

Psychosocial Health of the Sandwiched Chinese Grandparents

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Abstract: Grandparents have become an important source of grandchild care in both developed and developing countries. Previous research has examined the health implications for grandparents care for grandchildren. Due to increased life expectancy and decreased child mortality, extended Chinese families that comprise four generations, co-residential or not, are no longer rare. This study aims to examine the psychosocial health of the sandwiched Chinese grandparents who care for grandchildren, great-grandparents, or both. Drawing on data from three waves of the China Health and Retirement Longitudinal Study, this study will estimate individual fixed-effects models of the association between Chinese grandparents' intergenerational caregiving and their psychosocial health, measured by life satisfaction and depressive symptoms.

Keywords: China, grandparents, grandchildren, great-grandparents, psychosocial health

Introduction

Grandparents play a pivotal role in providing grandchild care, although the associated cultural values and family norms vary from one society to another. For example, American grandparents often value their independent living and social activities and are accustomed to provide supplementary assistance in caring for grandchildren (Cherlin & Furstenberg, 1992; Jendrek, 1993; Neugarten & Weinstein, 1964; Pruchno, 1999). They are not culturally expected to assume full-time, custodial responsibility for grandchildren care unless adult children are experience crises such as divorce, poverty, substance abuse, mental health problems, or incarceration (Burnette, Sun, & Sun, 2013; Goodman & Silverstein, 2001, 2002; Minkler, 1999). In contrast, traditional family norms in East Asia highly value multigenerational co-residence as an ideal living arrangement that promotes filial piety, family solidarity and collective family interests over individual interests. Multigenerational co-residence, as well as the 'networked' living arrangement – living apart but in close proximity (Logan, Bian, & Bian, 1998), allows grandparents to be involved in grandchildren care on a daily basis without claiming custodial responsibility (Chen, Short, & Entwisle, 2000; Short, Zhai, Xu, & Yang, 2001). These norms are validated by Chinese tradition and the philosophy of Confucianism which emphasizes the importance of family harmony.

As the average life expectancy in China increased from 66.3 to 72.4 years in men and from 69.3 to 77.4 years in women between 1981 and 2010 and the infant mortality rate dropped from 32.9 per 1,000 live births in 1990 to 13.9 in 2010 (National Bureau of Statistics of China, 2012), extended families that comprise four generations, co-residential or not, are no longer rare. Using data from the 2011

China Health and Retirement Longitudinal Study (CHARLS), a recent study estimated that nearly 29% of the sampled middle-age or older Chinese adults were grandparents in lineages that comprised four generations with at least one grandchild under the age of 16 and at least one living great-grandparent (H. Xu, 2018).

Despite the growing research attention to grandparenting against the backdrop of global population aging, most studies are restricted to the patterns and consequences of grandparents who provide care to grandchildren. For example, recent research in China, Hong Kong, and Taiwan found health advantages for grandparents who provide occasional, extensive, or even custodial care to grandchildren. Relative to non-caregivers, caregiving Chinese grandparents experience reduced depressive symptoms (Cong & Silverstein, 2008; Silverstein, Cong, & Li, 2006; Tsai, Motamed, & Rougemont, 2013), better self-rated health (Ku et al., 2013), greater life satisfaction (Ku et al., 2013; Silverstein et al., 2006; L. Xu, Wu, Chi, & Hsiao, 2012), and fewer functional health limitations (Guo, Pickard, & Huang, 2008), although some studies reported negative or absence of health effects (Chen & Liu, 2011; Lo & Liu, 2009; Lou, 2011).

Building upon this literature, this study aims to examine the psychosocial health of the sandwiched Chinese grandparents who care for grandchildren, great-grandparents, or both. There are multiple pathways through which caring for grandchildren and great-grandparents may be detrimental to grandparents' health. For example, intergenerational caregiving can be physically demanding for grandparents who themselves are experiencing normal, age-related health decline (Jendrek, 1993). Providing intergenerational care may limit grandparents' time and opportunities for participation in leisure and recreational activities (Jendrek, 1993), social engagement (Minkler, 1999; Pruchno, 1999), self-care, and seeking medical care (Baker & Silverstein, 2008; Minkler, Roe, & Price, 1992), all of which undermine their health status.

