

Do Intergenerational Support and Socioeconomic Status impact Mental health of Older adults in China? -A Case from Shaanxi Province

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Abstract: With the deepening of aging in China, the older adults population in China will reach 264 million by the end of 2020, making China the country with the largest older adults population in the world. The current family structure presents the characteristics of miniaturization and separation of living modes. Based on data collected from a sample survey of the older adults in three cities of Shaanxi Province, China in 2019, this study empirically analyzed the effects of child support and socioeconomic status on mental health of the older adults by means of logistic regression model, and discussed the possible mechanisms. The study concluded that the higher the children's support to the older adults (spiritual support, material support), the higher the mental health of the older adults, the higher the social and economic status of the older adults, especially the better the medical insurance and income level, the higher the mental health of the older adults. The factors influencing the mental health of the older adults in urban and rural areas are different, mainly due to the economic level and the status of vocational education before retirement.

Key words: mental health, older adults, intergenerational support, socioeconomic status

1. Introduction

In recent years, the deepening of the aging of the population has brought an unprecedented impact on China's social and economic development. According to the latest data of the National Bureau of Statistics, China officially entered the aging society in 2000. In 2020, the number of adults aged 65 or above will be 190 million, accounting for 13.5% of the total population. It is predicted that by 2050 the number of adults aged 65 and over will reach 330 million, accounting for more than 25% of the population. China is expected to enter a deeply aging society in 2022. The aging population in China is characterized by its large scale, rapid aging speed, obvious trend of aging and the resulting "aging before preparation".

Due to the implementation of the family planning policy and the natural decline of the fertility rate, the number of one-child families in China has exceeded 100 million. The "one-child" policy and the family structure shaped by it mean that parents will have a higher proportion of empty nest when they are old, and the lack of support will become a common problem faced by empty nesters. The trend of the core of family structure and the miniaturization of family size is deepening continuously. The current family structure also leads to the gradual change of the traditional intergenerational relationship, and the traditional "serving relatives and the older adults" is losing its cultural binding force, so that the function of the family for the aged is declining. Due to the gradual transformation of disease in our country, chronic diseases endangering health of the older

adults has become the most main reason, due to illness (especially chronic disease) has the natural relation with age, the older adults after suffering from chronic diseases in the disabled, greatly increases the probability of disability, health demand made the greatest needs of old adults in later life. The empty-nesting and disability of the older adults population caused by the aging and senility of the population has posed a huge challenge to the mental health of the older adults at present.

2.Literature theory and research hypothesis

Among the many factors affecting the mental health of the older adults, the degree of mental health of the older adults is the result of the interaction of many factors, and the classification of the factors affecting the mental health of the older adults is scattered. Gender, age, marital status and health level have significant influence on the choice of old-age care mode, which is reflected in the male older adults, the younger older adults, the older adults without spouse and the older adults with poor health level are more inclined to choose the institutional old-age care mode. As for the impact of children's support on mental health, some scholars have focused on the impact of children's economic support and the mental health of the older adults. The number of children is an important factor affecting the mental health of the older adults. Generally speaking, the more children the older adults have, the more support they can get in their later years, so that the older adults with more children will have more freedom to use their mental health. Children's daily care for the older adults can meet the psychological needs of the older adults, but also increase the probability of their use of mental health. This paper holds that the number of children or the structure of children only represents the number or structure of the older adults potential support for the older adults, and other intermediary conditions are needed for the potential mental health support to become the actual support, among which the most critical intermediary condition is "child support". The closer the child support is, the higher the probability of the older adults choosing mental health is. Therefore, hypothesis 1 is proposed:

Hypothesis 1: The more harmonious the children's support, the higher the probability of the older adults choosing mental health.

