CrossMark

ORIGINAL ARTICLE

Caregiving Practice Patterns of Asian, Hispanic, and Non-Hispanic White American Family Caregivers of Older Adults Across Generations

Christina E. Miyawaki¹

Published online: 26 January 2016

© Springer Science+Business Media New York 2016

Abstract This study is a cross-sectional investigation of caregiving practice patterns among Asian, Hispanic and non-Hispanic White American family caregivers of older adults across three immigrant generations. The 2009 California Health Interview Survey (CHIS) dataset was used, and 591 Asian, 989 Hispanic and 6537 non-Hispanic White American caregivers of older adults were selected. First, descriptive analyses of caregivers' characteristics, caregiving situations and practice patterns were examined by racial/ethnic groups and immigrant generations. Practice patterns measured were respite care use, hours and length of caregiving. Three hypotheses on caregiving patterns based on assimilation theory were tested and analyzed using logistic regression and generalized linear models by racial/ethnic groups and generations. Caregiving patterns of non-Hispanic White caregivers supported all three hypotheses regarding respite care use, caregiving hours and caregiving duration, showing less caregiving involvement in later generations. However, Asian and Hispanic counterparts showed mixed results. Third generation Asian and Hispanic caregivers used respite care the least and spent the most caregiving hours per week and had the longest caregiving duration compared to earlier generations. These caregiving patterns revealed underlying cultural values related to filial responsibility, even among later generations of caregivers of color. Findings suggest the importance of considering the cultural values of each racial/ethnic group regardless of generation when working with racially and ethnically diverse populations of family caregivers of older adults.

Keywords Asian Americans · Caregiving practice patterns · Family caregivers · Generations · Hispanic Americans · Non-Hispanic White Americans

University of Houston, Graduate College of Social Work, 3511 Cullen Boulevard, Room 110HA, Houston, TX 77204-4013, USA



Christina E. Miyawaki cemiyawaki@uh.edu

Introduction

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, has raised several concerns. These include disparities in formal caregiver support service use (Dilworth-Anderson et al. 2002; Janevic and Connell 2001; Scharlach et al. 2008) and the types and sources of support that caregivers received (Chow et al. 2010). Some studies have reported that non-Hispanic White caregivers compared to minority counterparts use more formal caregiver services (Dilworth-Anderson et al. 2002; Scharlach et al. 2006) while other earlier studies reported a higher level of service use by caregivers of color (Cox 1996; Schoenberg et al. 1998). Another found no association between caregivers' race/ethnicity and their rate of service utilization (Brown et al. 2012). Scholars have examined possible factors that might explain racial/ethnic differences in service use, which include cultural norms of and family's expectation toward caregiving (Chow et al. 2010; Scharlach et al. 2006, 2008).

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 due to their assimilation to the U.S. (Miyawaki 2015a). Thus, it is not unreasonable to posit that caregiving beliefs, attitudes and practice patterns would change with later generations of caregivers due to the same reason. In order to effectively serve this growing population of diverse 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 services and supports. Thus, the purpose of this study was 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/ethnic groups of caregivers has increased in recent years (Connell and Gibson 1997; Dilworth-Anderson et al. 2002; Janevic and Connell 2001; Pinquart and Sörensen 2005). Studies on immigrant caregivers such as Hispanic (Aranda and Knight 1997; Aranda et al. 2003) and Asian American caregivers (Mokuau and Tomioka 2010; Sun et al. 2012) have been conducted. These have concluded that caregiving experiences and their outcomes vary not only across racial/ethnic groups but also within groups, and therefore, generalizations about specific caregivers cannot be made. However, having basic knowledge of Asian and Hispanic caregivers' culturally-based care attitudes and beliefs can avoid misunderstanding/misinterpretation by those who work with such families (Lehman, n.d.).

Caregiving Attitudes of Hispanic American Caregivers of Older Adults

Hispanic family caregivers tend to use fewer caregiving services (Crist and Speaks 2011; Dilworth-Anderson et al. 2002; Scharlach et al. 2006) and rely more on family/kin help



(Navaie-Waliser et al. 2001; Pinquart and Sörensen 2005) compared to non-Hispanic White counterparts. This may be due to their lack of awareness of caregiver services, fewer financial resources (Pinquart and Sörensen 2005), structural barriers such as language and limited availability of culturally-appropriate services (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 well-being over that of the individual and plays a major role in their caregiving practice; it has been identified as a reason why they often do not use home care services (Crist and Speaks 2011). Within the value of familism, caregivers' filial obligation and reciprocity to their aging parents or other aging family members are expected in order to respect and pay back the love and support extended to them while growing up (Blieszner and Hamon 1992). Hispanic caregivers compared to their non-Hispanic White counterparts tend to support and endorse filial responsibility. Filial responsibility refers to the sense of obligation adult children feel regarding assisting their aging parents (Blieszner and Hamon 1992). Not acting upon filial responsibility is considered as shame to the family (Gallagher-Thompson et al. 2003).

Studies of Hispanic American caregivers' caregiving attitudes of filial responsibility in relation to their acculturation and assimilation to U.S. society are limited (Rudolph et al. 2011); however, some evidence of changes by generation has been reported. 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. Rudolph et al. (2011) reported that Mexican-American female college students strongly endorsed filial responsibility; however, an American (Western) education influenced filial attitudes of a later generation (2nd generation) of Mexican-American female students endorsing both individualistic and collectivistic values. Jolicoeur and Madden's study (2002) compared more acculturated caregivers (2nd generation English-speaking Mexican-Americans) with less acculturated counterparts (1st generation Spanish-speaking Mexican caregivers). Although the acculturated group acknowledged that they may not fully meet the needs of care recipients, they were more pleased with the level of their involvement in filial responsibility.

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 and Nguyen 2011). *Filial piety* is defined as "the notion of respect and care for elderly family members and of family reciprocity" (Chappell and Kusch 2007, p. 30). Similar to the Hispanic cultural value of familism, the family's welfare often precedes that of individuals, and maintaining face in the community are so important that personal matters are usually kept private within the family (Weng and Nguyen 2011).

For Asian caregivers, caregiving is an expected stage in their lives (Ho et al. 2003) and viewed as a cultural, lifelong reciprocal obligation for aging parents (Jones et al. 2002; Tang 2011). Thus, scholars (Jones et al. 2002; Kim and Theis 2000; Lai 2007, 2010) identified the association between caregiving role and caregivers' overall positive health outcomes when caregivers can meet their reciprocal obligations. Similar to Hispanic caregivers, Asian caregivers tend to use more informal than formal support within their family members (Ho et al. 2003; Jones et al. 2002) because of their cultural beliefs and/or taboos to use outside formal services (Han et al. 2008; Jones et al. 2002; Kong et al. 2010; Lai 2007, 2010; Zhan 2004).



