent shorter and Asians

longer caregiving duration compared to non-Hispanic White counterparts, partially supporting the hypothesis. There were no statistically significant differences across generations in an overall model. When controlling for sociodemographic variables and examining racial and ethnic groups separately, 2nd generation Hispanic caregivers spent a significantly longer caregiving duration compared to the length that 1st generation Hispanic spent. Thus, the hypothesis - the later the caregivers' generation, the shorter the caregiving duration compared to earlier generations of counterparts - was not supported among Hispanic caregivers. Caregiving duration among Asian caregivers, although not statistically significant, again showed mixed results, partially supporting the hypothesis. Compared to 1st generation counterparts, 2nd generation Asian caregivers spent a shorter period and 3rd generation Asian caregivers spent longer caregiving duration. The results of non-Hispanic White caregivers fully supported the hypothesis, showing the expected direction that the later the caregiver generation, the shorter the caregiving duration compared to earlier generations of counterparts. These results may be related to the physical and mental health conditions of care recipients. Additionally, cultural and language barriers to institutionalization may influence caregiving duration, especially when caring for 1st generation immigrant care recipients, who are less likely to speak English. For example, 2nd generation Hispanic caregivers who provide care to 1st generation care recipients may need to find culturally appropriate care home or institutional care provided in the care recipients' native language and with familiar foods. As previously mentioned (Crist et al., 2009; Crist & Speaks, 2011), traditional Hispanic filial role expectations of familismo and marianismo may hinder them from and/or delay placing care recipients in institutions.

These results are congruent within the assimilation theory that guided this study. All three hypotheses were supported by the findings on non-Hispanic White caregivers, thus

representing Gordon's linear upward assimilation theory. This is not surprising, since the classical assimilation theory was developed based on the European American immigrant pattern of assimilation. On the contrary, Asian and Hispanic caregivers' cases were not as straightforward as non-Hispanic White counterparts, with results showing either opposite or mixed directions. Both Asian and Hispanic caregivers' socioeconomic characteristics improved as they became later generations, indicating upward economic integration (e.g., average annual household income of 1st, 2nd and 3rd generations for Asians: $77,364, $84,243, $104,902; Hispanics: $35,987, $56,603, $68,108 respectively). However, their caregiving patterns were not moving in the same direction as their cultural traditions were preserved until later generations. Possible reasons could be that continuous immigration flows from Latin America affect the maintenance of their cultural identity and "replenish" their ethnicity (Jimenez, 2010). Another reason is that, unlike non-Hispanic White ethnic, being persons of ethnic Asian minority with ethnic phenotypes makes them perpetual "foreigners" and society expects later generation Asians to know their traditional culture regardless of their generations and identity (Tuan, 1998).

The study sample is limited to caregivers in California, and these caregivers' overall characteristics are similar to those found in other studies; however, characteristics by generations are noteworthy. First generation Hispanic caregivers provided care to non-relatives as much as to their parents/parents-in-laws (37.4% and 38% respectively). This pattern may be because of the cultural importance of familism. Hispanics tend to extend their support system not only to their own nuclear and extended families, but also to close friends of the family as "honorary members of the unit" (Malley-Morrison & Hines, 2004, p. 151). More than one-fifth of 3rd generation Hispanic caregivers were caring for a grandparent (21.1%). Similarly, all three generations of Asian caregivers practiced their continuing tradition of filial responsibility despite

living in a new country. Non-Hispanic White caregivers' relationship patterns differed from caregivers of color. Although the highest percentage of relationships among was parent (care recipient)-child (caregiver) dyads, relatively high percentages of non-kin caregiving relationships among non-Hispanic White caregivers (27-34%) may represent American society's emphasis on autonomy and independence and thus less on familial interdependence (Fuligni, Tseng & Lam, 1999; Phinney, Ong, & Madden, 2000). These patterns were also supported by the rates of co-residence among caregivers and care recipients. Both Asian and Hispanic caregivers co-resided with their care recipients at much higher percentages across three generations (between 20-35%) compared to those of non-Hispanic White caregivers (14-18%), again demonstrating the emphasis on filial tradition among Asian and Hispanic cultures. In terms of the availability of alternative caregivers, prior studies found mixed results, with some Hispanics indicating larger networks of caregivers (Aranda & Knight, 1997; Connell & Gibson, 1997; Dilworth-Anderson et al., 2002) and others smaller ones (Phillips et al., 2000) than non-Hispanic White counterparts. In this sample, however, both Asian (84-93%) and Hispanic (82-87%) caregivers had more alternative caregivers available compared to non-Hispanic White counterparts (80-82%) across all three generations. This result is congruent with larger familial and kin networks found among caregivers of color than non-Hispanic Whites based on their larger average household sizes (Asian average household size, 4.01; Hispanic, 4.22; non-Hispanic White, 3.93, US Census Bureau, 2012).

Limitations of the Study

Several limitations in this study need to be noted. First, it is based on the secondary data of sample of caregivers who lived in California, had accessible phone lines or portable phones, agreed to be interviewed, and were available at the time of phone interviews. There may be

potential caregivers of older adults who meet the qualifying criteria, but did not have access to phones and/or were unavailable during the data collection period, and therefore, may have been excluded from the survey. Since it is an aggregate population level research study, there may have been some differences in subtle nuances that could not be expressed in numbers and categories. In addition, interviews were conducted only in English, Spanish, Chinese (Mandarin and Cantonese), Korean and Vietnamese languages, and those caregivers who were limited in other languages (e.g., Japanese and Tagalog) could not be included in the survey. Those Asian caregivers whose native languages were not among these five languages, but could speak English may be more acculturated to American society. Thus, samples included in this study may be skewed and did not represent the overall Asian American caregiver populations accurately. California is one of the most racially and ethnically diverse states in the U.S. constantly receiving new immigrants from Central and South America due to close proximity and Asia due to its west coast location. This combination has made collecting racially and ethnically diverse sample possible, but we need to recognize that the situation of California is unique and the findings from this sample cannot be generalizable.

Limitations in terms of variables need to be stated. The 2009 CHIS dataset cover a wide variety of health-related variables; however, it is a cross-sectional, one-time interview, and caregivers' answers were limited to the conditions at the time of their interviews. Thus, it is not possible to draw any conclusions as to causal relationships between independent and dependent variables. Interpretations of findings including the respite care use, average caregiving hours, and caregiving duration have to be done with caution. In an effort to provide a perspective of how American mainstream culture may influence immigrant caregivers over time based on assimilation theory, caregivers were categorized into three generations. However, this study is a

population-based study and thus, the results were generalized as Asian, Hispanic and non-Hispanic White American caregivers despite the heterogeneity of each population. Although it is not possible to analyze all sub-ethnic groups, we should be aware that variations within each racial and ethnic group exist and the findings are only some commonalities. Furthermore, care recipients' information in this dataset is limited. Although some studies concluded that care recipients' characteristics are not always the primary factor underlying caregiving stress (Savundranagan, Hummert & Montgomery, 2004; Zarit & Femia, 2008), it would have been helpful if the data included more information on care recipients such as levels of care recipients' Activities of Daily Living and disability, language proficiency, and the length of residence in the U.S.

FUTURE IMPLICATIONS

Implications for Research

Despite many sociodemographic characteristic differences found not only among these three racial and ethnic groups, but also generations within each group, similarities in their caregiving patterns were found. Further, in terms of generational differences, the results were in an unexpected direction, especially among Asian and Hispanic caregivers. Because there has not been any consensus in previous research on Mexican-American caregivers regarding the hypothesis that the greater the acculturation of caregivers, the lower their familism (Herrera et al., 2008; Losada et al., 2006; Ruiz, 2007), there is a need for further research on the measurement of familism and filial obligation not only at a population, but also sub-ethnic group levels. As noted throughout this study, both Asians and Hispanics consist of heterogeneous groups of caregivers emigrating from various countries of origin at different time periods. Thus,

not only studies by sub-ethnic groups of Asian and Hispanic caregivers, but also multiple sites studies are necessary. In addition, both quantitative and qualitative research at a regional level at cross-sectional, but ultimately longitudinal studies are needed so that we are able to measure and better understand their acculturation and sense of familism and filial obligation across generations (Weng & Nguyen, 2011). Finding unique characteristics and needs of intergeneration of each sub-ethnic group of Asian and Hispanic American caregivers can facilitate the development of culturally competent as well as generationally appropriate caregiver policies and programs.

Implications for Practice

This study did not find significant generational differences in most of caregivers' caregiving patterns at aggregate population levels; however, found that continuous patterns of traditional cultural norms of familism and filial obligation among later generations of Asian and Hispanic American caregivers. These findings point to the importance of social workers' becoming familiar with caregivers' cultures, caregiving practice and beliefs. First, social workers need to become aware of and sensitive to the histories and extent of assimilation of each sub-ethnic group of Asian and Hispanic caregivers. Bilingual and bicultural professionals who speak care recipients' languages and understand their cultural values are ideal, but not always feasible. Cultural competency training for social workers to gain basic knowledge of particular cultures, their caregiving traditions, and elder's (i.e., care recipient) positionality within the family is necessary for effective communication with elders and their family caregivers. For example, it is customary in some Asian (e.g., Chinese) and Hispanic (e.g., Mexican) cultures that elders have the highest authority in the hierarchical family structure and each family member has his/her own roles within the family. However, having immigrated to and lived in the U.S., elders

may have lost their authority position because their adult children, who are often their caregivers, have language proficiency and better knowledge about the health care systems in the U.S. At the same time, in another Asian culture (e.g., Japanese), it is not uncommon that the family, especially the oldest adult male child in the family, often makes decisions on their aging parent's behalf, and aging parents would not express their own opinions (Weng & Nguyen, 2011). Social workers need to be aware of these traditional family-centered decision-making orders and respectful of each family member's roles when working with families of color. Thus, it is important to ask each family member within the family his/her own filial caregiving beliefs and needs and assess any differences (Bhattacharya & Shibusawa, 2009).

Regardless of sub-ethnic group differences, a family-centered approach (i.e., not considering caregivers and care recipients separately but their family as a unit) is essential for Asian and Hispanic families (Crist & Speaks, 2011; Weng & Nguyen, 2011). Involving family members who speak the elder's native language can help ease the process of getting to know the family and understanding their situation, although there are problems with using family members as translators. Building rapport and developing a personal, individualized relationship with elders are of high importance because elder's acceptance of social workers can facilitate use of professional help, which may eventually help alleviate caregivers' as well as care recipients' needs (Crist & Speaks, 2011; Weng & Nguyen, 2011). At an agency level, it is also important to assign the same social worker to the same family, in part because of immigrants' past negative experiences with authorities. If switching is necessary, transition to and introduction of a new social worker is a critical component in maintaining sound relationships (Mui & Shibusawa, 2008).

Elder Asian and Hispanic immigrants, especially 1st generation elder immigrants who immigrated to the US later in their lives as well as 1st generation immigrant caregivers generally, tend to have fewer social networks outside of their kin members compared to those who have established a long history of residence in the United States. It is imperative that social workers introduce culturally appropriate social networks to care recipients, such as ethnically specific adult day care and senior community centers. Simultaneously, social workers can assist Asian and Hispanic caregivers with connecting to other caregivers so that they can avoid social isolation and develop and expand their social networks; such networks can provide not only emotional, but also tangible support such as informal respite care among themselves (Weng & Nguyen, 2011). Caregivers from the same racial and ethnic groups who speak the same language might find it easier to trust other caregivers' providing respite.

Table 2.1
Caregiving Relationship by Generations across Racial/Ethnic Groups (n (%))

Care Recipient	Parent/ Parent-in-law	Siblings/ Siblings-in-law	Grand-parent	Other Relative	Non-Relative	*p*
Asian						<.0001
1st generation	255 (60.6)	32 (7.6)	26 (6.2)	26 (6.2)	82 (19.5)	
2nd generation	57 (49.6)	8 (7.0)	25 (21.7)	8 (7.0)	17 (14.8)	
3rd generation	38 (69.1)	1 (1.8)	4 (7.3)	6 (10.9)	6 (10.9)	
Hispanic						
1st generation	197 (38.0)	52 (10.0)	18 (3.5)	58 (11.2)	194 (37.4)	
2nd generation	153 (51.0)	27 (9.0)	43 (14.3)	26 (8.7)	51 (17.0)	
3rd generation	73 (42.9)	14 (8.2)	36 (21.2)	18 (10.6)	29 (17.1)	
Non-Hispanic White						
1st generation	218 (52.2)	28 (6.7)	13 (3.1)	18 (4.3)	141 (33.7)	
2nd generation	334 (45.8)	61 (8.4)	30 (4.1)	60 (8.2)	244 (33.5)	
3rd generation	2899 (53.8)	356 (6.6)	351 (6.5)	332 (6.2)	1452 (26.9)	

Table 2.2
Caregiver (CG) Live with Care Recipient (CR) by Generation across Racial/Ethnic Group (n (%))

Race/Ethnicity & Generation	CG Lives with CR		
	Yes	No	*p*
Asian			<.0001
1st generation (n = 421)	141 (33.5)	280 (65.5)	
2nd generation (n = 115)	40 (34.8)	75 (65.2)	
3rd generation (n = 55)	11 (20.0)	44 (80.0)	
Hispanic			
1st generation (n = 519)	135 (26.0)	384 (74.0)	
2nd generation (n = 300)	99 (33.0)	201 (67.0)	
3rd generation (n = 170)	51 (30.0)	119 (70.0)	
Non-Hispanic White			
1st generation (n = 418)	73 (17.5)	345 (82.5)	
2nd generation (n = 729)	99 (13.6)	630 (86.4)	
3rd generation (n = 5390)	939 (17.4)	4451 (82.6)	
Total	1558 (19.6)	6529 (80.4)	

Table 2.3.
Availability of Alternative Caregiver and Respite Care Use by Generation across Racial/Ethnic Group (n (%))

Race/Ethnicity & Generation	Alternative Caregiver			Respite Care Use		
	Yes	No	*p*	Yes	No	*p*
Asian			.023			.009
1st generation (n = 421)	353 (83.8)	68 (16.2)		65 (15.4)	356 (84.6)	
2nd generation (n = 115)	98 (85.2)	17 (14.8)		9 (7.8)	106 (92.2)	
3rd generation (n = 55)	51 (92.7)	4 (7.3)		5 (9.1)	50 (90.9)	
Hispanic						
1st generation (n = 519)	445 (85.7)	74 (14.3)		56 (10.8)	463 (89.2)	
2nd generation (n = 300)	261 (87.0)	39 (13.0)		28 (9.3)	272 (90.7)	
3rd generation (n = 170)	140 (82.4)	30 (17.6)		12 (7.1)	158 (92.9)	
Non-Hispanic White						
1st generation (n = 418)	335 (80.1)	83 (19.9)		44 (10.5)	374 (89.5)	
2nd generation (n = 729)	600 (82.3)	129 (17.7)		88 (12.1)	641 (87.9)	
3rd generation (n = 5390)	4394 (81.5)	996 (18.5)		724 (13.4)	4666 (86.6)	
Total	6677 (82.3)	1440 (17.7)		1031 (12.7)	7086 (87.3)	

Table 2.4

Means with 95% Confidence Intervals (CIs) and Standard Deviations (SD) of Number of Caregiving Hours and Caregiving Duration by Racial/Ethnic Group & Generation

Number of Caregiving Hours (per week)						
	Asian (n = 591)		Hispanic (n = 989)		Non-Hispanic White (n = 6537)	
	M (SD)	95% CI	*M (SD)*	95% CI	*M (SD)*	95% CI
Number of Caregiving Hours (per week)	17.8 (35.6)	[15.0, 20.7]	21.7 (38.4)	[19.3, 24.1]	18.6 (35.1)	[17.7, 19.4]
	1st generation (n = 1358)		2nd generation (n = 1144)		3rd generation (n = 5615)	
	M (SD)	95% CI	*M (SD)*	95% CI	*M (SD)*	95% CI
	19.5 (36.8)	[17.5, 21.5]	18.4 (34.5)	[16.4, 20.4]	18.9 (35.4)	[17.9, 19.8]
Caregiving Duration (month)						
	Asian (n = 591)		Hispanic (n = 989)		Non-Hispanic White (n = 6537)	
	M (SD)	95% CI	*M (SD)*	95% CI	*M (SD)*	95% CI
Caregiving Duration (month)	40.1 (62.0)	[35.1, 45.1]	28.4 (50.9)	[25.2, 31.6]	34.1 (55.8)	[32.7, 35.4]
	1st generation (n = 1358)		2nd generation (n = 1144)		3rd generation (n = 5615)	
	M (SD)	95% CI	*M (SD)*	95% CI	*M (SD)*	95% CI
	33.0 (57.5)	[30.0, 36.1]	34.0 (58.8)	[30.6, 37.4]	34.0 (54.7)	[32.6, 35.4]

Table 2.5

Means with 95% Confidence Intervals (CIs) and Standard Deviations (SD) of Number of Caregiving Hours and Caregiving Duration by Racial/Ethnic Group and Generation

