

# Research on the Influence of Intergenerational Support on the Self-evaluated Health of the Left-behind Elderly in Rural Areas

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## ABSTRACT

With the purpose of studying the impact of intergenerational support on the health of left-behind elderly in rural China, using the method of orderly logistic regression, the three dimensions of intergenerational support (economic support, life care, and emotional support) are used to analyze the effects of self-evaluation of the health of left-behind elderly in rural areas. Studies have found that children's financial support to their parents is conducive to the health of left-behind elderly in rural areas; child care is not conducive to the health of left-behind elderly in rural areas, and taking care of grandchildren has a positive impact on the health self-evaluation status of rural left-behind elderly; children's emotional support has a positive impact on the health of rural left-behind elderly. Therefore, the following suggestions are put forward: strengthen children's awareness of supporting the elderly through publicity, education, and guidance; increase the use of mobile phones and other electronic products by the elderly to keep in touch with their children and enhance mutual emotion; to make the elderly dependable, we must vigorously develop the long-term care insurance system.

**Keywords:** *intergenerational support; health; left-behind elderly; rural areas*

## 1. INTRODUCTION

With the acceleration of China's urbanization process, a large number of rural young and middle-aged laborers have flowed from rural to urban areas, forming numerous "left-behind elderly" groups stranded in rural areas. The elderly in rural areas are a disadvantaged group in society, and children's going out causes the elderly to face more uncertainties in terms of financial support, life care, and spiritual support. Relevant studies have shown that migrant children are more capable of increasing financial support for the elderly[1], and the lack of care and reduction of emotional support may affect the health of left-behind elderly in rural areas. Silverstein believes that intergenerational support is manifested in the emotional support, financial support and time spent together between the two generations[2]. Zhou Dongxia divides the intergenerational support into two parts: the support of the children up to the parents and the support of the parents down to the children[3]. Zhang Wenjuan believes that the impact of intergenerational support on the health of the elderly is generally analyzed from three aspects: economic support, life care, and emotional support[4].

The measurement indicators of health include subjective self-evaluated health, physical health, and mental health. Self-assessed health is an independent and important indicator for predicting death and other physical conditions. To a certain extent, it is even more comprehensive and accurate than other objective indicators. This article takes

self-evaluation health to study the impact of intergenerational support on self-evaluation health of the elderly. From the perspective of offspring to parents, there is no consistent conclusion about the impact of intergenerational support on self-evaluated health. The views are mainly divided into three categories: (1) Intergenerational support has a significant positive impact on the health of the elderly[5]; (2) Intergenerational support has a significant negative impact on the health of the elderly[6]; (3) Intergenerational support has no significant relationship with the health of the elderly[7]; From the perspective of parents to offspring, Mach believes that downward economic support will It has a positive health effect on the elderly[8], Zhang Yan, Cui Ye, and others hold the opposite view[9][10]. This article adds two indicators of support from parents downwards in the aspect of living care: looking after grandchildren and helping children with farm work. Two-way intergenerational support interaction is more conducive to intergenerational transmission. This article attempts to study the impact of intergenerational support on the self-evaluation of the health of the rural left-behind elderly aged 60 and above through the relevant data of the 2015 monitoring questionnaire for the outflow of health and family planning services of the floating population. In addition, the specific measurement dimensions have deliberately added the elderly's choice of the person responsible for the care of the elderly, which is different from the previous studies that have considered too much support for their parents by their children. This article

mainly describes and analyzes the above three related variables of intergenerational support to study the impact of intergenerational support on the self-evaluation of the health of the left-behind elderly in rural areas.

## 2. DATA AND METHODS

### 2.1. Data Sources

The data in this article comes from the 2015 monitoring survey of the outflow areas of the health and family planning services of the floating population. The survey selected county/district-level monitoring points in ten provinces including Hebei, Liaoning, Jilin, Heilongjiang, Jiangsu, Zhejiang, Anhui, Henan, Guangdong, and Sichuan to conduct outflow monitoring surveys. A stratified, multi-stage, PPS method proportional to the size of the registered population is adopted for sampling. A total of 230 districts and counties were surveyed in ten provinces, with six villages in each district and county, and 30 households in each village. The designed total sample size was 41,400 households. This paper uses the relevant data from the questionnaire for the elderly aged 60 years and above. The original data include 13,992 elderly people. After screening their household registration and children's outing conditions, 2867 left-behind elderly in rural areas were obtained. Missing values and abnormal values were eliminated to obtain a valid sample. 2427.

