# Study on Influencing Factors of Rural Home-based Pension Happiness: Based on the investigation of the old-age care model of "Party Building + Home for Care" in Xinyu City, Jiangxi Province

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Abstract: Building a well-off society in an all-round way in 2020 will accelerate the process of urbanization and modernization. However, the problem of supporting the elderly who stay behind and live alone in rural areas is still a major social problem. In this paper, the elderly in Xinyu City's "Home for the Aged" are taken as survey samples, and from the micro perspective of happiness, the logistics model is constructed to analyze the influencing factors of rural home-based pension happiness. It is found that Xinyu City's "Party Building + Nursing Home" has a stronger sense of well-being than the old people's homes in villages and towns, which makes the elderly feel at ease and the children feel at ease. Logistics model shows that living environment, filial piety of children, facilities and equipment services, and catering services are highly correlated with the happiness of the elderly, but their happiness is weak in psychological comfort and medical services. Therefore, it is necessary to strengthen the brand building of party building and promote the in-depth and sustainable development of "party building+home for care".

**Keywords:** rural old-age care; Xinyu city; "party building + nursing home"; happiness

## 1. Introduction

According to the data released by the National Bureau of Statistics, there are 253.88 million people aged 60 and above in China in 2019, accounting for 18.1% of the total population. In the future, China's aging rate will rise at a high slope, and China will enter a moderately aging society during the "14th Five-Year Plan". However, the situation of rural old-age care is more severe because of the acceleration of urbanization and the outflow of labor. Document No.1 of the Central Committee in 2020 pointed out that "the care service system for left-behind children, women and the elderly in rural areas should be improved. We should develop rural mutual support for the aged and build day care centers in various forms. Therefore, all localities are actively exploring new forms

of rural old-age care.

Xinyu City, Jiangxi Province pioneered the rural old-age model of "Party Building + Supporting Home", which is different from the old people's homes taking towns as units, but taking villages as units. [1] Under the guidance of "Party Building Office + Village Committee", idle old houses were transformed to establish a supporting system, and a five-level linkage mechanism of "Party Building Leading + Government Promoting + Village Committee Management + Social Assistance + Elderly Self-raising" was adopted to solve the problem of insufficient funds faced by institutional old-age care By the end of October 2020, 736 nursing homes had been built in 414 administrative villages in Xinyu City, benefiting 10,309 elderly people, basically achieving full coverage of the elderly in need.

#### 2. Literature Review

At present, domestic scholars' research on rural old-age care can be divided into three aspects: (1) The situation of rural old-age care is grim, and the pattern of family old-age care has changed. Zhang Chi (2020) thinks that the "incompleteness" of rural labor transfer in China leads to the forced separation of the subject and object of support, which inevitably affects the support behavior and the quality of old-age care. [2] (2) Discuss the forms of rural old-age care from different angles. Zhou Ailing and others (2012) proposed to build a dual rural pension model of "family + society" in the process of urbanization, based on family pension, trying to outsource pension and advocating self-pension. [3] Yao Zhaoyu (2014) elaborated the model of rural social old-age service, taking Jiangsu as an example, and discussed new rural old-age forms such as "old-age nursing homes".[4] Chen Jihua and Huang Jianyuan (2018), taking the "Care Home for the Elderly" in S County, northern Jiangsu Province as a typical case, expounded the mutual-aid pension model with the of "collective hospital building, characteristics centralized living and mutual service", and reconstructed the rural pension pattern. [5] (3) From the perspective of

rural old-age care. At present, the research mainly examines the problem of providing for the aged for the elderly who stay behind and live alone in rural areas from the relationship between subject and object, security level and system construction. In addition, foreign scholars also put forward countermeasures and suggestions for rural old-age care from the aspects of mutual assistance and time bank, but due to differences in national conditions, their applicability needs to be verified.

# 3. Model Building

## 3.1. Data Sources

The original data came from questionnaires collected in Yushui District and Fenyi County of Xinyu City, Jiangxi Province in August 2020 and January 2021. From the perspective of happiness, the survey object is the elderly living in nursing homes. A total of 270 questionnaires were distributed and 264 questionnaires were recovered, with a recovery rate of 97.78%.

# 3.2. Variable Selection

Taking the happiness of the elderly as the dependent variable and the factors affecting happiness as the independent variable, a logistics model is established, which is defined as follows: [6]

$$P=P(y=1|x) = \frac{\exp(\alpha + \beta x)}{1 + \exp(\alpha + \beta x)}$$
(1)

Use  $x_1$  indicates age, etc. y indicates happiness, and the related variable symbols are described as follows, which is shown in Table 1.

Symbol	Meaning	Meaning Symbol	
$x_1$	age	$x_8$	loneliness coefficient
$x_2$	gender	$x_9$	medical service
$x_3$	number of children	$x_{10}$	service attitude of staff
$x_4$	dwelling environment	$x_{11}$	nursing skills
$x_5$	leisure activities and entertainment	$x_{12}$	diet
$x_6$	degree of filial piety of children	$x_{13}$ neighborhood	
$\overline{x_7}$	social assistance	y	happiness

Table 1. Symbols and descriptions of variables

3.3. Descriptive Statistics

Table 2 gives the average value, variance and P value of each index under happiness or unhappiness. According to the above table, we preliminarily observe that the number of children and neighborhood relationship are not statistically significant (because the P value of these indicators is greater than 0.2), while other indicators are statistically significant and are included in

# 3.4. Analysis of Regression Results

See Table 3 for specific data. The logistics regression

the stepwise regression model. From x3, the closer the value is to 5, the stronger the happiness is.

Table 2. Descriptive statistical results

	Land			р
n	Level	66	198	r
$r_{1}(\%)$	1(<80)	60 (90 9)	150 (75.8)	0.013
w1(/0)	1(00)	(00()0.))	26 (19.2)	0.015
	2(<90) 3(<100)	0(9.1)	12(61)	
<i>m</i> (0/)	1(mala)	42 ((2, ())	12(0.1)	0.096
$x_2(\%)$	I(male)	42 (03.0)	90 (45.5)	0.086
	2(female)	24 (36.4)	108 (54.5)	
$x_{3}(\%)$	1	6 ( 9.1)	12 ( 6.1)	0.443
	2	12 (18.2)	42 (21.2)	
	3	18(27.3)	84 (42.4)	
	4	24(36.4)	60(30.3)	
	5	0(9.1)	0(0.0)	
$x_4$ (%)	4	42 (63.6)	24 (12.1)	0.003
	5	24 (36.4)	174 (87.9)	
$x_5(\%)$	3	12 (18.2)	12 ( 6.1)	0.097
	4	36 (54.5)	60 (30.3)	
	5	18 (27.3)	126 (63.6)	
$x_6(\%)$	2	0 ( 0.0)	6 ( 3.0)	0.149
	3	12 (18.2)	18 ( 9.1)	
	4	18 (27.3)	24 (12.1)	
	5	36 (54.5)	150 (75.8)	
$x_{7}(\%)$	1	12 (18.2)	66 (33.3)	0.371
	2	42 (63.6)	78 (39.4)	
	3	12 (18.2)	54 (27.3)	
$x_8(\%)$	1	6(9.1)	30 (15.2)	0.179
	2	12 (18.2)	24 (12.1)	
	3	36 (54.5)	132 (66.7)	
	4	12 (18.2)	12 ( 6.1)	
$x_9(\%)$	1	0 ( 0.0)	90 (45.5)	0.019
	2	12 (18.2)	12 ( 6.1)	
	3	54 (81.8)	96 (48.5)	
$x_{10}(\%)$	2	6(9.1)	0(0.0)	< 0.001
	3	30 (45.5)	0 ( 0.0)	
	4	24 (36.4)	48(24.2)	
	5	6 ( 9.1)	150 (75.8)	
$x_{11}$ (%)	3	12 (18.2)	12(6.1)	0.044
	4	36 (54.5)	48 (24.2)	
	5	18 (27.3)	138 (69.7)	
$x_{12}(\%)$	4	30 (45.5)	12(6.1)	0.009
	5	36 (54.5)	186 (93.9)	
$x_{13}$ (%)	4	12 (18.2)	7 ( 3.0)	0.3
	5	54 (81.8)	192 (97.0)	

model was established with the inclusion index as independent variable and happiness as dependent variable. P indicates the probability of happiness in the nursing home, and 1-P indicates the probability of unhappiness. P<=0.5 can be regarded as unhappy in the

nursing home, and P>0.5 can be regarded as happy in the nursing home.

Table 3. Results of Stepwise Logistics Regression

	Exp(coef) [Confint]	Estimate	Std. error	Statistic	P. value
(Intercept)	0.00 [0.00, 0.00]	-27.2611	13.14564	-2.07378	0.0381
$x_2$	7.72 [0.74, 249.62]	2.043908	1.366203	1.49605	0.134641
$x_4$	2.39 [1.80, 4.96]	2.911572	1.370493	2.12447	0.033631
$x_6$	0.22 [0.01, 1.40]	-1.50363	1.175581	-1.27905	0.200878
$x_7$	5.15 [0.79, 80.59]	1.639199	1.103738	1.485135	0.137508
$x_9$	0.21 [0.02, 0.99]	-1.55744	0.898264	-1.73384	0.082947
$x_{11}$	5.97 [1.01, 72.60]	1.787006	1.019878	1.752177	0.079743
$x_{12}$	10.54 [0.65, 512.57]	2.355334	1.599177	1.472841	0.140794

The regression results show that age, living environment, filial piety of children, social assistance, equipment and services, nursing skills of staff and diet are highly correlated with the happiness of the elderly. The influencing factors of happiness are concentrated in 4 (very satisfied) and 5 (very satisfied), and the elderly living in nursing homes have strong happiness.  $X_6$  (filial piety of children) and  $X_9$  (medical service) showed negative correlation, while filial piety of children was more manifested in psychological care.

## 4. Research Conclusions and Recommendations

4.1. Build a Model

$$P = \frac{1}{1 + \exp(-X)}$$
(2)

$$\mathbf{X} = -27.20 + 2.04 \mathbf{X}_{2} + 2.91 \mathbf{X}_{4} - 1.5 \mathbf{X}_{6} + 1.04 \mathbf{X}_{7}$$
(3)  
-1.56 X<sub>9</sub> + 1.78 X<sub>11</sub> + 1.59 X<sub>12</sub>

The established logistics model of influencing factors of old-age happiness is as shown above. ROC test showed that the AUC value was 0.927, which was close to 1, and the overall effect of the model was better.

### 4.2. Conclusion

Based on the investigation of "Party Building + Home Care" pension model in Xinyu City, Jiangxi Province, this paper analyzes the influencing factors of rural home-based pension happiness. It is found that Xinyu City's "Party Building + Nursing Home" has a stronger sense of well-being than the old people's homes in villages and towns, which makes the elderly feel at ease and the children feel at ease. Logistics model shows that living environment, filial piety of children, facilities and equipment services, and catering services are highly correlated with the happiness of the elderly, but their happiness is weak in psychological comfort and medical services. Therefore, the nursing home should be upgraded in terms of psychological comfort and medical services. At the same time, promoting the sustained and steady development of the "Party Building + Home for the Aged" cannot be separated from the guarantee of funds.

#### 4.3. Policy Recommendations

First, actively expand the financing channels of rural old-age services. Funds are the basic conditions for guaranteeing basic services such as medical services. We should pay great attention to the society and expand financing channels. Strengthen the public opinion guiding role of Internet media, guide the society to pay attention to rural old-age care through publicity and reports, and appeal to social caring people, enterprises and social organizations to provide certain financial assistance; Promote the support of returning home, the youth feed back the countryside, and care for the development of "party building + home for care" in hometown.

Secondly, it is necessary to strengthen infrastructure management and improve the performance of capital use. On the one hand, guarantee basic living facilities (such as water and heat appliances), strengthen facility cost management (utilities, etc.), and maintain them regularly; On the other hand, some unsuitable and long-term idle equipment can be considered for removal, such as sports equipment with excessive strength.

Finally, the ultimate goal of providing for the aged is to enhance the happiness of the elderly. To improve the happiness of the elderly, we should improve the regular health talks, monthly door-to-door service and daily village medical system in village clinics, implement the medical reimbursement system, and strengthen the supply of drugs for common diseases of the elderly in order to improve the level of primary medical services; Give full play to the remote communication role of social platforms such as WeChat, so that children can understand the living conditions of the elderly in real time thousands of miles away; Give full play to the role of consultation and communication between the Council and the old party members, resolve the contradictions and conflicts in the homes for the elderly in a timely manner, strengthen psychological exchanges and communication, and relieve loneliness, etc.

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