Number of Caregiving Hours (per week)					Non-Hispanic	
	Asian (n = 591)		Hispanic (n = 989)		White (n = 6537)	
Generation	*M (SD)*	95% CI	*M (SD)*	95% CI	*M (SD)*	95% CI
1st generation	17.7 (35.7)	[14.3, 21.1]	21.3 (39.0)	[17.9, 24.6]	19.1 (35.3)	[15.7, 22.5]
2nd generation	17.4 (35.9)	[10.8, 24.0]	20.7 (34.9)	[16.7, 24.7]	17.6 (34.1)	[15.2, 20.1]
3rd generation	19.6 (34.7)	[10.3, 29.0]	24.7 (42.4)	[18.3, 31.2]	18.7 (35.2)	[17.7, 19.6]

Caregiving Duration (month)					Non-Hispanic	
	Asian (n = 591)		Hispanic (n = 989)		White (n = 6537)	
Generation	*M (SD)*	95% CI	*M (SD)*	95% CI	*M (SD)*	95% CI
1st generation	40.6 (63.8)	[34.5, 46.7]	24.3 (45.8)	[20.3, 28.2]	36.3 (62.4)	[30.3, 42.3]
2nd generation	35.2 (52.3)	[25.6, 44.9]	33.4 (57.9)	[26.8, 40.0]	34.0 (60.1)	[29.6, 38.4]
3rd generation	46.5 (66.8)	[28.5, 64.6]	32.2 (51.7)	[24.4, 40.0]	34.0 (54.7)	[32.5, 35.4]

Table 2.6
Results of Logistic Regression Analysis Predicting Respite Care Use for Overall Model (N = 8117)

Respite Care Use: (Ref = No)	*B (SE)*	*OR*	*p*	*B (SE)*	*OR*	*p*	*B (SE)*	*OR*	*p*
Hispanic (Ref = White)	-0.23 (.08)	0.71	.005				-.08 (.09)	.91	.388
Asian (Ref = White)	0.13 (.09)	1.02	.150				.06 (.10)	1.05	.514
2nd Generation Caregivers (Ref = 1st Generation)				-0.11 (.07)	0.89	.112	-.10 (.07)	.87	.159
3rd Generation Caregivers (Ref = 1st Generation)				0.10 (.05)	1.10	.038	.06 (.06)	1.01	.346
Age							.01 (.00)	1.01	.0003
Male							-.04 (.04)	.92	.242
Married/Partnered							.10 (.04)	1.23	.004
Some College/College (Ref = ≤ High School)							.01 (.05)	1.29	.835
More than College (Ref = ≤ High School)							.24 (.06)	1.63	<.0001
Live with Care Recipient							.18 (.04)	1.43	<.0001
Alternative Caregiver							-.05 (.04)	.91	.260
Employed							.05 (.04)	1.11	.144
Health (Ref = Poor)							.03 (.05)	1.05	.618
Constant	-2.00 (.06)		<.0001	-1.99 (.04)		<.0001	-2.44 (.16)		<.0001
X^2 wald test	9.05		.011	4.85		.088	76.13		<.0001

Table 2.7

Results of Logistic Regression Analysis Predicting Respite Care Use by Racial/Ethnic Group and Generation

Respite Care Use:	Asian		Hispanic		Non-Hispanic White							
(Ref = No)	*B (SE)*	*OR*	*B (SE)*	*OR*	*B (SE)*	*OR*	*B (SE)*	*OR*	*B (SE)*	*OR*	*B (SE)*	*OR*
2nd Generation Caregivers	-.31 (.28)	.47	-.16 (.29)	.57	.05 (.17)	.85	.10 (.18)	.98	.01 (.09)	1.17	.01 (.09)	1.19
3rd Generation Caregivers (Ref = 1st Generation)	-.15 (.34)	.55	-.23 (.34)	.53	-.26 (.22)	.63	-.22 (.22)	.71	.13 (.07)	1.32	.15*(.07)	1.37
Age			.02 (.01)	1.02			.02*(.01)	1.02			.01**(.00)	1.01
Male			-.11 (.13)	.80			.03 (.11)	1.05			-.04 (.04)	.92
Married/Partnered			.13 (.14)	1.30			-.13 (.11)	.77			.11**(.04)	1.26
Some College/College			.08 (.17)	1.30			.12 (.24)	.92			.04 (.05)	1.45
More than College (Ref = ≤ High School)			.09 (.22)	1.31			-.32 (.41)	.59			.30***(.06)	1.88
Live with Care Recipient			.11 (.13)	1.24			.16 (.12)	1.38			.20***(.05)	1.50
Alternative Caregiver			-.12 (.16)	.79			.22 (.17)	1.55			-.06 (.05)	.89
Employed			-.05 (.13)	.90			.08 (.12)	1.17			.05 (.04)	1.11
Health (Ref = Poor)			-.08 (.15)	.85			-.33**(.12)	.51			.16*(.06)	1.38
Constant	-2.16***(.20)		-2.90***(.59)		-2.32***(.13)		-3.18***(.46)		-2.00***(.07)		-2.50***(.20)	
X^2 wald test	5.29, p = .071		12.97, p = .295		2.08, p = .354		20.63, p = .037		3.61, p = .164		78.07, p <.0001	
N (unweighted)	591						989				6537	

Note. * p < .05; ** p < .01: *** p < .001 (two-tailed tests)

Table 2.8
Results of Generalized Linear Model Predicting Caregiving Hours (week) for Overall Model (N = 8117)

Caregiving Hours (per week)	*B (SE)*	*p*	*B (SE)*	*p*	*B (SE)*	*p*
Hispanic (Ref = White)	3.11 (1.21)	.010			1.95 (1.45)	.179
Asian (Ref = White)	1.53 (1.53)	.624			-2.00 (1.75)	.251
2nd Generation Caregivers			-1.07 (1.43)	.454	-.31 (1.45)	.830
3rd Generation Caregivers (Ref = 1st Generation)			-.62 (1.07)	.562	.68 (1.32)	.606
Age					.12 (.03)	<.0001
Male					-4.83 (.80)	<.0001
Married/Partnered					-1.64 (.78)	.036
Some College/College					-2.33 (.96)	.016
More than College (Ref = ≤ High School)					-3.49 (1.22)	.004
Live with Care Recipient					21.13 (.99)	<.0001
Alternative Caregiver					-6.27 (1.01)	<.0001
Employed					-1.97 (.82)	.017
Health (Ref = Poor)					-.93 (1.09)	.394
Constant	18.58	<.0001	19.49	<.0001	19.38 (2.65)	<.0001
R^2	.0009	.028	.00007	.746	.076	<.0001

Table 2.9

Results of Generalized Linear Model Predicting Caregiving Hours (week) by Racial/Ethnic Group and Generation

Caregiving Hours (per week)	Asian		Hispanic		Non-Hispanic White							
	B (SE)	*p*	*B (SE)*	*p*	*B (SE)*	*p*	*B (SE)*	*p*	*B (SE)*	*p*	*B (SE)*	*p*
2nd Generation Caregivers	-.34 (3.75)	.927	1.70 (3.86)	.661	-.55 (2.79)	.843	-.95 (2.82)	.735	-1.42 (2.15)	.509	-.78 (2.07)	.708
3rd Generation Caregivers (Ref = 1st Generation)	1.91 (5.11)	.709	3.72 (5.08)	.464	3.47 (3.39)	.307	2.63 (3.36)	.434	-.39 (1.78)	.825	-.42 (1.71)	.806
Age			.42 (.11)	.0002			.28 (.08)	.0009			.06 (.03)	.056
Male			-2.16 (2.95)	.464			-5.48 (2.45)	.026			-4.92 (.88)	<.0001
Married/Partnered			-4.96 (3.19)	.121			.42 (2.42)	.863			-2.04 (.86)	.018
Some College/College			-4.51 (3.85)	.242			.64 (2.57)	.804			-2.92 (1.09)	.008
More than College (Ref = ≤ High School)			-6.68 (4.70)	.156			-1.48 (2.47)	.786			-3.67 (1.32)	.006
Live with Care Recipient			10.89 (3.13)	.0005			25.52 (2.63)	<.0001			21.68 (1.14)	<.0001
Alternative Caregiver			-11.25 (4.13)	.007			.37 (3.36)	.912			-6.63 (1.09)	<.0001
Employed			.48 (3.14)	.879			-4.08 (2.52)	.106			-2.15 (.91)	.018
Health (Ref = Poor)			-.46 (3.73)	.902			-.69 (2.72)	.798			-.67 (1.27)	.599
Constant	17.73 (1.74)	<.0001	11.40 (8.29)	.169	21.26 (1.69)	<.0001	6.62 (5.93)	.265	19.07 (1.71)	<.0001	24.45 (3.11)	<.0001
R^2	.0003	.922	.07	<.0001	.001	.516	.103	<.0001	.0001	.727	.077	<.0001
N (unweighted)			591				989				6537	

Table 2.10
Results of Generalized Linear Model Predicting Caregiving Duration (year) for Overall Model (N = 8117)

Caregiving Duration (year)	*B (SE)*	*p*	*B (SE)*	*p*	*B (SE)*	*p*
Hispanic (Ref = White)	-5.69 (1.90)	.003			-.44 (2.35)	.852
Asian (Ref = White)	6.01 (2.39)	.012			9.93 (2.82)	.0004
2nd Generation Caregivers			.93 (2.24)	.677	2.87 (2.35)	.222
3rd Generation Caregivers (Ref = 1st Generation)			.98 (1.69)	.560	2.44 (2.14)	.254
Age					.47 (.05)	<.0001
Male					4.01 (1.29)	.002
Married/Partnered					1.16 (1.26)	.359
Some College/College					-1.53 (1.56)	.328
More than College (Ref = ≤ High School)					-.90 (1.97)	.648
Live with Care Recipient					5.82 (1.60)	.0003
Alternative Caregiver					-7.85 (1.63)	<.0001
Employed					1.70 (1.35)	.201
Health (Ref = Poor)					-5.00 (1.76)	.005
Constant	34.10 (.69)	<.0001	33.03 (1.51)	<.0001	13.58 (4.29)	.002
R^2	.002	.0002	.00004	.841	.022	<.0001

Table 2.11

Results of Generalized Linear Model Predicting Caregiving Duration (year) by Racial/Ethnic Group and Generation

Caregiving Duration (year)	Asian		Hispanic		Non-Hispanic White							
	B (SE)	*p*	*B (SE)*	*p*	*B (SE)*	*p*	*B (SE)*	*p*	*B (SE)*	*p*	*B (SE)*	*p*
2nd Generation Caregivers	-5.35 (6.53)	.413	-1.56 (6.81)	.818	9.12 (3.68)	.013	11.78 (3.85)	.0002	-2.28 (3.43)	.506	-3.48 (3.40)	.306
3rd Generation Caregivers (Ref = 1st Generation)	5.93 (8.89)	.505	3.25 (8.96)	.717	.7.91 (4.49)	.078	7.70 (4.59)	.094	-2.33 (2.83)	.412	-2.30 (2.81)	.414
Age			.66 (.20)	.0009			.49 (.12)	<.0001			.45 (.05)	<.0001
Male			9.90 (5.20)	.057			.98 (3.35)	.769			3.89 (1.44)	.007
Married/Partnered			-2.13 (5.62)	.705			5.11 (3.31)	.123			.89 (1.41)	.529
Some College/College			11.93 (6.78)	.079			4.69 (3.51)	.182			-4.95 (1.80)	.006
More than College (Ref = ≤ High School)			8.40 (8.29)	.312			-.81 (7.47)	.914			-3.32 (2.17)	.127
Live with Care Recipient			16.68 (5.52)	.003			11.44 (3.60)	.002			2.66 (1.87)	.156
Alternative Caregiver			-3.98 (7.28)	.585			-5.02 (4.59)	.274			-8.82 (1.79)	<.0001
Employed			-4.82 (5.53)	.384			5.06 (3.44)	.141			1.71 (1.49)	.251
Health (Ref = Poor)			-.44 (6.58)	.947			-8.29 (3.71)	.026			-5.41 (2.09)	.010
Constant	40.59 (3.02)	<.0001	-.68 (14.61)	.963	24.28 (2.23)	<.0001	1.28 (8.09)	.874	36.27 (2.73)	<.0001	23.71 (5.10)	<.0001
R^2	.002	.517	.051	.001	.007	.027	.048	<.0001	.0001	.713	.019	<.0001
N (unweighted)	591				989				6537			

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PAPER THREE:

ASSOCIATION OF FILIAL RESPONSIBILITY, ETHNICITY, AND ACCULTURATION AMONG ASIAN AMERICAN FAMILY CAREGIVERS OF OLDER ADULTS

With the growing diversity in the aging population and their caregivers, researchers are paying increasing attention to the racial, ethnic and cultural differences in caregiving patterns and caregivers' needs. Early studies focused on Black, Hispanic and non-Hispanic White caregivers (Connell & Gibson, 1997; Dilworth-Anderson, Williams, & Gibson, 2002; Janevic & Connell, 2001). After 2000, more studies addressed variations between and within Asian and Hispanic caregivers, including sub-ethnic groups (Aranda & Knight, 1997; Aranda, Villa, Trejo, Ramírez, & Ranney, 2003; Kong, 2007; Mokuau & Tomioka, 2010; Sun, Ong & Burnette, 2012). These studies specifically discussed challenges of caregiving due to Asian and Hispanic immigration patterns and resulting cultural differences between their home and host countries (Crist et al., 2009; Crist & Speaks, 2011; Han, Choi, Kim, Lee, & Kim, 2008; Jones, Zhang, Jaceldo-Siegl, & Meleis, 2002; Jones, Zhang, & Meleis, 2003; Kong, Deatrick, & Evans, 2010; Lai, 2007, 2010; Levy, Hillygus, Lui, & Levkoff, 2000; Spitzer, Neufeld, Harrison, Hughes, & Stewart, 2003; Vickrey et al., 2007; Zhan, 2004).

These studies primarily addressed experiences of 1st generation immigrant caregivers. Recent immigrants are likely to have more caregiving challenges compared to those who have lived in the U.S. for a longer time because of adjustments to a new country, including a new language and cultural differences. In contrast to the 1st generation immigrant caregivers, all 2nd, 2.5 and 3rd generation caregivers were born in the U.S., and therefore their native language is English and their education was probably completed in the U.S. Unlikely to have any language barriers, they tend to be familiar with health care systems compared to their 1st generation

counterparts. Because these later generations of caregivers have grown up as Americans, it is not unreasonable to think that the level of their filial responsibility may be different from that of 1st generation immigrant caregivers (Funk, Chappell, & Liu, 2011; Ho et al., 2003; Hsueh, Hu, & Clarke-Ekong, 2008; Jones, Jaceldo, Lee, Zhang, & Meleis, 2001; Kimura & Browne, 2009).

Previous studies have hypothesized that later generations of caregivers may be less involved in caregiving compared to the earlier generations, because of assimilation to the more individualized, western culture of the host country (Ho et al., 2003; Jones et al., 2003; Rudolph, Cornelius-White, & Quintana, 2005). Some studies have found a pattern of behavioral changes, such as less frequent contact and less likelihood to live near each other, between 1st and later generations of Asian (Ishii-Kuntz, 1997) and Hispanic caregivers (Rudolph, Cornelius-White, & Quintana, 2005; Rudolph et al., 2011; Snowden & Yamada, 2005). Samples in these studies, however, are young: two different generations of young adult children across three Asian ethnic groups - Chinese-, Japanese-, and Korean-American, with average ages, 28.8, 32.5 and 27.4 years respectively (Ishii-Kuntz, 1997) or Mexican-American college students from multiple immigrant generations (Rudolph, Chavez, Quintana, & Salinas, 2011; Rudolph, Cornelius-White, & Quintana, 2005). The findings are limited to provision of financial and structural support to their parents (Ishii-Kuntz, 1997) or hypothetical filial responsibility (Rudolph, Chavez, Quintana, & Salinas, 2011; Rudolph, Cornelius-White, & Quintana, 2005), because college students typically are not yet caring for older adults. Given this background, previous researchers questioned what are the needs of the next generations of caregivers (Anngela-Cole & Hilton, 2009; Ho et al., 2003; Jones et al., 2002; Kobayashi & Funk, 2010; Lai, 2009).

Forty face-to-face interviews were conducted to explore further and measure a sense of filial responsibility by 2nd, 2.5 and 3rd generations of Chinese- and Japanese-American family

caregivers of older adults. These groups were chosen because they are two of the largest Asian sub-ethnic groups and have the longest immigrant histories in the U.S. among Asian groups. Therefore, their current caregivers are more likely to belong to 2nd, 2.5 and 3rd generations. In this study, the 2nd generation are those whose parents were born elsewhere and the caregivers were either born in the U.S. or immigrated to the U.S. before the age of 14. 2.5 generation for Chinese-American denotes caregivers who have one parent born outside the U.S. and the other parent born in the U.S. and caregivers themselves are U.S.-born. Japanese-American 2.5 caregivers were born in the U.S. and have U.S.-born parents (*Nisei*), who spent their education years in Japan and came back to the U.S. as young adults (*Kibei Nisei*). Having been educated in Japan, Kibei Nisei parents' first language is Japanese and their identity is closer to Japanese than American (Hikoyeda, Mukoyama, Liou, & Masterson, 2006). Lastly, the 3rd generation caregivers are U.S-born caregivers whose parents are also U.S.-born.

