



Published in final edited form as:

*J Aging Health*. 2014 October ; 26(7): 1225–1247. doi:10.1177/0898264314541697.

## The Expectation and Perceived Receipt of Filial Piety Among Chinese Older Adults in the Greater Chicago Area

XinQi Dong, MD, MPH<sup>1</sup>, Manrui Zhang, MPH, MSW<sup>1</sup>, Melissa A. Simon, MD, MPH<sup>2</sup>

<sup>1</sup>Rush University Medical Center, Chicago, IL, USA

<sup>2</sup>Northwestern University, Chicago, IL, USA

### Abstract

**Objective:** Filial piety is a key Chinese cultural value that determines children’s caregiving obligation to older adults. This study aims to evaluate the expectations and perceived receipt of filial piety from the perspectives of Chinese older adults.

**Method:** Data were drawn from the Population Study of Chinese Elderly in Chicago (PINE) study, a population-based study of U.S. Chinese older adults aged 60 and above in the Greater Chicago area. Filial care was examined in six domains, including care, respect, greeting, happiness, obedience, and financial support. Socio-demographics correlate with expectations and receipt of filial piety were also reported.

**Results:** Participants reported high level of overall expectations and receipts of filial piety, and highest expectation and perceived receipt were placed on the domain of respect.

**Discussion:** This study provides insights on the extent to which U.S. Chinese older adults expect and perceive receipt of filial care. Our findings have implications for the provision of culturally appropriate health care services.

### Keywords

population studies; older adults; filial piety; Chinese

### Introduction

Filial piety (孝 xiào) is a prime virtue in Confucianism that determines the fundamental parent–child relationship in Chinese culture. The basic ideology of filial piety lies on children being respectful, obedient, and obligated to provide adequate care and support for their older parents both emotionally and financially (Dai & Dimond, 1998; Smith & Hung, 2012). In Confucianism, family cohesiveness and community harmony were considered the foundation to sustain social development (Park & Chesla, 2007). As the core cultural value guiding behaviors in the Chinese population for thousands of years, the Confucian

---

**Corresponding Author:** XinQi Dong, MD, MPH, Professor of Medicine, Nursing, and Behavioral Sciences, Rush University Medical Center; Director of Chinese Health, Aging and Policy Program; Associate Director of the Rush Institute for Health Aging, 1645 West Jackson Blvd., Suite 675, Chicago, IL 60612, USA. xinqi\_dong@rush.edu.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

tradition defines every family member's specific role within the family (Smith & Hung, 2012). Different from the Western culture, the responsibility to fulfill the needs of older parents is usually expected to be unlimited and unconditional based on the premise of filial piety (Dai & Dimond, 1998).

The belief and practice of filial piety among Chinese community greatly influences the well-being of the older adults. Studies suggest that filial piety is a protective factor against depression among Chinese older adults (N. Li et al., 2011; Ng & Bhugra, 2008). Furthermore, perceiving children as filial from the viewpoints of older adults was reported to decrease older adults' health care services utilization (Y. Li & Chi, 2011).

However, the perception of filial piety may vary depending on local cultural and social contexts. China has been undergoing major social transformation since the last few decades, and changes in modernization, educational system, and one-child policy are associated with changes in filial piety belief and practice (Cheung & Kwan, 2009; Deutsch, 2006; Whyte, 1997). A current study found that the belief and practice of filial piety in mainland China is different from that in Hong Kong and Taiwan, indicating social political system and social welfare system played important roles in affecting filial piety belief (Yeh, Yi, Tsao, & Wan, 2013). Moreover, gender differences in terms of expectations on daughters and sons, as well as urban and rural differences were observed in the belief and practice of filial piety in China (Fuligni & Zhang, 2004; Zhan & Montgomery, 2003). With respect to overseas Chinese population, Chinese older adults may be even more vulnerable due to cultural and language challenges (Liu, Ng, Weatherall, & Loong, 2000). However, beliefs in filial piety continued to persist among Chinese overseas immigrants (Chappell & Kusch, 2007), despite forms of modification due to the impact of Western culture which places emphasis on individualism (Lo & Russell, 2007).

The Chinese community is the oldest and largest Asian American subgroup in the United States (U.S. Census Bureau, 2010). Chinese older adults constitute a large segment of the general Chinese population, in which 15.4% of the Chinese Americans are aged 65 or above (U.S. Census Bureau, 2010). With more than 80% of Chinese older adults who were foreign-born, and approximately 30% of them immigrated to the United States after the age of 60, their conceptualization of caregiving responsibility and inter-generational relationships is likely to adhere to traditional values (Kuo & Roysircar, 2004; Mui & Shibusawa, 2008). Evidences suggested the belief and practice of filial piety are not diminished among the middle-class Hong Kong and Taiwanese immigrants in the United States (Lan, 2002), and filial piety values continue to operate in Chinese American community (Tsai, 1999). Other studies indicated that some domains of filial care in the Chinese American community are likely to be replaced by social security system in the United States (Lieber, Nihira, & Mink, 2004; Smith & Hung, 2012). Furthermore, a qualitative study of U.S. Chinese older adults suggests that the discrepancy between the expectations of filial piety and the actual receipt of filial care may influence the well-being of Chinese older adults (Dong, Chang, Wong, & Simon, 2012).

In particular, years in the United States may influence the filial piety belief and practice among U.S. Chinese older adults on various aspects. First, more years in the United

States may be associated with an older age, which leads to a higher expectation of filial care (Ho, 1996). Second, as the age of immigration and length of staying in the host country were two predictors for acculturation progress, it is likely that Chinese older parents and their adult children may be acculturated at different levels (Kuo & Roysircar, 2004). Whereas U.S. Chinese families may try to adapt to Western society's emphasis on individualism during the course of acculturation, the expectation and practice of filial care may undergo transformation. The gaps between older parents and adult children in understanding U.S. traditional filial piety might differ by years in the United States. For instance, research suggested Chinese older parents with a better understanding of U.S. system, values, and social norms can adapt their own filial piety belief with their children's better (Lieber et al., 2004). In addition, years of living in the United States might indicate different demographic characteristics among the Chinese aging population in the United States, including immigration purpose, educational level, social economic status, living arrangements, and residing environment, all of which account for the variations in filial piety belief and practice among Chinese community in United States (Dinnerstein & Reimers, 1999; Mehta & Ko, 2004).