However, providing intergenerational care may also have positive health impacts. For example, caring for grandchildren and great-grandparents is one strategy for grandparents to stay active at older ages (Hilbrand, Coall, Meyer, Gerstorff, & Hertwig, 2017). Such caregiving behavior can provide health benefits to grandparents through a psychosocial pathway. The literature on grandchild care has suggested that grandparent caregivers enjoy enhanced senses of self-efficacy and self-esteem, a stronger feeling of self-worth, a new purpose of life in later life, and more intimate ties within extended families, all of which contribute positively to their subjective well-being and psychological health (Emick & Hayslip Jr., 1999; Goodman & Silverstein, 2002; Guo et al., 2008; Lou, 2011; Mahne & Huxhold, 2015). The boost in psychological well-being may translate into better physical health (Di Gessa, Glaser, & Tinker, 2016; Ku et al., 2013) and increased longevity (Hilbrand et al., 2017) for grandparent caregivers, compared with non-caregivers. It is an empirical question as to whether or not the health benefits of intergenerational caregiving outweigh its health damages for Chinese grandparents.

This study contributes to the growing literature on grandparents' caregiving in developing countries in several ways. First, it situates grandparenthood and caregiving in a new context in which aging grandparents are involved in caregiving

for their elderly parents in addition to their grandchildren. Such dual burdens of caregiving are likely to increase at the population level as life expectancy and health status of older adults continues to improve. Second, unlike most previous studies of Chinese grandparents that rely on regional, non-representative samples, this study draws on publicly available data from a nationally representative longitudinal survey, making the findings more generalizable, transparent, and replicable. Third, the longitudinal data allows me to better control for unobserved individual heterogeneity and address the problem of self-selection bias.

Research Plan

Data Source

This study will draw on data from the 2011 baseline, 2013 follow-up, and 2015 follow-up surveys of the China Health and Retirement Longitudinal Study (CHARLS), a nationally representative longitudinal survey of adults aged 45 and older and their spouses, if available. CHARLS sampled 17,708 residents from 150 counties across 28 provinces in China, with a response rate of 80.5%, in 2011.

Outcome Measures

The psychosocial health outcomes will be captured by two continuous variables: life satisfaction and depressive symptoms. Life satisfaction is derived from the survey question: "Please think about your life-as-a-whole. How satisfied are you with it?" The responses were recorded on a 5-point Likert scale and ranged from "not at all satisfied" (=1) to "completely satisfied" (=5). This measure reflects the cognitive dimension of general satisfaction with life (Boey, 1999) and has been used as an indicator of subjective well-being in both young and old Chinese adults (Appleton & Song, 2008; Ren & Treiman, 2015; Zhou & Xie, 2015). Depressive symptoms were measured by the 10-item Center for Epidemiologic Studies Depression Scale (CESD-10) and used in prior studies of CHARLS data (Li, Liu, Xu, & Zhang, 2016; Li, Liu, Zhang, & Xu, 2015). The sum of the CESD-10 scores ranges from 0 to 30, with higher values indicating more depressive symptoms.

Independent Variables

The key predictor in this study is Chinese grandparents' participation in intergenerational caregiving. In my recent study (H. Xu, 2018), I used grandparents' self-reported family caregiving in the past year, which consists of four categories: giving care to one or more grandchildren (under age 16) only, giving care to one or more great-grandparents (including in-laws) only, giving care to at least one grandchild and one great-grandparent, and no care given to grandchild or great-grandparent. In this project, I will further infer the intensity of intergenerational caregiving from living arrangement. For example, a caregiving grandparent will be considered as providing **casual care** to a grandchild (or great-grandparent) if they do not live together. A caregiving grandparent will be considered as providing **intensive care** to grandchild (or great-grandparent) if they live together and adult children are also co-resident, under the assumption that the adult children are sharing the burden of intergenerational caregiving. Lastly, a caregiving grandparent will be considered

as providing **custodial care** to grandchild (or great-grandparent) if they live together but with no co-resident adult children.

I will control for demographic and socioeconomic confounders such as respondents' age, gender, marital status, number of siblings, number of children, educational attainment, household income, and rural-urban residence.

Statistical Analysis

With repeated measures in 2011, 2013, and 2015, I will estimate individual fixed-effects models of life satisfaction and depressive symptoms. Longitudinal weights will be applied. These are calculated as the baseline weights multiplied by an inverse probability weighting factor, which was constructed from a logit regression of whether a respondent participates in the second wave conditional on the participation in the baseline (China Center for Economic Research, 2015). These weights are designed to adjust for individual non-response and longitudinal attrition.

