Original Article

Parent–Adult Child Relations of Chinese Older Immigrants in the United States: Is There an Optimal Type?

Man Guo, PhD,^{1,*} Meredith Stensland, PhD,¹ Mengting Li, PhD,^{2,3} and Xinqi Dong, MD, MPH³

¹School of Social Work, University of Iowa, Iowa City. ²Institute for Health, Health Care Policy and Aging Research, Rutgers University, New Brunswick, New Jersey. ³School of Nursing, Rutgers University, New Brunswick, New Jersey.

*Address correspondence to: Man Guo, PhD, School of Social Work, University of Iowa, 308 North Hall, Iowa City, IA 52242. E-mail: man-guo@uiowa.edu

Received: July 10, 2018; Editorial Decision Date: February 14, 2019

Decision Editor: Feinian Chen, PhD

Abstract

Objectives: This study aims to identify (a) different types of parent–child relations among Chinese older immigrants, (b) predictors of each relation type, and (c) the most “optimal” type that is associated with better psychological well-being of the older adults.

Methods: Data were derived from 3,109 Chinese elderly adults in Chicago. Latent Class Analysis was used to identify structures of parent–child relations based on eight indicators of family solidarity. Logistic regressions were used to predict the relation types. Negative binomial and logistic regressions were used to examine the associations between the relation types and depression and quality of life (QoL).

Results: Four types of parent–child relations emerged: unobligated ambivalent (44.77%), tight-knit (40.11%), detached (10.28%), and commanding conflicted (4.84%). Older adults’ age, gender, marital status, health status, and immigration/acculturation experience were related to their relation types. While tight-knit relation was associated with the fewest depressive symptoms, older adults with unobligated ambivalent relations were the least likely to report good QoL.

Discussion: The study illustrates the diverse and complex ways in which Chinese older immigrants and their children are connected. The findings suggest that a departure from the traditional norm of filial piety may present a risk factor for this population’s mental health.

Keywords: Family structure, Intergenerational relations, Migration, Minority aging

Families are the key for survival and success of the 4.6 million older immigrants in the United States (Batalova, 2012). As older immigrants often have less access to health insurance and social security than their native-born counterpart, families in general and adult children in particular are the major source of support for these older adults (Glick, 2010). However, the very notion of family solidarity and interdependence may lead to confined social ties that are limited to family members, likely resulting in family conflict or isolation of older immigrants (Guo, Dong, & Tiwari,

2017). As American society becomes older and more diverse, it is crucial to understand the complex nature of family relations among older immigrants to maximize the informal and formal support available to this rapidly increasing population.

Immigration and acculturation have a complex impact on intergenerational solidarity, that is, various behaviors and sentiments in intergenerational bonds in families (Bengtson & Roberts, 1991). Studies have documented unique patterns of living arrangement (Gubernskaya & Tang, 2017;

Wilmoth, 2001), emotional cohesion (Guo, Xu, Liu, Mao, & Chi, 2016), family conflict (Guo, Dong, et al., 2017; Juang, Syed, Cookston, Wang, & Kim, 2012), caregiving behavior (Chiu & Yu, 2001; Wong, Yoo, & Stewart, 2006), grandparenting (Xie & Xia, 2011), and sense of filial obligations among older immigrants (Diwan, Lee, & Sen, 2011; Dong, Zhang, & Simon, 2014; Li, 2011). While these studies shed important light on family processes along the immigration process, they tend to focus on single aspects of parent–child relations, overlooking the linkages among various dimensions, and more importantly, the underlying structures of these relations, which may be shaped by diverse needs, resources, and cultural norms of immigrant families at the first place. Up to date, our knowledge regarding the structure of multifaceted parent–child relations among aging immigrants is essentially lacking, leaving a notable gap in the literature on contemporary families (Glick, 2010).

To address these gaps, this study aims to identify (a) different types (i.e., latent classes) of parent–adult child relationships in Chinese older immigrants in the United States, (b) predictors of each relation type, and (c) the “optimal” type that is associated with better psychological well-being of Chinese older immigrants. The social context of family life in the United States is radically different from that in China, making U.S. Chinese elderly adults an interesting population to study the influence of immigration/acclimation on family behaviors and individual well-being.

Parent–Adult Child Relations in Immigrant Families

Parent–adult child relationships are multifaceted. Intergenerational solidarity theory conceptualizes parent–adult child relations in six dimensions (Bengtson & Roberts, 1991). *Structural solidarity* includes physical proximity between family members and the number of family members. *Associational solidarity* includes the frequency of interaction between family members, either face to face or by phone or mail. *Functional solidarity* refers to the frequency of intergenerational exchanges of support or assistance. *Affectual solidarity* refers to the emotional relationship between family members, including both the positive (intimacy) and negative (conflict) affect, and the simultaneous presence of positive sentiment and conflict (i.e., ambivalence) (Bengtson, Giarrusso, Mabry, & Silverstein, 2002). *Consensual solidarity* is defined as the degree of agreement between family members regarding values, attitudes, and beliefs. Lastly, *normative solidarity* highlights the importance of family expectations and obligations (Bengtson & Roberts, 1991).

The processes of immigration and acculturation reshape parent–adult child relationships in multiple ways, enhancing certain ties while challenging others. Geographic proximity (structural solidarity) is viewed as the most important antecedent of parent–child interaction (Mercier, Paulson, & Morris, 1989). Older immigrants, particularly those who migrate in later life, are significantly more likely than both

the native-born and older adults in their home country to live in extended-family households (Gubernskaya & Tang, 2017; Wilmoth, 2012). Such a living arrangement reflects both cultural preference and economic constraints or needs (eldercare, childcare) of immigrant families (Gubernskaya & Tang, 2017; Lowenstein & Katz, 2005). Despite this traditional and predominant living arrangement, recent studies on overseas Chinese older adults report a shift from the extended families to preferred independent living, possibly reflecting older immigrants’ desire to assert control over their own lives (Lai, 2005; Lin, Bryant, Boldero, & Dow, 2015).