### 2.2. Research method

The dependent variable in this article is the self-evaluated health status of the left-behind elderly in rural areas, including three options of "poor, normal, and good", which have a large or small relationship. This paper chooses to use the ordered logistic regression method, where  $y$  is the actual observation value of self-rated health, and  $x$  is the intergenerational support variable and control variable that affects self-rated health.

$$P_j = P(y \leq j/x) = \begin{cases} \frac{\exp(\alpha_j + \beta x)}{1 + \exp(\alpha_j + \beta x)}, & 1 \leq j \leq k-1 \\ 1, & j = k \end{cases}$$

## 3. RESULTS

### 3.1. Variable setting and description

This paper selects the basic information about the rural left-behind elderly in the questionnaire, relevant aspects of intergenerational support, and self-evaluated health status and other data, and analyzes and processes them.

The independent variables are the three dimensions of intergenerational support and are subdivided into eight variables based on existing data on economic support, life care, and emotional support. Among them, financial support is expressed as to how much money and in-kind children give to the elderly each month. Due to the limitations of its own data and the limited economic conditions of the left-behind elderly in rural areas, the economic support studied in this article is a one-way flow. It only analyzes the impact of the economic support given to the left-behind elderly by the children out on the health of the elderly and does not analyze the economic support given to the children. Which is different from the two-way flow of economic support in previous studies. Life care is two-way, and children take care of the elderly in two aspects: timely care of the elderly and the choice of the person responsible for the elderly in the future. When old people are sick or need care in daily life, can children provide timely help the elderly? The variables of whom they plan to rely on in the future will choose to rely on their children as a control option. The choice of the four options is more inclined to whom will care for the elderly. The care of the children by the elderly includes two aspects: the elderly help take care of their grandchildren and the children do farm work. Emotional support is measured from three aspects: how often the children go out and the left-behind elderly, whether the elderly will communicate with their children, whether the elderly feel lonely and helpless. Set the basic identity information of the elderly, such as gender, age, marital status, education level, party membership, etc., as control variables. Stata16.0 was used for ordered Logistic regression analysis, and it was statistically significant when  $P < 0.05$ .

**Table 1.** Variable description

Variable name	Variable description
Self-rated health	1=bad, 2=fair, 3=good
Children's financial support	Continuous variables, logarithmically processed
No care needed	0=others, 1=no care needed
Be taken care of in time	0=others, 1=be taken care of in time
Can't be taken care of in time	0=other, 1=cannot be taken care of in time
Child support	0=others, 1=rely on children to provide for the elderly
Depend on oneself/spouse	0=others, 1=rely on one's own/spouse
Government and social pension	0=others, 1=government and social pension
Others pension	0=others, 1=others pension
Look after grandchildren	0=almost not, 1=monthly, 2=weekly, 3=every day
Do farm work for children	0=no, 1=yes

Variable name	Variable description
Contact frequency	0=almost not, 1=yearly, 2=half a year, 3=monthly, 4=weekly
Communication troubles	0=no worry, 1=never, 2=sometimes, 3=always
Loneliness	0=no, 1=occasionally, 2=often
Gender	0=female, 1=male
Age	1=60~69 years old, 2=70~79 years old, 3=80 years old and above
Marital status	0=others, 1=have a spouse
Education level	1=primary school and lower, 2= Junior high school / technical secondary school, 3=junior college and above
Party member	0=no, 1=yes

### 3.2. Results

Under the premise of controlling for related variables, this paper uses ordered logistic regression to study the impact of intergenerational support on the self-evaluation of the health of the left-behind elderly in rural areas. It is found that in terms of the economic support of intergenerational support, the difference in the economic support variables of the children of the left-behind elderly is statistically different. Significantly, there is a significant positive correlation between the economic support of children and the self-evaluated health of the rural left-behind elderly. In terms of living care, the elderly can get timely care of their children when they need care, and variables such as the elderly helping their children to take care of their grandchildren are statistically significant, and there is no statistically significant difference in the variables of the elderly helping their children in farm work. Among them, taking care of grandchildren is conducive to the self-evaluation of the health of the elderly, and being taken care of by their children and helping them with farm work is not conducive to self-evaluation of health. In terms of the selection and arrangement of the old-age care, the left-

