Psychological Well-Being of Older Chinese-American Grandparents Caring for Grandchildren

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The rapid increase in grandparents caring for grandchildren has received growing attention, but little research has focused on Chinese-American grandparents and their caregiving experiences. Drawing on cross-sectional data from the Population Study of Chinese Elderly—a community-engaged, epidemiological study of Chinese-American adults aged 60 and older, the relationships between caregiving experiences and psychological well-being were examined. Of 2,365 older adults who answered the question about grandparent caregiving, 818 (35%) were designated as caregivers, spending an average of 12 hours a week on childcare. About one in five caregivers reported caregiving burden, pressure, or negative health effect of caregiving. Caregivers had better psychological well-being than noncaregivers, with significantly lower levels of depressive symptoms, anxiety, stress, and loneliness. For caregivers, higher levels of caregiving burden, pressure from adult children, and perceived negative effect were related to greater rates of psychological distress. With a strong cultural expectation of family care, grandparent caregiving is generally associated with positive psychological well-being, but it can also be stressful, especially when older adults feel pressured to provide childcare or that doing so is a burden. The study implies that cultural values and life transitions may shape grandparent caregiving experiences and well-being, indicating the importance of respecting cultural differences in family caregiving. Understanding positive and negative aspects of grandparent caregiving and the underlying mechanisms will help healthcare professionals identify caregivers at risk of psychological distress and provide proper interventions to attenuate negative outcomes while maximizing positive experiences for Chinese-American older adults. **J Am Geriatr Soc 64:2356–2361, 2016.**

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DOI: 10.1111/jgs.14455

Key words: grandparent caregiver; psychological well-being; older Chinese Americans; PINE

The rapid increase in grandparents caring for grandchildren has received growing attention in research, policy, and practice since the 1990s,[1] but little research has focused on Chinese-American grandparents and their caregiving experiences. With a strong cultural expectation of grandparent caregiving, many Chinese older adults have immigrated to meet their adult children's need for childcare assistance,[2] but migration leads to the erosion of traditional culture and intergenerational value differences, which may further complicate caregiving experience.[3] Chinese grandparents are expected to engage in co-parenting and to care for grandchildren extensively;[4,5] meanwhile, they face various practical challenges, including cultural adaptation, language barriers, and financial and housing difficulty.[6] As a result, they may experience positive and negative health outcomes related to childcare, as documented in the literature,[5,6] yet the pathways to health outcomes may differ according to racial or ethnic group. Using the first population-based epidemiological study of older Chinese Americans, this study examines the mechanisms of the associations between caregiving experiences and psychological well-being. Findings will help healthcare professionals identify caregivers at risk of psychological distress and provide proper interventions to attenuate negative outcomes while maximizing positive experience in Chinese-American older adults.

Probably because of cultural expectations, Chinese grandparents may consider caring for grandchildren not as a burden but as part of parenthood or family obligation.[1,6] Childcare that grandparents provide is viewed as a family adaptive strategy to enhance family well-being by alleviating the mother's burden and increasing education and employment opportunities, because caregiving is assumed or considered to be a women's role in Chinese families.[7] Assistance with childcare is frequently cited as the main reason for immigration for Chinese older adults,[8] who are valuable resources to their adult children in the United

0002-8614/16/$15.00

States and contribute to the family as caregivers.[2] If grandparents are satisfied with the caregiver role after immigration, they are more likely to perceive better health than those who are dissatisfied with the role, as shown in a study of Filipino-American grandparents.[9] Studies in the United States and Hong Kong indicate that Chinese grandparents feel appreciated and loved and are less depressed when they feel that grandparental caregiving can enhance familial relationships.[10,11] For grandparents in Taiwan, long-term multigenerational caregiving is related to better self-rated health and mobility.[12]

Caregiving is also associated with negative health outcomes. The incidence of depression, diabetes mellitus, hypertension, and insomnia is high in grandparent caregivers, as documented in Western literatue.[13] Particularly for older Chinese grandparents, caregiving may exacerbate immigration-related stresses, increasing the risk of social isolation and intergenerational conflict.[10] According to the role strain theory, grandparents who provide extensive care may experience role strain and associated effects on employment, self-care, or relationships with their spouse or others.[14] Consequently, the high level of caregiving stress may negatively affect grandparents' mental and physical health,[14] yet social support from family networks may mitigate the negative health effects of caregiving, as postulated according to the stress-buffering model.[15] The parents of the children may be a source of support, conflict and burden, or both.[16] Support from adult children may buffer the negative effects of role strain, whereas pressure from them may increase caregiving stress.