Coresidence among immigrant families does not necessarily entail frequent contact (associational solidarity) or intimacy (affectual solidarity). A study on Chinese elderly adults in the United Kingdom reported that more than half of those who lived with their children had no one to talk to; 90% were left alone at home for at least 6–9 hr per day, and half reported feeling lonely (Chiu & Yu, 2001). Another study further showed that living with children was associated with poorer parent–child relationships among Chinese elderly adults in the United States (Guo et al., 2016).

As the immigration process often requires pooling resources from multiple generations, high levels of support exchanges (functional solidarity) often characterize family interactions in immigrant families. In the United States, being ineligible for public assistance programs during the first 5 years after migration increases late-life immigrants’ dependence on their adult children (Gubernskaya & Tang, 2017). Adult children, particularly those who sponsored their parents’ migration, are often the major source of financial assistance and practical support (language brokering, transportation) to their parents (Wong et al., 2006). Older immigrants also reciprocate by providing childcare and other household assistances (Treas, 2008). Some older immigrants migrated in order to provide such care (Stewart et al., 2011). A study reported that Hispanic older immigrants were three times more likely to live with their grandchild(ren) than the native-born American elderly adults (Hill, Angel, Balistreri, & Herrera, 2012).

Parent–adult child relationships in immigrant families become more intense and are more vulnerable to disturbances than those in nonimmigrant families (Glick, 2010). Although most older immigrants are able to maintain close relationship with their adult children (Guo et al., 2016), such intimacy is often accompanied by strains or dissent (Glick, 2010). Conflicts are common among immigrant families. In a study of U.S. Chinese elderly adults, Tsai and Lopez (1998) reported that 17% of the older adults identified family relationship as a daily problem. Sources of such conflict include intergenerational differences in acculturation, limited contact or quality time with children, lack of coping resources of older immigrants, and change in power dynamics in the family as older adults lose the traditional role of the “family head” and become peripheral to the nuclear family (Glick, 2010; Guo, Dong, et al., 2017; Lin et al., 2015). Given the coexistence of intimacy and conflict, intergenerational

ambivalence is a particularly meaningful concept for immigrant families, who are involved in ongoing negotiation of family relations and norms in the context of constrictions created by structured social reality in the receiving society (Connidis, 2010). Yet this concept has not been extensively studied in immigrant families (Lüscher & Hoff, 2013).

Perhaps the more fundamental changes in family relations experienced by immigrants involve the normative solidarity indicative of family norms and obligations. While individualistic cultures such as the United States promote a family system of individualization and self-reliance, immigrants from non-Western regions are socialized in family systems that emphasize unity and interdependence (Inglehart & Baker, 2000). For the Chinese population, the core family value is filial piety, the obligation of adult children to respect and care for aging parents. Prior studies have revealed the evolving and fluid nature of filial obligations in overseas Chinese families, documenting a continuum of traditional, to modified (e.g., paid care), to nontraditional filial practice (e.g., placing parents in senior housing) (Hsueh, Hu, & Clarke-Ekong, 2008; Lan, 2002; Li, 2011). Older immigrants also modify or lower their filial expectations in response to the new social reality (Sun, 2014). Although indicating immigrant families' adaptation to the host society, weakening of filial piety presents a significant risk factor for Chinese older immigrants' well-being (Guo, Sabbagh Steinberg, Dong, & Tiwari, 2018).

The Present Study

The reviewed literature reveals that, compared with nonimmigrant families, immigrant families have unique features on various aspects of intergenerational solidarity. However, very little is known about the overall structures of multifaceted parent-child relations in immigrant families that may reflect their different needs, recourse, or acculturation experience. This represents a major limitation in our understanding of contemporary families in light of increased international migration and population aging.

To address these gaps, this study examines three questions:

- (1) Are there different types (i.e., latent classes) of family relations among Chinese older adults in the United States?
- (2) What factors are associated with each family relation type?
- (3) Is there an optimal family type that is associated with better psychological well-being among this population?

Method

Sample

Data were derived from the Population Study of Chinese Elderly in Chicago (PINE), the largest population-based

study on Chinese community-living older adults in the United States. Between 2011 and 2013, 3,157 Chinese adults aged 60 years and older were recruited from more than 20 social service agencies in the Chicago area. Details of the study design are reported elsewhere (Dong, Wong, & Simon, 2014). In this study, the working sample consisted of 3,109 participants who had at least one child. The sample characteristics were summarized in Table 1.

Measures

Parent-child relations

The survey contains eight indicators that captured structural (living arrangement), associational (frequency of contact), functional (upward support, downward support), affectual (emotional cohesion, conflict), and normative aspects (filial expectation, received filial piety) of parent-child relations. All the indicators were measured separately and were collapsed into dichotomous variables to reduce sparseness in latent class analysis (LCA)'s cross-classification table (Collins & Lanza, 2010). Respondents reported whether they lived together with children (1 = yes, 0 = no), whether they had frequent (i.e., weekly) contact with them (1 = yes, 0 = no), whether they received help with activities of daily living (ADL) or instrumental activities of daily living (IADL) assistance from their children (1 = yes, 0 = no), and whether they provided childcare to their children (1 = yes, 0 = no). Separate assessments of the positive and negative components of affectual relationship were carried out. The respondents reported how close they felt towards their children (1 = not very close, 2 = somewhat close, 3 = very close, 4 = extremely close). Given the positive skew of this variable, it was further recoded into a dichotomous score (1 = feeling very or extremely close to children). Negative component of affectual relationships was measured by conflict (1 = children being demanding or critical). To assess filial expectation, the respondents reported how much respect, care, checking on, pleasure, obedience, and financial support that they expected from children (1 = very little, 2 = rather little, 3 = average, 4 = rather a lot, 5 = very much). They then reported how much filial piety they actually received from children on the six domains. Average scores were calculated for each variable ($\alpha = .89$ and $.86$, respectively). If the average score was four or more (i.e., "rather a lot" or more), the answer was marked as 1 = yes (having high filial expectation, receiving high filial piety). The second panel of the Table 1 summarized the distribution of the eight parent-child relation indicators in the study.