This pattern is strongly associated with caregivers and care recipients' language barriers (Han et al. 2008; Kong et al. 2010; Zhan 2004) and a lack of linguistically appropriate, culturally sensitive formal services (Han et al. 2008; Tang 2011; Zhan 2004).

Studies on Asian American caregivers' caregiving attitudes of filial responsibility in relation to their generation and level of acculturation and assimilation to the host country are limited, however. It would seem that the majority of Asian American caregivers are immigrants and face challenges of acculturation, adjustment to new roles and changes from Asian to Western beliefs, values, and priorities (Ho et al. 2003). These challenges seem to reflect their immigrant generation and length of residence in the host country. More recently immigrated Asian caregivers (e.g., Filipino, Korean and Vietnamese caregivers) tend to experience greater acculturation and assimilation challenges compared to a later generation counterparts (e.g., 2nd and 3rd generation Japanese-American caregivers). More acculturated caregivers are open to the idea of using formal caregiver services (Young et al. 2002) as an alternative way of fulfilling filial piety; however, caregivers' persistent, passed-on sense of the cultural value of filial responsibility are also found among later generations of Japanese-American caregivers (Kobayashi and Funk 2010; Miyawaki 2015b).

Theoretical Frameworks

Assimilation Theories

During the 1920s, sociologists from the Chicago School debated the classical assimilation theory on adaptation and sociodemographic mobility of immigrant groups. Gordon's classical assimilation theory (1964) 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 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 sharing similar norms, cultural values, behaviors, and characteristics. More recently segmented assimilation theory (Portes and Zhou 1993) introduced different patterns of assimilation: the classical upward mobility; the ethnic retention (achieving sociodemographic upward mobility while retaining ethnic culture); and the downward mobility (into the native underclass) models.

Based on these assimilation theories, this study examined the similarities and differences of caregivers' practice patterns among Asian, Hispanic and non-Hispanic White caregivers 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 Confucian ethics and Hispanic familismo - an individualistic approach of the host country may influence the attitudes of Asian and Hispanic immigrant caregivers.

Study Purpose

Given the lack of prior research on generational differences of caregivers' practice patterns, this study drew upon assimilation theory to examine the associations between three caregiving patterns: respite care use (Aim 1), caregiving hours (Aim 2) and caregiving duration (Aim 3)



by three generations of Asian, Hispanic and non-Hispanic White American caregivers of older adults, net of caregivers' age, gender, marital status, education, living situation, availability of alternative caregivers, employment, and health status. The hypotheses are 1) non-Hispanic White caregivers use more respite care, spend less caregiving hours, and shorter caregiving duration compared to Asian and Hispanic counterparts; 2) first generation caregivers use the least respite care, spend the most caregiving hours, and provide care for the longest duration compared to 2nd and 3rd generation counterparts who use more respite care but provide fewer hours and length of care; and 3) the same generational caregiving practice patterns exist within the three racial/ethnic caregivers.

Methods

Study Data and Sample

The 2009 California Health Interview Survey (CHIS) Adult 18+ dataset was used for this study. It is a publicly available, biennial population-based telephone health survey of California households, and one of the largest health surveys in the country. CHIS used a multi-stage sample design and interviewed samples were randomly chosen from telephone numbers (CHIS 2011a). Interviews were conducted in 2009 and 2010 in English, Spanish, Chinese, Korean and Vietnamese. The health status of the overall statewide population, totaling a sample of 47,614 was collected. It contained health and caregiving data as well as data by subgroups of racial/ethnic groups and their immigrant generations.

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" 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." Only adult child and older adults caregiving relationships (e.g., adult child vs. parent(s)/in-law(s); siblings; other older relatives, etc.) were further selected into samples. Final sample sizes were Asian (Chinese: 120; Filipino: 58; Japanese: 75; Korean: 87; Vietnamese: 172; other Asians: 118; n = 591), Hispanic (Guatemalan: 24; Mexican: 812; Salvadoran: 43; other Central American: 17; South American: 24; other Hispanic: 69; n = 989) and non-Hispanic White (sub-ethnic group data not available; n = 6537) caregivers (N = 8117). African Americans were not included because most did not arrive in the US as immigrants, and over 90 % were 3rd and later generations. American Indian/Alaskan Natives and Native Hawaiian/Pacific Islander were excluded due to the small size of their overall populations.

Measures

Caregiving Measures Two sets of caregiving measures: caregiving conditions and caregiving practice patterns were used. Caregiver/care recipient relationship (caregivers vs. parent(s)/parent(s)-in-law; sibling(s)/sibling(s)-in-law; grandparent(s); other relative(s); non-relative(s)), living situation with care recipient(s) (co-residence: yes; no), and availability of an alternative caregiver (yes; no) are the caregiving conditions variables. The variables of caregiving practice patterns are respite care use (yes; no), caregiving hours (per week) and caregiving duration (per month).

Sociodemographic Measures Sociodemographic measures are caregivers' age, gender, marital status, educational attainment, employment status, race/ethnicity, and immigrant



generation. An immigration generation variable, calculating from caregivers and their parents' birth place was created. Caregivers are considered 1st generation if caregivers and their parents were foreign-born. Caregivers are 2nd or 2.5 generation if U.S.-born caregivers with foreign-born parents or one parent was foreign-born respectively. Third generation caregivers refer to 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. Due to small cell sizes, they were recoded binary as Excellent/very good/good and fair/poor.

Statistical Analyses

Chi-square tests were run to compare caregivers' caregiving conditions and respite care use. For weekly caregiving hours and total caregiving duration, several sets of analysis of variance (ANOVA) with Tukey post hoc test were used. A logistic regression analysis was performed to investigate research Aim 1: to examine the association between respite care use and caregivers' racial/ethnic groups and generations. Two generalized linear model regressions were used to examine the associations between caregiver's average caregiving hours per week and the caregiving duration in months for Aim 2 and 3 respectively. In the CHIS 2009 (2011b), weights have been applied to the sample data to compensate for the selection biases and produce representative estimates. All the results presented in this paper are weighted estimates unless stated otherwise.