According to the Bureau of the Census, the older Chinese-American population increased almost four times as rapidly as the U.S. general older population from 2000 to 2010, with a large share of foreign-born and recent immigrants.[17] They have been actively involved in assisting their adult children in raising the next generation. By contrast, grandparent caregiving in other racial and ethnic groups is usually the result of a crisis situation that impairs the ability of the parents to care for their children adequately.[18] Older Chinese Americans may experience struggles with cultural values and conflicts with family members that further exacerbate childcare burden and the associated psychological distress. To understand how different aspects of caregiving experiences are related to psychological well-being in older Chinese Americans, it was hypothesized that caregiving burden, pressure, and perceived negative effect would be found to be related to caregiver psychological well-being, and the mechanisms through which caregiving affect well-being were examined. The study illustrates the importance of childcare in grandparents' lives and the potential negative aspects of caregiving and provides information on how to maximize caregiving benefits and minimize the drawbacks through interventions from healthcare professionals.

METHODS

Sample

Data from the Population-based Study of Chinese Elderly (PINE), a community-engaged, epidemiological study of Chinese Americans aged 60 and older were used. PINE was conducted between 2011 and 2013 in the greater Chicago area. Under the guidance of a community-based participatory research approach, the Rush Institute for Healthy Aging, Northwestern University Medical Center, and many community-based social services agencies and organizations implemented the study. To enhance community participation and ensure study relevance, the research team applied culturally and linguistically appropriate community recruitment strategies, including engaging community-based agencies; integrating recruitment with routine services; recruiting through family members, neighbors, and various social media; and involving family members in participation decision-making. After participants provided consent, trained bilingual research assistants conducted face-to-face interviews in participants' preferred language or dialect.[3] The institutional review board of the Rush University Medical Center approved the study.

Of 3,542 eligible adults approached, 3,159 participated in the study (92%). According to the U.S. 2010 Census and a random block census project, PINE was representative of the older Chinese population in the greater Chicago area.[3] Approximately 94% of these individuals were born in China; the majority lived in ethnic enclaves where Chinese was the main language, and 99% chose to conduct the interview in Chinese. Respondents who answered the question about grandparent caregiving (N = 2,365) we selected for the current study to test the differences between caregivers and noncaregivers, and the caregivers (n = 818) were selected to assess the pathways that might lead to negative psychological well-being.

Measures

Dependent psychological well-being variables included depressive symptoms, anxiety, stress, and loneliness. Independent variables included grandparent caregiver status for all respondents and caregiving time, burden, pressure, and perceived negative effect in caregivers.

Dependent Variables

Depressive Symptoms

Participants completed the Patient Health Questionnaire-9 (PHQ-9), which is appropriate for screening late-life depression.[19] The PHQ-9 asks about the somatic domains that are common in older Asian adults with depressive symptoms.[20] Respondents were asked how often they had had feelings such as little interest in doing things and feeling tired during the past 2 weeks. Responses were scaled from 0 (not at all) to 3 (nearly every day). A summary score were used, with higher scores indicating more symptoms (Cronbach $\alpha = 0.82$).

Anxiety

The Hospital Anxiety and Depression Scale—Anxiety (HADS-A),[21] which has been tested in Chinese populations and has shown good interrater reliability, was used.[22,23] Respondents were asked whether they had experienced symptoms such as feeling tense or wound up. Responses were scaled from 0 (not at all) to 3 (most of the time). A

summary score was used, with higher scores indicating greater anxiety (Cronbach $\alpha = 0.80$).

Stress

The 10-item version of the Perceived Stress Scale (PSS), a valid and reliable instrument designed to measure the degree to which one's life situations are appraised as stressful, was used.[24] The PSS asks about feelings and thoughts during the last month, particularly how unpredictable, uncontrollable, and overloaded respondents find their lives to be and current levels of experienced stress.[24] Responses were scaled from 0 (never) to 4 (very often). A summary score was used, with higher scores indicating higher levels of stress (Cronbach $\alpha = 0.86$).

Loneliness

Loneliness was assessed using the three-item R-UCLA Loneliness Scale, with good reliability and internal validity in the general population.[25] Three questions asked about feelings of lacking companionship, being left out of life, and being isolated from others. Response categories were coded 1 (hardly ever), 2 (sometime), or 3 (often). A summary score was used, with higher scores indicating higher levels of loneliness (Cronbach $\alpha = 0.77$).