Psychological well-being

Depression and quality of life (QoL) were used to capture the negative affect of respondents' psychological well-being and their overall life satisfaction, respectively. Depression was measured by Patient Health Questionnaire-9 (PHQ-9, American Psychiatric Association, 1994). Respondents

Table 1. Study Variables ($N = 3,019$)

Variables	Mean	SD	Range
Sample Characteristics			
Age	72.87	8.28	59–104
Female	58.03%		
Married	71.31%		
Education	8.63	5.03	0–26
Income	1.94	1.14	1–10
Good/very good health	39.25%		
Years in the United States	19.86	13.05	0.1–90
Level of acculturation	15.10	4.84	12–60
Family-oriented migration	73.87%		
Number of children	3.00	1.41	1–12
Intergenerational Solidarity			
<i>Structural solidarity</i>			
Living with children	35.88%		
<i>Associational solidarity</i>			
Having weekly contact with children	85.66%		
<i>Functional solidarity</i>			
Receiving instrumental support from children	39.95%		
Caring for grandchildren	26.50%		
<i>Affectual solidarity</i>			
Feeling close to children	84.33%		
Having family conflict	13.88%		
<i>Normative solidarity</i>			
Having high filial expectation	37.46%		
Receiving high filial piety	42.46%		

rated how often they experienced nine depressive symptoms (i.e., changes in sleep, changes in appetite, fatigue, feelings of sadness or irritability, loss of interest in activities, inability to experience pleasure/feelings of guilt or worthlessness, inability to concentrate or making decisions, feeling restless or slowed down, and suicidal thoughts) during the past 2 weeks (0 = not at all, 1 = several days, 2 = a week or more, 3 = nearly every day). The sum score was created, ranging from 0 to 27, with higher scores indicating more severe depressive symptoms ($\alpha = .82$).

QoL was measured by a question “In general, how would you rate your quality of life?” (1 = poor, 2 = fair, 3 = good, 4 = very good). Given that less than 3% and 7% of the respondents reported “poor” or “very good” QoL, respectively, a dummy variable was created to indicate good/very good or poor/fair QoL (reference group).

Personal characteristics were characteristics of the respondents that have been shown to affect both intergenerational relations and mental health of older immigrants (Guo & Stensland, 2018; Lin et al., 2015). They were demographic variables: *age* (in years), *gender* (1 = female), *marital status* (1 = married); socioeconomic status: *education* (in years), *annual personal income* (ranging from 1 = \$0–\$4,999 to 10 = \$45,000 or more); physical health: *self-rated health* (1 = good/very good, 0 = poor/fair), and acculturation related variables: *length of residence in the*

United States, *level of acculturation*, and *reasons for migration* (1 = family-oriented migration, including reuniting with family members and taking care of grandchildren; 0 = others, such as better living standard/medical care, looking for jobs, retirement, and political asylum/refugee), and number of children. Level of acculturation was measured by 12 questions on respondents’ preference for speaking a given language in different settings and preferred ethnicity of those they interact, on a scale ranging from 1 = only Chinese to 5 = only English/Americans (Marin, Sabogal, Marin, Otero-Sabogal, & Perez-Stable, 1987). The total acculturation scores ranged from 12 to 60, with a higher score indicating a higher level of acculturation ($\alpha = .91$).

Data Analysis

We first conducted LCA to identify distinctive types (i.e., latent classes) of family relations by using the eight indicators described above. LCA is a statistical tool that identifies unobserved subgroups (classes) within a population based on observed behaviors (Collins & Lanza, 2010). It estimates two parameters. The first is item-response probabilities, which indicate the probabilities that a member in a latent class endorses the observed indicators (e.g., members in a latent class may have a .90 probability of responding “Yes” on coresidence, and a .80 probability of responding “Yes” on having weekly contact). The overall patterns of these item-response probabilities are used to interpret and label each identified class. The second parameter is class membership probabilities, which describe the probability distribution of the identified classes, with a sum of one. To decide the number of latent classes, models with different numbers of latent classes were fit and compared to select one that optimally balances model fit, parsimony, class membership probabilities, and interpretability of latent classes. Statistical indices of goodness-of-fit used to select the optimal model included the likelihood-ratio G^2 statistics, Akaike’s Information Criterion (AIC; Akaike, 1974), Bayesian Informal Criterion (BIC; Raftery, 1986), and Entropy. Lower values of the first three statistics generally indicates better model fit, and higher Entropy values indicate better separation of latent classes (Lanza, Collins, Lemmon, & Schafer, 2007). LCA were carried out in SAS using PROC LCA command.

To address the second research question, logistic regressions were carried out to predict each family relation type derived from the LCA, using all the personal characteristics. To address the third research question, negative binomial and logistic regression were carried out to test the associations between the family relation type and the depression and QoL, respectively, while controlling for all the personal characteristics. Negative binomial regressions were used to predict depression, because this outcome is highly skewed and, thus, was treated as a count variable (of depressive symptoms) (Gardner, Mulvey, & Shaw, 1995).

Results

LCA Results

Table 2 summarizes model-fit statistics of LCA models with two to six classes. Although models with a higher number of classes yielded better model fit overall, a closer inspection of the parameter estimates showed the drop in AIC and BIC was more substantial with each additional class up to the four-class model. Lower Entropy values with five- and six-class models also indicated these models had less distinctive classes. In addition, both the five- and six-class models had classes made of less than 1% of the sample. Considering all the information, we proceeded with the model containing four latent classes.