Older adults mental health choices are not only influenced by their children's support, but also by their decisions after weighing their own feasible abilities, especially in economic terms. According to the social action theory, the choice of mental health is a rational choice made by the older adults under different economic and cultural constraints in order to maximize their own welfare effect. For example, when the family care ability is weakened (children can not provide life care, daily care and other old-age support), and their own economic conditions allow, the older adults may choose to go to professional mental health institutions to buy monetized mental health. In addition, previous studies on the influencing factors of the mental health intention of the older adults mostly focused on the income, former occupational characteristics, pension status and other social and economic status of the older adults. Studies have found that the proportion of farmers and workers choosing mental health is significantly lower than that of party and government cadres, science, education, culture and health workers. With the continuous expansion of the coverage of the urban and rural social endowment insurance system and the continuous improvement of the medical insurance level, the older adults (especially the urban older adults) will be less dependent on family care and more inclined to socialized mental health. The mental health intention of the older adults group enjoying the basic endowment insurance for urban workers and the old-age insurance for government offices and public institutions was significantly higher than that of the older adults group without any medical insurance treatment. As independent and rational individuals,

when the economic status and social status of the older adults can support them to realize the goal of independent use of mental health, the older adults generally do not bring unnecessary troubles to their children, but will choose more independent mental health. Based on the above analysis, this paper proposes research hypothesis 2:

Hypothesis 2: Hypothesis 2: The older adults with higher socioeconomic status have higher mental health level, while the older adults with lower socioeconomic status have lower mental health level.

Due to the existence of the urban-rural dual system in China, the development of rural and urban areas is greatly different, which will inevitably lead to differences in children support and social and economic status between urban and rural older adults, and the existence of these differences will have an impact on the mental health of different older adults groups. The mental health intention of the older adults in rural areas is obviously lower than that of the older adults in urban areas. Whether they have medical insurance or not and the level of medical insurance are the key factors affecting the economic status of the older adults. Among the influencing factors of mental health, the rural older adults are more inclined to economic factors. Due to the empty-nesting furniture in urban families, the older adults pay more attention to the emotional care of their children. Education level and social status are also significantly different between urban and rural areas, which will have a huge impact on the mental health choices of the older adults in urban and rural areas. Based on the above analysis, this paper proposes research **hypothesis 3: There are significant differences between urban and rural older adults in the influence of children support and socioeconomic status on mental health.**

3.Data and Index

The data for this study come from the field research data of the subject team, which use a stratified random sampling method to conduct field research in Yan'an, Baoji, and Hanzhong cities in Shaanxi Province from July to August 2019. The data of the healthcare services part of the demand and supply of older adults services are selected, and the samples of institutional older adults care institutions' services and key variables missing are excluded, and finally 670 valid samples are obtained.

Dependent variable: mental health level, obtained through self-rated mental health, with a score of 1-6; independent variable: according to the analysis framework of the study, children's support was the explanatory variable in this paper. Child support refers to the intergenerational connection generated by intergenerational parenting and support under the maintenance and constraints of morality, laws and policies, including the relationship between family members at the micro level and the relationship between different generations in the society at the macro level. In the child support, the relationship between parents and children is the core relationship, but in the process of the current social transformation, the child support of Chinese families is "reversing" to the direction of children's support for parents, with the parenting function becoming stronger and the support function becoming weaker. In this context, this paper will focus on the impact of children's support on the mental health intentions of the older adults from the perspective of "children's support for their parents". In this survey in Shaanxi Province, the main variables to measure the support of children are chosen as "the frequency of children's visits", "the frequency of children's helping you in life", "the frequency of children's helping you in economic aspects", "the amount of self-help in the past year" and "the closeness with children".

