Typology of Family Relationship and Elder Mistreatment in a US Chinese Population

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OBJECTIVES: To examine the associations between typology of family relationship and risk of elder mistreatment (EM).

DESIGN: Population-based epidemiological cross-sectional study.

SETTING: Community-dwelling older adults in the greater Chicago area.

PARTICIPANTS: A total of 3157 US older Chinese immigrants.

MEASUREMENTS: EM was measured by a brief screening tool. Latent class analysis was used to construct typologies of family relationship from eight indicators, evaluating the structural, associational, functional, affectual, and normative aspects of family relationship. Logistic regression models were used to test the associations between typology of family relationship and EM.

RESULTS: Unobligated ambivalent type (44.77%) was the most common family type among US older Chinese immigrants. The prevalence of EM was around 15%, with 475 participants reporting experience of EM. Unobligated ambivalent (odds ratio [OR] = 1.90; 95% confidence interval [CI] = 1.54-2.34) and detached (OR = 1.78; 95% CI = 1.32-2.42) family types were associated with greater risk of EM; tight-knit (OR = .34; 95% CI = .27-.44) family type was associated with lower risk of EM. The relationship between commanding conflicted family type and EM was not significant.

CONCLUSION: Unobligated ambivalent family type, featured by high emotional closeness and high family conflict, was prevalent among US Chinese families and associated with EM consequences. Culturally customized social services are suggested to reduce intergenerational ambivalence and promote family harmony for immigrant families. **J Am Geriatr Soc 67:S493–S498, 2019.**

Key words: elder mistreatment; family relationship; intergenerational relations; latent class analysis; Chinese

The National Center of Elder Abuse defines elder mistreatment (EM) as any knowing, intended, or careless act that causes harm or serious risk of harm to an older person—physically, mentally, emotionally, or financially.[1] EM is associated with significant adverse health outcomes.[2-8] Family is the fundamental social institution in which older adults are embedded. While serving the needs of older family members, the family is also an important context for studies on EM. Older adults who receive greater assistance from family were at a higher risk of EM.[9] Many EM victims preferred to endure abusive situations to avoid direct confrontation and to preserve family harmony and face.[10,11] Because family is a critical setting where EM takes place, research to understand family dynamics and EM is important for prevention and intervention strategies of EM.

Early research on family relationship and EM often focused on one or two indicators of relations. For example, high family stress and low cohesion were found to be associated with EM.[12,13] A shared living environment was associated with higher risks of EM.[14,15] However, individuals are engaged in different dimensions of family relationship simultaneously. It is difficult to understand the associations between family relationship and EM without considering the linkage among different dimensions of relations and the underlying family structure manifested by a combination of individual dimensions. It remains unclear how multiple dimensions of family relationship would affect EM.

To address this gap, a typology approach that examines the overall patterns of multifaceted social relations/behaviors

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DOI: 10.1111/jgs.15892

0002-8614/19/$15.00

is a useful tool to understand the complex family relationship.[16] By not assuming a unitary construct from different dimensions, the typology approach is better able to capture the complexity and variation in the bundle of attributes that make up the family relationship. As a typology method, latent class analysis (LCA) is a person-centered approach that groups units of analysis (ie, family relationship in this study) based on similarities in the patterned interdependencies of the characteristics that describe them.[17] Built on the results of prior research on the typological structure of family relationships among Chinese older adults, this study examined the potential linkages between different structures of family relationships and the likelihood of older adults experiencing EM. Guided by the intergenerational solidarity paradigm,[18] we examined the combinations of solidarity components, including structural, associational, functional, emotional, and normative relations, to capture the complexity and variation of family relationship.[19]

Demographic shifts in older populations in the United States call for research and policy to deepen understanding of the aging experience of minority older adults. Chinese Americans constitute the largest segment of the Asian American population.[20] US older Chinese immigrants rely heavily on their families due to language and cultural barriers, which put them at a higher risk to experience EM.[21-23] Meanwhile, immigration and acculturation processes have profound effects on the family relationship of minority older adults.[24] In prior research using our study sample, four family types were identified: tight-knit, unobligated ambivalent, detached, and commanding conflicted.[19] Tight-knit family type is a traditional Chinese family type that highlights filial piety and social exchange between generations. Unobligated ambivalence is described as lack of traditional family norms of filial piety, together with coexistence of contradictory feelings about the relationship, featured by both high emotional closeness and high family conflict. Detached family type is characterized by low intergenerational engagement on all the domains. Commanding conflicted family type refers to predominantly upward support and high family conflicts between aging parents and adult children.