LITERATURE REVIEW

Chinese-American Families and Caregivers

Starting with the Gold Rush in California in 1848 and pushed by poor economic and social conditions in China, a large number of single Chinese men and married Chinese men without their wives and family members came to California for the purpose of supporting their families in China (Hirschman & Wong, 1981). However, due to societal prejudice and laws such as the Chinese Exclusion Act of 1882, Chinese laborers were later excluded from entering the U.S. (Wong, 2006). The low number of Chinese women in the U.S., as well as the enforcement of anti-miscegenation laws, forced Chinese men to return to China to find their wives in China (Wong, 2006). This hindered Chinese-Americans from forming their families in the U.S.,

delaying the formation of a sizable number of 2nd generation Chinese-American populations (Hirschman & Wong, 1986). The 1965 Immigration Act, due to its family reunification emphasis, not only significantly increased the number of Chinese immigrants, but also the formation of Chinese families in the U.S. (Wong & Hirschman, 1983; Wong, 2006). The traditional Chinese family structure in the U.S. consists of grandparents, their unmarried children, and their married sons together with their wives and children in one household, and the more generations in one household, the more the prestige of the family (Wong, 2006). Filial responsibility of respect and obedience to elders is taught at a young age and its practice is highly expected (Weng & Nguyen, 2011).

The vast majority of current Chinese-American families consist of post-1965 immigrant families headed by foreign-born Chinese immigrants, due to the dramatic increase of Chinese immigrants with family reunification laws. The U.S.-born Chinese-American headed household is a minority among Chinese-American populations. For example, from 1961 to 1970, there were 34,764 Chinese immigrants. The number grew to 124, 326 (1971-1980), 346,747 (1981-1990), and 419,114 (1991-2000) (as cited in King-O'Riain, 2006). Nearly 71% of Chinese-Americans in 2000 were foreign-born (Reeves & Bennett, 2004). In addition, because of differences in the time of immigration, there are considerable variations by generations, ranging from the very early settlers from the 19th century (4th and 5th generation) to the post-1965 1st generation Chinese immigrants. These later generations of Chinese-American families exhibit modern, cosmopolitan views and lifestyles (e.g., living in suburbs instead of Chinatown or Chinese enclaves) and consider themselves as more American than Chinese (Huang, 1981). Others (Wong, 2006), however, posit that Chinese people have traditionally been resistant to

assimilation, and Chinese ethnic communities tend to exhibit their cultural exclusiveness and resistance to amalgamation to the larger society.

More recent research on Chinese-American caregivers discusses issues of filial responsibility, linguistic and structural difficulties, and challenges of performing filial duties, due to their own as well as their care recipients being 1st generation new immigrants in the U.S. (Han et al., 2008; Jones et al., 2002, 2003; Levy et al., 2000; Tang, 2011; Zhan, 2004). Some educated, wealthier 1st generation Chinese-American immigrant caregivers hire Chinese-speaking professional caregivers to care for their loved ones at home (Hsueh, Hu, & Clarke-Ekong, 2008; Lan, 2002), adjusting their caregiving duties to meet their family situations. Despite the existence of multiple generations of Chinese-American households in the U.S., there is little literature on later generation Chinese-American caregivers.

Japanese-American Families and Caregivers

A large number of Japanese immigrants, primarily single male laborers, arrived in Hawaii in late 1880s due to the severe economic conditions in Japan. Moreover, the labor needs in the Hawaiian sugar plantations and the loss of cheap immigrant laborers, exacerbated by the Chinese Exclusion Act of 1882, brought both Japanese males and their wives to Hawaii (Saiki, 1985). Contrary to the situation in Hawaii, mainland Japanese immigrants were primarily single males or men who left their wives in Japan. The influx of Chinese immigrants during the Gold Rush in California in the mid-1840s heightened anti-Asian sentiment on the west coast. Thus, Japanese immigrants became a new threat to white American society, and resulted in the Gentlemen's Agreement of 1907 between Japan and the U.S. that stopped Japanese migration to the U.S. Since anti-miscegenation laws prohibited Japanese men from marrying white women, many Japanese men arranged picture brides (Kessler, 1993). This resulted in enclaves of Japanese-

Americans with US-born 2nd generation children (Akiba, 2006), which differentiated them from Chinese-American families. While Japanese laborers were allowed to form families using picture brides, Chinese men were not granted the same opportunity, and therefore, the majority of Chinese-Americans are post-1965 immigrants while there are multiple generations of Japanese-Americans (Akiba, 2006).

In contrast to other Asian immigrant groups, the size of the Japanese-American population has not grown since 1960s. The drastic improvement of Japan's socioeconomic conditions has contributed to the low immigration rate to the U.S. In 1970 Japanese-Americans were the largest Asian group, but in 2000, they were the smallest among the six major Asian groups in the U.S. This was the result of the low number of immigrants from Japan as well as a low birth rate among Japanese-American women. Furthermore, Japanese-Americans have the highest outmarriage rate among Asian groups. The majority of Japanese-Americans belong to 3rd and later generations whereas other Asian Americans are 1st or 2nd generation. Accordingly, compared to other Asian American groups, Japanese-Americans are the most assimilated into mainstream American society (Akiba, 2006).

This pattern of assimilation seems to be reflected in caregiving practices among Japanese-American caregivers as well. Although Japanese-American caregivers perform their caregiving duties out of a sense of filial responsibility, they use outside professional help, which is against traditional Asian caregiving beliefs (Young, McCormick, & Vitaliano, 2002a, 2002b). Some 2nd and 3rd Japanese-American caregivers report that the stronger the Asian cultural values, the higher the level of caregiving burden (Knight et al., 2002). Given the history of Japanese-American immigration, the vast majority of current Japanese-American households consist of

later generations, and their caregivers are assumed to be 2nd and later generations who are already well assimilated to American mainstream society.

THEORETICAL FRAMEWORK

The theoretical framework of this study is based on Gordon's seven stages of classical assimilation theory (1964). He argues that assimilation is part of necessary social processes for all immigrants to go through and that the immigrant and host society will come to share similar norms, cultural values, behaviors, and characteristics with increasing time and generations. Thus, the classical assimilation theory posits that the longer immigrants reside in the host society (i.e., the later the generation), the greater the assimilation and similarities between the immigrant and majority groups. Gordon posited 7 stages in his theory, which are: 1) cultural/behavioral (i.e., acculturation); 2) structural; 3) marital (i.e., amalgamation); 4) identificational; 5) attitude-receptional; 6) behavior-receptional; and 7) civic assimilation. Stage one, cultural/behavioral assimilation, is an acculturation stage during which new immigrants acquire the knowledge of the language, customs and values of the host-country. In Stage two, structural assimilation, immigrants join institutions (i.e., schools) in the host society. Stage three, marital assimilation, constitutes marriages between the majority members and new immigrants. The fourth stage, identificational assimilation, indicates the development of a sense of immigrants' identity with the host society. Stage five, attitude-reception assimilation, represents the absence of prejudice and stereotyping toward immigrant groups. Stage six, behavior-receptional assimilation, reflects the absence of intentional discrimination toward immigrants in the host society, and the seventh, civic assimilation, is a stage at which there are no value and power conflicts between the majority and immigrant groups. This study specifically focuses on stages one: acculturation, and

four: identification, and examines later generations of Chinese- and Japanese-American caregivers.

Study Purpose/Goals/Rationale

Face-to-face interviews were conducted to explore Asian American caregivers' level of a sense of filial responsibility. This method was chosen to provide more in-depth and nuanced data than is possible with quantitative studies of Asian American caregivers. Chinese- and Japanese-American caregivers were selected for this study due to their unique immigration histories. As noted above, both Chinese- and Japanese-Americans have longer histories of immigration to the United States than other Asian Americans, and they tend to encompass multiple generations. This exploratory study aimed to determine both the level of caregivers' filial responsibility among 2nd, 2.5 and 3rd+ generations of Chinese- and Japanese-American caregivers and their generation-specific needs when working with later generations of Asian American caregivers. The aims and hypotheses are:

Aim 1: To examine the level of filial responsibility among 2nd, 2.5 and 3rd+generations of Chinese- and Japanese-American caregivers as measured by acculturation and filial values scales.

Hypothesis: 2nd generation caregivers have a higher level of a sense of filial responsibility compared to that of 2.5 and 3rd+generation caregivers.

Aim 2: To explore in-depth the potential similarities and differences in caregiving attitudes and needs of 2nd, 2.5 and 3rd+generations of Chinese- and Japanese-American caregivers.

METHODS

Data Collection

A total of 40 2nd, 2.5 and 3rd generation Chinese- and Japanese-American family caregivers of older adults who live within the Seattle, Washington metropolitan area were recruited and interviewed. Major ethnic-specific senior facilities, churches, community centers and organizations were initially contacted. Through in-person meetings with key contacts from each organization, other contacts were made throughout Chinese- and Japanese-American communities in the larger Seattle area. Study advertisement fliers in English and Chinese were created and posted at these organizations as well as on their websites. Snowball sampling and referrals from ethnic-specific senior community agencies and organizations were utilized.

Exempt status of the Institutional Review Board approval was obtained from the University of Washington Human Subjects Review Board. In order to have adequate sample sizes of caregivers, both current caregivers and those who cared for relatives in the past (e.g., 2nd generation Japanese-Americans who cared for their late parents) were included. Attempts were made to recruit similar numbers of Chinese- and Japanese-American later generation caregivers, and the final sample consisted of 19 Chinese- and 21 Japanese-Americans. Potential participants contacted the researcher either by phone or email. Basic eligibility such as the caregivers' immigrant generation, the relationship between caregiver and care recipient, the caregivers' residential geographical location, and types of care provided were assessed. Once their eligibility was verified, a study packet (Appendix 1) was emailed to participants, and an interview appointment was set at a mutually agreed location (e.g., participants' homes, the researcher's office, a private room at a community center, a local library, etc.). The quantitative part of the interview (filling out the Suinn-Lew Asian Self Identity Acculturation scale (SL-

ASIA) and Filial Values Index (FVI)) took about 10-15 minutes each and was completed prior to the interview. The qualitative interviews ranged from one to almost two hours. An informed consent form was signed at the beginning of each interview and with participant's permission, interviews were digitally recorded. All participants were compensated with an honorarium of $20 and all interviews were conducted between July and October, 2013.

Measures

Two existing scales were utilized to measure the levels of caregivers' acculturation (the SL-ASIA scale (Appendix 1)) and filial responsibility (the Filial Values Index (Appendix 1)). The SL-ASIA (Suinn, Richard-Figueroa, Lew, & Vigil, 1987) is a 21-item multiple choice self-report scale, which was originally developed to assess acculturation of Asian university students. The SL-ASIA measures the acculturation level by spoken-language, identity, relation to Asian values, and fit to Asian race. The original scale-development sample included Asian undergraduate students (N = 82, mean age = 19 years) from two different states in the U.S. In 1992, the reliability and validity of the SL-ASIA were tested further with 284 Asian American university students (Cronbach's alpha = .91). Suinn, Khoo and Ahuna's 1995 study compared their 1992 sample cross-culturally with 118 Singapore-Asian participants in Singapore, who had 0.40 years of living experience in the U.S. Its Chronbach's alpha was .79, demonstrating the internal consistency of the instrument. Suinn (1994) slightly modified the 1987 original linear, uni-dimensional acculturation SL-ASIA scale by adding five questions to clarify multi-dimensionality of acculturation. Acculturation scores are the sum of all 21 item answers divided by 21, ranging from 1(low acculturation), 3(bicultural) to 5(high acculturation), and the higher the scores, the higher the level of acculturation. Questions 22 through 26 measure the association of Asian participants' self-identification with Asian, western or bicultural values, fit

and identity. Scores on these five items range from 1 (Do not believe in…at all/Do not fit at all), 3 (Believe in some of …/Fit fairly well) to 5 (Strongly believe in …/Fit very well) (Appendix 1). The newer version was used for this study in order to have more comprehensive measurements. Suinn provided a table indicating a combination of Asian, western or bicultural categories by values, fit and identity of Asian individuals. The scale is slightly dated; nevertheless, the SL-ASIA scale is not only the most used acculturation measurement scale in studies of Asian American populations (Miller & Speight, 2006), but also has been successfully used across a wide range of age groups (18-87 years) (Ownbey & Horridge, 1998).

The Filial Values Index (Jones, Lee, & Zhang, 2011) was developed to measure the level of filial responsibility of adult children caring for aging parents and focuses on the identification of responsibility, care, and respect. It is a 12-item filial values assessment scale based on a total of 285 caregivers across a combination of five cultural groups (African, Asian, European, Latin, and Native Americans), and the first one developed to apply simultaneously to more than three cultural groups. Factor analysis of the twelve items reveals three-factors: responsibility, care, and respect with high correlation scores (Cronbach's alphas .82 for respect and care, and .74 for respect) fitting the data. Each subscale is measured by four items. For example, the questions "Adult children should protect their families' reputations," "Taking care of aging parents is part of an adult child's moral responsibility," "We need to take care of our parents because they gave birth to us," and "Taking care of my aging parents is part of my faith" measure the level of responsibility. Care questions include "It is important that adult children find ways to raise their parents' spirits," "Adult children should celebrate special family events with their parents," "It is really important for aging parents and their children to spend time talking to each other," and "Adult children should do everything they can to help their parents do things for themselves."

"I greatly value what my parents have done for me," "Much of the good in me I credit to my parents," "I greatly respect my parents," and "I admire my parents" are the respect question items. Response scales are divided into 9-choices from one through nine: one through four indicating disagreement; five, neither disagree nor agree; and six through nine indicating agreement. Within the agree and disagree choices, respondents can choose the adjectives completely, strongly, moderately or slightly.

The qualitative part of the study aimed to explore in-depth some issues identified by the researcher's literature review of five ethnic subgroups of Asian immigrant family caregivers from 2000-2012 (Miyawaki, 2014, under review). An interview guide was developed based on her prior work and Gordon's classical assimilation theory, and pilot-tested with one Chinese- and two Japanese-American caregivers from different generations. The 17 semi-structured questions cover six themes:1) demographic information (e.g., age, marital status, employment status, care recipient's physical and mental health conditions, relationship to care recipient, availability of alternative caregivers, living situation with care recipient, caregiving years, care recipients' health insurance status, caregiving hours per week); 2) dimensions of caregiving (e.g., caregiving appraisals, coping strategies, informal and formal support); 3) cultural values (e.g., filial responsibility, familism, conceptualization of dementia/Alzheimer's disease (AD)); 4) acculturation (e.g., challenges of acculturation, cultural and generational differences of beliefs in filial responsibility); 5) intervention, program development, policy changes (e.g., any programs and/or policies that might help support caregivers); and 6) closing (e.g., recommendations for future caregivers).

Analysis

The linear acculturation score for the SL-ASIA scales was calculated as the average of the first 21 questions. A multiculturalism score based on the five additional questions (questions 22-26) were also calculated based on the table provided by Suinn. For the Filial Values Index, sub-scores of the responsibility, respect, and care scales (4 items each) were the average for each participant. The mean score by generation was computed as the average for participants in each generation.

Face-to-face interviews were all recorded, and transcribed verbatim. A codebook was developed based on *a priori* themes that were addressed in the interview guide as well as additional themes identified through initial review of interview transcripts. Transcriptions were entered into, coded and analyzed using Atlas.tiv7. Inductive content analysis (Elo & Kyngäs, 2007; Graneheim & Lundman, 2004; Hsieh & Shannon, 2005) was used because of the limited knowledge about the above topics in terms of later generations of Chinese- and Japanese-American caregivers. Member checking was conducted for validation and accuracy of data interpretation (Turner & Coen, 2008).

RESULTS

Participants' Characteristics

The characteristics of participants and their caregiving conditions by ethnicity and generation are shown in Tables 3.1, 3.2, 3.3, and 3.4 respectively. Eighty-four percent of Chinese-American caregivers are female and their ages range from 49 to 73 (M = 61.2; SD = 7.85) (Table 3.1); 86% of Japanese-American caregivers are female and they range in age from 54 to 90 (M = 67.8; SD = 10.96) (Table 3.2). Seventy-four percent of Chinese caregivers were

married and 63% had their own family with small children at the time of caregiving (Table 3.1), while 86% of Japanese-Americans were married but 52% had young children (Table 3.2). Almost all Chinese-American caregivers (95%) except one retiree worked outside the home (Table 3.1) while 81% of Japanese-American caregivers worked outside the home, and two were homemakers and one a retiree (Table 3.2). In terms of caregivers' educational background, 58% of Chinese-American caregivers had graduate degrees versus 10% less than a college degree (Table 3.1). For Japanese-American caregivers, 43% had education at the graduate level, with 24% having college and 33% some types of business education (Table 3.2).

Tables 3.3 and 3.4 present by ethnicity and generation the following variables: caregiving relationships, living arrangement with caregivers and care recipient, total caregiving duration, actual caregiving years prior to using paid caregivers and/or institutionalization, use of professional caregivers, and care recipients are in institution currently or were in the past. The majority of care recipients of Chinese-American caregivers are their mothers (58%), fathers (25%), and other relatives (17%) (i.e., 1 grandmother; 1 mother-in-law; 2 uncles) (Table 3.3) while Japanese-American caregivers' care recipients are limited to mothers (74%) and fathers (26%) (Table 3.4). About 44% of Chinese caregivers continue to care for their loved ones regardless of generation (Table 3.3). Among Japanese-Americans, 29% of 2nd generation, 75% of 2.5 generation, and 50% of 3rd generation provide ongoing care (Table 3.4).

