Influence of Economic Conditions and Social Relationships on the Choice of Elderly Care Models

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ABSTRACT

The purpose of this study is to understand the influence of economic conditions and social relationships on the choice of elderly care models. A face-to-face questionnaire survey was conducted by randomly selecting the elderly from a certain city, and 150 valid questionnaires were completed. Using the statistical analysis method of factor analysis and binary logistic regression, it was found that among the 150 elderly people, 78.66% chose home care, 10.67% chose community care, and 10.67 chose institution care. The logistic regression analysis showed that the average income of their children was average personal income, personal living expenses, the degree of family care in daily life, the frequency of traveling together with the spouse, and the frequency of meeting with children are the factors that affect the choice of elderly care mode in terms of economic status and social relations (both $P < 0.05$). The results of this study show that older people with better economic conditions and social relationships are more willing to choose home care, and vice versa, they are more willing to choose institutional care. The government, society, and relevant departments should pay more attention to the economic conditions and social relations of the elderly, to improve the quality of life of the elderly and provide more references for the choice of elderly care options.

Keywords: *old-age, care model, elderly economic status, social relations influencing factors*

1.INTRODUCTION

At present, the aging of our country is accelerating. The aging of the population is bound to be a problem that our country will face now and in the future. Due to the large population base in our country, aging has greatly increased the demand for elderly care, the elderly care model will be the main way to solve the problem of elderly care. According to the "China bo and Senior Care Report"[1], China has the largest number of young people in the world, and it is also one of the most aging countries in the world. China's aging development will have an impact on the future development of the economy and society. In 2015, there were as many as 220 million people over 60 years old. The proportion of people aged 60 and over in the total population will rise from approximately 16% in 2015 to approximately 33% in 2025. As the life expectancy of the elderly in China continues to increase, we should address the elderly's needs for the elderly as soon as possible and provide them with a good environment and model for the elderly.

Through the "China Health and Pension Report", we can understand that the economy is the foundation of life and determines a person's bottom state. A person's economic status plays a decisive role in the propensity to consume and the level of consumption. This report also shows that the economic status of the elderly occupies an important position in the influence of the choice of pension mode. Therefore, the analysis of the economic situation on the elderly's choice of pension model is helpful to provide a reference for the elderly to choose the pension model. Social relationships reflect a person's social life and environment. At the same time, social relationships can affect a person's psychological state. The happiness and satisfaction in the heart also play a decisive role in the elderly's choice of pension mode. Analysing the social relations of the elderly is helpful to provide standards for the elderly to choose the retirement model.

Through the analysis of economic conditions and social relations, we can analyse the factors that affect the elderly's choice of retirement model from both physical and psychological aspects and provide the elderly with standards and references for the choice of retirement model.

Because aging will have a huge impact on the economic status[3] and the sustainable development of

social relations [2](China Health and Pension Report), analysing the influence of the elderly on the choice of pension mode from the economic status and social relations can further understand the elderly's Demand, to provide reference and standards for the elderly to choose the retirement model.

This study investigates the influence of economic conditions and social relationships on the choice of elderly care models and provides a scientific and long-term basis for elderly care models. The research results of this study can provide different groups of society with better services for the elderly. Government personnel can allocate resources for the elderly more reasonably based on the elderly's preferences for elderly care. The community can provide more specific services and assistance to the elderly. Children can learn about the current family situation through this research and help the elderly in the family choose the best mode of care for the elderly. To choose the best pension model, the elderly can determine the suitable pension model based on their economic conditions and social relationships.

2. METHOD

In August 2021, we interviewed with 10 elderlies, which laid the foundation and framework for the questionnaire design. Inclusion criteria: age $\geq$ 60 years old, and voluntarily participate in this study. A total of 150 responses were collected through the online questionnaire in August 2021.