behind elders who plan to rely on themselves/spouses are relatively healthier than those who rely on their children. However, there is no statistically significant difference in variables such as relying on the government and society or other relatives to provide for the elderly. In terms of emotional support, the loneliness variable is statistically significant, and there is no statistically significant difference in variables such as the frequency of contact between the elderly and their children and the communication between the elderly and children. The loneliness of the elderly has a negative impact on self-evaluation of health. The frequency of contact between the elderly and their children and the variables of communication thoughts are not significant. Among the control variables, the party member variables were not statistically significant, and the other variables were statistically significant. Among them, the health self-evaluation status of men among the rural left-behind elders is better than that of women. As they age, the health self-evaluation becomes worse. Elderly people without a spouse have better health conditions than those with a spouse. The higher the level of education, the better the health self-assessment results.

**Table 2.** Ordinal logit regression analysis with self-rated health as the explained variable

Self-rated health	Conf	SE	P> Z	OR
Children's financial support	0.082	0.041	0.045	1.086
No care needed	0 <sup>a</sup>	/	/	1
Be taken care of in time	-0.608	0.132	0.000	0.544
Cannot be taken care of in time	-0.900	0.155	0.000	0.407
Child support	0 <sup>a</sup>	/	/	1
Depend on oneself/sp-ouse	0.271	0.104	0.009	1.312
Government and social pension	-0.310	0.229	0.176	0.733
Others pension	0.093	0.458	0.839	1.098
Look after grandchildren	0.110	0.036	0.002	1.117
Do farm work for children	-0.072	0.088	0.418	0.931
Contact frequency	0.038	0.049	0.430	1.039
Complained of heart	0.014	0.052	0.783	1.014
Loneliness	-0.506	0.066	0.000	0.603
Gender	0.300	0.081	0.000	1.350
Age	-0.457	0.077	0.000	0.633
Marital status	-0.280	0.100	0.005	0.755
Education level	0.225	0.102	0.026	1.253
Party member	-0.214	0.153	0.162	0.807
/cut1	-1.969	0.280	/	-1.969
/cut2	0.045	0.277	/	0.045

<sup>a</sup>Set to 0 because this parameter is redundant.

#### 4. SUGGESTIONS

Through Promote intergenerational support between the left-behind elderly and their children, break the traditional concept of not reporting good news and not worrying and not causing trouble to their children, and strengthen the intergenerational exchanges and interactions between the left-behind elderly and their grandchildren, which is more conducive to improving the left-behind elderly State of health. Therefore, the following suggestions are put forward: first, through publicity, education, and guidance, strengthen children's understanding of supporting the elderly, and form a social atmosphere of respecting and loving the elderly; second, increasing the use of mobile phones and other electronic products by the elderly, which can be in line with Daily contact and communication between children can enhance the emotions of both parties and relieve the loneliness of the elderly; third, vigorously develop the long-term care insurance system to enable the elderly to rely on them and reduce the burden on children.

#### 5. CONCLUSION

Through the analysis and processing of the questionnaire data of the rural left-behind elderly, the study found that the related variables of intergenerational support impact the health self-evaluation of the elderly. Regarding economic support, the income that rural left-behind elderly people can obtain by themselves and their spouses is limited due to their age and physical health. However, the economic support provided by their children to rural left-behind elderly, including money and in-kind, is alleviated to a certain extent. It relieves the financial pressure of the elderly and improves their quality of life, which is conducive to the health of the elderly. Moreover, taking into account the physical condition of the elderly, the financial support provided by the children who are out of town also plays a certain role in the medical services for the left-behind elderly in rural areas, such as physical examinations, chronic diseases, and medications. In terms of life care, when the elderly can carry out their daily lives smoothly and have the ability to act autonomously, their children will take care of them, but the health of the elderly will decline. This is in line with the theory of "use advancement and abandonment retreat". In terms of old-age care, when their own health status does not affect their daily life, the left-behind elderly consider the family's economic status and reduce the burden on their children, and choose to rely mainly on themselves and their spouses to save money for the elderly, and support each other in daily life. The left-behind elderly in rural areas help their children to take care of their grandchildren, which is beneficial to the health of the elderly. When the elderly are in good physical condition, in addition to taking care of their own daily lives, they have the ability and time to help their children take care of their grandchildren, which enriches their daily lives to a certain extent, and by taking care of their grandchildren, the elderly not only relieve