References

- Appleton, S., & Song, L. (2008). Life Satisfaction in Urban China: Components and Determinants. *World Development*, 36(11), 2325-2340. doi: <http://dx.doi.org/10.1016/j.worlddev.2008.04.009>
- Baker, L. A., & Silverstein, M. (2008). Preventive Health Behaviors Among Grandmothers Raising Grandchildren. *The Journals of Gerontology: Series B*, 63(5), S304-S311. doi: 10.1093/geronb/63.5.S304
- Boey, K. W. (1999). Cross-validation of a short form of the CES-D in Chinese elderly. *International Journal of Geriatric Psychiatry*, 14(8), 608-617. doi: 10.1002/(sici)1099-1166(199908)14:8<608::aid-gps991>3.0.co;2-z
- Burnette, D., Sun, J., & Sun, F. (2013). A Comparative Review of Grandparent Care of Children in the U.S. and China. *Ageing International*, 38(1), 43-57. doi: 10.1007/s12126-012-9174-z
- Chen, F., & Liu, G. (2011). The Health Implications of Grandparents Caring for Grandchildren in China. *The Journals of Gerontology: Psychological Sciences and Social Sciences*. doi: 10.1093/geronb/gbr132
- Chen, F., Short, S. E., & Entwisle, B. (2000). The Impact of Grandparental Proximity on Maternal Childcare in China. *Population Research and Policy Review*, 19(6), 571-590.
- Cherlin, A. J., & Furstenberg, F. F., Jr. (1992). *The New American Grandparent: A Place in the Family, A Life Apart*. New York: Harvard University Press.
- China Center for Economic Research. (2015). China Health and Retirement Longitudinal Study Followup 2013 Release Note. Beijing: Peking University.
- Cong, Z., & Silverstein, M. (2008). Intergenerational Time-for-Money Exchanges in Rural China: Does Reciprocity Reduce Depressive Symptoms of Older Grandparents? *Research in Human Development*, 5(1), 6-25. doi: 10.1080/15427600701853749
- Di Gessa, G., Glaser, K., & Tinker, A. (2016). The Impact of Caring for Grandchildren on the Health of Grandparents in Europe: A Lifecourse Approach. *Social Science & Medicine*, 152, 166-175. doi: <http://dx.doi.org/10.1016/j.socscimed.2016.01.041>
- Emick, M., A., & Hayslip Jr., B. (1999). Custodial Grandparenting: Stresses, Coping Skills, and Relationships with Grandchildren. *The International Journal of Aging and Human Development*, 48(1), 35-61. doi: 10.2190/1fh2-ahwt-1q3j-pc1k
- Goodman, C. C., & Silverstein, M. (2001). Grandmothers Who Parent Their Grandchildren: An Exploratory Study of Close Relations Across Three Generations. *Journal of Family Issues*, 22(5), 557-578. doi: 10.1177/019251301022005002
- Goodman, C. C., & Silverstein, M. (2002). Grandmothers raising grandchildren: Family structure and well-being in culturally diverse families. *The Gerontologist*, 42(5), 676-689. doi: 10.1093/geront/42.5.676
- Guo, B., Pickard, J., & Huang, J. (2008). A Cultural Perspective on Health Outcomes of Caregiving Grandparents. *Journal of Intergenerational Relationships*, 5(4), 25-40. doi: 10.1300/J194v05n04_03
- Hilbrand, S., Coall, D. A., Meyer, A. H., Gerstorf, D., & Hertwig, R. (2017). A prospective study of associations among helping, health, and longevity. *Social Science & Medicine*, 187, 109-117. doi: <http://dx.doi.org/10.1016/j.socscimed.2017.06.035>