2.1 Research Object

A total of 150 people participated, aged 60-80 or above, 126 males and 24 females. The crowds were distributed in Shenzhen, Guangzhou, Huizhou, and Hong Kong Special Administrative Region. Survey tools:

A self-designed questionnaire is used to conduct the survey. The questionnaire includes general information, such as demographic data (gender, age, education level, marital status, number of children), economic status data (per capita monthly household income), and social relations data (children The degree of care, and the travel frequency of the partner), the choice of institutional pensions. Concerning the research method (Analysis of the willingness and influencing factors of the elderly in urban elderly institutions in Shandong Province), it was confirmed that the average income of the children, the average personal income, personal living expenses, the degree of daily care of the family, and the frequency and harmony of the wife's travel The frequency of children meeting are the independent variable, the retirement model is selected as the dependent variable, and the score 1-5 is used for data processing.

2.2 Investigation procedure

The online questionnaire survey method is adopted, and the survey subjects are required to complete the questionnaire truthfully according to their conditions, and a total of 150 valid data were collected.

SPSS21.0 was used to statistically process the data, and the single factor $\chi 2$ test and Logistic regression[5] were used to analyse the factors that influence the economic status and social relations on the choice of elderly care mode. The difference was statistically significant with $P<0.05$.

3. MATH AND EQUATIONS

3.1 Reliability and validity analysis

3.1.1 Reliability analysis

Reliability test is used to test the degree of concentration and unity of the data collected in the questionnaire and is an indicator of the consistency and stability of survey research results. In the process of questionnaire survey, the reliability of the questionnaire data is the basic condition to ensure the scientific nature of the research. The detection method adopted in this paper is the Cronbach's Alpha Coefficient (Cronbach's Alpha Coefficient) proposed by Lee Cronbach in the middle of the last century. The higher the value of Cronbach's Alpha coefficient, the more concentrated and stable the data, and the closer the coefficient is to 1, the higher the reliability. Normally, the Cronbach's Alpha coefficient is above 0.60, indicating that the reliability of the data results of the questionnaire is acceptable. A value above 0.8 indicates a scale The reliability of the data is high. The Cronbach's Alpha coefficient value is less than 0.6, which means that the items of the scale need to be modified. The scale is tested by the Cronbach coefficient. The specific results of the reliability test are shown in the following table:

Table1.

Reliability statistics

Kronbach Alpha Item Number	Kronbach Alpha Item Number
.640	11

It can be seen from the above table that the Cronbach's Alpha value of the variable is 0.640, which exceeds 0.6, indicating that the reliability of the scale data meets the requirements, and the questionnaire data has good internal consistency, and subsequent correlation analysis and regression analysis can be carried out.

3.1.2 Validity analysis

Validity refers to the degree of difference between the actual survey results of the questionnaire data and the ideal state. Validity is the ability of the questionnaire data to reflect the actual situation of things and can reflect the validity of the survey data results of the scale, that is, the questionnaire is measured by statistical analysis tools The accuracy of the data. Validity analysis refers to the reflection of the data results of the measurement items to the theoretical concept. Factor analysis is a common way to analyze the validity of the structure. The structure validity of the scale measurement is tested by the KMO and Bartlett sphere test. When the KMO value is greater than 0.7 in the validity test, and the significance is less than 0.05, it indicates that the overall correlation of the data is strong, and the structural reliability is good.

Table2.

KMO and Bartlett test

KMO sampling appropriateness quantity		.714
Bartlett sphericity test	Approximate chi-square	299.379
	Degrees of freedom	45
	Significance	.000

It can be seen from the above table that the KMO value in the KMO and Bartlett test is 0.714, which is greater than 0.7, indicating that the questionnaire is valid and the correlation between the independent variable and the dependent variable is strong; the approximate chi-square value is 299.379, The P value (sig.) of the Bartlett Spherical Test is 0.000, which is less than 0.05. The validity analysis results show that the overall data is relatively strongly correlated, and there is a good relationship between the variables. The structure of the scale has good reliability and can be further analyzed.

3.2 Correlation analysis

According to Pearson's correlation analysis, the gender, age, education level in the demographic variables, the average income of children in the independent variable economic status, average personal income, personal living expenses, and the degree of daily care of the family in the independent variable social relations The 11 variables, the frequency of travel with spouse, the frequency of meeting with children, the physical condition of the control variable and the choice of the dependent variable retirement model, are analyzed for correlation.