their children's life pressure, but also realized his own value through the dedication to grandchildren and intergenerational interaction, gained satisfaction and happiness, and improved his mental health level, thereby benefiting his physical health. Therefore, to the extent possible, proper care of grandchildren is beneficial to the health of the elderly. In terms of emotional support, the frequency of contact and communication between the left-behind elderly and their children are conducive to the self-evaluation of the health of the elderly. The left-behind elderly feeling lonely in their daily lives will have an adverse effect on their health. The loneliness of the left-behind elderly will have a more direct impact on their mental health, which in turn affects their physical health. Children should provide financial support to the rural left-behind elderly within their ability to reduce the pressure of the elderly in their lives and pensions, and at the same time avoid over-care for the elderly. It is good for the health of the elderly to take care of their grandchildren appropriately, but considering their physical condition, they should no longer undertake the agricultural work of their children. The two-way communication between children and parents through daily contact and communication can increase emotions and relieve the loneliness of the elderly.

#### REFERENCES

- [1] GUO, M., ARANDA, M., & SILVERSTEIN, M. The impact of out-migration on the inter-generational support and psychological wellbeing of older adults in rural China. *Ageing and Society*, 2009, 29(7), 1085-1104. DOI:10.1017/S0144686X0900871X
- [2] Bengtson, V., Giarrusso, R., Mabry, J., & SILVERSTEIN, M. Solidarity, conflict, and ambivalence: complementary or competing perspectives on intergenerational relationships? . *Journal of Marriage and Family*, 2002, 64(3): 568-576. DOI: <https://doi.org/10.1111/j.1741-3737.2002.00568.x>
- [3] Zhou D.X. The "choice effect" of intergenerational support on the self-care ability of the elderly(In Chinese). *Forum of Social Sciences*, 2014 (5): 202-207. DOI: CNKI:SUN:SKLU.0.2014-05-021
- [4] Zhang W.J, Li S.Z. Research on Intergenerational Support in Rural Elderly Families—Using the Exponential Mixed Model to Validate the Theory of Cooperative Groups(In Chinese). *Statistical Research*, 2004(05):33-37. DOI: <https://doi.org/10.3969/j.issn.1002-4565.2004.05.008>
- [5] Wang P, Li S.Z. The effect of intergenerational support on the physical health of rural elderly under the background of children migration(In Chinese). *Population and Development*, 2012, 18(02):61-

71+47. DOI: [https://doi.org/ 10.3969/j.issn.1674-1668.2012.02.012](https://doi.org/10.3969/j.issn.1674-1668.2012.02.012)

[6] Seeman, T. E. , & Berkman, L. F. Structural characteristics of social networks and their relationship with social support in the elderly: who provides support. *Social Science&Medicine*,1988, 26(26):737-749.DOI: [https://doi.org/10.1016/0277-9536\(88\)90065-2](https://doi.org/10.1016/0277-9536(88)90065-2)

[7] Song L, Li S.Z, Zhang W.J. Research on the Influence of Intergenerational Support on the Health Self-evaluation of Rural Elderly(In Chinese).*Chinese Journal of Gerontology*,2006(11):1453-1455. DOI:<http://dx.chinadot.cn/10.3969/j.issn.1005-9202.2006.11.002>

[8]Xu L.Z, Wu H.T, Si M.S. A comparative study on the impact of intergenerational support on the health of

the empty-nest and non-empty-nest elderly in Xuzhou City(In Chinese).*Medicine and Society*,2020,33(10):32-36+43. DOI:<https://doi.org/10.13723/j.yxysh.2020.10.007>

[9]Zhang Y. Research on the impact of medical insurance and intergenerational support on the health of the elderly(In Chinese). Tianjin University, 2018.DOI: <https://doi.org/10.27356/d.cnki.gtjdu.2018.000393>

[10] Cui Y, Jin X.Y. The Influence of Family Intergenerational Relations on the Psychological Welfare of Parents in Rural Areas(In Chinese).*China Rural Economy*,2016(06):15-29.DOI: CNKI:SUN:ZNJJ.0.2016-06-002