Table 3 summarizes the parameters of the four-class model. Prevalences of the four latent classes were reported under each class. Item-response probabilities indicate the estimated likelihood that an individual in a given latent class answers “Yes” to each of the eight indicators of parent–child relations. For instance, for an older adult in

the Unobligated Ambivalent latent class, the probability of responding “Yes” to the coresidence question was .364. The highlighted item-response probabilities centrally defined the classes and informed labeling of the classes.

The most common parent–child relation type was Unobligated Ambivalent (44.77%), characterized by the highest contact, moderate support exchanges, relatively high emotional cohesion but also conflict (i.e., ambivalent feelings), together with relatively low filial expectation as well as actual receipt of filial piety. The second common type was Tight-Knit (40.11%), which manifested as the highest likelihoods endorsing most of the solidarity domains (i.e., coresidence, contact, downward support, emotional cohesion, and received filial piety) and a lowest prevalence of conflict. The third family type was Detached (10.28%), characterized by the lowest ratings on almost all the indicators. The least common family type was Commanding Conflicted (4.84%), characterized by highest filial expectation, highest upward support, the lowest emotional cohesion, and highest conflict.

Predictors of Latent Classes

Table 4 presents the results of logistic regressions on each of the four parent–child relation types. The findings showed those who were younger, not married, in poorer health, had longer stay in the United States, migrated for family reasons, and had fewer children were more likely to have unobligated ambivalent family relations. In contrast, mothers and those with lower income, good health, and shorter stay in the United States, were more likely to have tight-knit parent–child relations. Factors associated with having detached parent–child relations included being a father, being married, having good health, being highly

Table 2. Comparison of LCA Models with Two to Six Classes

Number of Classes	G ²	df	AIC	BIC	Entropy
2	1,271.313	238	1,305.313	1,407.529	0.8888
3	691.642	229	743.642	899.972	0.8079
4	547.708	220	617.708	828.152	0.8154
5	470.007	211	558.007	822.565	0.7139
6	303.189	202	409.189	727.861	0.7543

Note: Bold indicate defining characteristics of each latent class. AIC = Akaike's Information Criterion; BIC = Bayesian Informal Criterion.

Table 3. Four-Class Model of Parent–Child Relations Among Chinese Older Immigrants in the PINE

	Unobligated ambivalent	Tight-knit	Detached	Commanding conflicted
<i>Latent class prevalence</i>	44.77%	40.11%	10.28%	4.84%
<i>Item-response probabilities</i>				
Living with children	.364	.408*	.177	.291
Having weekly contact with children	1.000	1.000	.011	.143
Receiving instrumental support from children	.361	.464	.283	.475
Caring for grandchildren	.282	.301	.107	.148
Feeling close to children	.914	1.000	.264	.129
Having family conflict	.172	.101	.113	.208
Having high filial expectation	.127	.663	.096	.872
Receiving high filial piety	.076	.884	.032	.655
<i>Defining characteristics</i>	Highest contact, moderate support exchanges, relatively high emotional cohesion as well as conflict; relatively low expected and received filial piety	Highest solidarity on most of the domains, lowest prevalence of conflict	Lowest solidarity on almost all the domains, including conflict	Highest filial expectation, highest upward support, lowest emotional cohesion, highest conflict

Note: *Item-response probabilities in bold indicate defining characteristics of each latent class.

Table 4. Summary of Logistic Regression Analysis for Variables Predicting the Four Latent Classes of Parent–Child Relations Among Chinese Older Immigrants in the PINE

	Unobligated ambivalent		Tight-knit		Detached		Commanding conflicted	
	OR	CI	β	SE	β	SE	β	SE
Age	0.987*	(0.977–0.998)	1.006	(0.995–1.017)	1.014	(0.996–1.032)	1.013	(0.986–1.042)
Mothers (ref = fathers)	0.911	(0.776–1.070)	1.396***	(1.183–1.647)	0.596***	(0.458–0.776)	0.861	(0.577–1.283)
Married	0.808*	(0.670–0.973)	0.945	(0.782–1.143)	1.689**	(1.199–2.381)	1.853*	(1.123–3.058)
Education	1.016	(0.998–1.033)	0.998	(0.980–1.016)	0.985	(0.957–1.014)	0.959	(0.916–1.004)
Income	1.053	(0.980–1.131)	0.900*	(0.830–0.967)	1.033	(0.934–1.143)	1.114	(0.912–1.362)
Good/very good health	0.682***	(0.586–0.794)	1.287**	(1.103–1.501)	1.365*	(1.067–1.747)	1.216	(0.837–1.767)
Years in the United States	1.010**	(1.003–1.017)	0.985***	(0.978–0.992)	1.010	(1.000–1.021)	1.002	(0.985–1.020)
Level of acculturation	1.003	(0.985–1.021)	0.986	(0.967–1.006)	1.029**	(1.004–1.055)	0.891**	(0.820–0.968)
Family-oriented migration	1.419***	(1.194–1.687)	0.949	(0.796–1.131)	0.679***	(0.521–0.887)	0.479***	(0.326–0.704)
Total number of children	0.936*	(0.882–0.994)	1.060	(0.998–1.126)	0.930	(0.849–1.037)	1.169*	(1.025–1.333)

Note: CI = Confidence interval; OR = Odds ratio.

* $p < .05$; ** $p < .01$; *** $p < .001$.

acculturated, and migrating for nonfamily-related reasons. Lastly, the commanding conflicted parent–child relation type was associated with being married, less acculturated, migrating for nonfamily reasons, and having more children. Education was not related to any type of family relations.