Current research has called for a better understanding of the evolving conceptualization of filial piety for immigrant Chinese in the United States (Lieber et al., 2004). However, there existed few quantitative studies to assess how filial care is expected and practiced from the perspectives of U.S. (Dong, Chang, Wong, Wong, Skarupski, & Simon, 2010). Chinese older adults, particularly with respect to their length of residence in the contemporary U.S. society. Therefore, this study aims to (a) evaluate the expectation of filial piety and the perceived receipt of filial piety and (b) examine the correlations between socio-demographic factors and filial piety expectations and receipt in a U.S. Chinese aging population.

## Method

### Population and Settings

The Population Study of Chinese Elderly in Chicago (PINE) is a population-based epidemiological study of U.S. Chinese older adults aged 60 and above in the Greater Chicago area. Briefly, the purpose of the PINE study is to collect community-level data of U.S. Chinese older adults to examine the key cultural determinants of health and well-being (Dong, Wong, & Simon, 2014). The project was initiated by a synergistic community-academic collaboration among Rush Institute for Healthy Aging, Northwestern University, and many community-based social services agencies and organizations throughout the Greater Chicago area.

To ensure study relevance to the well-being of the Chinese community and enhance community participation, the PINE study implemented extensive culturally and linguistically appropriate community recruitment strategies strictly guided by community-based participatory research (CBPR) approach (Dong, Chang, Simon, & Wong, 2011; Dong, Chang, Wong, & Simon, 2011). With more than 20 social services agencies, community centers, health advocacy agencies, faith-based organizations, senior apartments, and social clubs serving as the basis of study recruitment sites, eligible participants were approached through routine social services and outreach efforts serving Chinese American families in

the Chicago city and suburban areas. These centers are not only social services agencies, but they also serve as cultural hubs and activity center for community residents. Moreover, these community centers are only a fraction of our recruitment strategies, and significant proportions of study participants were recruited from random block census and community canvassing. Eligibility criteria for the PINE study included older adults aged 60 and above, who self-identified as Chinese, and reside in the Greater Chicago area.

U.S. census estimates only 1.6% of households in the city of Chicago contain a Chinese individual. Moreover, Chinese older adults in metropolitan areas experience high levels of concentration in ethnic enclaves such as the two main Chinatowns in the city, and smaller clusters throughout the Greater Chicago area. Our research team implemented a targeted community-based recruitment strategy by first engaging community centers as our main recruitment sites throughout the Greater Chicago area (Ling, 2012). We also adopted additional outreach efforts through newspapers advertisement, flyers, educational workshops, and word of mouth. These services centers were not simply social services agencies but also cultural hubs for Chinese people and draws in Chinese families throughout the Greater Chicago area.

Due to the closely knitted ethnic social network connecting the families of Chinese immigrants, over a third of PINE study participants learned about the project through family members, neighbors, acquaintance, or friends. Out of 3,542 eligible participants whom we approached, 3,159 agreed to participate in the study, yielding a response rate of 91.9%. All participants were consented and interviewed by trained bicultural research assistants in English or Chinese dialects, including Mandarin, Cantonese, Toishanese, and Teochow, according to respondents' preference.

In preparation of this population-based study of U.S. Chinese older adults, the research team first conducted a random block census study of the Chinese community in Chicago. When comparing key demographic characteristics of the PINE participants to the latest available data of U.S. Census estimates and a random street block census of the Chinese community in Chicago, our analysis indicated that no statistically significant difference was found with respect to key demographic attributes including age, sex, income, education, number of children, and country of origin, suggesting that the PINE study is representative of the Chinese older adults in the Greater Chicago area (Simon, Chang, Rajan, Welch, & Dong, 2014). The study was approved by the institutional review boards of the Rush University Medical Center.

## Measurements

**Socio-demographics.**—Basic demographic information was collected including age (years), sex, education level, annual income, marital status (married/separated/divorced/widowed), number of sons, number of daughters, number of grandchildren, living arrangement, and years in the United States. Education was assessed by asking participants the years of highest educational level completed, ranging from 0 to 17 years. Living arrangement was assessed by asking participants how many people live in their household besides themselves and was categorized into four groups: (a) living alone, (b) living with 1 to 2 persons, (c) living with 2 to 3 persons, and (d) living with 4 or more persons. Income

groups were divided into four groups: (a) US\$0 to US\$4,999 per year; (b) US\$5,000 to US\$9,000 per year; (c) US\$10,000 to US\$14,999 per year; and (d) more than US\$15,000 per year.

**Overall health status, quality of life, and health changes over last year.—**

Overall health status was measured by “In general, how would you rate your health?” on a 4-point scale (1 = *poor*, 2 = *fair*, 3 = *good*, 4 = *very good*). Quality of life was assessed by asking “In general, how would you rate your quality of life?” on a 4-point scale ranging from (1 = *poor*, 2 = *fair*, 3 = *good*, 4 = *very good*). Health changes in last year were measured by “compared with 1 year ago, how would you rate your health now?” on a 5-point scale (1 = *much worse*, 2 = *somewhat worse*, 3 = *about the same*, 4 = *somewhat better*, 5 = *much better than 1 year ago*) and were categorized into three groups: (a) improved health, (b) same health, and (c) worsened health.

**Filial piety.—**The assessment was planned around six domains of filial piety, including respect, make happy, care, greet, obey, and financial support, based on the conceptual model proposed by Gallois and colleagues (1999). With respect to the measure’s psychometric properties, the Cronbach’s alpha of internal consistency reliability tested in our study was .88 (Chang, Beck, Simon, & Dong, 2014). Its content validity was assessed by bilingual and bicultural researchers and experts. The original English versions of the instruments were first translated into Chinese by a bilingual research team. Due to the vast linguistic diversity of our study population, the Chinese version was then back translated by bilingual and bicultural investigators fluent in dialects including Mandarin and Cantonese to confirm consistency in the meaning of the Chinese version with the original English version. Both written scripts (traditional and simplified Chinese characters) were subsequently examined. A group of community stakeholders led by an experienced bilingual and bicultural geriatrician then went over the wording of the Chinese versions to ascertain that the meanings of the items in Chinese conveyed the meanings to Chinese older adults and to ensure validity.