This research examines the associations between these four typologies of family relationship and EM among US older Chinese immigrants. Specifically, we tested two hypotheses: (1) Older adults in the tight-knit family type were less likely to experience EM, and (2) older adults in unobligated ambivalent, detached, and commanding conflicted family types were more likely to experience EM.

METHODS

Sample

Data were derived from the Population Study of Chinese Elderly (PINE), a community-engaged, population-based epidemiological study from 2011 to 2013 of US older Chinese immigrants 60 years and older in the greater Chicago area. Participants were self-reported as Chinese, and the baseline cohort was 3157 people, with a response rate of 91.9%.[25-27] Face-to-face home interviews were conducted by trained multicultural and multilingual interviewers. The study was approved by the institutional review board at Rush University Medical Center in Chicago, Illinois. Written informed consent was obtained from all participants.

Dependent Variable

Elder Mistreatment Screener

To screen EM, we used a 10-item instrument (score range = 0-10) modified from the Hwalek-Sengstock Elder Abuse Screening Test (H-S/EAST)[28] and the Vulnerability to Abuse Screening Scale (VASS).[29] Participants were asked whether the listed mistreatment instances have happened to them since they were 60 years old: (1) family conflicts at home, (2) felt uncomfortable with someone in the family, (3) felt that nobody wanted them around, (4) been told by someone that they gave too much trouble, (5) been afraid of someone in the family, (6) felt that someone close tried to hurt or harm them, (7) been made to stay in bed or been told they were sick when they were not, (8) been called names or put down, (9) been forced by someone to do things, and (10) had belongings taken without permission. To protect the privacy of participants and ensure the quality of EM data, the interview was conducted at the participants' homes without family members nearby. The modified scale from H-S/EAST and VASS demonstrated good reliability in our sample, with a Cronbach α of .80.

Independent Variable

Typology of Family Relationship

Our prior study used LCA to construct typologies of family relationship.[19] Indicators for LCA are commonly dichotomized to prevent problems with sparseness.[30] Eight indicators for measuring structural, associational, functional, affectual, and normative aspects of family relationship were dichotomized in the present study: (1) living arrangement (1 = living with children), (2) frequency of contact (1 = having weekly contact with children), (3) upward support (1 = children helped with activities of daily living or instrumental activities of daily living), (4) downward support (1 = taking care of grandchildren), (5) emotional closeness (1 = feeling very or extremely close to children), (6) conflict (1 = children being demanding or critical), (7) filial expectation (1 = having high filial expectation), and (8) filial receipt (1 = children provided high filial piety). The model specification and evaluation were described elsewhere.[19] Through comparing the Akaike information criterion (AIC) and the Bayesian information criterion (BIC), the four-class model was chosen, representing unobligated ambivalent, tight-knit, detached, and commanding conflicted types. We created four dichotomized variables for each family type and examined the relationships between the four typologies of family relationship and EM.

Covariates

Covariates included demographic factors, socioeconomic status, and health-related factors. Demographic factors used in the analyses were age (in years) and sex (self-reported). Economic status measures were composed of education (years of education completed) and annual personal income. Medical comorbidities were measured by a

count of diseases including heart disease, stroke, cancer, high cholesterol, diabetes, high blood pressure, fractured hip, thyroid disease, and osteoarthritis.

Data Analysis

Multivariate logistic regression models were used to test the associations between typologies of family relationship and EM. Model A was adjusted for age and sex. Education and income were added to model B. Model C added medical comorbidities to the previous model. In addition, all models (models A-C) were repeatedly using each family typology with respect to EM outcomes. Odds ratios (ORs), 95% confidence intervals (CIs), and significance levels were reported for multivariate analyses. All statistical analyses were conducted using SAS software v.9.4 (SAS Institute, Cary, NC).