- Jendrek, M. P. (1993). Grandparents Who Parent Their Grandchildren: Effects on Lifestyle. *Journal of Marriage and Family*, 55(3), 609-621. doi: 10.2307/353342
- Ku, L.-J. E., Stearns, S. C., Van Houtven, C. H., Lee, S.-Y. D., Dilworth-Anderson, P., & Konrad, T. R. (2013). Impact of Caring for Grandchildren on the Health of Grandparents in Taiwan. *The Journals of Gerontology: Series B*, 68(6), 1009-1021. doi: 10.1093/geronb/gbt090
- Li, L. W., Liu, J., Xu, H., & Zhang, Z. (2016). Understanding Rural–Urban Differences in Depressive Symptoms Among Older Adults in China. *Journal of Aging and Health*, 28(2), 341-362. doi: 10.1177/0898264315591003
- Li, L. W., Liu, J., Zhang, Z., & Xu, H. (2015). Late-Life Depression in Rural China: Do Village Infrastructure and Availability of Community Resources Matter? *International Journal of Geriatric Psychiatry*, 30(7), 729-736. doi: 10.1002/gps.4217
- Lo, M., & Liu, Y.-H. (2009). Quality of life among older grandparent caregivers: a pilot study. *Journal of Advanced Nursing*, 65(7), 1475-1484. doi: 10.1111/j.1365-2648.2009.05000.x
- Logan, J. R., Bian, F., & Bian, Y. (1998). Tradition and Change in the Urban Chinese Family: The Case of Living Arrangements. *Social Forces*, 76(3), 851-882. doi: 10.2307/3005696
- Lou, V. W. Q. (2011). Life Satisfaction of Chinese Grandmothers: The Impact of Grandparenting Role Changes. *Journal of Ethnic & Cultural Diversity in Social Work*, 20(3), 185-202. doi: 10.1080/15313204.2011.594992
- Mahne, K., & Huxhold, O. (2015). Grandparenthood and Subjective Well-Being: Moderating Effects of Educational Level. *The Journals of Gerontology: Series B*, 70(5), 782-792. doi: 10.1093/geronb/gbu147
- Minkler, M. (1999). Intergenerational households headed by grandparents: Contexts, realities, and implications for policy. *Journal of Aging Studies*, 13(2), 199-218. doi: [https://doi.org/10.1016/S0890-4065\(99\)80051-6](https://doi.org/10.1016/S0890-4065(99)80051-6)
- Minkler, M., Roe, K. M., & Price, M. (1992). The Physical and Emotional Health of Grandmothers Raising Grandchildren in the Crack Cocaine Epidemic. *The Gerontologist*, 32(6), 752-761.
- National Bureau of Statistics of China. (2012). The average life expectancy in China has reached 74.83 years [我国人口平均预期寿命达到 74.83 岁]. Beijing: NBSC.
- Neugarten, B. L., & Weinstein, K. K. (1964). The Changing American Grandparent. *Journal of Marriage and Family*, 26(2), 199-204. doi: 10.2307/349727
- Pruchno, R. (1999). Raising grandchildren: The experiences of Black and White grandmothers. *The Gerontologist*, 39(2), 209-221. doi: 10.1093/geront/39.2.209
- Ren, Q., & Treiman, D. J. (2015). Living Arrangements of the Elderly in China and Consequences for Their Emotional Well-being. *Chinese Sociological Review*, 47(3), 255-286. doi: 10.1080/21620555.2015.1032162
- Short, S. E., Zhai, F., Xu, S., & Yang, M. (2001). China's One-Child Policy and the Care of Children: An Analysis of Qualitative and Quantitative Data. *Social Forces*, 79(3), 913-943.
- Silverstein, M., Cong, Z., & Li, S. (2006). Intergenerational Transfers and Living Arrangements of Older People in Rural China: Consequences for Psychological Well-Being. *The Journals of Gerontology: Series B*, 61(5), S256-S266. doi: 10.1093/geronb/61.5.S256

- Tsai, F.-J., Motamed, S., & Rougemont, A. (2013). The protective effect of taking care of grandchildren on elders' mental health? Associations between changing patterns of intergenerational exchanges and the reduction of elders' loneliness and depression between 1993 and 2007 in Taiwan. [journal article]. *BMC Public Health*, 13(1), 567. doi: 10.1186/1471-2458-13-567
- Xu, H. (2018). Physical and mental health of Chinese grandparents caring for grandchildren and great-grandparents. *Social Science & Medicine*. doi: <https://doi.org/10.1016/j.socscimed.2018.05.047>
- Xu, L., Wu, B., Chi, I., & Hsiao, H.-Y. (2012). Intensity of Grandparent Caregiving and Life Satisfaction Among Rural Chinese Older Adults: A Longitudinal Study Using Latent Difference Score Analysis. *Family & Community Health*, 35(4), 287-299. doi: 10.1097/FCH.0b013e31826665d0
- Zhou, J., & Xie, Y. (2015). Does Economic Development Affect Life Satisfaction? A Spatial–Temporal Contextual Analysis in China. *Journal of Happiness Studies*, 1-16. doi: 10.1007/s10902-015-9612-1