Expectation of filial piety was assessed using a 5-point scale (1 = *very little*, 2 = *rather little*, 3 = *average*, 4 = *rather a lot*, 5 = *very much*). Participants were asked how much expected care, respect, greeting, happiness, obedience, and financial support they placed on their children. For example, we asked “How much do you expect your children to care for you?” “How much do you expect your children to respect you?” “How much do you expect your children to greet you?” “How much do you expect your children to please you and make you happy?” “How much do you expect your children to obey you?” and “How much do you expect your children to provide financial support?”

The perceived filial piety receipt were then assessed by asking how much care, respect, greeting, happiness, obedience, and financial support that the participants have actually received from their adult children based on the 5-point scale (1 = *very little*, 2 = *rather little*, 3 = *average*, 4 = *rather a lot*, 5 = *very much*). We asked questions including “How much do your children care for you?” “How much do your children respect you?” “How much do your children greet you?” “How much do your children please you and make you happy?” “How much do your children obey you?” “How much do your children provide financial

support?" Internal consistency reliability was .88 for the filial piety measure in our study sample.

## Data Analysis

Descriptive statistics were used to summarize demographic information of the participants. Chi-squared tests were used to assess bivariate socio-demographic differences by years in the United States. Mean and standard deviation were used to describe the self-rated level of filial piety expectation and filial piety receipt. The ANOVA *F* tests were used to assess whether expectations of filial piety and perceived receipt of filial piety significantly differed by years of living in the United States. Internal consistency reliability was assessed by determining the coefficient alpha and inter-item correlation coefficients. The Pearson correlation coefficients were used to examine the correlations between socio-demographic variables and filial piety expectation and receipt. Statistical analysis was conducted using SAS, Version 9.2 (SAS Institute Inc., Cary, NC).

## Results

### Sample Characteristics

Of the 3,159 participants who were enrolled in the study, 58.9% were female (Table 1). The majority of participants had less than a high school education (78.9%) and an annual income less than US\$10,000 (85.1%). The majority (71.3%) of participants were married. In terms of years of living in the United States, 26.5% lived in the United States less than 10 years, 30.7% lived for 11 to 20 years, 24.3% lived for 21 to 30 years, and 20% lived for 31 years or more. Overall, 92.8% of our participants come from mainland China.

Compared with other groups, the proportion of older adults aged 85 and above was largest in the group who lived in the United States for more than 30 years (16.7%). This group of older adults also had a largest proportion of participants who had an annual income higher than 10,000, lived alone (34.5%), and widowed (37.8%). In terms of overall health status and quality of life, persons living in the United States for more than 30 years were most likely to report very good or good overall health status (47.1%) and quality of life (54.7%), in comparison with other groups. Participants living in the United States for less than 10 years were most likely to report improvement of health during last year (9.6%).

### Expectations of Filial Piety

On a scale of 5 to 30, the expectation toward filial care was highest among the group of older adults who lived 21 to 30 years in the United States, with the mean score of 21.0 (*SD* ± 5.9; Table 2). In comparison, expectation toward overall filial care was lowest among the group who lived more than 31 years in the United States, with the mean score of 20.3 (*SD* ± 5.8). The overall expectation of filial piety did not differ by years of living in the United States ( $p > .05$ ).

With respect to each of the six filial care items, respect was placed with highest expectations across all four groups, with the mean score ranged from 3.9 to 4.0 on a scale of 1 to 5. Financial support was the least-expected filial care item; and the mean score of expectation

declined as number of years living in United States increased. The average expectation of financial support score was 2.4 among persons living in United States for less than 10 years, 2.3 among persons living in United States for 11 to 20 years, 2.2 among persons living in United States for 21 to 30 years, and 2.1 among persons living in United States for more than 30 years. Similar trend also applied to the expectation of care, decreasing from 3.7 among persons living in the United States for less than 10 years, 3.4 among persons living in the United States for 11 to 20 years, 3.5 among persons living in the United States for 20 to 30 years, to 3.2 among persons living in the United States for more than 30 years. Statistically, the expectations of respect, greet, obedience, and happiness did not differ by years in the United States ( $p > .05$ ). Care ( $p < .01$ ) and financial support ( $p < .001$ ) significantly differed by years in the United States.

With respect to the proportion of participants who had a higher than average level of filial expectations: 70.9% expected children to respect them; 60.6% expected children to make them happy; 50.8% expected children to take care of them; 63.2% expected children to greet them; 56.2% expected children to obey them; and as low as 14.8% expected financial support from adult children.

### Perceived Receipt of Filial Piety

Compared with participants who lived in the United States for a longer period of time, perceived receipt of filial receipt was higher among the groups who lived fewer years in the United States (Table 3). Older adults who lived for less than 10 years in the United States perceived highest level of filial piety receipt. The average level of perceived filial piety receipt was 22.7 ( $SD = 4.8$ ) among participants who lived in the United States for less than 10 years, 22.4 ( $SD = 4.7$ ) among participants who lived in the United States for 10 to 20 years, 21.9 ( $SD = 5.1$ ) among participants who lived in the United States for 20 to 30 years, and 21.2 ( $SD = 5.3$ ) among participants who lived in the United States for more than 30 years. The overall perceived receipt of filial piety differed significantly by years of living in the United States ( $p < .001$ ).

With respect to perceived receipt of specific filial care, respect ranked the highest among six domains with a score ranging from 4.1 to 4.3. In contrast, older adults perceived fewer receipt of financial support, compared with other forms of filial piety behaviors with the mean score ranging from 2.5 to 3.0. The average score of perceived respect receipt decreased from 4.3 to 4.1 as number of years living in United States increased from less than 10 years to more than 30 years. Statistically, the perceived receipt of respect, greet, care, happiness, and financial support differed significantly by years in the United States ( $p < .05$ ). The perceived receipt of obedience was the only domain not differed by years in the United States ( $p > .05$ ).

With respect to the proportion of participants who perceived a higher than average level of filial piety receipt, 77.4% perceived the receipt of respect from children; 60.6% perceived the receipt of happiness from children; 58.0% perceived the receipt of care from children; 70.7% perceived the receipt of greeting from children; 59.9% perceived the receipt of obedience from children; and 28.0% perceived the receipt of financial support from adult children.