RESULTS

The study sample had a mean age of 72.8 years (standard deviation [SD] = 8.3 y). More than half of the participants (57.9%) were female. Most participants (78.9%) had the equivalent or less of a high school education. Most of them (85.1%) had an annual income of less than US $10000. The two most common family types among US older Chinese immigrants are unobligated ambivalent (44.77%) and traditional tight-knit (40.11%), followed by detached (10.28%) and commanding conflicted (4.84%).[19] The prevalence of EM in our study sample was about 15%, with 475 of 3157 participants reporting experience of EM. The results of bivariate analyses showed older adults with EM and those who did not experience EM differed significantly in their likelihood of having three types of family relations: unobligated ambivalent, tight-knit, and detached. Older adults with tight-knit family relations were the least likely to report EM (7.85%), followed by those who had commanding conflicted (14.96%), unobligated ambivalent (19.51%), and detached family relations (21.79%) (Table 1). Education, medical comorbidities, and unobligated ambivalent, tight-knit, and detached typologies had significant correlations with EM (Table 2).

With respect to the relationship between typology of family relationship and EM while controlling for other covariates, unobligated ambivalent (OR = 1.90; 95% CI = 1.54-2.34) and detached (OR = 1.78; 95% CI = 1.32-2.42) family types were associated with greater risk of EM; tight-knit (OR = .34; 95% CI = .27-.44) family type was associated with lower risk of EM. The relationship between commanding conflicted family type and EM was not significant (Table 3).

Table 1. Characteristics of Participants by EM

	With EM	No EM	*P* value
Age, y, mean ± SD	72.39 ± 7.59	72.88 ± 8.41	.21
Female, n (%)	288 (15.83)	1531 (84.17)	.21
Education, y, n (%)			
0	14 (7.49)	173 (92.51)	<.001
1-6	116 (10.14)	1028 (89.86)	
7-12	163 (15.66)	878 (84.34)	
13-16	135 (24.95)	406 (75.05)	
≥17	21 (26.92)	57 (73.08)	
Income, n (%)			
$0-$4999	163 (16.27)	839 (83.73)	.02
$5000-$9999	208 (13.45)	1338 (86.55)	
$10 000-$14 999	44 (15.44)	241 (84.56)	
≥$15 000	32 (21.92)	114 (78.08)	
Medical comorbidities, mean ± SD	2.22 ± 1.46	2.03 ± 1.46	.01
Unobligated ambivalent type, n (%)	272 (19.51)	1122 (80.49)	<.001
Tight-knit type, n (%)	92 (7.85)	1080 (92.15)	<.001
Detached type, n (%)	68 (21.79)	244 (78.21)	<.001
Commanding conflicted type, n (%)	19 (14.96)	108 (85.04)	.99

DISCUSSION

Due to the demographic development of increased life expectancy, the shared life span of parents and adult children is extended. This is not only an opportunity, but also a risk for the arrangement of intergenerational relations, resulting in a series of consequences related to older adults' health and well-being. Our study is among the first to examine the relationship between typology of family relationship and EM among US older Chinese immigrants. Supporting our first hypothesis, we found that tight-knit type is a protective family type against EM for older immigrants. Partially supporting our second hypothesis, the results further showed that unobligated ambivalent and detached family types were associated with higher risks of EM.

Older immigrants in tight-knit families enjoyed close relationship with adult children and received high instrumental support from them. Caregiver burden is a significant risk factor associated with EM and mental health.[31,32] However, in tight-knit families, adult children may interpret caregiving as less burdensome due to their filial values.[33-35] An existing study showed tight-knit type was the most stable family type and less likely to change to other family types over time.[36] Future research could investigate whether tight-knit family type could prevent EM over time.