Results

Characteristics of Caregivers

Table 1 shows significant variations in the relationship between caregiver and care recipient across racial/ethnic groups and by generations (X^2 (32, N=8117)=301.85, p<.0001). The most frequent caregiving relationship was parent/parent-in-law and adult child across all racial/ethnic groups and generations. Asian caregivers had the highest percentage of this dyad across generation (50–70 %) followed by non-Hispanic Whites (46–54 %) while Hispanics showed the smallest differences in percentages between generations (38–51 %). Non-Hispanic Whites cared for non-relatives in all generations (27–34 %) at higher rates compared to Asians and Hispanics except 1st generation Hispanic caregivers (37 %). They rarely assisted grandparents (3–7 %) compared to Asian (6–22 %) and Hispanic (4–21 %) counterparts.

Statistically significant differences in residential situation are shown in Table 2 (X^2 (8, N=8117)=162.21, p<.0001). Across racial/ethnic groups and generations, the majority did not live with care recipients. While Asian (20–35 %) and Hispanic caregivers (26–33 %) across generation co-resided with their care recipients, only 14 to 18 % of non-Hispanic White caregivers lived with their care recipients. With respect to generations, later generation Asian caregivers were less likely to cohabit with their care recipient than earlier generations, whereas Hispanic and non-Hispanic White caregivers showed no clear patterns across generations.

The availability of alternative caregivers (Table 3) shows statistically significant variations between racial/ethnic groups as well as generations (X^2 (8, N=8117)=17.78, p<.023). The



Table 1	Caregiving relationshi	n hy gener	rations across	racial/ethnic	groups (n %)
Table 1	Caregiving relationsin	p by gener	auons across	racial/culling	groups (II, 70)

Care recipient	Parents/parents-in-law	Siblings/siblings-in-law	Grand-parents	Other relatives	Non-relatives
Asian					
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 Wh	ite				
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)

 $[\]chi^2 = 301.85^*, df = 32.*p < .0001$

majority of caregivers (80+%) had alternative caregivers, and non-Hispanic Whites had the lowest rate (80–82 %). The rates of respite care use (Table 3) also showed statistically significant differences (X^2 (8, N=8117)=20.26, p<.009). Regardless of racial/ethnic groups and generations, the majority of caregivers used respite care at a low rate (between 7 and 15 %), non-Hispanic White caregivers on average used the most (between 11 and 13 % across generations).

An analysis of variance (ANOVA) showed that the number of caregiving hours significantly varied across racial/ethnic groups, F(2,8114)=3.57, p=.028. A post hoc Tukey test

Table 2 Caregiver (CG) live with care recipient (CR) by generations across racial/ethnic groups (n (%))

Race/ethnicity & generation	CG lives with CR	
	Yes	No
Asian		
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)

 $[\]chi^2 = 162.21^*, df = 8.*p < .0001$



Race/ethnicity & generation	Alternative care	giver ^a	Respite care use	b
	Yes	No	Yes	No
Asian				
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 3 Availability of alternative caregiver and respite care use by generations across racial/ethnic groups (n (%))

showed that the average caregiving hours by Hispanic caregivers (M=21.7, SD=28.4) differed significantly from those of non-Hispanic White (M=18.6, SD=35.1) at p<.05, but similar between Hispanic and Asian counterparts (M=17.8, SD=35.6). There was no significant generational difference in caregiving hours, spending on average, in between 18.4 and 19.5 hour per week. In terms of caregiving duration, an ANOVA again yielded significant variation across racial/ethnic groups, F(2,8114)=8.50, p=.000. A Tukey post hoc analysis indicated that Asian caregivers cared for their loved ones longer (M=40.1, SD=62.0) than Hispanic (M=28.4, SD=50.9) and non-Hispanic White (M=34.1, SD=55.8) counterparts at p<.05. No significant generational difference was found, spending an average of 33–34 caregiving months (table not shown).

Table 4 shows the results of another ANOVA comparing average caregiving hours and caregiving duration across racial/ethnic groups and generations. No variations in caregiving hours was found, F(8,8108)=1.19, p=.304; however, there were significant variations in caregiving duration across racial/ethnic group and generation, F(8,8108)=3.17, p=.001. Tukey post hoc tests indicated that the 1st generation Asian caregivers compared to 1st generation Hispanic caregivers spent an average of 16.3 months longer in caregiving at p<.05, and 1st and 3rd generations of non-Hispanic White caregivers spent almost 12 and 9.7 months longer compared to 1st generation Hispanic caregivers respectively at p<.05.

Respite Care Use (Aim 1)

Table 5 shows the results of logistic regression analysis predicting respite care use for all racial/ethnic groups and generations combined. There was a significant difference of respite care use between Hispanic caregivers and 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



^a $\chi^2 = 17.78^*$, df = 8.*p < .023

 $^{^{}b}\chi^{2} = 20.26**, df = 8.**p < .009$

Table 4 Means, standard deviations, and analysis of variance results for caregiving hours and caregiving duration by racial/ethnic groups and generations

	Asian ((n = 591)	Hispani	c(n = 989)	Non-Hispa	nic White $(n = 6537)$	
Generation	M	SD	M	SD	M	SD	F(8,8108)
Caregiving hours (per week)					1.19
1st generation	17.7	35.7	21.3	39.0	19.1	35.3	
2nd generation	17.4	35.9	20.7	34.9	17.6	34.1	
3rd generation	19.6	34.7	24.7	42.4	18.7	35.2	
Caregiving duration	n (month))					3.17*
1st generation	40.6	63.8	24.3	45.8	36.3	62.4	
2nd generation	35.2	52.3	33.4	57.9	34.0	60.1	
3rd generation	46.5	66.8	32.2	51.7	34.0	54.7	

^{*}p < .001

(Hypothesis 1). There was also a significant difference between 3rd generation caregivers and 1st generation counterparts in respite care use, with 3rd generation using 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, however (Hypothesis 2). When controlling for other sociodemographic variables, there were no statistically significant differences between racial/ethnic groups and generations in terms of respite care use.