Table 1. Variable specificity

Variable classification	Variable name	Variable description
Dependent variable	Mental health	0~6
Individual Characteristics	Age	60 years old and above
	Gender	Male=0 (reference group), Female=1
	Marriage	Unmarried=1, Married=2 (reference group), Divorced=3, Widowed=4
	Household registration	Urban = 0 (reference group), rural = 1
	Activity of daily living. (ADL)	0~6
	Chronic diseases	0-9 Number of elderly with chronic diseases
Intergenerational Support	Amount of financial support from children	Amount of cash given by children to the elderly in the previous year
	Frequency of financial support from children	Very low =1, low =2, Average =3, High =4, Very high =5
	Closeness of relationship with children	Very low =1, low =2, Average =3, High =4, Very high =5
Socio-economic status	How much children care for the elderly	Very low =1, low =2, Average =3, High =4, Very high =5
	Children's care of their parents' lives	Very low =1, low =2, Average =3, High =4, Very high =5
	Education level	Elementary school and below = 1, middle school = 2, high school/junior college = 3, college = 4
	Pre-retirement work	Civil servants = 1 (reference group), employees of enterprises and institutions = 2, self-employed = 3, farmers = 4, migrant workers = 5, others = 6
	Economic level	Income of the elderly
	Income sources	Annual personal pension = 1
		Government transfer income (relief, subsidies, etc.) = 2
		Property income = 3
	Other income = 4	
Respected by people around you	Very disrespectful = 1, disrespectful = 2, average = 3, more respectful = 4, very respectful = 5	
Health insurance	Resident health insurance = 1, employee health insurance = 2, not participating in health insurance = 3	

Socioeconomic status Socioeconomic status is another major explanatory variable in the study. Socioeconomic status mainly refers to the overall measure of one's economic and social status relative to others, such as one's work experience, education received, income level, occupational prestige, etc. Adults in different social and economic status have many differences in values, lifestyles, behavior structures and so on. At present, the measurement of social and economic status in the academic circle is mainly based on three indicators: education level, occupational status and income level. Each indicator can reflect the status of an individual in the social class or stratum structure from different perspectives. The higher the socioeconomic status of the older adults, the more likely they are to break the traditional rules of "raising children for old age" and to live independently, and the more economic foundation they have to purchase monetization medical care services. Combined with previous scholars for social and economic status, measured on the basis of

questionnaire, this study of social and economic status of the older adults to measure this study include "career" by 60 years ago, "education level", "income", "the main source of life", "enjoy medical insurance categories" "whether or not respected by others."

4. Results

Table 2 shows the regression results of children's support, socioeconomic status and the mental health of the older adults. Model 1 only has control variables, Model 2 includes the cost relationship in the overall model, and Model 3 includes the socioeconomic status in the overall model.

Table 2. Regression results

Variable name	Model 1	Model 2	Model 3
Age	1.158** (4.311)	1.341*** (6.487)	1.115*** (6.258)
Gender	-0.147 (-1.454)	-0.114** (-1.347)	-0.164** (2.132)
Marriage	-0.052 (-0.645)	-0.038 (-0.462)	-0.048 (-0.616)
Household registration	1.131** (6.251)	1.867** (7.492)	1.974*** (9.172)
ADL	-0.045 (-0.521)	-0.034 (-0.408)	-0.058** (-0.537)
Chronic diseases	-0.025 (-0.186)	-0.028 (-0.216)	-0.034 (-0.358)
Amount of financial support from children	0.561*** (6.385)	0.638*** (6.976)	0.762*** (8.845)
Frequency of financial support from children		0.031** (4.743)	0.036** (4.347)
Closeness of relationship with children		0.018 (0.145)	0.021 (0.235)
The degree of relationship of children to the older adults		0.347** (0.388)	0.417* (0.445)
Children's care of their parents' lives		0.741* (8.255)	0.832*** (8.85)
Education		0.041* (5.457)	0.082** (7.06)
Pre-retirement work (reference group: farmers, farm-name workers)			1.827*** (6.05)
Civil Servants			
Employees of enterprises and institutions			1.187*** (8.436)
Individual operators			0.895*** (7.768)
Economic level			0.312** (3.321)
Source of living (reference group: pensions)			0.215** (3.157)
Government transfer income			
Labor income			-0.082*** (-0.769)
Other income			-0.034*** (-0.475)
Respected by adults around you			-0.421** (-0.519)
Type of health insurance (reference group: employee health insurance)			
No health insurance			1.285*** (6.481)
Resident health insurance			

Note: *** means significant at the 1% level, ** means significant at the 5% level, and * means significant at the 10% level.