### Correlation of Socio-Demographic and Health-Related Factors With Filial Piety

Filial piety expectation was positively correlated with female sex ( $r = .07, p < .001$ ), number of sons ( $r = .06, p < .001$ ), number of daughters ( $r = .11, p < .001$ ), number of grandchildren ( $r = .11, p < .001$ ), living arrangement ( $r = .05, p < .05$ ), and quality of life ( $r = .04, p < .05$ ; Table 4). In aggregate, being female and living with more persons self-reported with better quality of life and having more sons, daughters, and grandchildren were associated with higher expectation of filial piety. Expectation of filial piety was negatively correlated with education ( $r = -.19, p < .001$ ), marital status ( $r = -.04, p < .01$ ), and overall health status ( $r = -.07, p < .001$ ). Age, income, health changes, and years in the United States were not significantly correlated to expectation of filial piety.

Perceived receipt of filial piety was positively correlated with age ( $r = .04, p < .05$ ), sex ( $r = .10, p < .001$ ), number of daughters ( $r = .13, p < .001$ ), number of grandchildren ( $r = .13, p < .001$ ), living arrangement ( $r = 0.07, p < .001$ ), overall health status ( $r = .07, p < .001$ ), and quality of life ( $r = .21, p < .001$ ; Table 5). Perceived receipt of filial piety was negatively correlated with education ( $r = -.10, p < .001$ ), income ( $r = -.07, p < .001$ ), marital status ( $r = -.05, p < .01$ ), and years in the United States ( $r = -.10, p < .001$ ). Participants with lower educational level, lower income, married, and fewer years of living in United States were more likely to perceive higher levels of filial piety receipt. Number of sons and health changes were not significantly correlated with the perceived receipt of filial piety. Overall, the expectations of filial piety were positively associated with perceived receipt of filial piety ( $r = .48, p < .001$ ).

### Discussion

To our knowledge, this is the first population-based study that reported the expectations and perceived receipt of filial piety among U.S. Chinese older adults. This study indicates that more than half of the Chinese older adults expected and perceived receipt on filial piety, including respect, care, greeting, happiness, and obedience with a higher than average level. Out of six filial piety items, older adults place highest level of expectation and perceived receipt on the domain of respect, whereas the least expectation and receipt are placed on financial support. In addition, the expectations and perceived receipt of filial piety are correlated with socio-demographic factors including sex, education, marital status, overall health status, quality of life, years of living in the United States, number of daughters, and number of grandchildren.

Our study suggests that a considerable proportion of the U.S. Chinese older adults still place high expectations on respect (70.9%), happiness (60.6%), care (50.8%), greeting (63.2%), and obedience (56.2%) on a higher than average level. This finding is consistent with previous studies among populations of overseas Chinese older adults as well as Chinese older adults in Mainland China (Laidlaw, Wang, Coelho, & Power, 2010). In addition, our finding identifies that Chinese older adults place higher expectations toward the intangible support, such as respect and greeting, in comparison with the material support of care and financial support. Our finding was supported by studies in Hong Kong and Mainland China that financial support was least expected by the older parents (Cheng & Chan, 2006; Guan, Cheung, & Ng, 2003; Yue & Ng, 1999). Financial support as the least expected domain



reflects the change on the traditional filial obligation norms due to social security system and the increased needs of emotional supports among older adults. The different levels of expectations placed toward the emotional and instrumental domains of filial piety are also observed in previous qualitative study among Chinese older adults in the United States (Dong et al., 2012). Further studies are needed to fully explore different aspects of filial piety expectations in relation to older adults' health and well-being.

Furthermore, the receipt of filial piety differed significantly by years in the United States, whereas the expectations showed slight differences by years in the United States. The consistency in expectations of filial piety by years of living in United States suggests that filial piety belief rooted as important cultural value among Chinese older adults and it was not diminished as the acculturation progresses. However, our findings show that older adults with more years in the United States tend to perceive less receipt of filial piety. Specifically, participants tend to receive less respect, happiness, greeting, and financial support if they live in United States for a longer period of time. The declined receipt of filial piety with increased years of living in United States might be explained by the adult children's acculturation level and experiences. Compared with their parents, adult children who are born in the United States or reside in the United States since they are young may have a better adjustment to the U.S. ideal of individualism (Chiang-Hansiko, 2010; Yeo, 1996). The parent–children acculturation discrepancy might lead to a potential gap between expectation and receipt of filial piety, which can be reflected in the correlate between the expectations of filial piety and perceived receipt of filial piety ( $r = .48, p < .001$ ). Conflicts regarding culture values are likely to occur when traditional filial piety expected from older generation meets the Westernized values from the younger generation (Dong, 2012a; Park & Chesla, 2007)

Our study suggested older adults' expectation toward filial piety differs little by age, which is consistent with prior research in China (Wang, Laidlaw, Power, & Shen, 2010). Our study furthermore suggests that older adults report a higher level of perceived receipt of filial piety if they are older, or with a lower income. A younger age and higher income level might indicate older adults are more physically active and financially independent. Data from a qualitative research study may shed light on some possible explanations from the older adults' perspective:

After we came to the U.S, I depended on my children's support and money. It is nice if they give it to you. Otherwise it would be bad when they scold you for requesting money. So we may feel unhappy as we are old. (Dong et al., 2012, p. 139)

In this case, expectations of filial care is likely to shift from children, to soliciting care and support from friends, neighbors, or social services agencies (Pang, Jordan-Marsh, Silverstein, & Cody, 2003).

In addition, our report shows that older adults expect more filial piety care if they have more sons or daughters. As a Chinese saying illustrates, "Raising children is protective against older age and frailty" (养儿防老 yǎng ér fáng lǎo; Lan, 2002; Mencius & Lau, 2005). However, a higher level of perceived filial piety is related to having more daughters but not with

having more sons. This finding might partially be explained by daughters' dominant role in providing care, support, and house chores to older parents (Chappell & Kusch, 2007). Sons in Chinese families tend to present a higher level of filial attitudes than daughters but not an equal level of the actual filial behaviors (Chen, Bond, & Tang, 2007). However, it may also suggest females are better at coordinating and sharing filial care burden whereas males are not. More research is needed to illuminate the associations between the gender of children and older adults' expectations and receipt of filial piety.