Pearson's correlation coefficient is a coefficient that measures the degree of linear correlation between variables and can be used as a measurement method to test the significance of variables. The definition of Pearson's correlation coefficient is:

$$\rho = \frac{\sum_{i=1}^{N}(x_i - \bar{x})(y_i - \bar{y})}{\sum_{i=1}^{N}[(x_i - \bar{x})^2(y_i - \bar{y})^2]^{1/2}}$$

The above table is a correlation analysis table between each variable. Pearson's correlation shows the independent variables:

The significance of the family's daily care level, the travel frequency of the spouse, the physical condition of the three factors, and the choice of the pension model is less than 0.05, indicating that the three variables have a significant influence on the choice of the pension model, and there is a significant positive effect. , That is, the higher the degree of family care in daily life, the higher the travel frequency with the spouse, and the better the physical condition, the more inclined the respondents are to stay at home for the elderly.

3.3. Unordered multi-category Logistic regression analysis

3.3.1Case processing summary analysis table

The frequency and percentage of the independent variable and the dependent variable are summarized. The specific situation is shown in the table below. It can be seen that the respondents who tend to stay at home for the elderly account for the largest proportion, reaching 78.7%; from the perspective of gender, the respondents are Males are overwhelmingly large, reaching 84.0%; in terms of age, the 60-65-year-old range of the surveyed samples accounted for the highest proportion, accounting for 58.7% of the total number of people surveyed; among the surveyed samples, the education level is specialist and The majority of college students accounted for 34.0%; from the perspective of the average income of children, the number of people under 3500 and the range of 3500-5000 is the largest, accounting for 27.3% of the total; from the perspective of personal average income, the monthly income is 5000 The above accounted for the largest proportion, reaching 38.7% of the total survey sample. From the perspective of the personal living expenses of the elderly, the elderly who indicated that their expenses could be self-sufficient (just enough) accounted for 39.3% of the total number of surveys. ; From the perspective of the degree of family care for life, 42.0% of the respondents said that their family members took care of their daily lives at an average level; from the perspective of the travel frequency of the elderly and their wives, 25.3% of the respondents said that they occasionally Or often travel with their spouses, most of the respondents travel more frequently; in terms of the

frequency of meeting with their children, 62.7% of the elderly said that they often meet with their children, and most of the surveyed have more frequent meetings with their children ; Judging from the physical condition of the surveyed, 30.7% of the elderly said that their physical

Table3.

Model fitting information

model	Model Fitting Condition	Likelihood Ratio Test		
	-2 log-likelihood	chi-square	Degree of freedom	significance
Intercept only	197.091			
Final	110.497	86.594	64	.000

condition is relatively good, 27.3% of the elderly said that their physical condition is very good, and the number of people with relatively poor and very poor health [4] accounted for 10 %. Overall, the recovered sample data conforms to the actual distribution.

3.4 Regression analysis of demographic variables, economic status and social relationship on the choice of pension model

3.4.1 Model fitting information

The likelihood ratio test was performed on the model, P<0.001, and the following table shows that the model is statistically significant.

3.4.2 Estimated values of model parameters

After the results shown in the following table are added to the control variable physical condition, the "community pension" selected by the pension model is used as the reference level. From the results, with the test level α=0.05, after adding the control variables, the significance level changes, as shown in the following table:

Institutional pension and community pension: In the independent variable social relationship variables, the degree of family care for daily life (never) (P=0.008) and the physical condition of the control variable (very poor) (P=0.002) (P<0.01) has statistically significant. Therefore, compared with community care for the elderly, the degree of family care for the elderly is lower, and the respondents with poor physical conditions prefer to choose institutional care for the elderly.

Home-based care compared with community-based care: Among the independent variables of social relations, the degree of family care in daily life (more) (P=0.006) and the physical condition of the control variable (good) (P=0.000) (P＜0.01) has statistical significant. Therefore, compared with community care for the elderly, the higher the degree of family care for the elderly, and the better physical condition, the respondents prefer to choose home care for the elderly.