In terms of co-residency between caregivers and care recipients, second generation caregivers were least likely to live with care recipients for both ethnic groups (28.6%). Chinese-American 2.5 and 3rd generation caregivers have lower co-residence rates (33.3% and 22.2% respectively) (Table 3.3) compared to those of Japanese-American caregivers (57.1% and 42.9% for 2.5 and 3rd generations respectively) (Table 3.4). As for the use of professional caregivers

and institutions, 2nd (42.9%), 2.5 (28.6%) and 3rd generation (22.2%) Chinese-American caregivers used professional caregiver services (Table 3.3). Contrary to Chinese caregivers, 2nd generation Japanese-American caregivers did not use professional caregivers at all, but 28.6% of 2.5 and 44.4% of 3rd generation utilized professional caregivers (Table 3.4). None of 2nd and 2.5 generation Chinese-American caregivers placed their loved ones in long-term care facilities (i.e., group care home, assisted living, nursing home), but one 3rd generation caregiver utilized institutional care (Table 3.3). For Japanese-American caregivers, more than 50% of 2nd and 3rd generation and 75% of 2.5 generation caregivers placed their loved ones in residential facilities for various lengths of time (Table 3.4).

As for the total duration of caregiving (in years) for Chinese-American caregivers, 2nd generation caregivers provided care the longest (M = 12.0; SD = 7.63) and 2.5 (M = 10.1; SD = 8.71) and 3rd generation the shortest time (M = 6.0; SD = 3.24) (Table 3.3). Japanese-American caregivers showed the same pattern: 2nd generation's care period is the longest (M = 16.0; SD = 11.29) and 2.5 (M = 12.9; SD = 7.94) and 3rd generation's the shortest (M = 9.2; SD = 7.71) (Table 3.4). However, reflecting the number of years in institutional care, the actual caregiving years prior to institutionalization presented different patterns among Chinese- and Japanese-American caregivers. Because 2nd and 2.5 generation Chinese-American caregivers had not placed their care recipients in a long-term care setting at the time of the interview, their actual caregiving duration does not change from the total caregiving duration, showing M = 12.0 (SD= 7.63) and M = 10.1 (SD = 8.71) respectively. However, the actual caregiving duration shortens to M = 5.8 years (SD = 3.46) among 3rd generation Chinese caregivers (Table 3.3). As for Japanese-Americans, since all three generations used institutional care, their duration of caregiving is shorter but in the same direction compared to Chinese-American caregivers: the

later generation, the shorter caregiving duration. Second generation Japanese-American caregivers, on average, spent 12.1 years (*SD* = 9.39), and 2.5 generation spent 10 years (*SD* = 7.82) and lastly, 3rd generation the shortest (*M* = 5.7; *SD* = 5.42) (Table 3.4).

In summary, both Chinese- and Japanese-American caregivers used professional caregivers; however, the frequency of usage was in opposite directions: while the earlier generation of Chinese caregivers utilized more professional caregivers but used them less as they became later generation, the later generation of Japanese caregivers used more professional caregivers compared to the earlier generations. Chinese-American caregivers tended to not institutionalize their care recipients regardless of generation whereas more than half of Japanese-American counterparts institutionalized their loved ones across generations. However, both Chinese and Japanese caregivers' caregiving duration was identical across generations, indicating that the later the caregiver's generation, the shorter the duration of care.

Acculturation Level of Participants (Aim 1)

The level of acculturation was assessed using the SL-ASIA scale and the results are presented in Table 3.5 by ethnicity and generation. Results of the first 21 questions measured the acculturation level by spoken and written-language, ethnic identification of parents, race and ethnicity of friends and peers while growing up as well as residential community and food preference. The level of acculturation of both Chinese- and Japanese-American caregivers was in expected directions; the later the generation, the higher the level of acculturation. They were nearly identical in the level of acculturation, with a level only .1 lower among Japanese-American caregivers of all generations compared to Chinese-Americans. The results of value questions, "Rate yourself on how much you believe in Asian values (e.g., about marriage, families, education, work)" and "Rate yourself on how much you believe in American (Western)

values," of fit questions, "Rate yourself on how well you fit when with other Asians of the same ethnicity" and "Rate yourself on how well you fit when with other Americans who are non-Asian (Westerners)" and of the self-identity question were in the expected direction for both caregivers: the later the generation, the more bicultural (B) and white (W) identity. Most Japanese-American caregivers across generations self-identified as bicultural in terms of values (71%: 2nd; 100%: 2.5; 100%: 3rd generation), fit (71%: 2nd; 43%: 2.5; 86%: 3rd generation) and identity (43%: 2nd; 71%: 2.5; 71%: 3rd generation) while Chinese-American caregivers identified with more variations. Fifty seven percent of 2nd generation Chinese-American caregivers identified the highest with Asian values, whereas 2.5 and 3rd generation identified as bicultural the most (67% and 83% respectively). In terms of the "fit" question, 57% of 2nd and 83% of 2.5 generation Chinese-Americans fit to bicultural; however, 67% of 3rd generation caregivers fit to white identity. Similar to Japanese-American caregivers, the vast majority of Chinese-American counterparts self-identified as bicultural: 2nd: 57%; 2.5: 67%, and 3rd generation: 67%. In sum, the levels of acculturation for both Chinese- and Japanese-American groups were congruent with assimilation theory: the later the caregivers' generation, the more acculturated they became and the more likely they were to identify themselves as bicultural, and the patterns of acculturation levels of both ethnic groups were identical.

Filial Value Level of Participants (Aim 1)

Table 3.6 shows the results of the three filial values scales: responsibility, care and respect. Out of nine score levels, the majority rated high in each score in all scales. There was no clear pattern found among Chinese-American caregivers across generations. The responsibility scores tended to be lower compared to the scores of care and respect for all generations. For Japanese-American caregivers, there was a clear pattern across generation in all

three scales. While 2nd generation caregivers showed the highest scores in responsibility and care scales, 2.5 generation caregivers indicated the lowest scores. In terms of respect, both 2nd (*M* = 8.3; *SD* = .70) and 2.5 (*M* = 8.3; *SD* = .68) generation caregivers were slightly lower than 3rd generation counterparts, scoring 8.5 (*SD* = .38).

Similarities and Differences in Caregiving Attitudes and Needs (Aim 2)

Theme 1: Dimension of Caregiving

Six questions were asked under this theme: a) type of assistance provided; b) caregiving challenges; c) coping strategies; d) any other activities besides caregiving; e) informal; and f) formal support.

Types of Assistance Provided. For both Chinese- and Japanese-American caregivers, the vast majority of assistance focused on the Instrumental Activities of Daily Living (IADLs) (86%: Chinese; 84%: Japanese), with transportation (e.g., doctor's appointment, giving rides) the most prevalent help, followed by cooking/meal preparation, going shopping, and finances. Assistance with Activities of Daily Living (ADLs) (14%: Chinese; 16%: Japanese) included bathing, walking, dressing/undressing, feeding, and toileting. In addition, 2nd and 2.5 generation Chinese and Japanese caregivers assisted their loved ones with English translation and interpretations as well as driving (7 Chinese cases; 9 Japanese cases). As noted by a 2.5 generation Japanese daughter, "I think I always help my mother and father because [they couldn't drive and speak English]." This was reflected in care recipients' ability to drive (earlier generations of care recipients were unable to speak and drive), but later generation care recipients gave up driving because of safety and caregivers' concerns. Although some Chinese caregivers provided language assistance to their parents, they had difficulties in communicating among families because adult children caregivers did not really understand their Chinese dialect,

especially with medical terminology. For Japanese caregivers, in addition to care recipients' linguistic and driving needs, another layer of culture related to patterns of communicating with authority figures was involved:

> (2nd generation Japanese daughter) Once I took drivers' license, I drove I went to my Mom to most of her doctors' appointments. I like to go into the doctors because I think because how her upbringing and the culture, not very direct with authority figures. So you have to kind of be there to tell them because she won't tell them directly, so I have to tell them.

As to generations, both Chinese- and Japanese-American caregivers showed similar patterns of providing assistance. Third generation Chinese and Japanese caregivers helped the most compared to other generations in both ADLs (4 Chinese cases; 7 Japanese cases) and IADLs (14 Chinese; 20 Japanese), while none of the 2.5 generation assisted with ADLs.

Greatest Caregiving Challenges. The greatest caregiving challenges were emotional stress, lack of available help, and maintaining a balance of life. Caregiver's emotional stress was the most common challenge in both ethnicities across generations. However, there are a wide variety of reasons. One source of emotional distress was care recipients' unreasonable comments/criticism toward caregiver and repetitive questions due to dementia, which affected the caregivers' patience.

> (2.5 generation Chinese daughter) It's dealing with my dad's dementia, and trying to, just reason with him…at the point where there's no reasoning. That's challenging. Anything physically, I could deal with. It's the, the mental challenge, right now. It's very hard.

> (3rd generation Japanese daughter) How hard it is to take care of physical, but that's not the hard part, it's that the mental part because…getting blamed for everything [from the care recipient] and that person being angry when you are trying to help them. That's the hard part.

Another source was constant worries about loved ones' health, especially when living together with their parent; one 2nd generation Chinese daughter expressed, "kind of in the back of your mind, like any time. You just never know when the next time there's gonna be an emergency." A 3rd generation Japanese son noted, "greatest challenge for me is watching her [mother] deteriorate."

Additionally, there is shock and disappointment of realizing and accepting that the role between parents and child was reversed:

> (3rd generation Chinese daughter) realizing that the roles are switched…definitely that I am parenting my parents now…You know for me that was the hardest thing realizing I have to parent my parents…with kids…you are trying to train things out of them…[but] you cannot train them [parents] because they cannot change.

Juggling multiple tasks and balancing caregivers' lives were also frequently expressed concerns. Because caregivers are always on the go in order to manage their responsibilities, a 2.5 generation Japanese daughter told herself, "you got a slow down here." A 3rd generation Japanese daughter said, "…a balance between your caregiving and your health condition…and work" is real basic so that you can continue caregiving. One 2.5 Japanese daughter realized that:

> "You can't always be the one saying yes, yes, yes. Somebody's got to take care of you too, or you've got to take care of yourself, so you have to sometimes say – I am sorry. I can't do that."

Another theme was lack of available help, information and training. All of a sudden, caregivers are put into situation where all the responsibilities are on them:

> (2nd generation Chinese daughter) suddenly we're flipped into a role that we're supposed to automatically know everything and know how to take care of things, you know? No warning. No training. You're in the seat now. Do this.

Coping Strategies. Coping strategies varied across generations and ethnicity. The most common strategy was talking with their family and friends (50% Chinese; 38% Japanese). Other strategies included playing sports/exercises (21% 3rd generation Chinese; 13% 2.5 generation Japanese), traveling and work (i.e., keep themselves busy with something else). However, for Japanese-American caregivers, 2nd (3 caregivers) and 2.5 (2 caregivers) generations in particular, they had no coping strategies because for them, caregiving was something that was expected:

> (2nd generation son) Coping strategy? It [Caregiving] was just natural that I have to take care of my parents.
>
> (2nd generation daughter) It [Caregiving] was just given.
>
> (2.5 generation daughter) There was no question that what I did I wanted to do and I needed to do…I didn't question it. It had to be done.

Any Other Activities. The majority of Chinese and Japanese caregivers regardless of generation did some form of physical exercise such as yoga, walking, swimming, and playing

tennis while others enjoyed singing and gardening. However, a few caregivers did not have time for anything else because of other family commitments like raising their children.

Informal Support. All caregivers primarily relied on their siblings to share their filial responsibilities. Chinese caregivers, all except one 3rd generation caregiver, had multiple siblings. Siblings of three caregivers (16%) lived out of state; therefore, they relied on their spouses for help. Despite the availability of siblings locally, two 2nd generation Chinese-American caregivers did not receive support from either their siblings or spouses, and thus, they needed to handle caregiving responsibilities by themselves:

> I just did it [caregiving], and the others were content to have me handle it. They built a habit of expecting I would take care of things. I would make decisions. I would solve problems. I would handle what needed to be done…[when making decisions and talking to siblings] the only real response was - I don't know and so essentially they threw it back in my lap…there was no help whatsoever.

On the other hand, one 3rd generation Japanese-American daughter emphasized how much she relied on her siblings and family's support:

> [because all caregivers work and live away from her parents' home], my 64 year old brother and myself and younger sister decided we would take turns and come Friday [after work] through Sunday, and help my parents. We made out a schedule and we came down Friday and Saturday and went home Sunday.

For Japanese-American caregivers, there was a clearer pattern in their informal support systems. Three caregivers did not have any siblings and a total of 7 caregivers' siblings (39%) lived outside of Washington state (3: 2nd generation; 2: 2.5 generation; 2: 3rd generation). Three 2nd generation caregivers whose siblings were not locally available relied on spousal help:

> (3rd generation daughter) well, my husband is very helpful too which really helped, and my mom loved him which helped…mom would get up in the middle of the night [but] she wasn't able to get up, so my husband and I would take turns sleeping there overnight…He was really involved which was really nice…And also he liked taking mom places because mom liked him.

The rest of 2.5 and 3rd generation caregivers with out of state siblings not only used spousal support, but also placed their care recipients in either assisted living or skilled nursing facilities.

Formal Support. As stated above, there were explicit differences between how Chinese and Japanese caregivers utilized outside sources such as paid-caregivers and long-term care settings. Chinese care recipients across generations compared to Japanese counterparts were not as open and receptive to utilizing help outside of their family members. Most Chinese care recipients in all generations did not accept the idea of bringing in or hiring somebody outside of their family network:

> (2nd generation Chinese daughter) they don't want to have help because they think they can do it themselves.
>
> (2.5 generation Chinese daughter) I think it may be a Chinese way of thinking. She [mother] can take care, it's her duty to take care of him [father]. They didn't want a stranger in the house, it's kind of uncomfortable.

Contrary to Chinese-American caregivers, Japanese-American caregivers did not hire paid caregivers, but instead, chose to place their loved ones in long-term care facilities. Care recipients were more receptive to such placement across generations. Although not happy about it initially, they eventually accepted it:

> (2.5 generation son) She was a little resistant at first, but not very much - you know -. She knew that she was having trouble cooking and cleaning and that kind of stuff so -
> (3rd generation daughter) She wasn't real happy. She said you mean forever? I'll be here like a prison?...I said well, let's try out for a while…Yeah, she says, Oh, OK..[then after a while] She LOVED it. She had the Nihonshoku [Japanese food at the facility].

Theme 2: Cultural Values

Cultural values consist of a) sense of filial responsibility; b) familism; and c) stigma toward dementia/AD.

Sense of Filial Responsibility. Regardless of ethnicity and generation, all caregivers expressed a strong sense of and demonstrated some forms of filial responsibility. Some felt and were explicit about their obligation and responsibilities to care because of their family relationships in accordance with Asian cultural tradition and expectations that were instilled in them, such as being the oldest daughter among siblings and being a woman in the family. As noted by a 2.5 generation Chinese daughter:

> It just came naturally. It was almost like…it's my responsibility, and I had this culture…having that expectation from the family [being a woman and the oldest among siblings].

Two 2.5 generation Japanese daughters expressed a similar sentiment:

> [Because…the oldest daughter]…I think that was just expected. I didn't have any question. It was just something I did.

> I think taking care of your parents is just something that is expected of you. I mean, I felt no resentment or anything like that. I didn't feel like they were a burden. I just felt like - this is something that you do because they are your parents, and they took care of you. Now it's your turn to take care of them.

Others did not even think to question whether to care, and furthermore, appreciated the opportunity to provide care, as stated by a 2nd generation Chinese daughter:

> She [mother] took care of me, she took care of my children…so it's just my turn.
> I think it's something that culturally, I think I feel guilty if I don't see them as often as possible.

Similarly, a 2nd generation Japanese daughter never questioned her responsibility:

> I felt like that's what I was supposed to do… you wanted to do it, too.
> It was just you meant to do it. You want to do it… I always felt that.
> There was no…question why am I doing this.

Regardless of their ethnic group, generation, and relationship to care recipients, all the caregivers assumed their role was culturally appropriate:

> (3rd generation Chinese daughter) It was just part of the culture - I just know that - take care of your parents. I didn't think twice about it. No, I didn't think twice about it.

The range of values underlying filial responsibility is captured by 3rd generation Japanese daughters and son:

> I think…it comes down to that I am the oldest. Yeah, that's a given…I don't ever feel like I had a family obligation to take care of them…That they sacrificed a lot.

> [living together with parents] that's the most fortunate thing and actually we got the best because my kids got to grow up with them…I committed, I am committed…it's just way of life. I mean I would do it again…Yeah, no regrets.

> I feel like I owe it to them [parents] because they gave to me. They kept giving, giving, giving you know. And it's my turn.

> I value what my parents have done for me… we feel a sense of responsibility, a sense of obligation to our parents because they were so good to us. I would do it. I didn't look at is a burden, just that I would do it.

Familism. Regarding the concept of *familism*, various patterns were found across ethnicity and generations. Within the Asian cultural value of familism, the family's welfare is considered over that of individuals. Elders are well respected and regarded as authority figures.