As the most common family type among US older Chinese immigrants, unobligated ambivalent is a family type unique to immigrant families. The experience of ambivalence possibly evokes stress and consequently diminishes well-being.[37] Immigrant parents and children may experience different paces of acculturation, and the cultural value discrepancies result in misunderstandings and ambivalence.[38,39] Lack of filial obligation was one of the salient characteristics of unobligated ambivalence families in our sample. The erosion of filial piety values may make older adults more susceptible to EM[40] and had negative impacts on mental health.[41] At any given point in the life course, family relationship can be in a relative state of conflict or solidarity, depending on how ambivalence has been resolved. Family-focused interventions could help resolve ambivalence in family relationships. Early research suggested using strategies such as confrontation, rationalization, and acceptance to resolve ambivalence.[37] Older family members are likely to have limited options in negotiating ambivalence. Social policy could provide more resources for them to relieve ambivalence.[42]

Detached type was an isolated family typology with adult children being less engaged with their aging parents across all dimensions of solidarity. The isolated environments put older adults in vulnerable situations. Studies consistently

Table 2. Correlation Matrix Between Study Variables

	Age	Female	Education	Income	Medical comorbidities	Unobligated ambivalent type	Tight-knit type	Detached type	Commanding conflicted type	EM
Age	1.00									
Female	−.03	1.00								
Education	−.06[a]	−.19[a]	1.00							
Income	.05[c]	.04[c]	.01	1.00						
Medical comorbidities	.24[a]	.13[a]	.05[c]	.05[c]	1.00					
Unobligated ambivalent type	−.02	−.01	.05[b]	.03	−.00	1.00				
Tight-knit type	−.01	.08[a]	−.05[b]	−.08[a]	.02	−.75[a]	1.00			
Detached type	.02	−.10[a]	.03	.07[a]	−.02	−.32[a]	−.26[a]	1.00		
Commanding conflicted type	.02	−.02	−.05[b]	.02	−.02	−.19[a]	−.16[a]	−.07[a]	1.00	
EM	−.00	.03	.16[a]	−.00	.05[b]	.12[a]	−.16[a]	.06[a]	−.01	1.00

[a]$P < .001$.
[b]$P < .01$.
[c]$P < .05$.

suggested that isolation and a lack of social support were important risk factors for EM.[2,43] One study in Chicago found that having a social network size of fewer than two persons was associated with greater risk of EM.[44] A study targeting Chinese older adults reported that being isolated from others was significantly associated with self-reported EM.[45] Home care providers are suggested to identify isolated elders, provide medical care, and arrange support.

In our sample, commanding conflicted families were characterized by high family conflicts and authoritative status of aging parents with predominantly upward support and high filial expectation. The political economic theory suggested that the changing role of older adults removes them from the workforce and reduces their independence. They are gradually marginalized in their families, thereby leading to potential for EM.[46] In contrast, the high status of older adults in commanding conflicted families may protect them against EM. Compared with detached families, commanding conflicted families kept higher level of intergenerational exchange, although sometimes negative exchange. The way of openly

Table 3. Association Between Typology of Family Relationship and EM

	EM Odds ratio (95% confidence interval)		
	Model A	**Model B**	**Model C**
Age	.99 (.98-1.01)	1.00 (.98-1.01)	.99 (.98-1.01)
Female	1.16 (.95-1.43)	1.42 (1.14-1.75)[b]	1.37 (1.10-1.70)[b]
Education		1.10 (1.08-1.12)[a]	1.10 (1.07-1.12)[a]
Income		.98 (.91-1.07)	.98 (.91-1.07)
Medical comorbidities			1.08 (1.01-1.17)[c]
Unobligated ambivalent type	1.94 (1.58-2.37)[a]	1.89 (1.53-2.33)[a]	1.90 (1.54-2.34)[a]
	Model A	**Model B**	**Model C**
Age	.99 (.98-1.00)	1.00 (.98-1.01)	.99 (.98-1.01)
Female	1.25 (1.01-1.54)[c]	1.52 (1.22-1.88)[a]	1.47 (1.18-1.83)[a]
Education		1.10 (1.08-1.13)[a]	1.10 (1.08-1.12)[a]
Income		.96 (.88-1.04)	.96 (.88-1.05)
Medical comorbidities			1.09 (1.01-1.17)[c]
Tight-knit type	.34 (.27-.44)[a]	.34 (.27-.44)[a]	.34 (.27-.44)[a]
	Model A	**Model B**	**Model C**
Age	.99 (.98-1.00)	1.00 (.98-1.01)	.99 (.98-1.01)
Female	1.20 (.98-1.48)	1.48 (1.19-1.84)[a]	1.43 (1.15-1.78)[b]
Education		1.10 (1.08-1.13)[a]	1.10 (1.08-1.12)[a]
Income		.98 (.91-1.07)	.98 (.91-1.07)
Medical comorbidities			1.08 (1.01-1.16)[c]
Detached type	1.75 (1.30-2.34)[a]	1.77 (1.31-2.40)[a]	1.78 (1.32-2.42)[a]
	Model A	**Model B**	**Model C**
Age	.99 (.98-1.00)	1.00 (.98-1.01)	.99 (.98-1.01)
Female	1.15 (.94-1.42)	1.43 (1.15-1.77)[b]	1.38 (1.11-1.71)[b]
Education		1.10 (1.08-1.13)[a]	1.10 (1.08-1.12)[a]
Income		.99 (.92-1.08)	.99 (.92-1.08)
Medical comorbidities			1.08 (1.01-1.16)[c]
Commanding conflicted type	1.02 (.62-1.67)	1.19 (.71-2.00)	1.19 (.71-1.99)