4. Figures and Table

4.1 subsequent correlation analysis and regression analysis

Table4.
Item total statistics

	Scaled average after deleting the item	Scaled variance after deleting the item	Correlation between the corrected item and the total Cronbach	Alpha after deleting the item
gender	30.89	36.705	.156	.636
age	30.00	35.517	-.011	.630
Educational level	28.98	32.839	.265	.623
Average income of children	29.35	28.472	.425	.587
Personal economic income	28.53	29.097	.378	.599
Personal living expenses	29.49	30.856	.511	.582
The degree of family daily care	28.65	31.304	.408	.597

Travel frequency with spouse	28.90	29.138	.452	.582
Frequency of meeting with children	27.98	32.476	.198	.637
Physical condition	28.34	30.884	.462	.588
Pension mode selection	29.37	36.220	.111	.634

4.2orrelation analysis

Table5.
Correlation

	Gender	Age	Educational level	Average income of children	Personal economic income	Personal living expenses	The degree of family daily care	Travel frequency with spouse	Frequency of meeting with children	Physical condition	Pension mode selection
gender	1										
age	.170*	1									
Educational level	-.058	.058	1								
Average income of children	.369**	.069	.131	1							
Personal economic income	.176*	.076	.307**	.426**	1						
Personal living expenses	.174*	.054	.247**	.374**	.571**	1					
The degree of family daily care	-.060	-.102	.184*	.120	.145	.210**	1				
Travel frequency with spouse	-.088	-.127	.175*	.238**	.114	.237**	.490**	1			
Frequency of meeting with children	-.021	-.115	-.050	.203*	-.122	.026	.308**	.414**	1		
Physical condition	.001	.000	.189*	.140	.207*	.349**	.391**	.434**	.221**	1	
Pension mode selection	-.037	-.039	-.034	-.032	-.088	.050	.206*	.182*	.126	.246**	1

*. At the 0.05 level (two-tailed), the correlation is significant.

**. At the 0.01 level (two-tailed), the correlation is significant.

5.DISCUSSION

This study discusses the influence of economic conditions and social relationships on the choice of pension models. From this study, it can be concluded that the elderly who have the degree of family care of never and the frequency of meeting with their children are more likely to choose an institution to provide for the aged, and the degree of daily care in the family is higher than that of the elderly who occasionally meet with their children.

They are more inclined to choose home-based care for the elderly. The happiness of the elderly will increase when they are accompanied and taken care of children. Therefore, there is more elderly care at home. In contrast, the elderly who lack happiness will be more inclined to choose institutional care. Elderly care institutions can increase happiness by improving facilities and the environment and arrange group activities to increase the happiness of the elderly.

Compared with community care for the elderly, the degree of family care for the elderly is lower, and respondents with poor physical conditions prefer to choose an institution for the care of the elderly. The higher the degree of family care for the elderly, and the better physical conditions, the elderly tend to choose home-based care. Through analysis, we can conclude that compared with living at home, institutional elderly care is better in terms of medical treatment and nursing, so that elderly people with poor physical conditions prefer institutional elderly care. Society should increase the training of social work services[6] and nursing professionals so that even the home-based elderly can receive relatively good elderly care services.

It can be seen from the above cross-over results that, from the overall trend, the rise of personal economic income, the level of satisfaction of the surveyed with community services also become higher, indicating that when the income of their family is high, and the quality of life of the elderly is relatively higher. High, and more satisfied with the performance of community service. The higher the degree of family care for life, the higher the degree of satisfaction of the elderly with community services. Among the sample groups with a lot of family care for life, more than 50% of the elderly said that they are more satisfied or satisfied with community services. Through this research, we can get the influence of economic conditions and social relations on the choice of elderly care model. Provide a reference standard for the society, the government, the elderly can choose the retirement model based on this study. Then they can improve their quality of life and spend a good old age.

There are limitations in the process of research. In the data collection, because of the uneven distribution of network transmission, most of the people who answered are distributed in the Pearl River Delta region, and the entire elderly cannot be changed. The design of independent variables and dependent variables can be more careful and more objective.

6.CONCLUSIONS

Through this research, it can be understood that at present, economic conditions and social relations have a certain influence on the elderly's choice of pension mode. At the same time, the physical condition of the elderly is also one of the reference standards for the elderly to choose the retirement model. For the elderly who are in poor physical condition and lack family care, more choose institutions to provide for the aged. Therefore, the government can improve the institutional care services and conditions for such seniors through cooperation with elderly care institutions. This study can provide a reference for the selection of the elderly care model in terms of follow-up physical and mental health and continue to explore in-depth in the future.

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