Parent–Child Relation Type and Psychological Well-being

We first used the “Tight-knit”, the most cohesive parent–child relation type as the reference group in regression analyses on depression and QoL. The results showed that Chinese older immigrants of this group had significantly fewer depressive symptoms than all the other groups and a higher chance of reporting good QoL than those who had unobligated ambivalent or detached relations (findings available upon request). To further understand group differences in their psychological well-being, we repeated the analysis using the “Unobligated Ambivalent” group, the most common and a particularly meaningful relation type for immigrant families, as the reference group. The findings were summarized in Table 5. The results showed that although older Chinese immigrants of this group had a comparable level of depressive symptoms as those with detached or commanding conflicted relations, individuals with unobligated ambivalent relations with children were the least likely to report good/very good QoL among all the groups.

Discussion

Are There Different Types of Parent–Adult Child Relations Among U.S. Chinese Older Immigrants?

This study identified four key clusters of parent–adult child relations among Chinese older immigrants, revealing distinct and complex ways in which these older adults interact

with their children. Comprising nearly 45% of the sample, the most common family relation type was *unobligated-ambivalent*. A salient characteristic of this family type was its departure from the traditional family norm of filial piety, manifested by relatively low filial expectation and perceived filial behaviors. While several qualitative studies have documented Chinese older immigrants’ low sense of entitlement to receive filial care and adult children’s struggle to fulfill such cultural expectation (Hsueh et al., 2008; Sun, 2014), our study shed light on the extent to which such traditional family expectation/practice has been weakened. Despite the low normative solidarity, participants of this family type still had moderate to high levels of structural (coresidence), associational (frequent contact) and functional solidarity (support exchange). Such a combination may partly explain the presence of ambivalent feelings (close relationships but also high conflict) in these family ties, another notable feature of this relation type. The ambivalent feelings may be due to older immigrants’ struggle between the desire of preserving the traditional family norms, but the lack of socio-cultural environment in the new society to support it (Li, 2011). Overall, this is a unique family relation type unreported in previous LCA studies on native-born American elderly adults (Hogerbrugge & Silverstein, 2015; Silverstein & Bengtson, 1997) or Chinese elderly adults in China (Guo, Chi, & Silverstein, 2012; Guo, Liu, Xu, & Mao, 2018), reflecting the transformation and challenges faced by of traditional family structure in the immigration context.

Comprising approximately 40% of the sample, the second common family type was *tight-knit*. Aside from conflict, which was the lowest in this type, most of the other solidarity indicators were endorsed to the highest level. This relationship type seems to reflect the most traditional Chinese family structure that is still able to remain intact in the Western world. Worth noting, the proportion of this family type in our sample is significant higher than those reported in studies on American older adults

Table 5. Summary of Regression Analyses Predicating Depression and Quality of Life Among Chinese Older Immigrants in the PINE

	Depression		Quality of Life	
	β	SE	OR	CI
Age	0.019***	0.004	1.027***	(1.015–1.039)
Mothers (reference = fathers)	0.316***	0.064	1.510***	(1.269–1.797)
Married	–0.104	0.072	0.964	(0.790–1.177)
Education	0.003	0.007	1.040***	(1.021–1.060)
Income	–0.114***	0.030	1.081	(0.998–1.171)
Good/very good health	–0.982***	0.062	3.671***	(3.113–4.328)
Years in the United States	–0.004	0.003	0.992*	(0.985–0.999)
Level of acculturation	0.014	0.008	1.036**	(1.015–1.057)
Family-oriented migration	0.102	0.069	0.779**	(0.648–0.937)
Total number of children	0.001	0.023	1.059	(0.994–1.128)
Family relations (ref = unobligated ambivalent)				
Tight-knit	–0.362***	0.064	2.307***	(1.944–2.738)
Detached	0.042	0.102	1.400*	(1.066–1.839)
Commanding conflicted	0.204	0.147	1.874**	(1.254–2.799)

Note: CI = Confidence interval; OR = Odds ratio.

* $p < .05$; ** $p < .01$; *** $p < .001$.

(20%–31% in Silverstein & Bengtson, 1997), Chinese rural elderly adults (23% in Guo, Chi, et al., 2012), and Taiwanese older adults (17% in Yi & Lin, 2009). Despite using different indicators of parent–adult child relations, the comparisons indicate that many Chinese immigrant families still strongly adhere to the traditional family structure and enjoy overall very positive intergenerational interactions (Guo et al., 2016).

A less common family relation types was *detached* (10.28%), characterized by a lack of connection, either positive or negative, on all the solidarity domains. In other words, these older immigrants were essentially independent of their children. The prevalence of this family type in our sample is much lower than relevant numbers on Western nonimmigrant families (24%–25% in Ferring, Michels, Boll, & Filipp, 2009; 27% in Silverstein & Bengtson, 1997; 15%–43% in Silverstein, Gans, Lowenstein, Giarrusso, & Bengtson, 2010), but higher than the number from a study on Chinese elderly adults in China (6% in Yang, Lowenstein, Jackson, & Zheng, 2013). The comparisons indicate that acculturating to Western family norms fosters more detached parent–child relationships (Rooyackers, de Valk, & Merz, 2016), an assumption that is also supported by our findings (see the following discussion on predictors of family relations). In contrary to traditional Chinese family norms of proximity, frequent contact, and support exchanges, detached family relations are characteristics of isolated extended families in the host society (Silverstein & Bengtson, 1997). The lowest level of filial expectation and filial performance of this class further indicates these families' departure from the central family norms of respect, obedience, care of older parents that are endorsed in their home country.

The relatively uncommon type *commanding conflicted* (4.84%) is another family type unreported before, characterized by the highest filial expectation, the highest upward support from children, the lowest emotional cohesion but the highest conflict. We speculate conflict may arise in these families as older immigrants hold a strictly high expectation of filial piety from children, who did provide high levels of support, but maintained a conflicted relationship with their parents. This type of family relations likely reflects intergenerational incongruence in family obligations among immigrant families and resulted conflict (Glick, 2010).