Independent Variables

Respondents were considered to be caregivers if they reported any caregiving hours greater than 0 and noncaregivers if they reported 0 hours. Caregiving time was measured according to self-reported weekly hours that respondents spent caring for grandchildren. Caregiving pressure was measured according to the response to the question "How often do you feel pressured by your sons or daughters to take care of their children?" Responses ranged from 0 (never) to 4 (always). Caregiving burden was measured as the respondent's feeling of burden in taking care of grandchildren, with responses ranging from 0 (never) to 4 (always). Perceived negative effect was the thought that caring for grandchildren negatively affected health, with responses ranging rom 0 (never) to 4 (always).

Sociodemographic characteristics and social support were controlled for in the regression analyses. Sociodemographic characteristics included age, sex, years of education, personal income (1 = <$5,000 to 10 = ≥$45,000), marital status (married or not), number of children alive, number of grandchildren, years living in the United States, and self-rated health (1 = poor to 4 = very good). Social support was assessed according to the frequency of receiving support from a spouse, family members, and friends, including positive support and negative strain. Positive support was measured according to the extent to which respondents opened up to family or friends and frequency of relying on them for help. Negative strain was measured according to how often respondents believed that too much was demanded and that they had been criticized. Responses ranged from 1 (hardly ever) to 3 (often). Positive support and negative strain were calculated as the sum of the six items in each category. Higher scores indicated greater positive support (Cronbach $\alpha = 0.73$) and more negative strain (Cronbach $\alpha = 0.63$).

Data Analysis

Bivariate analyses, including independent *t*-tests, Wilcoxon signed-rank tests, and chi-square tests, were used to compare the psychological well-being and sociodemographic characteristics of caregivers and noncaregivers. Then negative binominal regression models were used to test the relationships between caregiving experiences and psychological well-being, because four dependent variables were all discretely distributed, with a large proportion reporting 0 and only a few cases reaching critical thresholds for psychological disorders (e.g., major depression). In this case, a continuous version of a negative binomial model is appropriate to improve the model fit to the data and account for overdispersion.[26]

Model results were reported as incidence rate ratios (IRR), which indicate change in the incident rate of the outcome variable per unit change in the independent variable, controlling for covariates. Five independent variables (caregiver status (caregivers being the reference group), caregiving time, pressure, burden, and perceived negative effect) were entered and estimated in the models after controlling for sociodemographic and social support covariates. Statistical analyses were conducted using SAS version 9.2 (SAS Institute, Inc., Cary, NC).

RESULTS

Of 2,365 respondents who answered the question about grandparent caregiving, 35% ($n = 818$) were designated as caregivers, spending a weekly average of 12 hours on childcare. More than 80% reported no burden in caring for grandchildren, never felt pressured by adult children, and perceived no negative effect (Table 1). Caregivers had better psychological well-being than noncaregivers, with significantly lower levels of depressive symptoms, anxiety, stress, and loneliness. Caregivers reported higher levels of positive support and negative strain, probably because they received not only more support, but also more demands from their families. Caregivers were more likely to be younger and married and have less personal income and better self-rated health. They had fewer children and grandchildren but more members living in the household, with fewer years living in the United States than noncaregivers. No sex or education differences were observed.

In four negative binominal regression models, five measures of grandparent caregiving experiences (caregiver status, caregiving time, burden, pressure, perceived negative effect) were regressed on one of psychological well-being measures. Results showed that noncaregivers were 40% more likely to have depressive symptoms, 20% more likely to feel anxious, 10% more likely to have stress, and 60% more likely to feel lonely than caregivers (Table 2). Generally, caregiving time was not associated with well-being except for a tiny but statistically significant relationship with stress. Caregiving pressure was associated with depressive symptoms, anxiety, and stress but not with loneliness. In particular, a one-unit increase in caregiving pressure was associated with approximately 40% greater rates of depressive symptoms, anxiety, and stress after controlling for sociodemographic characteristics and social support. Caregiving burden was associated with

approximately 10% greater rates in all outcomes. A one-unit increase in perceived negative effect was related to a 50% greater rate of depressive symptoms, a 30% greater rate of stress, and a 70% greater rate of loneliness.