Table 6 presents the results of respite care use across racial/ethnic groups and generations separately. No statistically significant generational difference among the three racial/ethnic

Table 5 Results of logistic regression analysis predicting respite care use of racial/ethnic groups and generations combined (N=8117)

Respite Care Use: Yes (Ref = No)	Model 1		Model 2		Model 3	
	B (SE)	OR	B (SE)	OR	B (SE)	OR
Hispanic (ref = white)	-0.23**(.08)	0.71			08 (.09)	.91
Asian (ref = white)	0.13 (.09)	1.02			.06 (.10)	1.05
2nd generation caregivers (ref = 1st generation)			-0.11 (.07)	0.89	10 (.07)	.87
3rd generation caregivers (ref = 1st generation)			0.10*(.05)	1.10	.06 (.06)	1.01
Age					.01***(.00)	1.01
Male (ref = female)					04 (.04)	.92
Married/partnered (ref = no)					.10**(.04)	1.23
Some college/college (ref = \leq high school)					.01 (.05)	1.29
More than college (ref = \leq high school)					.24***(.06)	1.63
Live with care recipient (ref = no)					.18***(.04)	1.43
Alternative caregiver (ref = no)					05 (.04)	.91
Employed (ref = no)					.05 (.04)	1.11
Health (ref = poor)					.03 (.05)	1.05
Constant	-2.00***(.06))	-1.99***(.0	4)	-2.44***(.16)	
X^2 wald test	9.05*		4.85		76.13***	

^{*} *p* < .05. ** *p* < .01. *** *p* < .001



Table 6 Results of logistic regression analysis predicting respite care use by racial/ethnic groups and generations

Respite care use: yes (ref = no)	Asian				Hispanic				Non-Hispanic White	nic Whit	te	
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	B (SE)	OR	B (SE)	OR	B (SE)	OR	B (SE)	OR	B (SE)	OR	B (SE)	OR
2nd generation caregivers	31 (.28)	74.	16 (.29)	.57	.05 (.17)	.85	.10 (.18)	86:	.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 $(ref = female)$			11 (.13)	.80			.03 (.11)	1.05			04 (.04)	.92
Married/partnered (ref = no)			.13 (.14)	1.30			13 (.11)	77.			.11**(.04)	1.26
Some college/college (ref = \leq high school)			.08 (.17)	1.30			.12 (.24)	.92			.04 (.05)	1.45
More than College (ref = \leq high school)			.09 (.22)	1.31			32 (.41)	.59			.30***(.06)	1.88
Live with care recipient (ref = no)			.11 (.13)	1.24			.16 (.12)	1.38			.20***(.05)	1.50
Alternative caregiver (ref = no)			12 (.16)	62:			.22 (.17)	1.55			06 (.05)	68:
Employed (ref = no)			05 (.13)	6.			.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)	<u> </u>	-2.90***(.59)	6	-2.32***(.13)	3)	-3.18***(.46)		-2.00***(.07)	07)	-2.50***(.20)	_
X^2 wald test	5.29		12.97		2.08		20.63*		3.61		78.07***	
N (unweighted)	591				686				6537			

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



groups was found. However, when controlling for sociodemographic variables, a significant difference was found among non-Hispanic White caregivers - 3rd generation used 1.37 times (p < .05) more compared to 1st generation counterparts - whereas no difference was found among Asian and Hispanic caregivers (Hypothesis 3). Analyses of interaction between race/ethnicity and generation showed no statistically significant differences (results not shown).

Caregiving Hours (Aim 2)

Table 7 shows the results of a generalized linear model predicting caregiving hours of racial/ethnic groups and generations combined. Hispanic caregivers spent 3.11 more hours in caregiving weekly (p=.01) than non-Hispanic White counterparts, but no statistically significant difference was found between Asian and non-Hispanic White caregivers (Hypothesis 1). Additionally, regardless of racial/ethnic groups, all generations, on average, spent about the same weekly caregiving hours (Hypothesis 2). When controlling for sociodemographic variables, no variations between racial/ethnic groups and generations were found in caregiving hours.

Table 8 shows a summary of the results of caregiving hours by generations across Asian, Hispanic and non-Hispanic White caregivers separately. No statistically significant differences in caregiving hours were found among generations across racial/ethnic groups of caregivers (Hypothesis 3). Additional analyses of interaction between race/ethnicity and generation revealed no statistically significant differences (results not shown).

Table 7 Results of generalized linear model predicting caregiving hours (week) of racial/ethnic groups and generations combined (N=8117)

Caregiving hours (week)	Model 1		Model 2		Model 3	
	B (SE)	β	B (SE)	β	B (SE)	β
Hispanic (ref = white)	3.11 (1.21)	.03**			1.95 (1.45)	.02
Asian (ref = white)	75 (1.53)	01			-2.00 (1.75)	01
2nd generation caregivers			-1.07 (1.43)	01	31 (1.45)	.00
3rd generation caregivers (ref = 1st generation)			62 (1.07)	01	.68 (1.32)	.01
Age					.12 (.03)	.05***
Male (ref = female)					-4.83 (.80)	07***
Married/partnered (ref = no)					-1.64 (.78)	02*
Some college/college (ref = \leq high school)					-2.33 (.96)	03*
More than college (ref = \leq high school)					-3.49 (1.22)	04**
Live with care recipient (ref = no)					21.13 (.99)	.24***
Alternative caregiver (ref no)					-6.27 (1.01)	07***
Employed (ref = no)					-1.97 (.82)	03*
Health (ref = poor)					93 (1.09)	01
Constant	18.58***(.4	4)	19.49***(.96)	19.38***(2.6	5)
R^2	.0009		.0001		.076	

^{*} *p* < .05. ** *p* < .01. *** *p* < .001



Table 8 Results of generalized linear model predicting caregiving hours (week) by racial/ethnic groups and generations

Caregiving Hours (week)	Asian				Hispanic				Non-Hispanic White	White		
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β
2nd generation caregivers	34 (3.75)	00.	1.70 (3.86)	.02	55 (2.79)	01	95 (2.82)	01	-1.42 (2.15)	01	78 (2.07)	01
3rd generation caregivers (ref = 1st generation)	1.91 (5.11)	.02	3.72 (5.08)	.03	3.47 (3.39)	.03	2.63 (3.36)	.03	39 (1.78)	00.	42 (1.71)	00.
Age	.42 (.11)		.17**		.28 (.08)	.11***	.06 (.03)		.02			
Male (ref = female)	-2.16 (2.95)		03		-5.48 (2.45)	07*	-4.92 (.88)		07**			
Married/partnered (ref = no)	-4.96 (3.19)		07		.42 (2.42)	.01	-2.04 (.86)		03*			
Some college/college (ref = \leq high school)	-4.51 (3.85)		90		.64 (2.57)	.01	-2.92(1.09)		04**			
More than college (ref = \leq high school)	-6.68 (4.70)		08		-1.48 (2.47)	01	-3.67 (1.32)		04**			
Live with care recipient (ref = no)	10.89 (3.13)		.14**		25.52 (2.63)	.30***	21.68 (1.14)		.23***			
Alternative caregiver (ref = no)	-11.25 (4.13)		11**		.37 (3.36)	00.	-6.63(1.09)		07**			
Employed (ref = no)	.48 (3.14)		.01		-4.08 (2.52)	05	-2.15 (.91)		03*			
Health (ref = $poor$)	46 (3.73)		01		69 (2.72)	01	67 (1.27)		01			
Constant	17.73***(1.74)	(11.40 (8.29)		21.26***(1.69)		6.62 (5.93)		19.07***(1.71)	_	24.45*** (3.11)	11)
R^2	.0003		.07		.001		.103		.0001		.077	
N (unweighted)	591				686				6537			