Not bringing shame to the family's name and face in the community is emphasized in children's behaviors, and personal matters are to be kept private within the family (Weng & Nguyen, 2011).

Some caregivers (one 2.5 and six 3rd generation Chinese; one 3rd and two 2.5 generation Japanese) have never heard of the term, familism; however, the vast majority have heard a similar concept while growing up. Regardless, 88% of Chinese and 79% of Japanese caregivers did practice familism and the earlier the generation, the stronger the influence of familism within their families. Among those who continue to practice familism, their responses included:

> (2nd generation Chinese daughter) I remember her [mother] telling me because I was the only Chinese and there were so few Asian in whole town that whatever I do…I can bring a shame. Not only to myself but to my family and to the whole Asian, the whole Chinese, the whole Asian…because you are representing your race.
>
> (2nd generation Japanese daughter) I think it was a natural discipline…so we knew we had to obey and not bring shame.

However, the later generation caregivers articulated some modification to its concept and the way it was expressed. For example, one 3rd generation Chinese-American daughter stated:

> …it's not quite the Asian version or you know… then they [parents] practiced it themselves…But I think the difference is that the way that it got, it comes out is different than the Asian version…I said I'm not gonna shut up and put up. I was not raised that way even my parents and my grandparents respected our opinion. Sometimes they tell us we were wrong, you know. You guys, we know you think that way but you are wrong. But they were ok with telling us that. They were ok with us expressing ourselves. So different kind of respect, you know just then what you think of is, what you would think of is the Asian version.

Stigma toward Dementia/AD. None of the caregivers felt any stigma associated with their care recipients' dementia. The most common responses included "why stigma?" and "many people have dementia." Two 3rd generation Chinese-American daughters thought that their mother's diagnosis [of Alzheimer's disease] should be shared with all her family - extended family members as well as a network of people such as church members - so that they can help out her mother in case she needs help outside the home:

> We are gonna tell everybody because we want them to know that's what's going on… so I've been trying to tell my family, some people in my family, my mom's generation…they are still like, mom looks fine…you guys are not paying attention because she is not. She is not the same person.

> I remember talking to our relatives, and telling them…I want people to know because then they can help you [mother]. But if they think - oh, she's fine, no one's going to pay attention. So I want people to know that - yeah, mom has Alzheimer's because if you [mother] are out wandering around and lost, then someone will help you [mother].

Theme 3: Acculturation

The acculturation theme explored a) any conflict that caregivers felt between Asian and western understanding of caregiving; and b) any generational differences between caregivers and care recipients about caregiving.

Asian and Western Ways of Caregiving. A few Chinese and Japanese caregivers expressed conflicts between their understanding of caregiving and that of their parents. Chinese

caregivers showed no assimilation pattern in their understanding of caregiving practice between generations, and their responses were all mixed. For instance, one 2nd generation Chinese daughter felt a lot of conflict between their understanding of caregiving (western) and that of their 1st generation immigrant mother (Asian):

> I think we prefer the Western practices because that's what we know. We know less of the Asian culture…my mother was somewhat isolated in terms of learning the Asian values. We pretty much kind of learned more of the Western values - yeah, all of our siblings.

But even later generation Chinese-American caregiver's preferences related to caregiving practices showed a strong preference for Asian over western ways:

> (3rd generation son-in-law) Well, it's definitely [I prefer] more Asian culture [of caregiving] than Western culture. I don't see Western culture being real - I don't see it as often… it's more of an Asian concept than a Western concept.

In contrast to Chinese-American caregivers, Japanese-American caregivers, as assimilation theory suggests, showed a linear assimilation pattern in their understanding of Asian and western way of caregiving: the later the generation, the less conflict because parents' and caregivers' understanding of caregiving became similar as both of them assimilate to western ways of caregiving. For instance, conflicts with their parents' expectations happened primarily between 2nd generation caregivers and their parents (1st generation): 2nd generation Japanese-American daughters expressed conflicts as:

> when you have a parent who can't speak English, no matter how efficiently systems run, communication is a big issue…plus I think a lot of times Asian culture is kind of like a hindrance because…especially Japanese culture…they want to be polite to authority figures, they all say "fine" even if they are not fine…Not so much me.
>
> My job was how you say translating for the doctor because my Mom didn't even know how she felt…my job was to really interpret the condition for them…when you are dealing with my Mom, you have to proactively put out to the doctor, what you think it is or what they need to check…the society that my Mom grew up and the society is not the same…I mean if you have to complain, you have to complain, and if you have to say something, you have to say something. It doesn't matter they are authority figure or not. This is I am not Japanese. Well you have to advocate if you want the kind of quality of care, you have to say something.

2.5 and 3rd generation Japanese caregivers did not experience any differences or did not know the differences of Asian and western ways, because the parents spoke English and most likely parents were also acculturated to western ways.

Generational Differences in Caregiving. Similar to Asian and western ways of caregiving, no assimilation pattern was found among three generations of Chinese caregivers, and a wide variety of responses were apparent:

> (2nd generation daughter) I think our sibling level of responsibility are all about the same - all of us…I think my mother expects a lot more and then all of us feel very differently, but we're at about the same level. So it definitely is a generational - a first generation versus second generation gap.

> (2nd generation daughter) Yes, definitely!!! Definitely!!! I think my Mom's generation, their expectation what they were used, you know, experiences were different. They were adhere to lot more tradition, to superstitions, to information that were handed down to them…I tried to challenge my mother on some of their superstitions. Never got to anywhere I had to learn to OK even though I disagreed with her. Her decision and her knowledge were supreme...Oh, she doesn't have to tell. You know, she had that look.
>
> (2.5 generation grand-daughter) it would be nice to have some help but but it just wasn't never an option…We pretty much had to listen to her…She was the matriarch. She was very stubborn…I can tell from her expression. That you have no choice, but you had to follow.
>
> (2.5 generation daughter) There is her thinking. Her thinking is different.

Some 2.5 and 3rd generation Chinese daughters found a match between their understanding and their mothers' expectation of caregiving practice:

> No [I didn't feel any generational difference] because I remember helping my mom to take care of her mom [so that she understands how hard it is to care for older people].

Contrary to Chinese-Americans, Japanese-American caregivers showed signs of assimilation: there were more conflicts with 2nd generation but no conflict among 3rd generation and 2.5 in between. Although 2nd generation Japanese caregivers felt the differences between their thinking about caregiving and their parents' expectations, they understood their parents' stand; this is because their parents' generation never experienced caring for their own parents since they left Japan at younger ages and never returned to care for their parents in Japan.

Therefore, 1st generation parents do not understand the physical and mental hardship of taking care of elders:

> (2nd generation son) I can still remember that you are supposed to care for loved ones at home…you are not supposed to place them in a nursing home…that was their belief. That's where it was in Japan that time.

> (2nd generation daughter) they want their son or daughter to do everything…because they didn't have no experience in taking care of any old folks.

In contrast to 1st generation parents, parents of some 2.5 and 3rd generation caregivers (i.e., 2nd generation parents) did not want to be a burden to their children. This may be because the parents themselves experienced taking care of their own 1st generation parents and parents-in-laws. Therefore, they became more understanding of caregivers' situations.

Theme 4: Intervention, Program Development and Policy Changes

The vast majority of Chinese and Japanese caregivers in all generations were employed while giving care, and few caregivers were self-employed, retired or home-makers. All caregivers had relatively easy times performing their caregiving duties while employed, such as leaving their work to take their loved ones to doctors' appointments or managing to schedule their appointments within their off-time. Some were self-employed, and therefore, their work schedule was more flexible. Many of them noted the convenience of family leave policy.

In terms of utilization of technology, many caregivers expressed the convenience of having cell phones. However, it was not useful for their loved ones because learning new technology such as cell phones and computers was too complicated for them. A few caregivers

installed a nursery monitor to check on the care recipients' well-being, but some expressed concerns about privacy issues. One 3rd generation Chinese caregiver suggested a website for Google search assistance for seniors.

Theme 5: Recommendations for Future Caregivers

Five recommendations were suggested, which varied across ethnicity and generations. These recommendations were based on caregivers' own current and past caregiving experiences and many of them were expressed with passion. Future caregivers need to a) plan and prepare ahead of time before crises happen (3 caregivers) by looking for resources (3 caregivers); b) do your homework and obtain caregiving and related knowledge (3 caregivers) by talking to professionals as well as people who have had experience of caregiving and ask them questions. At the same time, c) start initiating conversations about your loved ones future and future plans among family members including loved ones and continue to have open dialogue (3) and learn about care recipients' end-of-life wishes (3). Next, d) based on the family conversations, make decisions on care plans and put them into action (1) by preparing legal documents (1) and looking for and visiting facilities that loved ones like (3). In the meantime, caregivers should try to find a balance between their own lives and caregiving lives (1). For example, find and take caregiving classes (e.g., basic caregiving skills, etc.) (2), build social networks and expand caregiving support systems (2), ask for help including professional and respite care (7) and lastly plan your own future (1).

Some caregivers acknowledged difficulty in pursuing these recommendations:

(2nd generation Chinese daughter) I think you have to stay ahead of it and, ah, I think and, talk to people. That's one thing I feel like, the culture is not very open about.

(2.5 generation Chinese son-in-law) How do you educate, how do you develop new ways, how do

> you develop this into the culture? And so it's through education. It's through…talking to people and trying to get some sense of where is the new direction. What are people thinking and how can we get people to change the way they think.

A few pieces of advice were suggested: "try not to make it [caregiving] a burden, see the good side of it" and "do not feel guilty to look for professional help."

Theme 6: Caregivers' Own Future Care

Three new topics emerged within plans for caregivers' own old age: a) in-home (professional) caregivers; b) institutionalization; and c) caregiving expectations for their own children.

Perception about In-Home (Professional) Caregivers. As seen above, many of the care recipients, especially Chinese recipients, refused to accept outside help; however, in relation to caregivers' own care, 23 caregivers accepted in-home caregivers. Out of these 23, one 2.5 generation Japanese-American daughter was the only one who preferred an Asian caregiver compared to non-Asian counterparts because the caregiver had been exposed to the kind of "compassionate care that is typical of the [name of Asian facility]." Another 2nd generation Japanese-American daughter also preferred Asian caregivers, but because she did not think she can get a Japanese caregiver, she would have to settle for a caregiver who has the right qualifications:

> Most Asians of our generation work in better jobs - you know? There's not too many nurses aids that they can get at [name of Asian facility] of Japanese descent.

For the rest of the 22 caregivers, the race/ethnicity of in-home caregivers did not matter as long as they were dependable and qualified.

Perception about Institutionalization. In contrast to previous generations, all generations of both Chinese- and Japanese-American caregivers accepted the idea of a long-term care facility for their future care because they did not want their family members to go through what they experienced, and as mentioned earlier, did not want to impose on their children and relatives. A few of them had already prepared and looked for their own institutions by touring facilities in the area, and others had invested in long-term care insurance. Of the 30 caregivers expressing clear preferences, five preferred an Asian institution. The most prevalent reason was because Asian food was very important for their lives. Three Japanese-American daughters (one 2nd and two 2.5 generation) were bilingual so that language would not be an issue for Japanese ethnic facilities. One 2nd generation Chinese daughter expressed her desire to live in an Asian environment so that she can maintain her cultural heritage such as Asian cultural celebrations, food, and field trips, etc. However, due to English being their primary language, they were also aware that they did not fit with the current Chinese facility in the area:

> Perfectly Asian. Not necessarily Chinese. I don't necessarily would choose [name of Chinese facility] because…the residents, they speak Chinese, so it wouldn't - in terms of bringing their life and their tendencies, habits…the kind of clientele that I wouldn't form close friendships with. So there's not only age gap but cultural gap [between 1st generation and 2nd generation Chinese].

Twenty five caregivers who chose to be in mainstream facilities expressed the level of acculturation as well as linguistic disconnect as the reasons:

(2.5 generation Chinese daughter) You know, like, for my mother and father, it had to be Asian. They're more comfortable. But for me, because I was born here, it doesn't matter as long as the place has a good reputation. It's clean.

(3rd generation Japanese daughter) It doesn't matter because I have Asian culture inside me, but I was never around Asian people growing up.

(3rd generation Chinese nephew) No, because my communication skills aren't there [I don't understand Chinese and cannot speak Chinese] - you know - so I think there's a big disconnect there.

The vast majority of caregivers emphasized the quality of the facility and care - compassionate care and respect - rather than any specific ethnic environments, including food.

It should be noted that many male caregivers and one caregiver's brother expressed similar sentiments regarding their future on institutionalization:

(2nd generation Chinese) I know my youngest brother said that when I get this [stage in life], I give somebody a shot gun and tell put me out find [me on] the street.

(2.5 generation Chinese) so give me a pill. Let me say "good night" and I'll be happy. That's I am okay with that.

(2.5 generation Japanese) My plan really is - if I know I'm terminal or if I'm really incapacitated, I know my plan has got to be to have something happen - a bad accident or something…there's a place at [name of the place]…there's a real steep hill that goes straight down to the water…you're supposed to turn…well, that would be the perfect place. Just get in the car, step on the gas, open the window, right into the water and boom. That would be the place.

(3rd generation Chinese) We're looking for the easy way out…quick…Men are more black and white than shades of gray, I think, in some ways.

(3rd generation Japanese) we joked around it all the time…We always say it "sucks getting old." And if I get to that point, take me outside and shoot me.

These responses may be due to caregivers' gender. When facing their own loss of autonomy and placing themselves under others' care such as in long-term care facilities, male caregivers compared to female seemed to have a harder time accepting care and stronger desire to keep their control and independence.

Caregiving Expectations for Caregivers' Children. All caregivers who responded to this question stressed that they do not want their children to feel a burden from taking care of them in the future (5 Chinese and 9 Japanese caregivers). Many of them had not even thought and/or talked about it with their children. However, since they were aware that their children saw their parents caring for their grandparents or relatives and/or had lived with them while growing up, all believed that their children would take care of them when the time comes. Some even believed that their children might offer to live with them whether or not caregivers themselves accepted the children's offer because again they did not want to disrupt their children's lives.

DISCUSSION

The themes that emerged from both the quantitative and qualitative analyses as particularly noteworthy of discussion are 1) level of acculturation and filial responsibility; 2) dimensions of caregiving; 3) cultural values; 4) acculturation; and 5) caregiver's own future.

Level of Acculturation and Filial Responsibility. Both Chinese- and Japanese-American caregivers across generations showed a similar linear progression of level of acculturation: the later the generation, the higher the level of acculturation, which is fully

supported by assimilation theory. Given this, it was not surprising that both Chinese and Japanese caregivers showed linear associations in terms of cultural self-identity: the later the generation, the more they identified as White or bicultural because this pattern also supports linear, classical assimilation theory.

Findings regarding filial responsibility as measured by the Filial Values Index partially supported the hypothesis that 2nd generation caregivers would have a higher level of a sense of filial responsibility compared to that of 2.5 and 3rd+generation caregivers. Based on assimilation theory, as hypothesized in Aim 1, 2nd generation caregivers had the highest filial responsibility scores, followed by 3rd generation, with 2.5 generation caregivers showing the lowest. This may be related to the ages of caregivers since 2nd generation were the oldest and 2.5 generation caregivers were the youngest among the three generations; thus, the older caregivers tended to have stronger ties to their traditional caregiving culture and a stronger sense of filial responsibility.

Dimension of Caregiving. Some caregiving experiences of later generations were similar to their 1st generation counterparts such as helping with English translation. Second generation caregivers with 1st generation immigrant parents as well as 2.5 generation with 1st generation Chinese parents or Kibei Japanese parents experienced more caregiving difficulties, due to their parents' limited English proficiency and inability to drive. Because many parents of 2nd and 2.5 generation caregivers were unable to speak English and drive, their caregiving duties started once caregivers were able to answer the phone and obtain a driver's license. Third generation caregivers did not have to worry about English and driving issues because as assimilation theory posits, their parents were born in the U.S. Thus, their primary language is

English, and they assimilated to an American lifestyle and were able to obtain their own driver's licenses.

This generational difference was even clearer in their caregiving attitudes, especially their decision to use outside help, particularly placement in a long-term care facility. Chinese-American caregivers, regardless of their generation, did not institutionalize their loved ones, even though there is a Chinese-speaking nursing home in the area. The only outside help used by Chinese caregivers was "Chinese-speaking" home helpers, when caregivers were unable to manage their care recipients due to heavy-duty ADL care such as bathing and toileting. The ways that Japanese-American caregivers utilized outside resources were quite different from Chinese caregivers. Both 2.5 (1 case) and 3rd generation (5 cases) Japanese-American caregivers used in-home caregivers; however, these in-home caregivers were not "Japanese-speaking" but those who met the "qualifications" as caregivers. The reasons for the use of in-home caregivers were primarily for caregivers' physical and mental well-being: "I needed to have a life, too" (3rd generation) and "needed to do something else [besides caregiving]" (3rd generation). Furthermore, across all generations, many Japanese-American caregivers placed their loved ones in institutions (50% of 2nd and 3rd generations and 75% of 2.5 generation), such as an assisted living and a skilled nursing facility. This occurred because the level of ADL help required more than what caregivers and their families could handle as well as concerns for the care recipient's safety. Their greater utilization of residential facilities may be because there is a well-established Japanese-American assisted living facility with Japanese-English bilingual careworkers and skilled nursing home facilities with Asian professional caregivers. Additionally, these settings serve Japanese food and offer Japanese cultural activities. Moreover,

the skilled nursing facility has been a default option when Asian patients are to be discharged from near-by hospitals.