Interestingly, both of the expectations and perceived receipt of filial piety were positively associated with number of grandchildren. Not having grandchildren might be associated with a younger age, and therefore less filial care in need. However, our finding may shed light on older grandparents' socially accepted role to take care of their grandchildren in Chinese traditional culture. More grandchildren might indicate grandparents have more obligations to take care of grandchildren while suggesting a better family connection through grand-parenting and more importantly, deserving more filial care as the reciprocity for their inputs.

With respect to health status, we found that older adults with poorer health status tended to expect more filial piety care from their children. Interestingly, this pattern does not apply to the quality of life; older adults with poorer quality of life expected less filial piety from their children. Whereas over health status were generally perceived as the description of the physically wellbeing among Chinese community, the quality of life reflected the psychological and social well-being. From this perspective, it is likely that older adults expect more filial care from children when they have physical health problems. Their emotional and social needs seem to be hurt when they have little to expect from their children. With regard to receipt of filial piety, older adults with poorer health status and poorer quality of life received less filial piety. Our finding also implies that caregiving responsibility might shift from children to professionals including physicians, nurses, social workers, and paid in-home caregivers, due to the higher requirement of knowledge, skill, and time to take care of the sicker older adults. Nonetheless, it is notable that older parents who were frailer might have a higher risk of filial piety needs being neglected by their children. However, this finding should be interpreted with the consideration of the interaction with age, years of living in United States, and income.

The findings of this study should be interpreted with limitations. First, although this study was representative of Chinese older adults in the Greater Chicago area, its findings should not be generalized to other Chinese populations in the United States or in Asian societies. Second, filial piety norm is the interaction between adult children and their older parents. Our study examined the perspectives of older adults as the first step to investigate filial piety in the overseas Chinese populations. Future research is needed to understand the experience and barriers faced by adult children. Third, our research did not compare discrepancy between the expectation score and receipt score of filial piety per participant, and the potential discrepancy may likely influence the well-being of the older adults. Even though older adults might have received adequate care and support from the children, it is equally important to examine to which level their expectations were met. Future comparative research is needed to examine the potential discrepancy between expectation and receipt.

Fourth, the cross-sectional design and correlation analysis cannot suggest causality and the interaction between socio-demographic variables and filial piety measures. The use of the filial piety scale made it difficult for us to distinguish the subgroup who reported a lower level of expectations but felt that they could rely on their children for filial piety if they needed. Future studies should be conducted to examine the interaction between filial piety and other social demographics so as to provide detailed interpretation on the correlates found in this study.

This research has wide implications for researchers, health professionals, social workers, and policy makers. This study calls for better understandings of filial piety belief and practice among U.S. Chinese community. It is crucial for health practitioners to provide health services in a culturally sensitive approach in consideration of the expected role of children as caregivers in the Chinese families. Special attention should be paid to several subgroups who are with higher risks of unmet filial piety needs, including the oldest-old, low-income, older adults with poor health status, and older adults without grandchildren. Appropriate prevention and intervention strategies should consider the special needs of the vulnerable subgroups (Dong, 2012b). For instance, to train and to subsidize adult children to be the in-home caregiver is a very considerate strategy to improve children–parent relationship and to create the incentives to practice filial piety. Furthermore, community educational programs should target at enhancing the inter-generational communications and foster understandings between older adults and adult children of all acculturation levels (Dong, Li, Chen, Chang, & Simon, 2013). Intervention strategies are needed to specifically nourish emotional inputs such as respect and greet at the family and community level. Moreover, policy makers should consider ways to nurture inter-generational relationships as minority populations continue to grow in this country.

## Conclusion

In sum, our study suggests that the norm of filial piety is still expected and practiced in the U.S. Chinese community. Years of living in the United States is correlated with the level of perceived receipt of filial piety but not expectations. By identifying the demographic characteristics of older adults who may be less likely to receive filial care, culturally sensitive interventions should be designed toward these subgroups of older adults to meet their health needs.

## Acknowledgments

We are grateful to Community Advisory Board members for their continued effort in this project. Particular thanks are extended to Bernie Wong, Vivian Xu, and Yicklun Mo with Chinese American Service League (CASL); Dr. David Lee with Illinois College of Optometry; David Wu with Pui Tak Center; Dr. Hong Liu with Midwest Asian Health Association; Dr. Margaret Dolan with John H. Stroger Jr. Hospital; Mary Jane Welch with Rush University Medical Center; Florence Lei with CASL Pine Tree Council; Julia Wong with CASL Senior Housing; Dr. Jing Zhang with Asian Human Services; Marta Pereya with Coalition of Limited English Speaking Elderly; and Mona El-Shamaa with Asian Health Coalition.

## Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by National Institute on Aging grants (R01 AG042318, R01 MD006173, R01 CA163830, R34MH100443, R34MH100393, P20CA165588, R24MD001650, and RC4AG039085), Paul B.

Beeson Award in Aging, The Starr Foundation, American Federation for Aging Research, John A. Hartford Foundation, and The Atlantic Philanthropies.