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



Caregiving Duration (Aim 3)

Table 9 shows the results of generalized linear model predicting caregiving duration of a combined model. Hispanics compared to non-Hispanic Whites spend 5.69 months shorter in caregiving duration (p=.003) but 6.01 months longer (p=.012) for Asian caregivers (Hypothesis 1). When controlling for sociodemographic variables, Asian caregivers spent 9.93 months longer caregiving (p=.0004). No statistically significant generational difference was found in caregiving duration regardless of race/ethnicity (Hypothesis 2).

Table 10 shows the results of a generalized linear model for caregiving duration by generations across racial/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 3). Additional analyses of interaction terms between race/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 compared to 1st generation counterparts and that difference in duration was statistically significant (p=.0002).

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 a

Table 9 Results of generalized linear model predicting caregiving duration (month) of racial/ethnic groups and generations combined (*N*=8117)

	Model 1			Mod	lel 3	
Caregiving duration (month)	B (SE)	β	B (SE)	β	B (SE)	β
Hispanic (ref = white)	-5.69 (1.90)	03**			44 (2.35)	.00
Asian (ref = white)	6.01 (2.39)	.03*			9.93 (2.82)	.05***
2nd generation caregivers			.93 (2.24)	.01	2.87 (2.35)	.02
3rd generation caregivers (ref = 1st generation)			.98 (1.69)	.01	2.44 (2.14)	.02
Age					.47 (.05)	.12***
Male (ref = female)					4.01 (1.29)	.03**
Married/partnered (ref = no)					1.16 (1.26)	.01
Some college/college (ref = \leq high school)					-1.53 (1.56)	01
More than college (ref = \leq high school)					90 (1.97)	01
Live with care recipient (ref = no)					5.82 (1.60)	.04***
Alternative caregiver (ref = no)					-7.85 (1.63)	-05***
Employed (ref = no)					1.70 (1.35)	.01
Health (ref = poor)					-5.00 (1.76)	03**
Constant	34.10***(.69))	33.03***(1	.51)	13.58**(4.29))
R^2	.002		.00004		.022	

^{*} *p* < .05. ** *p* < .01. *** *p* < .001



Table 10 Results of generalized linear model predicting caregiving duration (month) by racial/ethnic groups and generations

Caregiving duration (month)	Asian				Hispanic				Non-Hispanic White	: White		
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	B (SE)	β	B (SE) β	β	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β
2nd generation caregivers	-5.35 (6.53)	03	-5.35 (6.53)03 -1.56 (6.81)01	01	9.12 (3.68)	*80:	9.12 (3.68) .08* 11.78 (3.85) .01**		-2.28 (3.43)01 -3.48 (3.40)02	01	-3.48 (3.40)	02
3rd generation caregivers (ref = 1st generation) 5.93 (8.89)	5.93 (8.89)	.03	3.25 (8.96) .02	02	.7.91 (4.49) .06 7.70 (4.59)	90:		90.	-2.33 (2.83)	02	-2.33 (2.83)02 -2.30 (2.81)02	02
Age			(02.) 99.	.15***			.49 (.12)	.14**			.45 (.05)	.11**
Male $(ref = female)$			9.90 (5.20)	80:			.98 (3.35)	.01			3.89 (1.44)	.03**
Married/partnered (ref = no)			-2.13 (5.62)	02			5.11 (3.31)	.05			.89 (1.41)	.01
Some college/college (ref = \leq high school)			. (87.8)	.10			4.69 (3.51)	.01			-4.95 (1.80)	04**
More than college (ref = \leq high school)			8.40 (8.29)	90:			81 (7.47)	00.			-3.32 (2.17)	02
Live with care recipient (ref = no)			16.68 (5.52)	.13**			11.44 (3.60)	.10**			2.66 (1.87)	.02
Alternative caregiver (ref = no)			-3.98 (7.28)	02			-5.02 (4.59)	03			-8.82 (1.79)06***	06***
Employed (ref = no)			-4.82 (5.53)	04			5.06 (3.44)	.05			1.71 (1.49) .02	.02
Health (ref = poor)			(6.58)	00.			-8.29 (3.71)	07*			-5.41 (2.09)03**	03**
Constant	40.59****(3.02)	(2)	68 (14.61)		24.28***(2.23)	3)	1.28 (8.09)		36.27***(2.73)	3)	23.71***(5.10)	<u> </u>
R^2	.002		.051		.007		.048		.0001		610.	
N (unweighted)	591				686				6537			

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



combined model. When controlling for sociodemographic variables and examining racial/ ethnic groups separately, only a comparison between 3rd generation non-Hispanic White caregivers and their 1st generation counterparts showed expected results, 3rd generation non-Hispanic White caregivers utilized significantly more respite care services compared to their 1st generation counterparts (p<.05). This finding was surprising because previous studies have shown some support for the researcher's hypothesis across these three racial/ethnic groups (Jolicoeur and Madden 2002; Rudolph et al. 2011; Snowden and Yamada 2005; Young et al. 2002). In contrast, 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. In addition, although information is not available, these respite care providers could be not only professional paid caregivers, but also caregiver's relatives. 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 Whites, thus supporting the hypothesis in a combined model. In terms of generational differences, when all variables were controlled, non-Hispanic White caregivers' hours were in an expected direction, although statistically not significant: the later the caregivers' generation, the fewer caregiving hours spent compared to earlier generations. However, results in the opposite direction were found among Asian and Hispanic caregivers, indicating that 3rd generation Asian and Hispanic caregivers compared to their 1st generation counterparts, appeared to spend more hours. This pattern is consistent with some previous studies (Crist et al. 2009; Kobayashi and Funk 2010; Rudolph et al. 2011), and may be an indicator that traditional filial practices persist across generations, despite acculturation.