Cultural Values. These differences in caregiving attitudes among Chinese- and Japanese-American caregivers and their families across generations indicated variations in the level of cultural maintenance and resistance to the idea of institutionalization (Asian vs. Western ways of caregiving and generational differences in caregiving expectations). These may result in part from the immigration history of Chinese- and Japanese-Americans. As stated earlier, while there have been few new Japanese immigrants since 1960s, there have always been Chinese newcomers after 1965. Therefore, for Japanese-Americans, a strong tendency is only to assimilate to American mainstream culture whereas Chinese-Americans may have more options: either to maintain their home culture as new 1st generation immigrants or to assimilate to mainstream society. In addition, as previously mentioned, Chinese people have tendency to show strong resistance to assimilation to a new society and culture (Wong, 2006). For example, one Chinese-American nursing home in the area provides Chinese care with bilingual caregivers and Chinese food; however, the vast majority of residents are Chinese-speaking and the facility offers traditional cultural activities only. Thus, later generation Chinese-American care recipients may have linguistic issues (i.e., do not understand Chinese) and may not be familiar with traditional Chinese activities. On the other hand, both the Japanese-American owned assisted living facility and nursing home in the Seattle area offer multiple languages, encompassing not only later generations of Japanese care recipients but also other residents from other racial and ethnic groups. Many later generation Japanese care recipients are receptive to this "modified" environment where there is still some familiarity to Japanese culture.

Placing their loved one in a long term care facility does not necessarily mean that the level of filial responsibility (i.e., the level and frequency of care involvement) became less for both ethnic groups across generations, however. After placing their loved ones in institutions, 3rd generation Japanese caregivers showed continued filial responsibility by visiting them every day and providing companionship: "make sure to have somebody with her [mother] at each meal time [by taking turns among siblings]." All caregivers demonstrated their strong filial responsibility and ongoing commitment to care for their loved ones as best as they could within their particular situations.

Acculturation. Disagreements about caregiving expectation between care recipients and caregivers were due to differences not only by generation but also by extent of acculturation to Western culture by both Chinese- and Japanese-American caregivers. The pattern of Chinese-American caregivers was not congruent with a linear model of assimilation theory and found to be mixed. While some 2nd generation caregivers stated strong disagreements with their 1st generation parents, other 2nd generation adult children did not have any disagreement, and disagreements occurred even 3rd generation caregivers versus 2nd generation parents. However, even when there were conflicts in their understanding or expectations of care practices, regardless of caregivers' generation, all of them must obey and follow their parents' opinions. This is captured by a daughter who described that "Her [Mother's] decision and her knowledge were supreme" and "was never an option…We pretty much had to listen to her." This hierarchical attitude and its continuity again support Wong's account (2006) of Chinese people's resistance to change.

Contrary to Chinese-American caregivers' experiences, such disagreement for Japanese-Americans was limited to between 2nd and 2.5 generation caregivers and their 1st generation

parents, a pattern that supports linear assimilation. This may be because Japanese-American generations are so distinct in their characteristics and life experience that each generation has its own name: *Issei* (1st generation), Nisei (2nd generation), Kibei (Nisei) (2.5 generation in this study), and *Sansei* (3rd generation), and their assimilation processes are more clear-cut (Itai & McRae, 1994) compared to Chinese-Americans. First generation Japanese-American immigrants had their own beliefs and expectations about caregiving based on the caregiving practices in Japan at that time. Their 2nd generation caregivers struggled but managed to practice western ways of caregiving, including institutionalization when necessary, and 1st generation Japanese parents accepted the discrepancies between their expectations and their westernized 2nd generation caregivers (i.e., their children). Assimilated to mainstream culture, 2.5 and 3rd generation Japanese-American caregivers included institutionalization in their care systems.

Caregiver's Own Future Care. Some previous studies identified Chinese-American and Japanese-American caregivers' concerns about their own future care (Funk, Chappell, & Liu, 2011; Ho et al., 2003; Hsueh, Hu, & Clarke-Ekong, 2008; Jones et al., 2001; Kimura & Browne, 2009). This is because their US-born children have assimilated to the mainstream culture and acquired beliefs and values that are different from those of current caregivers. As a result, they may not be able to expect the same level of filial care from children. Because all 1st generation parents did not have language proficiency and many had no driving skills, 2nd and 2.5 generation caregivers had to provide assistance since a young age (mostly in their teens). Their parents relied heavily on their children for help with their daily affairs and business transactions. Although later generations of Chinese-American caregivers in this study had not placed their loved ones in long-term care facilities, they had accepted a plan of their own institutionalization when their time comes. Some Chinese caregivers expressed their preference to go to mainstream

institutions because of their inability to speak Chinese and that they would not enjoy cultural activities offered at an ethnic-specific Chinese facility currently available in the local area. This pattern indicates different acculturation levels of later Chinese generations and supports 1st and 2nd stages of Gordon's assimilation theory to mainstream culture.

Similar patterns are found among later generation Japanese-American caregivers. As noted previously, due to the Japanese traditional culture of not disagreeing with authority figures, women especially were socialized not to speak their opinions. Moreover, those 1st generation immigrants did not have a chance to take care of their own parents who remained in Japan, and they themselves did not have any caregiving experience. Therefore, when their 2nd and 2.5 generation children offered help and proposed the idea of an institution, although some resistance to institutionalization was initially expressed, 1st generation parents accepted help and agreed rather graciously to move into long-term care facilities. This pattern continued across generations among Japanese-Americans and now the majority of later generations of Japanese-American chose to be in a long-term facility rather than relying on their children for care. This pattern is also congruent with assimilation theory.

This study found that both Chinese- and Japanese-American caregivers, although at a different pace, are moving toward assimilating to the mainstream way of filial caregiving and are changing from primarily family care to institutional care as a way to express their filial responsibility. When they reach the point of needing care, they are ready to move into mainstream facilities, not ethnic-specific ones.

FUTURE IMPLICATIONS

Implications for Research

The present study assessed and compared the level of filial responsibility among later generation Chinese- and Japanese-American caregivers within the framework of Gordon's classical assimilation theory. Although many Japanese-American caregivers have placed their parents in assisted living and/or skilled nursing facilities at some point during their care, all of them stated that they continued to be involved in their care by visiting, providing companionship, having meals together at facilities, and taking them out for rides among available kin members. Their caregiving routines continued but within a long-term care setting. It would be worthwhile to analyze more in-depth the reasons and motivations for their high level of continued caregiving involvement even after such placement.

Future research should include not only larger interview samples, but also caregivers with more diverse social and economic backgrounds, especially among the later generations. There was not a large difference in average ages and educational attainment among Chinese-American caregivers. However, there was a 10-year gap between 2nd generation (74.6 years) and 2.5/3rd generation (64.4 years) Japanese-American caregivers. It is likely that the socioeconomic background of 2nd generation Japanese-American caregivers is lower compared to the later generation counterparts. Educational as well as professional opportunities were not as available, particularly for women, as they were for later generation cohorts. Therefore, their choice of institution may be limited to skilled nursing facilities that accept Medicaid. Caregivers from other generations were highly educated and had the means to hire paid-caregivers and/or pay privately for their loved ones in assisted living and skilled nursing facilities. Thus, the results may be skewed.

With more interracial marriages since the overturning of anti-miscengation laws, future studies should include more bi- and multi-racial caregivers to explore their caregiving experiences in relation to culture and acculturation. This study sample included some interracial couples (two 2.5 Chinese-American, and one 3rd generation Chinese-American couple; two 2.5 generation Japanese-American and two 3rd generation Japanese-American couples). Depending on the spouses' racial and ethnic groups, their cultural values/emphasis on filial responsibility, willingness to accept partner's culture, and immigrant generation in combination with the caregivers own cultural and acculturation level may result in different caregiving experiences. The gender of the Asian caregiver within biracial couples might influence the outcomes of caregiving experience. In addition, if caregivers themselves are bi-racial (i.e., half-Asian and half some other race), this may influence different perspectives on filial caregiving.

Further study on the perception of institutionalization by later generations of Chinese- and Japanese-American caregivers should be conducted. As shown above, the level of acceptance of placement of a loved one in a long-term care facility differed between these two ethnic groups. For instance, there is a great difference between Chinese-American caregivers' perception of institutionalizing their loved ones and their own future institutionalization. Based on this study's findings, caregivers appear to accept placement in non-ethnic-specific institutions for their future care as long as their expectations of "good" quality and compassionate care and respect are met. Researchers need to better understand what later generation caregivers expect in terms of "quality," "compassionate care" and "respect."

Implications for Practice

This study was conducted in a city where diverse populations with multiple generations co-exist, and that may be one reason why it was feasible to recruit samples of Chinese- and

Japanese-American caregivers with multiple generations. In addition, well established Chinese and Japanese senior service agencies, including in-home caregivers and care homes, have been present for decades. These conditions are not representative, however. Instead, there is a need for outreach to communities where ethnic-specific services are not well established, especially because new Chinese immigrants and their caregivers are most likely in need of ethnic-specific traditional care with linguistic assistance.

Simultaneously, these ethnic-specific agencies need to consider service changes to reflect the needs of later generations of caregivers. For example, as presented in this study, later generation Chinese-American caregivers felt a disconnect with Chinese ethnic-specific senior facilities where the only language is Chinese and traditional Chinese cultural activities are emphasized. Thus, while providing linguistic and cultural sensitivity to newcomers, these agencies also have to consider the needs of later generations of bicultural, westernized ethnic caregivers.

Regardless of generation, caregivers' willingness and eagerness to openly share their experiences, views and feelings about their loved ones with the researcher was noteworthy. This suggests that ethnic-specific support groups might be helpful for later generations of Chinese- and Japanese-American caregivers where they could share their experiences with those who are new to caregiving and make recommendations to others within the same ethnicity and generation. In a support group setting within ethnic specific community agencies, those who had placed their loved ones in institutions could encourage others to do so.

Limitations of the Study

This study has several limitations. As indicated above, it was conducted within racially and ethnically diverse neighborhoods with historically service-rich environments. Samples were

originally referred from ethnic-specific senior social service agencies (i.e., non-probability sampling) where the majority of their loved ones utilized services, and are biased to caregivers and care recipients who have used services. However, snowball sampling was necessary in order to reach enough Chinese- and Japanese-American caregivers with multiple generations. Thus, findings are not generalizable. Those caregivers who have affiliations with ethnic-specific agencies may have stronger ties with their ethnic communities compared to those who do not have such associations, and the results may be skewed. In addition, despite their caregiving challenges, those who volunteered to share their caregiving experiences have generally had satisfying experiences. Therefore, their stories tended to be positive regardless of ethnic subgroups and generation. Some participants provided care for their loved ones more than 10 years prior to the interviews, and this may result in potential recall biases. All the respondents had at least a few years of college education and are a highly educated sample. The vast majority are or were employed professionals, homeowners and financially comfortable. Some are a self-employed or a company owner, and others did not have to work outside home because their spouses could fulfill their financial needs. They are independent, physically and mentally healthy, and active individuals. In many ways, they differ from what has been documented to be the "typical" caregiver in the US who experiences high levels of stress and burden, disruptions to employment, and resultant physical and health effects problems (National Alliance for Caregiving, 2009). Last, percentages reported are based on only 40 caregivers, and any statistical reporting is limited to descriptive statistics.

CONCLUSION

The present study explored the sense of filial responsibility of three later generations of 19 Chinese- and 21 Japanese-American caregivers of older adults who currently reside in the Seattle metropolitan area. The SL-ASIA acculturation scale and the Filial Values Index measured caregivers' acculturation and filial responsibility levels. Within the framework of Gordon's classical assimilation theory (1964), 40 in-depth semi-structured interviews were conducted to further examine caregivers' filial responsibility. Although the quantitative results showed their clear linear assimilation levels, the scores of filial responsibility of both Chinese- and Japanese-American caregivers showed a high level of sense of filial responsibility among 3rd generation caregivers and thus were partially congruent with assimilation theory. Qualitative data also revealed later generation caregivers' strong sense of filial responsibility and continued caregiving involvement, even after the institutional placement of their loved ones. These findings not only expand existing knowledge, but also provide a foundation to develop caregiver services that take account of their culture and level of assimilation. Furthermore, the desire for their own future care included placement into mainstream long-term care facilities, which suggests practice implications to ensure appropriate services and supports for those later generations.

Table 3.1
Characteristics of Caregivers by Ethnicity and Generation Chinese-American Caregivers

Generation	Gender	Age	CG's Marital Status	Children under 18	Paid employment	Educational Background
C2-1	Female	61	Single	No	Yes	Graduate degree
C2-2	Female	73	Single	No	Yes	Graduate degree
C2-3	Female	63	Married	Yes	Yes	Graduate degree
C2-4	Female	63	Married	Yes	Yes	Graduate degree
C2-5	Female	71	Married	Yes	Yes	Graduate degree
C2-6	Female	51	Married	Yes	Yes	College degree
C2-7	Female	58	Married	No	Yes	College degree
M (*SD*)		62.9 (7.5)				
C2.5-1	Female	49	Married	Yes	Yes	Graduate degree
C2.5-2	Female	52	Married	Yes	Yes	College degree
C2.5-3	Male	65	Married	Yes	Yes	College degree
C2.5-4	Female	64	Married	Yes	Yes	College degree
C2.5-5	Female	71	Married	No	Yes	Some college
C2.5-6	Female	53	Married	Yes	Yes	Graduate degree
M (*SD*)		59.0 (8.8)				
C3-1	Male	62	Married	Yes	Retired	Some college
C3-2	Female	71	Single	No	Yes	Graduate degree
C3-3	Female	66	Single	No	Yes	College degree
C3-4	Female	53	Single	No	Yes	Graduate degree
C3-5	Female	50	Married	Yes	Yes	Graduate degree
C3-6	Male	66	Married	No	Yes	Graduate degree
M (*SD*)		61.3 (8.2)				
Overall	84% (F)	61.2 (7.85)	74% (M)	63% (Y)	95% (Y)	10% < college 32% College 58% Graduate

F = Female
M = Married
Y = Yes

Table 3.2
Characteristics of Caregivers by Ethnicity and Generation Japanese-American Caregivers

Generation	Gender	Age	CG's Marital Status	Children under 18	Paid employment	Educational Background
J2-1	Female	58	Married	No	Yes	Graduate degree
J2-2	Female	60	Married	No	Yes	College degree
J2-3	Female	86	Married	Yes	Yes	Some college
J2-4	Male	86	Married	Yes	Yes	Some college
J2-5	Female	87	Married	Yes	Yes	Some college
J2-6	Female	90	Married	Yes	No	Some college
J2-7	Female	55	Single	No	Yes	College degree
M (*SD*)		74.6 (15.9)				
J2.5-1	Female	58	Married	Yes	Yes	Graduate degree
J2.5-2	Female	65	Single	No	Yes	Graduate degree
J2.5-3	Male	68	Married	No	Yes	Graduate degree
J2.5-4	Female	58	Married	Yes	No	College degree
J2.5-5	Female	69	Married	Yes	No	Some College
J2.5-6	Female	70	Single	Yes	Yes	Graduate degree
J2.5-7	Female	63	Married	Yes	Yes	Graduate degree
M (*SD*)		64.4 (5.0)				
J3-1	Female	61	Married	Yes	Retired	College degree
J3-2	Female	72	Married	No	Yes	Graduate degree
J3-3	Female	65	Married	No	Yes	Graduate degree
J3-4	Male	54	Married	No	Yes	Some college
J3-5	Female	72	Married	Yes	Yes	Some college
J3-6	Female	61	Married	No	Yes	College degree
J3-7	Female	66	Married	No	Yes	Graduate degree
M (*SD*)		64.4 (6.5)				
Overall	86% (F)	67.8 (10.96)	86% (M)	52% (Y)	81% (Y)	33% < college 24% College 43% Graduate

F = Female
M = Married
Y = Yes

Table 3.3
Caregiving Conditions by Ethnicity and Generation
Chinese-American Caregivers