## References

- Chang E, Beck T, Simon M, & Dong X (2014). A psychometric assessment of the psychological and social well-being indicators in the PINE study. *Journal of Aging and Health*, 26, 1116–1136. [PubMed: 25239969]
- Chappell NL, & Kusch K (2007). The gendered nature of filial piety—A study among Chinese Canadians. *Journal of Cross-Cultural Gerontology*, 22, 29–45. [PubMed: 17053952]
- Chen SX, Bond MH, & Tang D (2007). Decomposing filial piety into filial attitudes and filial enactments. *Asian Journal of Social Psychology*, 10, 213–223.
- Cheng ST, & Chan AC (2006). Filial piety and psychological well-being in well older Chinese. *The Journals of Gerontology, Series B: Psychological Sciences & Social Sciences*, 61, 262–269.
- Cheung CK, & Kwan AY-H (2009). The erosion of filial piety by modernisation in Chinese cities. *Ageing & Society*, 29, 179–198.
- Chiang-Hansiko L (2010). Paradise lost: How older adult Taiwanese immigrant make decisions about their living arrangements. *Journal of Cultural Diversity*, 17, 99–104. [PubMed: 20860334]
- Dai YT, & Dimond MF (1998). Filial piety. A cross-cultural comparison and its implications for the well-being of older parents. *Journal of Gerontological Nursing*, 24, 13–18. [PubMed: 9611552]
- Deutsch FM (2006). Filial piety, patrilineality, and China's one-child policy. *Journal of Family Issues*, 27, 366–389.
- Dinnerstein L, & Reimers DM (1999). *Ethnic Americans: A history of immigration* New York: Columbia University Press.
- Dong X (2012a). Cultural diversity and elder abuse: Implication for research, education, and policy. *Generations: Journal of the American Society on Aging*, 36(3), 40–42.
- Dong X (2012b). Advancing the field of elder abuse: Future directions and policy implications. *Journal of the American Geriatrics Society*, 60, 2151–2156. [PubMed: 23110488]
- Dong X, Chang E-S, Simon M, & Wong E (2011). Sustaining community-university partnerships: Lessons learned from a participatory research project with elderly Chinese. *Gateways: International Journal of Community Research and Engagement*, 4, 31–47.
- Dong X, Chang E-S, Wong E, & Simon M (2011). Working with culture: Lessons learned from a community-engaged project in a Chinese aging population. *Aging Health*, 7, 529–537.
- Dong X, Chang E-S, Wong E, & Simon M (2012). A qualitative study of filial piety among community dwelling, Chinese, older adults: Changing meaning and impact on health and well-being. *Journal of Intergenerational Relationships*, 10, 131–146.
- Dong X, Chang E-S, Wong E, Wong B, Simon M, & Skarupski KA. (2010). Assessing the health needs of Chinese older adults: Findings from a community-based participatory research study in Chicago's Chinatown. *Journal of Aging Research*, 10.4061/2010/124246
- Dong X, Li Y, Chen R, Chang E, & Simon M (2013). Evaluation of community health education workshops among Chinese older adults in Chicago: A community-based participatory research approach. *Journal of Education and Training Studies*, 1, 170–181.
- Dong X, Wong E, & Simon MA (2014). Study design and implementation of the PINE Study. *Journal of Health and Aging*, 26, 1085–1099.
- Fuligni AJ, & Zhang W (2004). Attitudes toward family obligation among adolescents in contemporary urban and rural China. *Child Development*, 75, 180–192. [PubMed: 15015683]
- Gallois C, Giles H, Ota H, Pierson HD, Ng SH, & Lim TS (1999). Intergenerational communication across the Pacific Rim: the impact of filial piety. In Lasry JC, Adair J, & Dion K (Eds.), *Latest contribution to cross-cultural psychology* (pp. 192–211). Lisse, Netherlands: Swets & Zeitlinger.
- Guan R, Cheung JC, & Ng SH (2003). Revisit of the filial piety concept among the young, the adult, and the old in Beijing, Guangzhou, Hong Kong, Nanjing, Shanghai, Xiamen, and Xian: Research report Hong Kong: City University of Hong Kong.
- Ho DY (1996). Filial piety and its psychological consequences. In Bond MH (Ed.), *The handbook of Chinese psychology* (pp 155–165). Hong Kong: Oxford University Press.

- Kuo BH, & Roysircar G (2004). Predictors of acculturation for Chinese adolescents in Canada: Age of arrival, length of stay, social class, and English reading ability. *Journal of Multicultural Counseling and Development*, 32, 143–154.
- Laidlaw K, Wang D, Coelho C, & Power M (2010). Attitudes to ageing and expectations for filial piety across Chinese and British cultures: A pilot exploratory evaluation. *Ageing & Mental Health*, 14, 283–292. [PubMed: 20425647]
- Lan P (2002). Subcontracting filial piety: Elder care in ethnic Chinese immigrant families in California. *Journal of Family Issues*, 23, 812–835.
- Li N, Pang L, Chen G, Song X, Zhang J, & Zheng X (2011). Risk factors for depression in older adults in Beijing. *Canadian Journal of Psychiatry*, 56, 466–473. [PubMed: 21878157]
- Li Y, & Chi I (2011). Correlates of physician visits among older adults in China: The effects of family support. *Journal of Aging and Health*, 23, 933–953. [PubMed: 21617127]
- Lieber E, Nihira K, & Mink IT (2004). Filial piety, modernization, and the challenges of raising children for Chinese immigrants: Quantitative and qualitative evidence. *Ethos*, 32, 324–347.
- Ling H (2012). *Chinese Chicago: Race, transnational migration, and community since 1870* Stanford, CA: Stanford University Press.
- Liu JH, Ng SH, Weatherall A, & Loong C (2000). Filial piety, acculturation, and intergenerational communication among New Zealand Chinese. *Basic and Applied Social Psychology*, 22, 213–223.
- Lo M, & Russell C (2007). Family care: An exploratory study of experience and expectations among older Chinese immigrants in Australia. *Contemporary Nurse*, 25, 31–38. [PubMed: 17622987]
- Mehta KK, & Ko H (2004). Filial piety revisited in the context of modernizing Asian societies. *Geriatrics & Gerontology International*, 4(Suppl.), S77–S78.
- Mencius., & Lau DC (2005). *Mencius* London, England: Penguin Classics.
- Mui AC, & Shibusawa T (2008). *Asian American elders in the twenty-first century: Key indicators of well-being* New York, NY: Columbia University Press.
- Ng RM, & Bhugra D (2008). Relationship between filial piety, meta-cognitive beliefs about rumination and response style theory in depressed Chinese patients. *Asian Journal of Psychiatry*, 1, 28–32. [PubMed: 23050992]
- Pang EC, Jordan-Marsh M, Silverstein M, & Cody M (2003). Health-seeking behaviors of elderly Chinese Americans: Shifts in expectations. *The Gerontologist*, 43, 864–874. [PubMed: 14704386]
- Park M, & Chesla C (2007). Revisiting Confucianism as a conceptual framework for Asian family study. *Journal of Family Nursing*, 13, 293–311. [PubMed: 17641110]
- Simon MA, Chang E, Rajan K, Welch M, & Dong X (2014). Demographic characteristics of U.S. Chinese older adults in the Greater Chicago area: Assessing the representativeness of the PINE study. *Journal of Aging and Health*, 26, 1100–1115. [PubMed: 25239968]
- Smith CS, & Hung LC (2012). The influence of eastern philosophy on elder care by Chinese Americans: Attitudes toward long-term care. *Journal of Transcultural Nursing*, 23, 100–105. [PubMed: 22228782]
- Tsai JH (1999). Meaning of filial piety in the Chinese parent-child relationship: Implications for culturally competent health care. *Journal of Cultural Diversity*, 6, 26–34. [PubMed: 10335172]
- U.S. Census Bureau. (2010). *American Community Survey Washington D.C.:* U.S. Census Bureau.
- Wang D, Laidlaw K, Power M, & Shen J (2010). Older people's belief of filial piety in China: Expectation and non-expectation. *Clinical Gerontologist*, 33, 21–38.
- Whyte MK (1997). The fate of filial obligations in urban China. *The China Journal*, 38, 1–31.
- Yeh K, Yi C, Tsao W, & Wan P (2013). Filial piety in contemporary Chinese societies: A comparative study of Taiwan, Hong Kong, and China. *International Sociology*, 28, 277–296.
- Yeo G (1996). Ethnogeriatrics: Cross-cultural care of older adults. *Generations*, 20, 72–77.
- Yue X, & Ng SH (1999). Filial obligations and expectations in China: Current views from young and old people in Beijing. *Asian Journal of Social Psychology*, 2, 215–226.
- Zhan HJ, & Montgomery RJ (2003). Gender and elder care in China: The influence of filial piety and structural constraints. *Gender & Society*, 17, 209–229.