DISCUSSION

The study contributes to the limited research on grandparent caregiving of Chinese Americans. Cultural backgrounds and traditions shape expectations and values about grandparent caregiving and therefore shape grandparent well-being.[27] In addition, immigration has immense influence on family dynamics and interactions.[28] Unlike other ethnic groups, especially those in Western countries, Chinese grandparents provide childcare to help adult children balance work and childrearing, rather than to solve problems for them such as substance use disorders, mental health problems, and incarceration.[18] This may explain why the majority of grandparents reported no burden. For Chinese grandparents, caregiving is a family obligation that enhances family solidarity and may ensure future support in old age.[5] Some immigrant families send their children back to China for the grandparents to rear. With a strong cultural expectation, caregiving in general is related to positive psychological well-being, probably because involvement in the lives of their adult children and grandchildren, helping adult children who struggle to balance work and childrearing, providing instrumental support, and transferring knowledge to younger generations provides feelings of fulfillment and satisfaction.[27] In addition, caregiving usually occurs in a multigenerational household, increasing opportunities for family connections and favorable psychological outcomes.[28]

Nevertheless, caregiving is not always rewarding, and some grandparent caregivers are likely to experience stress.[3] The current study shows that individuals with

Table 1. Sample Descriptive and Comparisons of Grandparent Noncaregivers and Caregivers

Variable	Total Sample	Caregivers, n = 818	Noncaregivers, n = 1,547	*P*-Value
Psychological well-being, mean ± SD				
Depressive symptoms (range 0–27)[a]	2.7 ± 4.1	1.9 ± 3.1	3.1 ± 4.5	<.001
Anxiety (range 0–21)[b]	2.7 ± 3.3	2.2 ± 2.8	2.8 ± 3.5	<.001
Stress (range 0–39)[c]	10.1 ± 6.6	8.9 ± 5.9	10.9 ± 6.7	<.001
Loneliness (range 0–6)[d]	0.6 ± 1.2	0.4 ± 0.8	0.7 ± 1.3	<.001
Sociodemographic				
Age, mean ± SD (range 59–105)	72.8 ± 8.3	69.4 ± 6.3	75.0 ± 8.4	<.001
Female, n (%)	1,830 (58.0)	474 (58.0)	920 (59.5)	.51
Education, years, mean ± SD (range 0–26)	8.7 ± 5.1	8.6 ± 4.7	8.5 ± 5.2	.84
Income, mean ± SD (range 1–10)	1.9 ± 1.1	1.8 ± 1.0	1.9 ± 1.1	<.001
Married, n (%)	2,236 (71.3)	665 (81.3)	1,035 (66.9)	<.001
Number of children alive, mean ± SD (range 0–12)	2.9 ± 1.5	2.8 ± 1.2	3.1 ± 1.6	<.001
Number of grandchildren, mean ± SD (range 0–15)	4.5 ± 3.5	4.6 ± 2.7	5.2 ± 3.6	<.001
Number of household members, mean ± SD (range 0–10)	1.9 ± 1.9	3.0 ± 2.2	1.5 ± 1.7	<.001
Years in the United States, mean ± SD (range 0–90)	20.0 ± 13.2	16.5 (11.3)	21.2 ± 13.7	<.001
Self-rated health, n (%)				
Very good	87 (3.7)	27 (3.3)	60 (3.9)	<.01
Good	832 (35.2)	313 (38.3)	519 (33.6)	
Fair	966 (40.9)	347 (42.4)	619 (40.0)	
Poor	480 (20.3)	131 (16.0)	349 (22.6)	
Positive social support, mean ± SD (range 6–18)	13.9 ± 3.0	12.8 ± 3.5	11.3 ± 3.8	<.001
Negative social support, mean ± SD (range 2–18)	14.7 ± 3.6	15.3 ± 3.2	14.4 ± 3.7	<.001
Caregiver experience				
Caregiving time, mean ± SD (range 0–168)		11.9 ± 24.9		
Caregiving burden, n (%)				
Never		664 (81.1)		
Little		58 (7.1)		
Sometimes, often, always		96 (11.8)		
Caregiving pressure, n (%)				
Never		691 (84.5)		
Little		60 (7.3)		
Sometimes, often, always		67 (8.2)		
Perceived negative effect, n (%)				
Never		657 (80.3)		
Little		76 (9.3)		
Sometimes, often, always		85 (10.4)		

Sample sizes varied from 2,145 to 3,157 because of inapplicable question or missing values.

[a]Depression: 0–9 minor, 15–19 moderate, 20–17 severe.

[b]Anxiety: 0–7 normal, 8–10 mild, 11–14 moderate, 15–21 severe.

[c]Stress: 0–13 normal, 14–19 medium, 20–39 high.

[d]Loneliness: 3–6 moderate to severe.

SD = standard deviation.