Generation	Care Recipient	# of siblings	Caregiving Duration (years)	Caregiving Years prior to Institutionalization	Co-residence	Professional Caregiver	In Institution
C2-1*	Mother	3	4+ ongoing	4	No	No	No
C2-2*	Mother	3	15+	15	Yes	No	No
C2-3*	Mother	1	25	25	No	No	No
C2-4	Mother	0	10+ ongoing	10	No	Yes	No
C2-5*	Mother	3	20+	5	No	No	No
C2-6*	Father Mother	3	5+ ongoing 5	5 5	No	Yes	No
C2-7*	Father	3	12+ ongoing	12	Yes	Yes	No
% of Current Caregivers, *M* (*SD*)			44.4%, 12.0 (7.63)	11.2 (7.51)	28.6% (Y)	42.9% (Y)	0% (Y)
C2.5-1	Grandmother	2	3	3	No	No	No
C2.5-2	Father	2	11+ ongoing	11	No	Yes	No
C2.5-3	Mother-in-law	4	3	3	Yes	No	No
C2.5-4*	Father Mother	2	22 22+ ongoing	22 22	No	Yes No	No No
C2.5-5	Mother	4	8+ ongoing	8	Yes	No	No
C2.5-6	Mother	2	2+	2	No	No	No
% of Current Caregivers, *M* (*SD*)			42.9%, 10.1 (8.71)	10.1 (8.71)	33.3% (Y)	28.6% (Y)	0% (Y)
C3-1	Uncle Uncle	2	5+ 5+ ongoing	5 5	No No	No No	Yes Yes
C3-2	Mother	0	5+	4	No	Yes	No
C3-3	Mother	2	1+ ongoing	1	No	No	No
C3-4	Father Mother	1	8 10+ ongoing	8 10	Yes Yes	No No	No No
C3-5	Father Mother	1	8 10+ ongoing	8 10	No No	No No	No No
C3-6	Mother	2	2	1	No	Yes	No
% of Current Caregivers, *M* (*SD*)			44.4%, 6.0 (3.24)	5.8 (3.46)	22.2% (Y)	22.2% (Y)	22.2% (Y)
Mother	**58%**	**Overall *M* (*SD*)**	**9.3 (6.44)**	**9.2 (6.51)**	**27.3% (Y)**	**30.4% (Y)**	**8.7% (Y)**
Father	**25%**						
Other	**17%**						

*Parents with poor English proficiency and caregiving started once caregivers obtaining driver license.
Y = Yes

Table 3.4
Caregiving Conditions by Ethnicity and Generation
Japanese-American Caregivers

Generation	Care Recipient	# of siblings	Caregiving Duration (years)	Caregiving Years prior to Institutionalization	Co-residence (Y=yes)	Professional Caregiver (Y=yes)	In Institution (Y=yes)
J2-1*	Mother	1	22+ ongoing	12	No	No	Yes (10 yr)
J2-2*	Father	1	1	1	No	No	No
	Mother		9	8			Yes (1 yr)
J2-3*	Mother	4	13	13	Yes	No	No
J2-4*	Father	3	11	11	No	No	No
	Mother		41	32	No	No	Yes (9 yr)
J2-5	Mother	5	11	6	No	No	Yes (5 yr)
J2-6*	Mother	2	15	5	No	No	Yes (10 yr)
J2-7*	Mother	1	21+ ongoing	21	Yes	No	No
% of Current Caregivers, *M* (*SD*)			28.6%, 16.0 (11.29)	12.1 (9.39)	28.6% (Y)	0% (Y)	55.6% (Y)
J2.5-1*	Mother	9	30+ ongoing	25	Yes	Yes	Yes (5 yr)
J2.5-2	Mother	2	18+ ongoing	18	Yes	No	No
J2.5-3	Mother	2	10+ ongoing	7	No	No	Yes (3 yr)
J2.5-4*	Mother	1	5+ ongoing	3	Yes	No	Yes (2+ yr)
J2.5-5*	Father	3	10+	10	No	No	No
	Mother		13+ ongoing	9			Yes (4+ yr)
J2.5-6	Father	0	7	6	Yes	No	Yes (1 yr)
J2.5-7	Mother	2	10+ ongoing	2	No	No	Yes (8 yr)
% of Current Caregivers, *M* (*SD*)			75.0%, 12.9 (7.94)	10.0 (7.82)	57.1% (Y)	28.6% (Y)	75.0% (Y)
J3-1	Mother	3	25+ ongoing	10	Yes	No	Yes (15 yr)
J3-2	Mother	0	10+ ongoing	3	No	Yes	Yes (7 yr)
J3-3	Father	2	2	2	No	Yes	No
	Mother		5+ ongoing	1			Yes (5 yr)
J3-4	Father	3	3	3	Yes	No	No
	Mother		17+ ongoing	17		Yes	No
J3-5	Father	0	4	4	Yes	No	No
	Mother		12+ ongoing	4		Yes	Yes (8+ yr)
J3-6	Mother	3	1	1	No	Yes	No
J3-7	Mother	2	13	12	No	No	Yes (1 yr)
% of Current Caregivers, *M* (*SD*)			50.0%, 9.2 (7.71)	5.7 (5.42)	42.9% (Y)	44.4% (Y)	50.0% (Y)
Mother	**74%**	**Overall *M* (*SD*)**	**12.5 (8.66)**	**9.2 (7.33)**	**38.1% (Y)**	**20.8 (Y)**	**59.3 (Y)**
Father	**26%**						

*Parents with poor English proficiency and caregiving started once caregivers obtaining driver license.
Y = Yes

Table 3.5

Results of the Suinn-Lew Asian Self Identity Acculturation Scale by Ethnicity and Generation

Chinese-American Caregivers

ID	Age	Score	Values	Fit	Identity
C2-01	61	3.8	B	W	B
C2-02	73	2.5	A	A	A
C2-03	63	2.7	A	B	B
C2-04	63	3.1	B	B	B
C2-05	71	3.1	A	B	A
C2-06	51	3.5	A	W	A
C2-07	58	3.3	B	B	B
M (*SD*)		3.1 (.44)	57%: A	57%: B	57%: B
C2.5-01	49	3.6	B	B	B
C2.5-02	52	3.5	B	B	B
C2.5-03	65	3.3	B	B	B
C2.5-04	64	3.6	A	W	W
C2.5-05	71	3.8	B	B	B
C2.5-06	53	3.5	A	B	A
M (*SD*)		3.5 (.15)	67%: B	83%: B	67%: B
C3-01	62	4.1	W	W	W
C3-02	71	3.7	B	B	B
C3-03	66	3.5	B	W	W
C3-04	53	3.8	B	W	B
C3-05	50	3.7	B	W	B
C3-06	66	3.4	B	B	B
M (*SD*)		3.7 (.23)	83%: B	67%: W	67%: B

Scores: 1: low, 3: bicultural to 5: highly acculturation

A = Asian; W = Western; B = Bicultural identified

Japanese-American Caregivers

ID	Age	Score	Values	Fit	Identity
J2-01	58	2.9	B	B	B
J2-02	60	3.2	B	B	B
J2-03	86	3.0	B	W	W
J2-04	86	3.1	A	B	B
J2-05	87	3.3	B	B	W
J2-06	90	2.9	B	A	A
J2-07	55	2.6	A	B	A
M (*SD*)		3.0 (.25)	71%: B	71%: B	43%: B
J2.5-01	58	3.0	B	A	A
J2.5-02	65	3.0	B	W	B
J2.5-03	68	3.8	B	B	W
J2.5-04	58	4.0	0	W	B
J2.5-05	69	3.4	B	A	B
J2.5-06	70	3.4	B	B	B
J2.5-07	63	3.6	B	B	B
M (*SD*)		3.4 (.37)	100%: B	43%: B	71%: B
J3-01	61	3.5	B	B	B
J3-02	72	3.2	B	B	B
J3-03	65	3.8	B	B	W
J3-04	54	3.8	0	B	B
J3-05	72	3.7	B	B	W
J3-06	61	3.5	B	B	B
J3-07	66	4.0	B	W	B
M (*SD*)		3.6 (.26)	100%: B	86%: B	71%: B

Table 3.6

Results of the Filial Values Index Scores by Ethnicity and Generation

Chinese-American Caregivers

ID	Age	Responsibility	Care	Respect
C2-01	61	6.5	6.8	7.3
C2-02	73	8.5	8.5	9.0
C2-03	63	9	8.5	8.8
C2-04	63	7.5	7.8	8.0
C2-05	71	8.5	8.0	7.0
C2-06	51	5.5	7.5	7.8
C2-07	58	6.5	6.5	7.3
***M* (*SD*)**		**7.4 (1.3)**	**7.6 (.79)**	**7.9 (.78)**
C2.5-01	49	6.3	7.5	8.5
C2.5-02	52	5.5	8.0	7.8
C2.5-03	65	6.8	6.8	7.8
C2.5-04	64	5.5	7.0	8.0
C2.5-05	71	9.0	9.0	9.0
C2.5-06	53	7.3	8.0	8.5
***M* (*SD*)**		**6.7 (1.32)**	**7.7 (.81)**	**8.3 (.50)**
C3-01	62	6.0	9.0	8.8
C3-02	71	6.8	8.8	9.0
C3-03	66	7.3	8.3	8.8
C3-04	53	6.3	7.5	7.8
C3-05	50	7.3	7.8	8.5
C3-06	66	8.0	9.0	9.0
***M* (*SD*)**		**6.9 (.74)**	**8.4 (.65)**	**8.6 (.47)**

Score range: 1: completely disagree to 9: completely agree

Japanese-American Caregivers

ID	Age	Responsibility	Care	Respect
J2-01	58	7.3	8.5	7.8
J2-02	60	6.0	7.8	7.8
J2-03	86	8.8	8.8	8.5
J2-04	86	8.0	7.8	7.3
J2-05	87	9.0	9.0	9.0
J2-06	90	9.0	8.5	8.8
J2-07	55	8.5	8.5	9.0
***M* (*SD*)**		**8.1 (.1.11)**	**8.4 (.48)**	**8.3 (.70)**
J2.5-01	58	6.3	8.0	7.5
J2.5-02	65	6.5	7.5	8.0
J2.5-03	68	6.5	7.5	9.0
J2.5-04	58	4.3	7.0	7.8
J2.5-05	69	7.0	7.5	7.8
J2.5-06	70	5.8	7.3	9.0
J2.5-07	63	8.8	8.8	9.0
***M* (*SD*)**		**6.4 (1.35)**	**7.6 (.57)**	**8.3 (.68)**
J3-01	61	9.0	9.0	9.0
J3-02	72	5.8	7.0	8.3
J3-03	65	4.3	7.0	8.5
J3-04	54	7.5	9.0	9.0
J3-05	72	7.3	7.3	8.3
J3-06	61	8.0	9.0	8.5
J3-07	66	7.5	7.8	8.0
***M* (*SD*)**		**7.0 (1.56)**	**8.0 (.97)**	**8.5 (.38)**

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CONCLUSION

This dissertation, *Association of Filial Responsibility, Ethnicity, and Acculturation of Family Caregivers of Older Adults*, explored the changes in caregivers' characteristics, caregiving attitudes and sense of filial responsibility among three different racial and ethnic groups of family caregivers of older adults across three successive immigrant generations. It utilized Gordon's classical assimilation theory as its theoretical framework (1964) and hypothesized that the later the caregivers' generation, the less caregiving involvement as immigrant caregivers acculturate and assimilate to U.S. host society and its culture.

Three papers investigated this topic using different approaches and examining different aspects in each study. The first paper, *Characteristics and Health Status of Asian, Hispanic, and Non-Hispanic White American Family Caregivers of Older Adults across Generations*, examined the characteristics of 1st, 2nd and 3rd immigrant generations of Asian, Hispanic and non-Hispanic White American caregivers of older adults in California using the 2009 CHIS Adult dataset. It focused on their sociodemographic characteristics and health status and revealed distinctive characteristics unique to racial and ethnic groups and their generations. It recommends that all healthcare workers need to be aware of generational differences when working with racially and ethnically diverse populations of family caregivers and points to the importance of providing both culturally and generationally appropriate services.

The first paper laid the foundation for the second paper, *Caregiving Practice Patterns of Asian, Hispanic, and Non-Hispanic White American Family Caregivers of Older Adults across Generations*, which focused on potential shifts in specific aspects of caregiving due to assimilation to the U.S. society across three generations. Using the same 2009 CHIS dataset, three measures of caregiving patterns: respite care use, caregiving hours and caregiving duration

were calculated and compared among these three racial and ethnic groups of caregivers as well as across three generations. Classical assimilation theory helped frame the hypotheses on caregiving attitudes and practices that the later the generation, the less caregiving involvement. This hypothesis was supported among non-Hispanic White caregivers; however, Asian and Hispanic counterparts showed mixed results: 3rd generations of Asian and Hispanic caregivers, compared to earlier generations, used respite care the least and spent the most caregiving hours per week and the longest caregiving duration compared to earlier generations. These caregiving patterns revealed underlying cultural values related to filial responsibility such as interdependence and conformity for Asians and familism for Hispanics, even among later generations of caregivers. Findings underscored the importance of cultural values among each racial and ethnic group regardless of generation.

The final paper, *Association of Filial Responsibility, Ethnicity, and Acculturation among Asian American Family Caregivers of Older Adults*, further explored generational similarities and differences of caregivers' attitudes and behaviors in relation to a sense of filial responsibility and acculturation. It specifically focused on two sub-ethnic groups of Asian caregivers, and face-to-face in-depth interviews with later generations (2nd, 2.5 and 3rd generations) of 19 Chinese- and 21 Japanese-American caregivers in Seattle, Washington were conducted. Additionally, the SL-ASIA and FVI measured caregivers' acculturation and filial responsibility levels respectively. Results showed despite the high acculturation level of 3rd generation Chinese- and Japanese-American caregivers, their filial responsibility scores also remained high, exhibiting 3rd generation caregivers' strong sense of filial responsibility. Later generation caregivers evidenced strong filial responsibility and continued caregiving involvement even after placing their care recipients in a long-term care facility. Practice implications suggest

developing caregiver services that take account of later generation caregivers' culture and level of acculturation.

Across all three papers, results revealed that the behavior of non-Hispanic White caregivers supported Gordon's classical assimilation theory: the later the caregivers' generation, the less caregiving involvement, showing a linear association between the levels of their acculturation and filial responsibility. This is understandable since assimilation theory was developed based on pre-1920 European immigrants. However, Asian and Hispanic American caregivers showed not linear but more mixed associations and directions; this exhibited their continued strong sense of filial responsibility despite their high level of acculturation. Further, interviews with 40 later generations of Asian caregivers also supported non-linear associations between the levels of acculturation and filial responsibility. Findings pointed to the importance of providers' awareness of racial and ethnic as well as generational differences in caregiving cultural beliefs and attitudes. Results also emphasized the different caregiving attitudes among sub-ethnic groups as captured by Chinese- and Japanese-American caregivers' use of long-term care facilities. Thus, social workers and other providers need to be sensitive to immigration histories of sub-ethnic groups as well.

Both quantitative and qualitative findings revealed persistent cultural values of filial responsibility among later generations of Asian and Hispanic American caregivers. However, caregiving practices of later generations of caregivers revealed some shifts in use of professional or outside help. Later generation caregivers seemed to accept more formal help as they assimilated and became familiar with existing available systems. In addition, for the sample of Chinese- and Japanese-American caregivers, their plans for their future care included their own institutionalization into mainstream long-term residential facilities, not to ethnic-specific

institutions. Further research with larger samples of more sub-ethnic groups of caregivers at different geographic locations is necessary in order to better understand the association among caregivers' acculturation and filial responsibility along with their own future caregiving needs. These changes in caregivers' future needs suggest that more long-term care facilities, which respond to the needs of later generations of caregivers of color, are necessary as more racially, ethnically and generationally diverse caregivers will need to prepare for their own future care.

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APPENDICES

Appendix 1

ATTENTION

2nd and 3rd Generation Chinese- and Japanese-American Current and Former Caregivers!!

I am a doctoral candidate at the University of Washington School of Social Work. I would like to invite you to participate in my dissertation research, "Association of Filial Responsibility, Ethnicity, and Acculturation of Asian Family Caregivers of Older Adults."

The purpose of this study is to examine the level of filial responsibility, health status and needs of 2nd and 3rd generations of Chinese- and Japanese-American family caregivers of older adults. The information you provide will help develop more culturally- and generationally-specific assessment and clinical interventions for family caregivers of older adults.

This study involves:

1) Fill out an Acculturation Scale and a Filial Values Index (10 minutes each);
2) a 45-minutes interview asking about your caregiving experiences

Once completed, a payment of **$20** will be provided.

If you are interested in participating or if you know someone who might be a good candidate, please contact:

Christina Miyawaki, MA., MSW., PhC.
Email: chrismi@uw.edu or Phone: **(510) 734-2924**
School of Social Work, University of Washington
Campus Mail Box 354900
4101 15th Avenue, N.E., Seattle, WA 98105-6299

Thank you very much and look forward to hearing from you!!

SCHOOL OF SOCIAL WORK
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Informed Consent Form

Date:

Dear Participant:

I am a doctoral candidate at the University of Washington School of Social Work. I would like to invite you to participate in my dissertation research, "Association of Filial Responsibility, Ethnicity, and Acculturation of Asian Family Caregivers of Older Adults." The purpose of this study is to examine the level of filial responsibility, health status and caregiving needs of 2nd and 3rd generations of Chinese- and Japanese-American family caregivers of older adults. The information you provide will help develop more culturally- and generationally-specific assessment and clinical interventions for family caregivers of older adults.

The purpose of this consent form is to give you the information you will need to help you decide whether to be in the study or not. You may ask questions about the purpose of the research, what I would ask you to do, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When I have answered all your questions, you can decide if you want to be in the study or not.

If you agree to take part in the research, first, you will be asked to answer to the Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA) and the Filial Values Index (FVI), which take 10 minutes each to complete. The SL-ASIA concerns your self-identity and the FVI examines your filial relationships between you and your loved one. Both scales have been proven to work for Asian Americans of all ages and there has been no harm found from using these instruments. The second step is a 45 minutes interview asking about your caregiving experiences. With your permission, the interview will be audio-recorded. Once completed, a payment of $20 will be provided. There are no foreseeable risks involved in your participation in this study. Both tests and interviews are anonymous and no identifiable information will be included in any reports, publications or presentations resulting from the study. I would greatly appreciate your participation; however, your participation is voluntary. You are free to decline to participate, refuse to answer questions, or withdraw your participation at any time. I will keep your contact information in case of further clarification for your answers. Once the study is completed, I will destroy any identifiable information.