In Model 1, the individual characteristics of age, household registration, and the number of chronic diseases have a significant impact on the mental health of the older adults. In Model 2, the gender variable of individual characteristics is significant, and the variable of children's support is added. Among them, the amount of economic support of children, the degree of intimacy between children and children, the degree of relationship between children and the older adults, and the daily care variables of children have a significant impact on the mental health of the older adults. In Model

3, when the socioeconomic status variable of the older adults was added to the model, the variable of living self-care ability was significant, while the variable of mental state was always not significant. Work before retirement, economic level, the degree of respect from the surrounding adults, medical insurance variables have significant effects on the mental health of the older adults.

Table 3. Urban-rural differences in intergenerational support, socioeconomic status, and healthcare service utilization among the older adults.

Variable name	Model 4	Model 5
	rural	urban
Age	-1.008*** (4.365)	-1.218*** (5.902)
Gender	-0.114 (1.786)	-0.197** (2.868)
Marriage	-0.038 (-0.833)	-0.047* (-0.721)
ADL	-0.049* (-0.518)	-0.071** (-0.637)
Chronic diseases	-0.038* (-0.316)	-0.029 (-0.337)
Amount of financial support from children	0.881*** (6.742)	0.841*** (8.744)
Frequency of financial support from children	0.039*** (5.368)	0.028 (4.368)
Closeness of relationship with children	0.024** (0.249)	0.031 (0.247)
The degree of relationship of children to the older adults	0.438* (0.544)	0.422*** (0.568)
Children's care of their parents' lives	0.738*** (8.365)	0.808*** (7.181)
Education	0.049* (3.156)	0.102** (6.788)
Pre-retirement work	1.171 (7.352)	2.133*** (9.831)
Source of living (reference group: pensions)	0.908 (5.163)	1.756** (8.456)
Government transfer income		
Labor income	-0.069*** (-0.612)	-0.067*** (-0.739)
Other income	-0.067*** (-0.708)	-0.019*** (-0.324)
Respected by adults around you	-0.202** (-0.947)	-0.437** (-0.658)
Health insurance	1.248*** (7.658)	1.578*** (8.894)

Note: *** means significant at the 1% level, ** means significant at the 5% level, and * means significant at the 10% level.

After studying the rural and urban older adults separately, we can conclude that there is a significant difference between the mental health of the urban and rural older adults and their children's support and socioeconomic status. Specifically, age, gender, marriage, ADL and the number of chronic diseases have a significant impact on the mental health of urban older adults, while the number of ADL and chronic diseases has a significant impact on the mental health of rural older adults. The amount and frequency of children's economic support, the degree of children's care for the older adults, the main source of living for children's appliance care, the degree of respect from the surrounding adults, and the variables of medical insurance have a significant impact on the mental health of the older adults in rural areas. The urban older adults's intimate relationship with their children, the relationship between their children and the older adults, their daily care, educational level, work before retirement, main sources of living, respect from surrounding adults and medical insurance have a significant impact on the mental health of the urban older adults.

5 discussion

In terms of individual characteristics. Gender has a significant impact on the mental health of the older adults, which is embodied in the fact that older adults women have higher mental health than older adults men, which is different from previous studies. This may be due to the fact that

older women have a lower family status than men and have a longer unhealthy life expectancy, so their mental health is lower. The household registration is a significant variable that affects the mental health of the older adults, which also indicates that there are significant differences in mental health between the urban and rural older adults, which will be further analyzed later. From the perspective of direction, the mental health of the older adults in the marital state is significantly higher than that of the older adults in the non-marital state, which indicates that the support of the spouse has a direct impact on the mental health of the older adults, and the care and comfort of the spouse can reduce the probability of mental health of the older adults. The older adults with more chronic diseases are more likely to have a lower level of mental health. The older adults with poor health conditions have a lower level of mental health due to the existence of the objective reason of physical health. Therefore, the physical health condition is the key factor for the mental health of the older adults.