Caregiving duration differed among racial/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 in a combined model partially supporting the hypothesis. When controlling for sociodemographic variables and examining racial/ethnic groups separately, 2nd generation Hispanic caregivers spent a significantly longer time caregiving compared to the length that 1st generation Hispanics spent. Thus, the hypothesis - the earlier the caregivers' generation, the longer the caregiving duration compared to later 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 their 1st generation counterparts, 2nd generation Asian caregivers spent a shorter period and 3rd generation Asian caregivers spent a longer time caregiving. The results of non-Hispanic White caregivers, although statistically not significant, supported the hypothesis in the expected direction: the earlier the caregiver generation, the longer caregiving duration compared to later generations of their counterparts. These results may be related to the physical and mental health conditions of care recipients, although data are not available to determine if this is the case. 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 that is provided in the care recipients' native language and with familiar foods. As previously mentioned (Crist et al. 2009; Crist and Speaks 2011), traditional



Hispanic filial role expectations of familismo may hinder them from or delay placing care recipients in institutions.

These results of non-Hispanic White caregivers are congruent within the classical assimilation theory. 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; their caregiving patterns were not moving in the same direction since their cultural traditions were preserved until later generations. This trend supports one of the models of Portes and Zhou's (1993) segmented assimilation theory: ethnic retention model, which argues that Hispanics and Asians' racially and ethnically minority status in the U.S. may hinder them from their full integration into American white society. In addition, continuous immigration flows from Latin America affect the maintenance of their cultural identity and "replenish" their ethnicity (Jiménez 2010). Unlike non-Hispanic White ethnicity, being an ethnic Asian minority with ethnic phenotypes makes them perpetual "foreigners," and society may expect later generation Asians to know their traditional culture regardless of their generation 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. More than one-fifth of 3rd generation Hispanic caregivers cared for a grandparent (21.1 %). 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 and to a broader sense of extended family. 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 and Hines 2004, p. 151). 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 Asian and Hispanic caregivers. Although the highest percentage of relationships 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 et al. 1999; Phinney et al. 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 (20-35 %) compared to those of non-Hispanic White caregivers (14–18 %), again demonstrating the emphasis on filial traditions 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 and Knight 1997; Connell and Gibson 1997; Dilworth-Anderson et al. 2002) and others smaller ones (Phillips et al. 2000) than their non-Hispanic White counterparts. In this sample, however, both Asian (84–93 %) and Hispanic (82– 87 %) caregivers had more alternative caregivers available than non-Hispanic White counterparts (80–82 %) across all three generations. This result is congruent with larger familial and kin networks among caregivers of color than non-Hispanic Whites, based in part on their larger average household sizes (Asian, 4.01; Hispanic, 4.22; non-Hispanic White, 3.93, US Census Bureau 2012).



Limitations of the Study

This study has several limitations. First, it is based on the secondary data of a sample of caregivers who lived in California, had accessible phone lines and were available at the time of interviews. There may be potentially qualified caregivers who had no access to phones and/or were unavailable during the data collection period, and therefore, may have been excluded from the survey. Interviews were conducted in English, Spanish, Chinese, Korean and Vietnamese, and caregivers who are limited to other languages could not be included in the survey. California is one of the most racially and ethnically diverse states in the U.S. Korean and Vietnamese populations in this study were oversampled for the precision of their estimate size (CHIS 2009), and the vast majority of Hispanic caregivers were Mexicans (83 %). However, this situation is unique to California, and thus, 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 are limited to the conditions at the time of their interviews. Thus, no conclusions as to causal relationships between independent and dependent variables can be drawn. Interpretations of findings 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 population-based and thus, the results were categorized as Asian, Hispanic and non-Hispanic White American caregivers, despite the heterogeneity of each population. Variations within each racial/ethnic group are not captured by reporting the commonalities of findings. Information about care recipients in this dataset is limited. It would have been helpful if the data included more information on care recipients such as their levels of Activities of Daily Living and disability, language proficiency, and length of residence in the U.S.

Future Implications

Implications for Research

Despite differences in sociodemographic characteristics found not only among these three racial/ethnic groups, but also by generation 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. There are also mixed findings in 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). This suggests that further research is needed on the measurement of familism and filial obligation not only at a population, but also within ethnic group levels. Asians and Hispanics consist of heterogeneous groups of caregivers emigrating from various countries of origin at different time periods. Thus, studies within groups of Asian and Hispanic caregivers and across multiple sites are necessary. In addition, both quantitative and qualitative research at a regional level at cross-sectional, but ultimately longitudinal studies are needed (Weng and Nguyen 2011). In this way, we are able to measure and better understand their acculturation, sense of familism and filial obligation across generations. Finding unique characteristics and needs of multiple generations of within groups 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 caregiving patterns at aggregate population levels; however, it did identify those patterns of traditional cultural norms of familism and filial obligation continued among later generations of Asian and Hispanic American caregivers. These findings point to the importance of health care professionals' becoming familiar with caregivers' culture, caregiving practices and beliefs. As part of any cultural assessment, providers 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 health care professionals who speak care recipients' languages and understand their cultural values are ideal, but not always feasible. Ideally, cultural competency training for health care providers to gain basic knowledge of particular cultures, their caregiving traditions, and elder's (i.e., care recipient) positionality within the family would facilitate 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 some Asian cultures (e.g., Chinese, Japanese), it is not uncommon that the adult children, especially the oldest male child, makes decisions on their aging parent's behalf, and their parents would not express their own opinions (Weng and Nguyen 2011). There is also a need to be aware of such traditional family-centered decision-making orders and respectful of each family member's roles. One strategy would be for providers to ask each family member within the family his/her own filial caregiving beliefs and needs and assess any differences (Bhattacharya and Shibusawa 2009). However, resource constraints in agencies serving caregivers and older adults may preclude being able to offer such training.

Regardless of sub-ethnic group differences, a family-centered approach (i.e., not considering caregivers and care recipients separately but as family unit) is essential for Asian and Hispanic families as reflected in their cultural beliefs of interdependence and conformity, and familism (Crist and Speaks 2011; Weng and Nguyen 2011). Building rapport and developing a personal, individualized relationship with elders are of high importance because elder's acceptance of professionals can facilitate use of their help, which may eventually help alleviate caregivers' as well as care recipients' needs (Crist and Speaks 2011; Weng and Nguyen 2011). At an agency level, where possible, it is also important to assign the same provider such as a 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 worker is a critical component in maintaining sound relationships (Mui and 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 US. It is useful that providers, such as social workers, introduce culturally appropriate social networks to care recipients (e.g., ethnically specific adult day care and senior community centers). Simultaneously, staff 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 and Nguyen 2011). Caregivers from the same racial/ethnic groups who speak the same language might find it easier to trust other caregivers' providing respite.