What Factors Are Associated With Each Family Relation Type?

Examining factors associated with each type of family relations helps reveal how family relations in immigrant families are shaped by individual attributes as well as immigration process. Several factors were particularly revealing in this study. First, consistent with previous research (Guo, Chi, et al., 2012; Silverstein et al., 2010; van Gaalen & Dykstra, 2006), mothers were more likely to have tight-knit relations and less likely to have detached relations. Second, family relations seem to be greatly shaped by older adults' physical health, indicating that health is an important resource of older immigrants that enables them to better negotiate the ways in which they interact with their children and to engage in a reciprocal rather than dependent relationship. Specifically, older immigrants with better health were more likely to have more harmonious and independent types of family relations (i.e., tight-knit and detached), and less likely to have ambivalent relations (i.e., unobligated ambivalent). Future research needs to better understand the

mechanism through which good physical health of older adults may promote intergenerational solidarity.

Third, the immigration and acculturation related variables were powerful predictors of all the family types. A longer stay in the United States was not only associated with a lower chance of having more traditional family relations (i.e., tight-knit), but also a higher chance of having family relations that departed from traditional family norms (i.e., unobligated ambivalent). Similarly, a higher level of acculturation was associated with an increased chance of having more a problematic type of family relations (i.e., detached), and a decreased chance of having family relations that emphasize children's filial obligations and support to parents (i.e., commanding conflicted). Reason for migration also plays a role, as older immigrants who migrated for family reasons were more likely to have unobligated ambivalent relations, likely due to their unmet filial expectation, and less likely to have detached or commanding conflicted relations, as they may rely more heavily on children for various support.

Is There an "Optimal" Family Relation Type?

The ultimate question we asked in this study was: is there a "best" or "worst" family relation type in Chinese immigrant families, measured by the psychological well-being of older adults? The answer seems to be more straightforward regarding the most "optimal" family relation types—Chinese older immigrants with tight-knit family relations had overall most favorable psychological well-being among all the groups. Another study on Chinese families in China similarly found that higher solidarity relations were associated with greater well-being and lower psychological distress (Yang et al., 2013). The findings indicate that, despite ample evidence on reduced filial expectation and filial behaviors among both Chinese older immigrants and their adult children (Hsueh et al., 2008; Li, 2011), the most traditional family structure still appears to be associated with substantial mental health benefits for Chinese older immigrants. As adult children in immigrant families often obtain better language skills and greater economic and social resources than their parents, preserving this traditional family structure may be particularly beneficial for these marginalized older adults to maintain sense of self and status (Guo et al., 2016).

In contrast, Chinese older immigrants with unobligated ambivalent family relations not only had a relatively high level of depression, but the lowest QoL. As family-oriented migration is predictive of this type of relationship (Table 5), we speculate that these older immigrants may have come to the United States through children's sponsorship, anticipating receiving support from children, but in reality, their children were unable to provide such filial support, and these older adults consequently lowered their filial expectation. Such discrepancy likely result in ambivalent feelings as well as lower psychologically well-being, particularly given that older adults with such relationship type had poorer physical

health and were more likely dependent on their children for such support (Table 5). Consistent with prior research, this finding suggests that departure from the traditional family norm of filial piety is a significant predictor for Chinese older immigrants' well-being (Guo & Stensland, 2018).

Limitations

The study has several limitations. Regarding measurement of intergenerational solidarity, due to secondary data analysis, consensual solidarity was not captured in this study. Assessing intergenerational similarities in values, attitudes and beliefs, this is a particularly meaningful aspect of parent-child relations in immigrant families and should be included in future studies on this population. The data set did not contain financial support information, another critical component of family interactions among immigrant families. Adding this information in future studies may yield an even more complete understanding of immigrant family relations. In addition, assessment of parent-child relations was based on the family as a unit, possibly overlooking diversity within the family. Future studies should further examine the mental health implications of having diverse relations with multiple children in immigrant families.

More comprehensive measures of predictors of family relations and well-being are also needed. While all the predictors of family relation were about older adults, information of children's characteristics such as health, income, or acculturation level should be considered in future studies. The measure of QoL was based on a single question measured dichotomously. Future studies need to more accurately assess this complex concept. Besides depression and QoL, measures of other physical, mental, and relational outcomes of both generations will better illustrate the influence of family processes on immigrants. Lastly, longitudinal panel studies will be most helpful in tracking changes in family relations before and after immigration in relating to immigrants' well-being.

Conclusions

This study is the first to use a large population sample to understand family dynamics and its mental health implications among American immigrant families. The study illustrates the diverse and complex ways in which Chinese older immigrants and their children are connected, showing that while a sizeable share of families still maintained the most traditional or corporate form of family relations, others face challenges on various aspects of solidarity such as lack of contact, elevated conflict, presence of ambivalent feelings, and weekend family obligations. By including culturally sensitive measures of normative solidarity (i.e., filial piety), our findings not only demonstrate its usefulness in characterizing family interactions in immigrant families, but also its critical role in explaining older immigrants' mental

health outcomes. Overall, these findings shed light on how macro-level factors such as out-migration and changing cultural norms shape micro-level family behaviors, aging experience, and individual well-being, strengthening the rigor and explanatory purview of aging and family theories that have mainly derived from literature on White nonmigrant populations.

Our findings also have some practical implications. The findings show that to better understand and serve the needs of older immigrant populations, overall family structure and function should be examined beyond individual characteristics. Validating and facilitating traditional family norms seems to be particularly important when designing interventions for this population. Overall, as the U.S. population becomes older and more diverse, it is increasingly important to understand the heterogeneity in both immigrant individuals and families and provide targeted assessment and tailored interventions to promote successful aging of the rapidly increasing population.