From the perspective of children's support, children's economic support to the older adults is an important embodiment of the harmony degree of children's support. The regression results show that the stronger the children's economic support, the higher the mental health level of the older adults, the closeness of the older adults and the degree of children's care for the older adults are an important embodiment of the harmony degree of children's support. The closer they are to their children and the more they care about them, the greater the probability of their mental health is. The more frequent children's daily care for the older adults, the higher the probability of mental health of the older adults. The physical condition of the older adults who are often taken care of by their children is relatively poor. In order to be filial to their parents, most children will do their best to take care of the older adults, and at the same time encourage the older adults to try their best to strengthen the use of mental health, so as to promote the improvement of the quality of life of the older adults in their later years. The above conclusions show that harmonious children's support is the premise of the mental health of the older adults, because of the strong support of children, whether material or spiritual support, can promote the improvement of the mental health of the older adults, children's support from the older adults life worries. So far, except for the variable "frequency of children's economic support for the older adults", Hypothesis 1 of this paper has been verified.

In terms of social and economic status, the regression results of education level show that the older adults with higher education level have higher mental health level, and the older adults with higher education level have more objective cognition of life, so the older adults with higher education level have better mental health state. In terms of occupational status's influence on the mental health intention of the older adults, the higher the occupational status, the stronger the mental health level of the older adults. The older adults whose occupation was farmer, unemployed and laid-off before 60 years of age were taken as the reference group, and the mental health level of the civil servant, employee of enterprises and public institutions before 60 years of age and self-employed person was higher. According to the regression results of income level, the increase of income level also significantly improves the probability of mental health of the older adults. Main source of income is to point to in the older adults of the current is how to get the main part of the income, compared with the current source rely mainly on the pension income of the older adults, rely on labor income, government metastatic income and other income, the old man's psychological health level is lower, which showed the presence of potential pension become the key factors affecting the older adults mental health. The higher the degree of respect from the surrounding adults, the higher the probability of mental health of the older adults. The older adults respected by the

surrounding adults have a harmonious neighborhood relationship, which also indicates that they have a certain social and economic status and maintain a relatively open attitude towards mental health. The regression results of medical insurance show that compared with the older adults who enjoy the "employee medical insurance", the older adults who enjoy the "urban and rural residential insurance" and the older adults who do not enjoy the pension insurance have a lower probability of mental health level, because the "employee medical insurance" has the best treatment level among the above pension benefits. For a long time, China has established a medical insurance system characterized by "professional identity", and there are significant differences in treatment between different medical insurance, so the type of medical insurance treatment has become an important marker to identify the individual's social and economic status. Education level, occupational status, income status, medical insurance benefits and main sources of living are all important manifestations of social and economic status, and the above variables all have a significant positive impact on the mental health of the older adults. Thus, Hypothesis 2 of this paper is verified.

From the perspective of urban and rural differences, from the perspective of children support, the close relationship with children has a greater impact on the mental health of urban older adults, while children's economic support is not significant. On the contrary, children's economic support for their parents has a greater impact on the mental health of the older adults in rural areas. From the perspective of social and economic status, the influence of education level on the mental health of the older adults in rural areas is not significant, which is because this generation of rural older adults generally have a low education level. However, due to the difference in the education level of the urban older adults, the higher the education level of the older adults, the more likely they are to make use of mental health. The effect of pre-retirement work on rural mental health is not significant, but the effect on urban older adults is significant. The main source of living, the degree of respect from the surrounding adults, the medical insurance and the mental health of the older adults in urban and rural areas are significantly affected. Therefore, Hypothesis 3 of this paper is also verified. There are differences in mental health factors between the urban older adults and the rural older adults.

5. Conclusions

This study analyzed the impact of mental health of the older adults from the perspectives of children support and social and economic status, and took into account the differences in mental health of the older adults with different individual characteristics, as well as the differences in mental health influencing factors between the urban older adults and the rural older adults. The study concluded that the higher the children's support (spiritual support, material support) to the older adults, the older adults are more likely to have a higher level of mental health, the older adults social and economic status, especially the medical insurance and income status is better, the older adults are more likely to have a higher level of mental health. The factors affecting mental health of the older adults in urban and rural areas are different, mainly due to the economic level and the status of vocational education before retirement.

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