**Table 1.**

Demographic Characteristics of Study Participants by Years in the United States.

	0–10 (n = 840)	11–20 (n = 969)	21–30 (n = 767)	31 or more (n = 568)	$\chi^2$	df	p value
Age group, numbers (%)							
60–64	288 (34.3)	192 (19.8)	122 (15.9)	76 (13.4)			
65–69	218 (26.0)	211 (21.8)	133 (17.3)	81 (14.3)			
70–74	188 (22.4)	198 (20.4)	139 (18.1)	80 (20.1)			
75–79	100 (11.9)	204(21.1)	137 (17.9)	114 (20.1)			
80–84	34 (4.1)	105 (10.8)	130 (17.0)	122 (21.5)			
85 and above	12 (1.4)	59 (6.1)	106 (13.8)	95 (16.7)	382.2	15	<.001
Sex, numbers (%)							
Male	378 (45.0)	391 (40.4)	300 (39.1)	225 (39.6)			
Female	462 (55.0)	578 (59.7)	467 (60.9)	343 (60.4)	7.3	3	.06
Education level, numbers (%)							
0 year	38 (4.5)	68 (7.1)	58 (7.6)	28 (4.9)			
1–6 years	268 (32.0)	375 (39.0)	312 (41.0)	219 (38.6)			
7–12 years	297 (35.5)	323 (33.6)	263 (34.6)	216 (38.0)			
13–16 years	208 (24.9)	178 (18.5)	111 (14.6)	78 (13.7)			
17 and above	26 (3.1)	17 (1.8)	17 (2.2)	27 (4.8)	65.3	12	<.001
Income in US\$, numbers (%)							
0–4,999	485 (58.2)	316 (33.2)	164 (21.6)	71 (12.6)			
5,000–9,999	242 (29.1)	547 (57.5)	497 (65.3)	324 (57.5)			
10,000–14,999	74 (8.9)	64 (6.7)	68 (8.9)	103 (18.3)			
15,000–19,999	23 (2.8)	13 (1.4)	13 (1.7)	19 (3.4)			
Above 20,000	9 (1.9)	12 (1.3)	19 (2.5)	47 (8.3)	517.3	12	<.001
Marital status, numbers (%)							
Married	705 (84.1)	692 (71.8)	516 (67.6)	319 (57.1)			
Divorced	13 (1.6)	25 (2.6)	19 (2.5)	17 (3.0)			
Separated	11 (1.3)	22(2.3)	11 (1.4)	12 (2.2)			
Widowed	109 (13.0)	225 (23.3)	217 (28.4)	211 (37.8)	134.5	9	<.001
Number of sons (%)							
0	222 (26.4)	182 (18.8)	108 (14.1)	111 (19.7)			
1–2	571 (68.0)	687 (71.1)	522 (68.2)	367 (65.0)			
More than 3	47 (5.6)	97 (10.0)	135 (17.7)	87 (15.4)	92.4	6	<.001
Number of daughters (%)							
0	153 (18.2)	175 (18.1)	154 (20.1)	125 (22.1)			
1–2	571 (68.0)	611 (63.3)	458 (59.9)	335 (59.2)			
More than 3	116 (13.8)	180 (18.6)	153 (20.0)	106 (18.7)	19.8	6	<.01
Number of grandchildren (%)							
0	93 (11.1)	96 (10.0)	69 (9.0)	99 (17.7)			
1–2	240 (28.6)	189 (19.7)	122 (16.0)	104 (18.5)			
3–4	295 (35.1)	263 (27.5)	156 (20.5)	107 (19.1)			

	0–10 (n = 840)	11–20 (n = 969)	21–30 (n = 767)	31 or more (n = 568)	$\chi^2$	df	p value
More than 5	212 (25.2)	410 (42.8)	416 (54.5)	251 (44.7)	192.3	9	<.001
Living arrangement, numbers (%)							
Alone	76 (9.1)	203 (21.0)	198 (25.8)	196 (34.5)			
With 1 person	320 (38.1)	384 (39.6)	348 (45.4)	261 (46.0)			
With 2–4 persons	252 (30.0)	247 (25.5)	149 (19.4)	93 (16.4)			
With 5 or more persons	191 (22.8)	135 (13.9)	72 (9.4)	18 (3.2)	265.2	9	<.001
Overall health status, numbers (%)							
Very good	48 (5.7)	41 (4.2)	18 (2.3)	32 (5.6)			
Good	296 (35.2)	301 (31.1)	256 (33.4)	236 (41.5)			
Fair	352 (41.9)	448 (46.2)	317 (41.3)	201 (35.4)			
Poor	144 (17.1)	179 (18.5)	176 (22.9)	99 (17.4)	43.3	9	<.001
Quality of life, numbers (%)							
Very good	74(8.8)	60(6.2)	39 (5.1)	42 (7.4)			
Good	364(43.3)	430(44.4)	311(40.5)	268 (47.3)			
Fair	365(43.5)	453 (46.7)	398 (51.9)	237 (41.8)			
Poor	37(4.4)	25 (2.6)	19 (2.5)	20 (3.5)	28.1	9	<.001
Health changes over the last year, numbers (%)							
Improved	81 (9.6)	86 (8.9)	65 (8.5)	44 (7.8)			
No change	432 (51.4)	448 (46.2)	354 (46.2)	295 (52.0)			
Worse	327 (38.9)	435 (44.9)	348 (45.4)	228 (40.2)	12.3	6	.06

**Table 2.**

Expectations of Filial Piety by Years in the United States.