Funding

This work was supported by the National Institute on Aging (grant number R21AG055804).

Author contributions

M. Guo planned the study, supervised the data analysis, and wrote the paper. M. Stensland helped plan the study and contributed to writing the paper. M. Li helped with data analyses and contributed to revising the paper. X. Dong performed statistical analyses and contributed to revising the paper.

Conflict of Interest

None reported.

References

- Akaike, H. (1974). A new look at the statistical model identification. *IEEE Transactions on Automatic Control*, *19*, 716–723.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders: DSM-IV*. Washington, DC: American Psychiatric Association.
- Batalova, J. (2012). *Senior immigrants in the United States*. Washington DC: Migration Policy Institute.
- Bengtson, V. L., Giarrusso, R., Mabry, J. B., & Silverstein, M. (2002). Solidarity, conflict, and ambivalence: Complementary or competing perspectives on intergenerational relationships? *Journal of Marriage and Family*, *64*, 568–576. doi:10.1111/j.1741-3737.2002.00568.x
- Bengtson, V. L., & Roberts, R. E. L. (1991). Intergenerational solidarity in aging families: An example of formal theory construction. *Journal of Marriage and Family*, *53*, 856–870. doi:10.2307/352993
- Chiu, S., & Yu, S. (2001). An excess of culture: The myth of shared care in the Chinese community in Britain. *Ageing and Society*, *21*, 681–699. doi:10.1017/S0144686X01008339
- Collins, L. M., & Lanza, S. T. (2010). *Latent class and latent transition analysis: With applications in the social, behavioral, and health sciences*. Hoboken, NJ: Wiley.
- Connidis, I. A. (2010). *Family ties and aging* (2nd ed.). Thousand Oaks, CA: Sage.
- Diwan, S., Lee, S. E., & Sen, S. (2011). Expectations of filial obligation and their impact on preferences for future living arrangements of middle-aged and older Asian Indian immigrants. *Journal of Cross-Cultural Gerontology*, *26*, 55–69. doi:10.1007/s10823-010-9134-6
- Dong, X., Wong, E., & Simon, M. A. (2014). Study design and implementation of the PINE study. *Journal of Aging and Health*, *26*, 1085–1099. doi:10.1177/0898264314526620
- Dong, X., Zhang, M., & Simon, M. A. (2014). The expectation and perceived receipt of filial piety among Chinese older adults in the Greater Chicago area. *Journal of Aging and Health*, *26*, 1225–1247. doi:10.1177/0898264314541697
- Ferring, D., Michels, T., Boll, T., & Filipp, S. H. (2009). Emotional relationship quality of adult children with ageing parents: On solidarity, conflict and ambivalence. *European Journal of Ageing*, *6*, 253. doi:10.1007/s10433-009-0133-9
- van Gaalen, R. I., & Dykstra, P. A. (2006). Solidarity and conflict between adult children and parents: A latent class analysis. *Journal of Marriage and Family*, *68*, 947–960. doi:10.1111/j.1741-3737.2006.00306.x
- Gardner, W., Mulvey, E. P., & Shaw, E. C. (1995). Regression analyses of counts and rates: Poisson, overdispersed poisson, and negative binomial models. *Psychological Bulletin*, *118*, 392–404.
- Glick, J. E. (2010). Connecting complex processes: A decade of research on immigrant families. *Journal of Marriage and Family*, *72*, 498–515. doi:10.1111/j.1741-3737.2010.00715.x
- Gubernskaya, Z., & Tang, Z. (2017). Just like in their home country? A multinational perspective on living arrangements of older immigrants in the United States. *Demography*, *54*, 1973–1998. doi:10.1007/s13524-017-0604-0
- Guo, M., Chi, I., & Silverstein, M. (2012). The structure of intergenerational relations in rural China: A latent class analysis. *Journal of Marriage and Family*, *74*, 1114–1128. doi:10.1111/j.1741-3737.2012.01014.x
- Guo, M., Dong, X., & Tiwari, A. (2017). Family and marital conflict among Chinese older adults in the United States: The influence of personal coping resources. *The Journals of Gerontology, Series A: Biological Sciences and Medical Sciences*, *72*, S50–S55. doi:10.1093/geron/glw129
- Guo, M., Liu, J. Y., Xu, L., & Mao, W. Y. (2018). Intergenerational relationships in Chinese transnational families: A typology study. *Journal of Ethnic & Cultural Diversity in Social Work*, *27*, 366–381. doi:10.1080/15313204.2018.1520166
- Guo, M., Sabbagh Steinberg, N., Dong, X. Q., & Tiwari, A. (2018). A cross-sectional study of coping resources and mental health of Chinese older adults in the United States. *Ageing & Mental Health*, *22*, 1448–1455. doi:10.1080/13607863.2017.1364345
- Guo, M., & Stensland, M. (2018). A systematic review of correlates of depression among older Chinese and Korean immigrants in the United States: What we know and don't know. *Ageing & Mental Health*, *22*, 1535–1547. doi:10.1080/13607863.2017.1383971.

