Research Note

Self-rated Life Satisfaction of the Oldest-old in China: Do Intergenerational Relations Matter?

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Abstract

In 2010, China had a 21 million population of age 80 or over. This group of oldest-old adults deserves attention on their quality of life as long as the improvement on life expectancy is expected to continue. Thus, more and more people in China will move into this group. This paper examines the effects of intergenerational relations on the self-rated life satisfaction of the oldest-old in China by using the 2012 Chinese Longitudinal Healthy Longevity Survey data, a total of 6,530 respondents aged 80 or over. The dependent variable is from the responses of respondents on how do they rate their life. Various socio-demographic and health variables are included in the model as controlled variables. Intergenerational relations variables include living arrangement, family interactions and intergenerational transfer. Results from the SPSS GENLIN ordinal regression model showed that living arrangements and intergenerational transfers were statistically significant in affecting the self-rated life satisfaction after controlling for socio-demographic and health variables, while family interactions in terms of visited and/or contacted by children was not significant. The feeling of being cared for among those who lived with family members and interdependence between generations have a positive effect on self-rated life satisfaction. The traditional role of family in supporting the older persons continued to be an important contributor to the self-rated life satisfaction. With the exodus of the young to the cities, family care and support are likely to be eroding in the future. Hence, there is a need to enhance community support for the oldest-old.

Keywords: *Intergenerational relations; oldest-old; life satisfaction; inter-generational transfer*

1. Introduction

China has a population of 1.3 billion in 2010, with 13 per cent of the population aged 60 years or over, and have a 21 million population of age

80 or over (1.6 per cent). The number of oldest-old adults (age 80 or over) is projected to reach 32 million in 2025 (2.2 per cent) (United Nations, 2017). This group of oldest-old adults deserves greater attention on their well-being since the improvement in life expectancy is expected to continue.

Many factors contribute to the life satisfaction of older persons. This study will focus on the effects of intergenerational relations on self-rated life satisfaction of the oldest-old in China. Intergenerational relations include intergenerational transfers (remittances received from children, or financial assistance given to children), living arrangement, and family interaction (such as visited and contacted by children).

Many past studies found significant effects of intergenerational transfers on life satisfaction. The primary source of financial support from family members was found to be an important factor affecting the life satisfaction of the oldest-old (Li, Chen and Wu, 2008a). A study by Silverstein, Cong and Li (2006) found that older parents receiving greater financial transfer from children were more satisfied with their lives than others. However, receiving financial assistance from children may not warranty a higher life satisfaction for the older persons, the ability to provide financial assistance to children may make them more satisfied with their lives. A study on Malaysians aged 60 and over found older persons without assistance from or to children had the lowest expected life satisfaction, while those with assistance from children and to children had the highest expected life satisfaction (Ng and Tengku-Aizan, 2013).

Living with children can be considered as a source of support for older persons. Subjective well-being of the oldest-old was found to be closely associated with their living arrangement (Chen and Short, 2008; Li, Chen, and Wu, 2008b; Wang, Chen and Han, 2014; Zhang, 2015; Zhang, Fu and Chen, 2014). Living alone is associated with lower subjective well-being, whereas co-residing with the immediate family (spouse or children) is associated with positive subjective well-being (Chen and Short, 2008; Li, Chen and Wu, 2008b). A study utilizing data from the 2000 Population Census of China and the 2011 Chinese Household Ethnicity Survey on rural Chinese aged 50 or older in seven Western provinces of China, found co-residency with children increases the happiness of the elderly (Connelly *et al.*, 2014). For the widowed elderly, co-residence with adult children was associated with better life satisfaction to living alone, or living with a spouse only; but for the married elderly, co-residence did not necessarily bring additional benefits to their psychological well-being (Wang, Chen and Han, 2014). Family interactions or support are important determinants of life satisfaction (Li, Chen, and Wu, 2008b; Zhou *et al.*, 2015; Pang, 2015; Liu, 2015).

This study investigates the effects of intergenerational relations on the self-rated life satisfaction of the oldest-old in China. It is hypothesized

that intergenerational transfers, family interactions, and living with family members have positive effects on the life satisfaction of the oldest-old.

2. Methods

This study utilizes a secondary database from the 2011-2012 Chinese Longitudinal Healthy Longevity Survey (CLHLS), which was conducted by Peking University's Center for Healthy Aging and Family Studies and the China National Research Center on Aging, with support from the U.S. National Institute on Aging. This study will focus on the oldest-old respondents aged 80 or over in China.

The dependent variable, self-rated life satisfaction, was measured by the responses from respondents on how they rate their life. It ranged from *very good* (1) to *very bad* (5). To ensure enough cases, responses *bad* (4) and *very bad* (5) were combined for the multivariate analysis.

Three independent variables were used in the study to reflect the intergeneration relations. Intergenerational transfers comprised financial transfer between parents and their children and/or grandchildren. It was divided into four categories: (i) assistance to children/grandchildren only; (ii) assistance from children/grandchildren only; (iii) assistance from children/grandchildren and to children/grandchildren; and (vi) no assistance from or to children/grandchildren. The reference group was no assistance from or to children/grandchildren. Family interactions were measured by whether respondents had been visited and/or contacted by their children. It comprised (i) visited or contacted by sons or daughters; (ii) visited and contacted by son only; (iii) visited and contacted by daughter only; (iv) visited and contacted by both son and daughter; and (v) neither visited nor contacted by children. The reference group was neither visited nor contacted by children. Additional control variables included the respondent's age (80-89, 90-99, 100+, reference group was 100+), sex (1 = male), place of residence (city, town, rural, reference group was rural), marital status (1 = currently not married), education (1 = no education), perceived health status (good, so so, bad, reference group was bad).

All analyses will be performed using the SPSS software. Descriptive statistics is used to describe the socio-demographic background and perceived health status of the respondents. The SPSS GENLIN ordinal regression is used to estimate the effects of the intergenerational relations on self-rated life satisfaction, controlling for socio-demographic factors and perceived health status. The ordinal regression analysis is appropriate in this context because the dependent variable, self-rated life satisfaction is an ordinal variable.

3. Results

Table 1 shows the socio-demographic and perceived health status of respondents. The age of respondents ranged from 80 to 114 years, with a mean of 92.2 years and standard deviation of 7.7 years. Majority of respondents were below 100 years old. There were more females than males. About 77 per cent of respondents were currently not married. Slightly more than half of the respondents were from the rural area, followed by about 30 per cent of respondents from town area and the rest were from the city. Nearly 70 per cent of respondents did not go to school. Some 44 per cent of respondents perceived themselves to be either in good or very good health status, followed by 38 per cent of respondents who perceived their health as 'so so', and the rest, 18 per cent, perceived themselves to have bad or very bad health status.

Table 1 Percentage and Frequency Distribution of Respondents by Socio-Demographic Factors and Perceived Health Status

Socio-Demographic Factors and Perceived Health Status	Per cent	n
Total	100.0	6530
Age group (years)		
80–89	40.4	2640
90–99	37.3	2433
100+	22.3	1457
Gender		
Male	40.1	2620
Female	59.9	3910
Marital status		
Currently married	22.9	1481
Currently not married	77.1	4974
Place of residence		
City	17.4	1137
Town	29.7	1938
Rural	52.9	3455
Education		
No education	68.1	4447
With education	31.4	2048
Perceived health status		
Very good	9.3	541
Good	35.1	2034
So so	37.6	2180
Bad	16.4	951
Very bad	1.6	90

Some 17 per cent of the respondents rated their life as very good, 46 per cent reported as good, about a third reported as so-so and only 6 per cent reported as bad or very bad. Table 2 shows the percentage distribution of self-rated life satisfaction of the oldest-old according to their living arrangement, intergenerational transfer and family interaction. The bivariate analyses showed that the oldest-old who lived with family members were more likely to rate their life as good or very good than those who lived alone. The oldest-old who gave assistance only had the highest percentage of rating their life as very good, while those who neither give assistance nor receive assistance had the lowest percentage of rating their life as very good, and having the highest percentage of bad or very bad self-rate life satisfaction. Those oldest-old had been visited and contacted by daughters had the highest percentage of rating their life as very good or good.

The bivariate analyses show that living arrangement, intergenerational transfer and family interaction had significant effects on the life satisfaction of the oldest-old. Two ordinal logistic regression models were used to determine the independent effects of living arrangement, intergenerational transfer and family interaction (controlled for other variables) on self-rated life satisfaction of the oldest-old. Table 3 shows the parameter estimates of the two models.

The results in Model 1 show that the coefficients for living arrangements and intergenerational transfers were statistically significantly different from zero at $p < 0.05$. The positive coefficient of living arrangements indicate that respondents who lived with family members were more likely to be in very good self-rated life satisfaction than those who lived alone. Similarly, all the positive coefficients of intergenerational transfer also indicate that respondents who provided assistance to children/grandchildren, or provided and received assistance to and from children/grandchildren tended to have very good self-rated life satisfaction than those who neither provided assistance to nor received assistance from children/grandchildren. However, there was no statistically significant difference in self-rated life satisfaction among those who received assistance only and those who neither provided assistance to nor received assistance. Family interactions in terms of visited and/or contacted by children was found to be not statistically significant in affecting the self-rated life satisfaction.

Model 2 in Table 3 shows the influence of living arrangement, inter-generational transfer and family interaction on self-rated life satisfaction after controlling for socio-demographic factors and perceived health status. The results for Model 2 are similar to the results in Model 1. Further observation shows that the size of the coefficients for living with family members became bigger after controlling for socio-demographic factors and perceived health status; this implies that after taking into account the socio-demographic factors and perceived health status, the effects of living arrangement increased.

Table 2 Percentage Distribution of Self-Rated Life Satisfaction by Living Arrangement, Intergenerational Transfer and Family Interaction

| Variables | Self-rated life satisfaction | | | | | |
	Bad or very bad	So so	Good	Very good	Total	n
Living arrangement##						
Alone	8.5	35.9	41.5	14.0	100.0	1254
With family members	4.5	31.0	47.2	17.3	100.0	4531
Intergenerational transfers##						
Giving assistance only	4.3	24.8	41.0	29.8	100.0	161
Receiving assistance only	5.8	32.9	46.5	14.8	100.0	3335
Both giving and receiving	2.6	28.2	45.7	23.5	100.0	973
Neither giving nor receiving	6.4	33.8	45.4	14.4	100.0	1316
Family interaction#						
Visited or contacted by sons or daughter	7.9	34.8	41.0	16.3	100.0	644
Visited and contacted by sons only	3.6	34.4	46.8	15.2	100.0	645
Visited and contacted by daughters only	6.0	27.4	48.7	17.8	100.0	796
Visited and contacted by sons and daughters	4.6	32.1	46.5	16.8	100.0	3109
Neither visited nor contacted	7.4	32.8	43.5	16.2	100.0	591
Total	5.4	32.1	45.9	16.6	100.0	5785

Note: # p<0.05; ## p<0.001.

Table 3 Ordinal Logistic Regression Results for Self-Rated Life Satisfaction Regressed on Living Arrangement, Intergenerational Transfer and Family Interaction and Selected Socio-Demographic Variables and Perceived Health Status

Parameter	Model 1 b (se)	Model 2 b (se)
Living arrangement		
With family member	0.334 (0.060)###	0.396 (0.065)###
Intergenerational transfer		
Giving assistance only	0.676 (0.157)###	0.413 (0.162)#
Receiving assistance only	0.037 (0.062)	0.085 (0.064)
Both giving and receiving	0.471 (0.080)###	0.427 (0.083)###
Family interaction		
Visited or contacted by son or daughter	-0.112 (0.107)	-0.083 (0.112)
Visited and contacted by son only	0.023 (0.107)	0.025 (0.111)
Visited and contacted by daughter only	0.159 (0.102)	0.119 (0.106)
Visited and contacted by son and daughter	0.083 (0.085)	0.050 (0.089)
Age		
80-89		-0.181 (0.075)#
90-99		-0.126 (0.073)
Male		-0.135 (0.062)#
Currently not married		0.122 (0.069)
Place of residence		
City		0.539 (0.073)###
Town		0.191 (0.058)##
No education		-0.240 (0.064)###
Self-rated health		
Good		2.282 (0.078)###
So so		0.759 (0.074)###
Threshold [QOL = bad or very bad]		-1.590
[QOL = so so]		1.074
[QOL = good]		3.622

Note: #$p < .05$; ##$p < .01$; ###$p < .001$.

However, the coefficients for giving assistance only, and both giving and receiving assistance became smaller after controlling for socio-demographic factors and perceived health status; thus the effects of these two parameters decreased after taking into account the socio-demographic factors and perceived health status.

In Model 2, given other variables remain constant, the odds of respondents who lived with their family members rated their life satisfaction as very good was 1.49 ($e^{0.396}$) (95 per cent CI; 1.31-1.69) times of those respondents who lived alone, a statistically significant effect (Wald $\chi^2_{(1)}$ = 37.01, ρ = 0.000). The odds of respondents with assistance from and to children/grandchildren rated their life satisfaction as very good was 1.53 ($e^{0.427}$) (95 per cent CI; 1.30-1.80) times of those respondents with no assistance from and to children/grandchildren, a statistically significant effect (Wald $\chi^2_{(1)}$ = 26.52, ρ = 0.000), while the odds of respondents who gave assistance to children/grandchildren only rated their life satisfaction as very good was 1.51 ($e^{0.413}$) times (95 per cent CI; 1.10-2.08) of those respondents with no assistance from and to children/grandchildren, a statistically significant effect (Wald $\chi^2_{(1)}$ = 6.488, ρ = 0.011). However, there was no statistically significant differences in self-rated life satisfaction between respondents who received assistance from children/grandchildren only and those respondents with no assistance from and to children/grandchildren.

4. Discussion and Conclusion

The results of this study indicates that family interaction is not statistically significant in predicting self-rated life satisfaction in the oldest-old after controlling for socio-demographic factors and perceived health status. This may be partly due to the oldest-old needing assistance/support in daily life activities immediately from family members rather than the attention from family members. This is further confirmed by the findings that the oldest-old who lived with family members had a higher probability of rating their life satisfaction as very good than those who lived alone. This finding supports the studies by Chen and Short (2008), Li, Chen and Wu (2008 (b)), Connelly *et al.* (2014) where co-residence with family members is associated with positive subjective well-being.

While the study by Silverstein, Cong and Li (2006) in rural China found that parents who received greater financial transfer from adult children are more satisfied with their lives, the current study found that the oldest-old rated their life satisfaction as very good when they provided assistance to children/grandchildren and received assistance from children/grandchildren. This is consistent with the findings by Ng and Tengku-Aizan (2013) on Malaysian older persons aged 60 or over. The results indicate the importance

of interdependence between generations in later life. The feeling of being wanted and being taken care of enhance the life satisfaction of the oldest-old in China.

The traditional role of family in supporting older persons continues to be an important contributor to the self-rated life satisfaction. With the exodus of the young to the cities, family care and support are likely to be eroded in the future. Hence, there is a need to enhance the community support for the oldest-old.

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Note

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