Conclusion

This present study provided data on generational similarities and differences in Asian, Hispanic and non-Hispanic White American caregivers' caregiving patterns. Later generation Asian and Hispanic caregivers showed their strong involvement and dedication to caregiving, and revealed the importance of their own cultural practices and beliefs about caregiving, further demonstrating the persistent need for culturally competent caregiving services. Asian and Hispanic American populations are heterogeneous groups. Although it may not be possible to differentiate and assess each sub-ethnic group of Asian and Hispanic caregivers, recognizing the uniqueness is of great value. Thus, not grouping all Asians and Hispanics as one group, but exploring the similarities and differences of sub-ethnic groups as well as their generations in their caregiving practice and beliefs is necessary so that we will be able to develop culturally sensitive and generationally appropriate caregiver services and their delivery.

Funding This project was funded by the T32 Women's Health Postdoctoral Fellowship, National Institutes of Health (NIH), through Grant AG027677. The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the NIH.

References

- Aranda, M., & Knight, B. G. (1997). The influence of ethnicity and culture on the caregiver stress and coping process: a sociocultural review and analysis. *The Gerontologist*, 37, 342–354.
- Aranda, M., Villa, V., Ramirez, R., Trejo, L., & Ranney, M. J. (2003). El portal Alzheimer's project: model program for Latino caregivers of Alzheimer's disease-affected people. Social Work, 48, 259–271.
- Bhattacharya, G., & Shibusawa, T. (2009). Experiences of aging among immigrants from India to the United States: social work practice in a global context. *Journal of Gerontological Social Work*, 52, 445–462. doi:10.1080/01634370902983112.
- Blieszner, R. & Hamon, R. (1992). Filial responsibility: Attitudes, motivation and behaviors. In J. W. Dwyer & R. T. Coward (Eds.), Gender, families and elder care (pp. 195–219). Newberry Park, CA: Sage.
- Brown, E.L., Friedemann, M-L. & Mauro, A.C. (2012). Use of adult day care service centers in an ethnically diverse sample of seniors. *Journal of Applied Gerontology* XX: 1–19. doi:10.1177/0733464812460431.
- California Health Interview Survey. (2009). CHIS sample design: Overview. Retrieved from http://healthpolicy.ucla.edu/chis/design/Documents/sample desc 2009.pdf.
- California Health Interview Survey. (2011a). CHIS 2009 methodology series: Report 2 data collection methods. Los Angeles, CA: UCLA Center for Health Policy Research.
- California Health Interview Survey. (2011b). CHIS 2009 methodology series: Report 5 weighting and variance estimation. Los Angeles, CA: UCLA Center for Health Policy Research.
- Chappell, N. L., & Kusch, K. (2007). The gendered nature of filial piety a study among Chinese Canadians. *Journal of Cross Cultural Gerontology*, 22, 29–45. doi:10.1007/s10823-006-9011-5.
- Chow, J. C.-C., Auh, E. Y., Scharlach, A. E., Lehning, A. J., & Goldstein, C. (2010). Types and sources of support received by family caregivers of older adults from diverse racial/ethnic groups.



- Journal of Ethnic and Cultural Diversity in Social Work, 19, 175–194. doi:10.1080/15313204. 2010.499318.
- Connell, C. M., & Gibson, G. D. (1997). Racial, ethnic, and cultural differences in dementia caregiving: review and analysis. *The Gerontologist*, 37, 355–364.
- Cox, C. (1996). Outcomes of hospitalization: factors influencing the discharge of African American and white dementia patients. Social Work in Health Care, 23, 23–38.
- Crist, J. D., & Speaks, P. (2011). Keeping it in the family: when Mexican American older adults choose not to use home healthcare services. *Home Healthcare Nurse*, 29, 282–290.
- Crist, J. D., McEwen, M. M., Herrera, A. P., Kim, S-S., Pasvogel, A. & Hepworth, J. T. (2009). Caregiving burden, acculturation, familism, and Mexican American elders' use of home care services. Research and Theory for Nursing Practice: An International Journal 23, 165–180. doi:10.1891/1541-6577.23.3.165.
- Dilworth-Anderson, P., Williams, I. C., & Gibson, B. E. (2002). Issues of race, ethnicity, and culture in caregiving research: a 20-year review (1980–2000). The Gerontologist, 42, 237–272.
- Fuligni, A. J., Tseng, V., & Lam, M. (1999). Attitudes toward family obligations among American adolescents with Asian, Latin American, and European backgrounds. *Child Development*, 70, 1030–1044.
- Gallagher-Thompson, D., Haley, W., Guy, D., Rupert, M., Argüelles, T., Zeiss, L. M., Long, C., Tennstedt, S., & Ory, M. (2003). Tailoring psychological interventions for ethnically diverse dementia caregivers. *Clinical Psychology: Science and Practice*, 10, 423–438.
- Gordon, M. M. (1964). Assimilation in American life: The role of race, religion, and national origins. New York: Oxford University Press.
- Han, H.-R., Choi, Y. J., Kim, M. T., Lee, J. E., & Kim, K. B. (2008). Experiences and challenges of informal caregiving for Korean immigrants. *Journal of Advanced Nursing*, 63, 517–526.
- Herrera, A. P., Lee, J. W., Palos, G., & Torres-Vigil, I. (2008). Cultural influences in the patterns of long-term care use among Mexican American family caregivers. *Journal of Applied Gerontology*, 27, 141–165.
- Ho, B., Friedland, J., Rappolt, S., & Noh, S. (2003). Caregiving for relatives with Alzheimer's disease: feelings of Chinese-Canadian women. *Journal of Aging Studies*, 17, 301–321.
- Janevic, M. R., & Connell, C. M. (2001). Racial, ethnic, and cultural differences in the dementia caregiving experience: Recent findings. The Gerontologist, 41, 334–347.
- Jiménez, T. R. (2010). Replenished ethnicity: Mexican Americans, immigration, and identity. Berkeley and Los Angeles, CA: University of California Press.
- Jolicoeur, P. M., & Madden, T. (2002). The good daughters: acculturation and caregiving among Mexican-American women. *Journal of Aging Studies*, 16, 102–120.
- Jones, P. S., Zhang, X. E., Jaceldo-Siegl, K., & Meleis, A. I. (2002). Caregiving between two cultures: an integrative experience. *Journal of Transcultural Nursing*, 13, 202–209.
- Kim, J. H., & Theis, S. L. (2000). Korean-American caregivers: who are they? *Journal of Transcultural Nursing*, 11, 264–273.
- Kobayashi, K. M., & Funk, L. (2010). Of the family tree: congruence on filial obligation between older parents and adult child in Japanese Canadian families. *Canadian Journal on Aging*, 29, 85–96.
- Kong, E.-H., Deatrick, J. A., & Evans, L. K. (2010). The experiences of Korean immigrant caregivers of non-Enlgish-speaking older relatives with dementia in American nursing homes. *Qualitative Health Research*, 20, 319–329.
- Lai, D. W. L. (2007). Cultural predictors of caregiving burden of Chinese-Canadian family caregivers. Canadian Journal on Aging, 26(suppl 1), 133–148.
- Lai, D. W. L. (2010). Filial piety, caregiving appraisal, and caregiving burden. Research on Aging, 32, 200–223.
 Lehman, D., (n.d.). Supporting caregivers of all cultural background. Retrieved from http://www.matherlifewaysinstituteonaging.com/wp-content/uploads/2012/03/Supporting-Caregivers-of-All-Cultural-Backgrounds.pdf.
- Losada, A., Shurget, G. R., Knight, B. G., Márquez, M., Montorio, I., Izal, M., & Ruiz, M. A. (2006). Cross-cultural study comparing the association of familism with burden and depressive symptoms in two samples of Hispanic dementia caregivers. Aging & Mental Health, 10, 69–76.
- Malley-Morrison, K., & Hines, D. A. (2004). Family violence in a cultural perspective: Defining, understanding, and combating abuse. Thousand Oaks, CA: Sage Publications.
- Miyawaki, C. E. (2015a). Characteristics of Asian, Hispanic, and non-Hispanic White American family caregivers of older adults across generations. *Journal of Ethnic and Cultural Diversity in Social Work*, 24(4). doi:10.1080/15313204.2015.1050145.
- Miyawaki, C. E. (2015b). Association of filial responsibility, ethnicity, and acculturation among Japanese-American family caregivers of older adults. The Journal of Applied Gerontology. doi:10.1177/ 0733464815581484.
- Mokuau, N., & Tomioka, M. (2010). Caregiving and older Japanese adults: lessons learned from the periodical literature. *Journal of Gerontological Social Work*, 53, 117–136.