- Guo, M., Xu, L., Liu, J. Y., Mao, W. Y., & Chi, I. (2016). Parent-child relationships among older Chinese immigrants: The influence of coresidence, frequent contact, intergenerational support, and sense of children's deference. *Ageing & Society*, 36, 1459–1482. doi:10.1017/S0144686X01008339
- Hill, T. D., Angel, J. L., Balistreri, K. S., & Herrera, A. P. (2012). Immigrant status and cognitive functioning in late-life: An examination of gender variations in the healthy immigrant effect. *Social Science & Medicine* (1982), 75, 2076–2084. doi:10.1016/j.socscimed.2012.04.005
- Hogerbrugge, M. J., & Silverstein, M. D. (2015). Transitions in relationships with older parents: From middle to later years. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 70, 481–495. doi:10.1093/geronb/gbu069
- Hsueh, K. H., Hu, J., & Clarke-Ekong, S. (2008). Acculturation in filial practices among U.S. Chinese caregivers. *Qualitative Health Research*, 18, 775–785. doi:10.1177/1049732308318923
- Inglehart, R., & Baker, W. E. (2000). Modernization, cultural change, and the persistence of traditional values. *American Sociological Review*, 65, 19–51.
- Juang, L. P., Syed, M., Cookston, J. T., Wang, Y., & Kim, S. Y. (2012). Acculturation-based and everyday family conflict in Chinese American families. *New Directions for Child and Adolescent Development*, 2012, 13–34. doi:10.1002/cd.20002
- Lai, D. W. (2005). Cultural factors and preferred living arrangement of aging Chinese Canadians. *Journal of Housing for the Elderly*, 19, 71–86. doi:10.1300/J081v19n02_05
- Lan, P.-C. (2002). Subcontracting filial piety elder care in ethnic Chinese immigrant families in California. *Journal of Family Issues*, 23, 812–835. doi:10.1177/019251302236596
- Lanza, S. T., Collins, L. M., Lemmon, D. R., & Schafer, J. L. (2007). PROC LCA: A SAS procedure for latent class analysis. *Structural Equation Modeling*, 14, 671–694.
- Li, W. W. (2011). Filial piety, parental piety and community piety: Changing cultural practices of elder support among Chinese migrants' families in New Zealand. *Journal of Multicultural Society*, 2, 1–30.
- Lin, X., Bryant, C., Boldero, J., & Dow, B. (2015). Older Chinese Immigrants' relationships with their children: A literature review from a solidarity–conflict perspective. *The Gerontologist*, 55, 990–1005. doi:10.1093/geront/gnu004
- Lowenstein, A., & Katz, R. (2005). Living arrangements, family solidarity and life satisfaction of two generations of immigrants in Israel. *Ageing and Society*, 25, 749–767. doi:10.1017/S0144686X04002892
- Lüscher, K., & Hoff, A. (2013). Intergenerational ambivalence: Beyond solidarity and conflict. In I. Albert & D. Ferring (Eds.), *Intergenerational relations: European perspectives on family and society* (pp. 39–64). Bristol, UK: Policy Press.
- Marin, G., Sabogal, F., Marin, B. V., Otero-Sabogal, R., & Perez-Stable, E. J. (1987). Development of a short acculturation scale for Hispanics. *Hispanic Journal of Behavioral Sciences*, 9, 183–205.
- Mercier, J. M., Paulson, L., & Morris, E. W. (1989). Proximity as a mediating influence on the perceived aging parent-adult child relationship. *The Gerontologist*, 29, 785–791.
- Raftery, A. E. (1986). Choosing models for cross-classifications. *American Sociological Review*, 51, 145–146.
- Rooyackers, I. N., de Valk, H. A., & Merz, E. M. (2016). Mother-child relations in adulthood within and across national borders: Non-Western immigrants in the Netherlands. *Ageing and Society*, 36, 2010–2035. doi:10.1017/S0144686X15000823
- Silverstein, M., & Bengtson, V. L. (1997). Intergenerational solidarity and the structure of adult child-parent relationships in American families. *American Journal of Sociology*, 103, 429–460.
- Silverstein, M., Gans, D., Lowenstein, A., Giarrusso, R., & Bengtson, V. L. (2010). Older parent - child relationships in six developed nations: Comparisons at the intersection of affection and conflict. *Journal of Marriage and the Family*, 72, 1006–1021. doi:10.1111/j.1741-3737.2010.00745.x
- Stewart, M., Shizha, E., Makwarimba, E., Spitzer, D., Khalema, E. N., & Nsaliwa, C. D. (2011). Challenges and barriers to services for immigrant seniors in Canada: "you are among others but you feel alone". *International Journal of Migration, Health and Social Care*, 7, 16–32. doi:10.1108/17479891111176278
- Sun, K. C. Y. (2014). Reconfigured reciprocity: How aging Taiwanese immigrants transform cultural logics of elder care. *Journal of Marriage and Family*, 76, 875–889.
- Treas, J. (2008). Four myths about older adults in America's immigrant families. *Generations*, 32, 40–45.
- Tsai, D. T., & Lopez, R. A. (1998). The use of social supports by elderly Chinese immigrants. *Journal of Gerontological Social Work*, 29, 77–94. doi:10.1300/j083v29n01_06
- Wilmoth, J. M. (2001). Living arrangements among older immigrants in the United States. *The Gerontologist*, 41, 228–238. doi:10.1093/geront/41.2.228
- Wilmoth, J. M. (2012). A demographic profile of older immigrants in the United States. *Public Policy and Aging Report*, 22, 8–11.
- Wong, S. T., Yoo, G. J., & Stewart, A. L. (2006). The changing meaning of family support among older Chinese and Korean immigrants. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 61, S4–S9. doi:10.1093/geronb/61.1.S4
- Xie, X., & Xia, Y. (2011). Grandparenting in Chinese immigrant families. *Marriage & Family Review*, 47, 383–396. doi:10.1080/01494929.2011.594218
- Yang, J., Lowenstein, A., Jackson, T., & Zheng, Y. (2013). Intergenerational latent solidarity class and relationship quality among Chinese: Implications for self-reported health and well-being. *Acta Psychologica Sinica*, 45, 811–824. doi:10.3724/SP.J.1041.2013.00811
- Yi, C.-C., & Lin, J.-P. (2009). Types of relations between adult children and elderly parents in Taiwan: Mechanisms accounting for various relational types. *Journal of Comparative Family Studies*, 40, 305–324.