Table 2. Negative Binomial Regression Analyses of Grandparent Caregiving and Psychological Well-Being

Variable	Incident Rate Ratio (95% Confidence Interval) *P*-Value			
	Depressive Symptoms	Anxiety	Stress	Loneliness
Noncaregiver	1.4 (1.2–1.6) <.001	1.2 (1.1–1.4) <.001	1.1 (1.1–1.2) <.001	1.6 (13–2.0) <.001
Caregiving time	1.0 (0.9–1.0) .16	1.0 (1.0–1.0) .48	1.0 (1.0–1.0) .05	1.0 (1.0–1.0) .95
Caregiving pressure	1.4 (1.1–1.9) .02	1.4 (1.1–1.9) .004	1.4 (1.2–1.6) <.001	1.4 (0.8–2.2) .22
Caregiving burden	1.1 (1.0–1.1) .02	1.1 (1.0–1.1) .01	1.1 (1.0–1.1) <.001	1.1 (1.0–1.2) .01
Perceived negative effect	1.5 (1.2–2.0) .002	1.3 (1.0–1.6) .06	1.3 (1.2–1.5) <.001	1.7 (1.1–2.7).02

Regression analyses controlled for age, sex, education, income, marital status, number of children alive, number of grandchildren, years living in the United States, self-rated health, positive support, negative strain.

negative experiences are vulnerable to psychological distress. When caregiving is not a choice, and older adults have to take care of their grandchildren under pressure from adult children, they tend to have negative feelings about caregiving. Caring for small children is a demanding job, and many older immigrants take on a full-time responsibility as involved grandparents, a practice that is not common in Western culture.[2] It is a burden and may have negative effects on grandparents' health. Furthermore, some must quit their jobs in China to help their adult children raise their grandchildren.[2] The loss of their primary community and sacrifice of self-interest may lead to mental health problems, which further aggravate caregiving stress.

Despite similar findings having been documented in the literature on the relationship between caregiving and well-being, this study explored the unique pathways to psychological distress in Chinese Americans due to cultural norms, immigration, and family structure. In particular, caregiving pressure from adult children may intensify problems with family relationships and intergenerational conflict. Although exchange of instrumental assistance in the form of grandparent caregiving is expected in many Chinese families, having too many care demands and tasks can be detrimental to the well-being of older grandparents. The study findings indicate the importance of balancing reciprocal assistance and the central role of family relationships in maintaining Chinese older adults' well-being. They also show that positive social support plays an important role in addressing caregiving distress, whereas negative strain from families and friends may increase depressive symptoms and loneliness.

In clinical practice, understanding the cultural norms of grandparent caregiving and the underlying pathways to negative health outcomes (family conflict, pressure from adult children) is important so that healthcare professionals can identify caregivers at risk of psychological distress and provide proper interventions to attenuate negative outcomes while maximizing positive experiences. A family-centered perspective is often useful when working with Chinese older adults, and culturally specific and relevant care is needed to improve adaptive skills and family relationships.

This study is limited in generalizability. Although the study sample is representative of Chinese-American older adults in a large metropolitan area, the findings are limited in generalizability nationally or internationally. In addition, the cross-sectional design definitely cannot establish the causal relationship between caregiving and psychological well-being. A reciprocal relationship could exist; that is, older adults with better mental and physical health are likely to care for their grandchildren, which in turn helps maintain or improve their well-being. Other factors such as physical and cognitive function, health behaviors, and social networks may be related to psychological well-being in noncaregivers. Future research is needed to evaluate the directionality of the longitudinal relationship between mental health and caregiving experiences after controlling for confounding factors. Another limitation is the lack of relevant information in defining caregiving. Caregiver status was defined based on weekly hours of childcare but did not distinguish between coparenting caregivers and custodial caregivers or between secondary and primary caregivers. Also missing is the length of caregiving; types of caring responsibilities, such as basic needs, personal care, medical care, and financial responsibility; and the number and characteristics of grandchildren being cared for.

In conclusion, grandchild care could be a burden, a blessing, or both, depending partly on older adults' self-appraisal of their caregiving experience and partly on how they are treated in the family and in the community. Informal support systems and formal social and healthcare services are central to helping older grandparents maintain or regain their psychological well-being in the face of caregiving challenges.

ACKNOWLEDGMENTS

Conflict of Interest: The authors report no conflict of interest. Dr. Dong was supported by National Institute on Aging Grants R01AG042318, R01MD006173, R01CA163830, R34MH100443, R34MH100393, and RC4AG039085; a Paul B. Beeson Award in Aging; the Starr Foundation; the American Federation for Aging Research; the John A. Hartford Foundation; and the Atlantic Philanthropies.

Author Contributions: All authors contributed to this paper.

Sponsor's Role: None.

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