[a]$P < .001$.
[b]$P < .01$.
[c]$P < .05$.

discussing family relationship and high volume of contact with children may benefit the well-being of older adults.

These results should be interpreted with caution. First, our study examined a sample of Chinese older immigrants living in the greater Chicago area. The findings may not be generalizable to Chinese older adults in other geographic areas. Second, only a small number of participants reported EM in the commanding conflicted typology which may be an insufficient sample size to detect a statistical difference. Future research should explore the relationship between the commanding conflicted typology and EM. Third, this was a cross-sectional study, and so the direction of causality would be strengthened by a longitudinal study on family typology and incident EM. Fourth, it is unclear which subtype of EM (eg, psychological mistreatment, physical mistreatment, and financial exploitation) was influenced by family relationship. Future research should investigate the relationship between typology of family relationship and subtypes of EM. Fifth, this quantitative study provided limited information about how EM took place in unobligated ambivalence and detached family types. Future qualitative studies are needed to explore the underlying mechanism leading to EM in different family environments. Sixth, there were heterogeneities among different generations of Chinese older immigrants. Future study should test the family typologies of the first, second, and third generations, and whether the generations of older immigrants would moderate the relationship between family typology and EM.

Despite these limitations, this study has important theoretical and practical implications. Family relationship has increasingly gained importance in meeting the increasing demand for care in the aging society, a trend acknowledged by social science researchers and policymakers alike.[47] Early research on family relationships and EM focused on the dyad relationship between victim and perpetrator, whereas less is known about the influence of the family environment in which older victims are embedded on the etiology of EM. It is not only the relationship between the victim and the perpetrator, but also the relations with other family members that make older victims vulnerable and marginalized within the family. Our study advanced knowledge regarding the relations between family environment and EM in later life and identified tight-knit type as the most optimal family type for avoiding EM.

Culturally customized services are suggested for minority older immigrants. Because most minority older adults relied on family networks to meet their needs, there was potential for the burden and family conflict to grow greater and result in EM. However, service provision has lagged in meeting these needs.[48] Minority EM victims may have difficulty accessing culturally relevant services or face discriminatory treatment.[49,50] Immigrant families preserving filial obligation values would protect older adults against EM. In addition, social programs could help improve older adults' acculturation to reduce intergenerational conflicts and ambivalence, and promote harmony within immigrant families.

ACKNOWLEDGMENTS

Conflict of Interest: The authors report no conflict of interest.

Author Contributions: *Study concept and design:* Dong and Li. *Acquisition of data:* Dong. *Analysis and interpretation of data:* Dong, Li, and Guo. *Drafting of the manuscript:* Dong and Li. *Critical revision of the manuscript for important intellectual content:* Dong, Li, Guo, Stensland, and Silverstein. *Statistical analysis:* Dong and Li. *Obtained funding:* Dong. *Administrative, technical, or material support:* Dong and Li. *Study supervision:* Dong, Guo, and Silverstein.

Sponsor's Role: Dr. Dong was supported by P30AG059304 R01AG042318 R01MD006173 R01NR014846 R34MH100443.

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