- Mui, A. C., & Shibusawa, T. (2008). Asian American elders in the twenty-first century: Key indicators of well-being. New York: Columbia University Press.
- Navaie-Waliser, M., Feldman, P. H., Gould, D. A., Levine, C., Kuerbis, A. N., & Donelan, K. (2001). The experiences and challenges of informal caregivers: common themes and differences among whites, blacks, and Hispanics. *The Gerontologist*, 41, 733–741.
- Phillips, L. R., Torres de Ardon, E., Komnenich, P., Killeen, M., & Rusinak, R. (2000). The Mexican American caregiving experience. *Hispanic Journal of Behavioral Sciences*, 22, 296–313. doi:10.1177/ 0739986300223002.
- Phinney, J. S., Ong, A., & Madden, T. (2000). Cultural value and intergenerational value discrepancies in immigrant and non-immigrant families. *Child Development*, 71, 528–539.
- Pinquart, M., & Sörensen, S. (2005). Ethnic differences in stressors, resources, and psychological outcomes of family caregiving: a meta-analysis. *The Gerontologist*, 45, 90–106.
- Portes, A., & Zhou, M. (1993). The new second generation: segmented assimilation and its variants. Annals of the American Academy of Political and Social Sciences, 530, 74–96.
- Rudolph, B., Chavez, M., Quintana, F., & Salinas, G. (2011). Filial responsibility expectations among Mexican American undergraduates: gender and biculturalism. *Journal of Hispanic Higher Education*, 10, 168–182.
- Ruiz, M. E. (2007). Familismo and filial piety among Latino and Asian elders: reevaluating family and social support. Hispanic Heath Care International, 5, 81–89.
- Scharlach, A. E., Kellam, R., Ong, N., Baskin, A., Goldstein, C., & Fox, P. J. (2006). Cultural attitudes and caregiver service use. *Journal of Gerontological Social Work*, 47, 133–156. doi:10.1300/J083v47n01_09.
- Scharlach, A. E., Giunta, N., Chow, J. C.-C., & Lehning, A. (2008). Racial and ethnic variations in caregiving service use. *Journal of Aging and Health*, 20, 326–346. doi:10.1177/0898264308315426.
- Schoenberg, N. E., Coward, R. T., & Dougherty, M. C. (1998). Perceptions of community-based services among African American and White elders. *Journal of Applied Gerontology*, 17, 67–78.
- Snowden, L. R., & Yamada, A. M. (2005). Cultural differences in access to care. Annual Review of Clinical Psychology, 1, 143–166. doi:10.1146/annurev.clinpsy.1.102803.143846.
- Sun, F., Ong, R., & Burnette, D. (2012). The influence of ethnicity and culture on dementia caregiving: a review of empirical studies on Chinese Americans. *American Journal of Alzheimer's Disease and Other Dementias*, 27, 13–22.
- Tang, M. (2011). Can cultural values help explain the positive aspects of caregiving among Chinese American caregivers? *Journal of Gerontological Social Work, 54*, 551–569.
- Tuan, M. (1998). Forever foreigners or honorary whites? The Asian ethnic experience today. New Brunswick, NJ: Rutgers University Press.
- US Census Bureau. (2012). Average number of people per family household with own children under 18, by race and Hispanic origin/1, marital status, age, and education of householder: 2012. Retrieved from http://www.census.gov/hhes/families/data/cps2012AVG.html.
- Weng, S. S., & Nguyen, P. V. (2011). Factors affecting elder caregiving in multigenerational Asian American families. Families in Society: The Journal of Contemporary Social Services, 92, 329–335. doi:10.1606/ 1044-3894.4133.
- Young, H. M., McCormick, W. M., & Vitaliano, P. P. (2002). Attitudes toward community-based services among Japanese American families. *The Gerontologist*, 42, 814–825.
- Zhan, L. (2004). Caring for family members with Alzheimer's disease. Journal of Gerontological Nursing, 30, 19–29.