Any questions about the research can be addressed to me at chrismi@uw.edu or (510) 734-2924. Questions about participants' rights may be presented to the Human Subjects Division, University of Washington, Box 359470, Seattle, WA 98195-9470, (206) 543-0098.

If you agree to the above condition, please sign below. You will be given a copy of this consent form. Thank you very much.

Sincerely,

Christina Miyawaki

Christina Miyawaki, MA., MSW., PhC.
Principal Investigator
University of Washington School of Social Work
Campus Mail Box 354900, 4101 15th Avenue, N.E., Seattle, WA 98105-6299

Participant's Statement

This study has been explained to me. I volunteer to take part in this research. I have had a chance to ask questions. If I have questions later about the research, I can ask the Principal Investigator. If I have questions about my rights as a participant, I can call the Human Subjects Division at (206) 543-0098. I will receive a copy of this consent form.

Participant's Name: _____

Participant's Signature: _____

Date: _____

I have received a payment of $20 as an honorarium for the interview.

Initial: _____ Date: _____

SUINN-LEW ASIAN SELF-IDENTITY ACCULTURATION SCALE (SL-ASIA)

INSTRUCTIONS: The questions which follow are for the purpose of collecting information about your historical background as well as more recent behaviors which may be related to your cultural identity. Choose the one answer which best describes you.

1. What language can you speak?
    1. Asian only (for example, Chinese, Japanese, Korean, Vietnamese, etc.)
    2. Mostly Asian, some English
    3. Asian and English about equally well (bilingual)
    4. Mostly English, some Asian
    5. Only English

2. What language do you prefer?
    1. Asian only (for example, Chinese, Japanese, Korean, Vietnamese, etc.)
    2. Mostly Asian, some English
    3. Asian and English about equally well (bilingual)
    4. Mostly English, some Asian
    5. Only English

3. How do you identify yourself?
    1. Oriental
    2. Asian
    3. Asian-American
    4. Chinese-American, Japanese-American, Korean-American, etc.
    5. American

4. Which identification does (did) your mother use?
    1. Oriental
    2. Asian
    3. Asian-American
    4. Chinese-American, Japanese-American, Korean-American, etc.
    5. American

5. Which identification does (did) your father use?
    1. Oriental
    2. Asian
    3. Asian-American
    4. Chinese-American, Japanese-American, Korean-American, etc.
    5. American

6. What was the ethnic origin of the friends and peers you had, as a child up to age 6?
    1. Almost exclusively Asians, Asian-Americans, Orientals
    2. Mostly Asians, Asian-Americans, Orientals
    3. About equally Asian groups and Anglo groups
    4. Mostly Anglos, Blacks, Hispanics, or other non-Asian ethnic groups

5. Almost exclusively Anglos, Blacks, Hispanics, or other non-Asian ethnic groups

7. What was the ethnic origin of the friends and peers you had, as a child from 6 to 18?
    1. Almost exclusively Asians, Asian-Americans, Orientals
    2. Mostly Asians, Asian-Americans, Orientals
    3. About equally Asian groups and Anglo groups
    4. Mostly Anglos, Blacks, Hispanics, or other non-Asian ethnic groups
    5. Almost exclusively Anglos, Blacks, Hispanics, or other non-Asian ethnic groups

8. Whom do you now associate with in the community?
    1. Almost exclusively Asians, Asian-Americans, Orientals
    2. Mostly Asians, Asian-Americans, Orientals
    3. About equally Asian groups and Anglo groups
    4. Mostly Anglos, Blacks, Hispanics, or other non-Asian ethnic groups
    5. Almost exclusively Anglos, Blacks, Hispanics, or other non-Asian ethnic groups

9. If you could pick, whom would you prefer to associate with in the community?
    1. Almost exclusively Asians, Asian-Americans, Orientals
    2. Mostly Asians, Asian-Americans, Orientals
    3. About equally Asian groups and Anglo groups
    4. Mostly Anglos, Blacks, Hispanics, or other non-Asian ethnic groups
    5. Almost exclusively Anglos, Blacks, Hispanics, or other non-Asian ethnic groups

10. What is your music preference?
    1. Only Asian music (for example, Chinese, Japanese, Korean, Vietnamese, etc.)
    2. Mostly Asian
    3. Equally Asian and English
    4. Mostly English
    5. English only
11. What is your movie preference?
    1. Asian-language movies only
    2. Asian-language movies mostly
    3. Equally Asian/English English-language movies
    4. Mostly English-language movies only
    5. English-language movies only

12. What generation are you? (circle the generation that best applies to you:)
    1. 1st Generation = I was born in Asia or country other than U.S.
    2. 2nd Generation = I was born in U.S., either parent was born in Asia or country other than U.S.
    3. 3rd Generation = I was born in U.S., both parents were born in U.S, and all grandparents born in Asia or country other than U.S.
    4. 4th Generation = I was born in U.S., both parents were born in U.S, and at least one grandparent born in Asia or country other than U.S. and one grandparent born in U.S.
    5. 5th Generation = I was born in U.S., both parents were born in U.S., and all grandparents also born in U.S.

6. Don't know what generation best fits since I lack some information.

13. Where were you raised?
    1. In Asia only
    2. Mostly in Asia, some in U.S.
    3. Equally in Asia and U.S.
    4. Mostly in U.S., some in Asia
    5. In U.S. only

14. What contact have you had with Asia?
    1. Raised one year or more in Asia
    2. Lived for less than one year in Asia
    3. Occasional visits to Asia
    4. Occasional communications (letters, phone calls, etc.) with people in Asia
    5. No exposure or communications with people in Asia

15. What is your food preference at home?
    1. Exclusively Asian food
    2. Mostly Asian food, some American
    3. About equally Asian and American
    4. Mostly American food
    5. Exclusively American food

16. What is your food preference in restaurants?
    1. Exclusively Asian food
    2. Mostly Asian food, some American
    3. About equally Asian and American
    4. Mostly American food
    5. Exclusively American food

17. Do you
    1. Read only an Asian language?
    2. Read an Asian language better than English?
    3. Read both Asian and English equally well?
    4. Read English better than an Asian language?
    5. Read only English?

18. Do you
    1. Write only an Asian language?
    2. Write an Asian language better than English?
    3. Write both Asian and English equally well?
    4. Write English better than an Asian language?
    5. Write only English?

19. If you consider yourself a member of the Asian group (Oriental, Asian, Asian-American, Chinese-American, etc., whatever term you prefer), how much pride do you have in this group?

1. Extremely proud
2. Moderately proud
3. Little pride
4. No pride but do not feel negative toward group
5. No pride but do feel negative toward group

20. How would you rate yourself?
    1. Very Asian
    2. Mostly Asian
    3. Bicultural
    4. Mostly Westernized
    5. Very Westernized

21. Do you participate in Asian occasions, holidays, traditions, etc.?
    1. Nearly all
    2. Most of them
    3. Some of them
    4. A few of them
    5. None at all

22. Rate yourself on how much you believe in Asian values (e.g., about marriage, families, education, work):
    1. Do not believe in Asian values at all
    2. Do not believe in most of Asian values
    3. Believe in some of Asian values
    4. Believe in a few of Asian values
    5. Strongly believe in Asian values

23. Rate yourself on how much you believe in American (Western) values:
    1. Do not believe in American values at all
    2. Do not believe in most of American values
    3. Believe in some of American values
    4. Believe in a few of American values
    5. Strongly believe in American values

24. Rate yourself on how well you fit when with other Asians of the same ethnicity:
    1. Do not fit at all
    2. Do not fit well
    3. Fit fairly well
    4. Fit well
    5. Fit very well

25. Rate yourself on how well you fit when with other Americans who are non-Asian (Westerners):
    1. Do not fit at all
    2. Do not fit well
    3. Fit fairly well

4. Fit well
5. Fit very well

26. There are many different ways in which people think of themselves. Which ONE of the following most closely describes how you view yourself?

1. I consider myself basically an Asian person (e.g., Chinese, Japanese, Korean, Vietnamese, etc.). Even though I live and work in America, I still view myself basically as an Asian person.
2. I consider myself basically as an American. Even though I have an Asian background and characteristics, I still view myself basically as an American.
3. I consider myself as an Asian-American, although deep down I always know I am an Asian.
4. I consider myself as an Asian-American, although deep down, I view myself as an American first.
5. I consider myself as an Asian-American. I have both Asian and American characteristics, and I view myself as a blend of both.

Filial Values Index

Below is a list of statements ***about the relationships between adult children and their parents (usually the people who raised them)***. Please read each statement and then place a checkmark in one of the boxes to the right of the statement to show how much you disagree or agree with the statement.	Completely	Strongly	Moderately	Slightly	**Neither one**	Slightly	Moderately	Strongly	Completely
	← **Disagree**							**Agree** →	
1. I greatly value what my parents have done for me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9
2. It is important that adult children find ways to raise their parents' spirits.	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9
3. Much of the good in me I credit to my parents.	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9
4. Adult children should protect their families' reputations.	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9
5. I greatly respect my parents.	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9
6. Taking care of aging parents is part of an adult child's moral responsibility.	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9
7. We need to take care of our parents because they gave birth to us.	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9
8. Adult children should celebrate special family events with their parents.	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9
9. It is really important for aging parents and their children to spend time talking to each other	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9
10. Adult children should do everything they can to help their parents do things for themselves.	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9
11. Taking care of my aging parents is part of my faith.	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9
12. I admire my parents.	☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9

Jones, P. S., Lee, J. W., Zhang, X. E. (2011). *Research in Nursing & Health, 34*, 310–326 Contact: pjones@llu.edu

Responsibility items: 4, 6, 7, 11.
Care items: 2, 8, 9, 10.
Respect items: 1, 3, 5, 12.

We recommend a 9–choice scale because most responses are in the *agree* direction and fewer response choices can create responses with too little variation.

Interview Questions

I. Demographic Information

Question 1: First few questions are related to you and your care recipient. I will call your care recipient "your loved one" from now on.

a. What is the relationship between you and your loved one?
b. How old is he/she?
c. Do you live with him/her? If not, what is the distance between your two homes?
d. Can you tell me what physical and mental conditions s/he has?
e. Does your loved one have his/her own health insurance?
f. What is your age?
g. What is your immigrant status? Are you a 2nd /2.5 generation or 3rd generation Chinese/Japanese-American?
h. What about your marital status? Are you married/partnered or single?
i. Do you have children? If so, how many children? How old are they? Do you live with them? Are you their primary caregiver?
j. Are you employed? Part-time or full-time?
k. How long have you been working? How long have you been working WHILE caregiving? Have you changed your employment due to your caregiving duties?
l. How easy/difficult is it for you to take some time-off from your work to take care of your loved one?
m. How is your physical and mental health condition? Has your health condition changed since starting caregiving? If so, how has it changed?

II. Dimensions of Caregiving

Question 2: I am interested in learning about your caregiving experience. How long have you been caring for him/her and how did you become a caregiver? How many hours per week do you usually help him/her? What kind of help do you provide? Can you tell me what your day is "typically" like? How has caregiving affected you and your family (if applicable)?

Question 3: What are your greatest caregiving challenges? Have your caregiving challenges changed over time? If so, in what ways have they changed? Can you tell me how you have dealt with these challenges?

Question 4: Do you have any coping strategies to help you deal with your caregiving challenges? If so, what are they? How did you find or develop these coping techniques? Can you tell me what coping strategies have worked for you? What coping techniques didn't work for you and for what reasons?

Question 5 (if applicable): I understand that you work outside home. Do you engage in any other activities besides work and caregiving? If so, can you describe what you do? Would you say these activities are some of your coping strategies?

Question 6: Do you have anyone else who can share the caregiving responsibilities with you? Who are they? Do they live with you or your loved one? How often do they help you? What kind of caregiving help do they share with you? How long have they been helping you?

Question 7: Have you used any professional caregiving services (public or private)? For example, you use your own funds to hire a professional caregiver or apply for help through an agency? If so, what kind of services and how often (how many times) have you used them in the past? What was your experience like using these services? How did your loved one respond to the services? What about how other family members responded? Were family members in agreement about using outside services?

III. Cultural Values

Question 8: What are the primary reasons you are providing care? [Probe: Do you do so because you want to do it, you are the only one available or you feel responsible to care for your loved one?] How do you think about your sense of filial responsibility? What about compared to your siblings or spouse (if applicable)?

Question 9: Familism emphasizes "the family over the individual, showing respect for elders, and honoring the family name." For some cultures, this concept of familism is very important. What do you think about familism? Do you or your family practice this concept? If so, in what ways and how important is it for yourself and/or within your family?

Question 10 (if applicable): I understand that your loved one has symptoms of dementia/Alzheimer's Disease (AD). What has been your experience with dementia/AD? Do you feel that there is stigma associated with dementia/AD symptoms? If so, please describe how you and/or your loved one have felt stigmatized and how you have dealt with that.

IV. Acculturation

Question 11: Although you were born in the U.S., have you experienced any challenges adjusting to Western culture in terms of your caregiving practices? If so, what were the challenges? For example, have you had difficulties accepting that someone else other than family members is helping to take care of your loved one? Have those challenges affected your caregiving experience for you and your loved one? Have you done anything to deal with these challenges? If so, what have you done? Did it work or not? Do you have any other ideas what you can do to alleviate/solve these challenges?

Question 12: If you are [2nd or 3rd generation], your loved one is [1st[1] or 2nd generation]. Have you experienced any caregiving challenges/conflicts specifically in relation to you and your loved one's generational differences? If so, what were these challenges/differences and how did you deal with them?

[1] First generation immigrants mean that they were born outside of the U.S. and came to live in the U.S. at a later time of their lives

V. Intervention, Program development, Policy changes

Question 13 (if applicable)**:** If you currently work, how flexible your employment situation is in terms of sick leave, taking time off for caregiving? Do you have any employer policies that you wish they had or policies that work well with your situation? If so, what are they?

Question 14: Have you thought about any technology which might help your caregiving situation? What kind of technology or device that you think helpful in your caregiving situation? For example, a neighborhood watch program directly connected to your local Fire and Police Departments.

Question 15: Are there any programs and/or policies that you think would help support you as a caregiver? Please tell me more about them.

VI. Closing

Question 16: What would be your recommendations for future caregivers who might be in a situation similar to yours? What would you do differently if you could do it all over again?

Question 17: Is there anything else you want to share?

This concludes your interview. Thank you for your time and participation. Would you mind contacting you if we have further questions/clarifications about your answers in the future? Thank you very much again!

Appendix 2

ATTENTION

2nd and 3rd Generation Chinese- and Japanese-American Current and Former Caregivers!!

I am a doctoral candidate at the University of Washington School of Social Work. I would like to invite you to participate in my dissertation research, "Association of Filial Responsibility, Ethnicity, and Acculturation of Asian Family Caregivers of Older Adults."

The purpose of this study is to examine the level of filial responsibility, health status and needs of 2nd and 3rd generations of Chinese- and Japanese-American family caregivers of older adults. The information you provide will help develop more culturally- and generationally-specific assessment and clinical interventions for family caregivers of older adults.

This study involves:

3) Fill out an Acculturation Scale and a Filial Values Index (15 minutes);
4) a 45-minutes interview asking about your caregiving experiences

Once completed, a payment of **$20** will be provided.

If you are interested in participating or if you know someone who might be a good candidate, please contact:

Christina Miyawaki, MA., MSW., PhC.
Email: chrismi@uw.edu
School of Social Work, University of Washington
Campus Mail Box 354900
4101 15th Avenue, N.E., Seattle, WA 98105-6299

Thank you very much and look forward to hearing from you!!

Caregiver Study: chrismi@uw.edu	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**	**Caregiver Study: chrismi@uw.edu**

Appendix 3

公告

第二代以及第三代
華裔美國人
現在或過去曾照顧父母親者

我是華盛頓大學社會工作學院的博士生，我想邀請您參加我的博士論文研究: 亞裔家庭照顧者孝道、族群和文化之關係。

我的研究目的是為了探討亞裔第二代和第三代家庭照顧者的仕親責任、健康狀態和需求。您提供的資訊將有助於發展更符合文化和世代需求的服務給家庭照顧者。

您參與這個研究將需要配合:

1) 填寫一份關於文化與孝順觀念的問卷 (約15分鐘)
2) 進行45分鐘的訪談，內容關於您的照顧經驗

研究結束後，我將提供$20的研究參與費。

如果您有興趣參與研究，或者您知道任何其他適合的對象，請連絡:

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VITA

Christina Eiko Miyawaki was born and raised in Tokyo, Japan. After completing high school in Tokyo, she came to the United States and earned a Bachelor of Music degree in Piano Pedagogy from Holy Names University in Oakland, California. Her graduate education included earning a Master of Arts degree in Gerontology from San Francisco State University in San Francisco and a Master of Social Welfare degree from the University of California, Berkeley in Berkeley, California. In 2014, she earned a Doctor of Philosophy in Social Welfare from the University of Washington in Seattle Washington.