	0–10 ( <i>n</i> = 840)		11–20 ( <i>n</i> = 969)		21–30 ( <i>n</i> = 767)		31 or more ( <i>n</i> = 568)		Significance
	<i>M</i> (range = 1–5)	<i>SD</i>	<i>M</i> (range = 1–5)	<i>SD</i>	<i>M</i> (range = 1–5)	<i>SD</i>	<i>M</i> (range = 1–5)	<i>SD</i>	<i>F</i> value
Total	20.6	6.4	20.9	6.1	21.0	5.9	20.3	5.8	1.9
Respect	3.9	1.2	4.0	1.2	4.0	1.2	4.0	1.2	1.2
Make happy	3.7	1.3	3.8	1.2	3.8	1.2	3.7	1.2	2.4
Care	3.7	1.2	3.4	1.4	3.5	1.4	3.2	1.4	4.3**
Greet	3.8	1.3	3.8	1.3	3.8	1.2	3.7	1.2	1.4
Obey	3.5	1.4	3.6	1.3	3.6	1.3	3.5	1.3	2.6
Financial support	2.4	1.3	2.3	1.2	2.2	1.2	2.1	1.1	6.6***

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .



**Table 3.**

Perceived Receipt of Filial Piety by Years in the United States.

	0-10		11-20		21-30		30 and more		Significance
	<i>M</i> (range = 1-5)	<i>SD</i>	<i>M</i> (range = 1-5)	<i>SD</i>	<i>M</i> (range = 1-5)	<i>SD</i>	<i>M</i> (range = 1-5)	<i>SD</i>	<i>p</i> value
Total	22.7	4.8	22.4	4.7	21.9	5.1	21.2	5.3	11.2 ***
Respect	4.3	0.9	4.2	0.9	4.1	0.9	4.1	1.0	4.3 **
Make happy	3.9	1.0	3.9	1.0	3.8	1.0	3.7	1.1	3.4 *
Care	3.7	1.2	3.8	1.1	3.7	1.1	3.4	1.3	13.1 ***
Greet	4.1	1.0	4.1	1.0	4.0	1.0	3.8	1.1	9.14 ***
Obey	3.8	1.1	3.8	1.0	3.7	1.1	3.7	1.1	2.2
Financial support	3.0	1.3	2.8	1.2	2.7	1.2	2.5	1.2	18.2 ***

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

**Table 4.** Correlates Between Socio-Demographic Characteristics and Expectations of Filial Piety.

	Age	Sex	Edu	Income	MS	NOS	NOD	NOG	Living	Yrs in U.S.	OHS	QOL	HC	FPE
Age	1.0													
Sex	.01	1.0												
Edu	-.12***	-.21***	1.0											
Income	.05***	.00	.01	1.0										
MS	-.33***	-.32***	.22	-.03	1.0									
NOS	.22***	.05	-.26***	.05**	-.10***	1.0								
NOD	.20***	.07	-.24***	-.05**	-.09***	-.10***	1.0							
NOG	.43***	.13***	-.39***	-.02	-.18***	.44***	.50***	1.0						
Living	-.35***	-.07***	.02	.16***	.24***	-.08***	.00	-.10***	1.0					
Yrs in U.S.	.35***	.03	-.10***	.35***	-.2***	.17***	.02	.17***	-.31***	1.0				
OHS	.08***	.06**	-.06***	-.12***	-.05**	.00	.00	.02***	.00	.01	1.0			
QOL	-.06***	-.05**	-.09***	-.08***	.03	-.01	-.04*	-.05**	.01	.00	.32***	1.0		
HC	.11***	.03	-.02	-.05**	-.07***	.01	.01	.05**	-.01	.04*	.35***	.15***	1.0	
FPE	.00	.07***	-.19***	-.02	-.04**	.06***	.11***	.11***	.05*	-.02	.07***	-.04*	.02	1.0

Note. Edu = education; MS = marital status; NOS = number of sons; NOD = number of daughters; NOG = number of grandchildren; Living = living arrangement; Yrs in U.S. = years in the United States; OHS = overall health status; QOL = quality of life; HC = health changes over the last year; FPE = filial piety expectation.

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

**Table 5.** Correlates Between Socio-Demographic Characteristics and Perceived Receipt of Filial Piety Care.

	Age	Sex	Edu	Income	MS	NOS	NOD	NOG	Living	Yrs in U.S.	OHS	QOL	HC	PRFP
Age	1.0													
Sex	.01	1.0												
Edu	-.12***	-.21***	1.0											
Income	.05***	.00	.01	1.0										
MS	-.33***	-.32***	.22	-.03	1.0									
NOS	.22***	.05	-.26***	.05**	-.10***	1.0								
NOD	.20***	.07	-.24***	-.05**	-.09***	-.10***	1.0							
NOG	.43***	.13***	-.39***	-.02	-.18***	.44***	.50***	1.0						
Living	-.35***	-.07***	.02	.16***	.24***	-.08***	.00	-.10***	1.0					
Yrs in U.S.	.35***	.03	-.10***	.35***	-.2***	.17***	.02	.17***	-.31***	1.0				
OHS	.08***	.06**	-.06***	-.12***	-.05**	.00	.00	.02***	.00	.01	1.0			
QOL	-.06***	-.05**	-.09***	-.08***	.03	-.01	-.04*	-.05**	.01	.00	.32***	1.0		
HC	.11***	.03	-.02	-.05**	-.07***	.01	.01	.05**	-.01	.04*	.35***	.15***	1.0	
PRFP	.04*	.10***	-.10***	-.07***	-.05**	.00	.13***	.13***	.07***	-.10***	-.07***	-.21***	-.03	1.0

Note. Edu = education; MS = marital status; NOS = number of sons; NOD = number of daughters; NOG = number of grandchildren; Living = living arrangement; Yrs in U.S. = years in the United States; OHS = overall health status; QOL = quality of life; HC = health changes over the last year; PRFP = perceived receipt of filial piety.

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .