

## Research on the Demand and Countermeasure of Home-based Care for the Elderly in Rural Community

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**Abstract:** This study investigated the demand status and influencing factors of home-based care for the elderly in rural communities, and put forward corresponding countermeasures and suggestions to provide support for the home-based care service plan in rural communities. Multi-stage random sampling was employed to recruit 1100 rural elderly people which questionnaires were distributed. The descriptive statistical methods were used to analyze the demographic characteristics and the demand status of home-based care for the elderly; Chi-square test and Logistic regression analysis were used to analyze the influencing factors of the demand for the elderly. The study shows that 609 elderly people (59.24%) have the need of home-based pension in the community. The highest demand for the elderly is medical care, accounting for 40.58%, followed by daily care (20.56%), community activities (20.34%) and spiritual and cultural services (18.12%). Among the demands of medical and health care services, the demand for general practitioners is the greatest. Among the demand of daily care for the elderly, the elderly have a greater demand for laundry, cooking, cleaning and outgoing activities; Among the demands for community activities and spiritual and cultural services, 28.55% of the elderly have a demand for recreational activities. Multivariate analysis showed that living conditions, career type, income level and medical insurance were the main factors affecting the demand for home-based old-age care for the elderly in the community. We should make targeted improvements according to the needs of the elderly at home, provide multi-level and more appropriate services for the elderly at home.

### 1. Introduction

Population aging is an important problem facing the whole world today [1]. With the increase of "421" type families and the emergence of empty nest families, it is difficult for family pension to meet the diverse service needs of the elderly in the aspects of day care, medical services, health care and critical care [2-3]. The report of the Eighteenth National Congress first mentioned that "we should actively respond to the aging of the population and vigorously develop services and industries for the aged". Starting from the national conditions, we should innovate the system and mechanism by giving full play to the leading role of the government, further stimulate the vitality of all aspects of society, give full play to various forces of the society in order to actively promote the development of the old-age service system, meet the diversified needs of home-based old-age service. Therefore, we should take the growing demand for home care services for the elderly as a starting point and a foothold [4].

Community home-based pension refers to the old people's choice of living in the family in accordance with the national living habits of our country to live safely in their old age. It takes the community as the platform, integrates all kinds of service resources in the community, and provides services for the elderly, such as meals, cleaning, bathing and medical assistance. This pension mode combines the advantages of institutions and families, and is widely advocated in documents such as the 12th Five-Year Plan for the Development of China's Aging Cause and the Plan for the Construction of Social Pension Service System (2011-2015). Vigorously promoting the home-based care service in the community is an important measure to solve the increasingly serious problem of

providing for the aged in our country and to improve the quality of life of the elderly and the quality of life in their later years; to carry forward the fine tradition of respecting the elderly and respecting the spiritual needs of the elderly, and to promote the harmony of family relations and society. It is an important measure to promote family harmony and community harmony [5-6].

## **2. Objects, contents of investigation and methods of statistical analysis**

### **2.1 Subjects of investigation**

In our study, 1100 general practitioners from 20 rural community health service centers in Shandong province were investigated by using multi-stage stratified cluster random sampling. Inclusion criteria for respondents: those who have registered permanent residence in their place of residence and have lived for more than one year; those who are over 60 years old by the date of the survey. Exclusion criteria: those with serious physical diseases, mental disorders and cognitive impairment; those with unclear language expression and communication impairment caused by various reasons; those who refuse to go out for investigation and investigation. At the same time, the self-designed interview outline was used to conduct in-depth personal interviews with relevant experts in universities, heads of health administration departments, heads of community health service centers and community general practitioners. A total of 1100 questionnaires were sent out and 1085 questionnaires were recovered. The recovery rate of the questionnaires was 98.64%, 1028 valid questionnaires were valid, and the recovery rate was 94.74%.

### **2.2 contents of investigation**

The survey tool is self-designed questionnaire and interview outline. This questionnaire consists of three parts: ① The general situation of the elderly, such as gender, age, marital status, educational level, occupation before retirement, medical insurance, income, chronic diseases, number of children, living style, etc.

② The demand status and influencing factors of home-based care for the elderly in rural communities. According to the needs of daily care, medical services, community entertainment and facilities, and spiritual support, 17 items were investigated to compare and analyze the differences of the needs of each item. The influencing factors of demand for daily care, medical services, community entertainment activities and spiritual support were analyzed among different demographic characteristics, different health level elderly people, and the differences among different variables were studied.

③ Suggestions and countermeasures for further implementation of home-based old-age care for the elderly. According to the factors affecting the elderly community pension needs and the existing problems, we put forward suggestions and countermeasures from government, community, institution and family perspectives for further implementation of community home pension.

### **2.3 statistical analysis**

The database was created with double entry and logical verification by using EpiData2.0. SPSS20.0 software was used for statistical processing of data. Univariate logistic regression was used to analyze the effects of gender, age, marital status, educational level, medical insurance, income, chronic diseases and self-care ability on the elderly's demand for home care. Multivariate logistic regression was used to analyze the influencing factors of community home-based pension from five aspects: daily care needs, medical service needs, community entertainment activities and facilities needs, and spiritual support needs.

## **3. Results**

### **3.1 Basic situation of the elderly**

In this study, 609 elderly people with home-based pension needs in community were investigated, including 268 males and 341 females. The average age is  $(63.58 \pm 7.81)$  years; 486

people(79.81%)are married;education is mainly based on primary school and junior middle school of 398 (65.35%); 159 (26.11%) people with one child, 210 (34.48%)with two children, 154 (25.29%)with three children, 86 (14.12%) with four or more children; 49 people (8.05%) living alone, 386 (63.38%) with spouses,78(12.81%) with children, 94 (15.44%) with spouses and children;There are 394(64.70%) basic medical insurance for urban and rural workers, 61(10.02%) basic medical insurance for urban and rural residents, 82(13.46%) new rural cooperative medical care, 5(0.82%) commercial medical insurance; the income is mostly concentrated in 2000-3999 yuan, there are 331 people (54.35%); The main source of income is child support for 506 people (83.09%), pension and pension for 30 people (4.93%), government relief for 52 people (8.54%), personal savings for 58 people (9.52%), and income from their own work for 173 people (28.41%).

### 3.2The demand status of the elderly

The highest demand for the elderly is medical care, accounting for 40.58%, followed by daily care (20.56%), community activities (20.34%) and spiritual and cultural services (18.12%). Among the demands of medical and health care services, the demand for general practitioners is the greatest, accounting for 30.16%. Secondly, they hope to establish professional nursing centers and provide health guidance, accounting for 18.45%, 16.53% .While 13.51% of the elderly hope that community health service centers can provide on-site care services, and 11.81% of the elderly hope to increase the number of community beds. Among the demand of daily care for the elderly, laundry, cooking and cleaning are the most needed care services for the elderly, accounting for 26.97% and 26.53% respectively;Secondly, out-going activities and shopping accounted for 16.38% and 13.96% respectively. Among the demands for community activities and spiritual and cultural services, 28.55% of the elderly have a demand for recreational activities,26.32% of the elderly want to study in the university for the elderly. The demand for legal and psychological counseling has increased compared with previous studies, with 18.15% and 16.06% respectively.

### 3.3 Multivariate analysis of the influencing factors on the demand of the elderly

Multivariate logistic regression model were analyzed from the four dimensions of daily care needs, medical service needs, economic security needs and spiritual support needs of the elderly at home, according to the results of the single-factor logistic regression analysis, it includes educational level, marital status, personal income, economic sources, living conditions, medical insurance mode, the number of children.

Through logistic regression analysis of the daily care needs of the elderly at home, we can see that the elderly at high income level in community have higher daily care needs than those at low income level. The elderly living in high-income communities need about 3.688 times more daily care than those living in low-income communities(Table1).Through logistic regression analysis of the demand for medical services of the elderly at home, we can see that there is a significant difference in the demand for medical services among the elderly with different types of medical insurance. The type of medical insurance is the influencing factor of the demand for medical services of the elderly(Table2).Through the logistic regression analysis of multi-factors of community activities demand of the elderly at home, no factors affecting the difference of community activities demand of the elderly were found.Through the logistic regression analysis of mental support needs of the elderly at home, pre-retirement occupation and different types of medical insuranceare the influencing factors of mental support(Table3).

Table1. Multiple logistic regression analysis of daily care demand of the elderly

variable	regression coefficient	Standard error	Wald $\chi^2$	P	OR		
					Point Estimation	95 CI	
Intercept	-1.267	2.0253	0.3917	0.5314			
monthly income	1.3051	0.5784	5.0920	0.0240	3.688	1.187	11.459

**Table2 .Multiple logistic regression analysis of medical service demand of the elderly**

variable	regression coefficient	Standard error	Wald $\chi^2$	P	OR		
					Point Estimation	95 CI	
Intercept	-1.7870	1.1066	2.6077	0.1063			
Medical insurance	0.6154	0.2690	5.2323	0.0222	1.850	1.092	3.135

**Table3. Multiple logistic regression analysis of mental support demand of the elderly**

variable	regression coefficient	Standard error	Wald $\chi^2$	P	OR		
					Point Estimation	95 CI	
Intercept	-6.3810	2.2066	8.3626	0.0038			
Career	-0.1189	0.0468	6.4482	0.0111	0.888	0.810	0.973
Medical insurance	1.3397	0.5468	6.0025	0.0143	3.818	1.307	11.151

## 4. Discussion

### 4.1 Analysis of demand of the elderly in the community for the elderly

The most demanding service for the elderly in the community is medical care, followed by daily care, community activities and spiritual and cultural services. It shows that the elderly in the community attach great importance to their own physical health, and can basically take care of themselves. They also have some needs for community activities and relatively low needs for spiritual and cultural services[7]. In the survey of the pension needs, the elderly need more laundry, cooking, cleaning and outdoor activities. It can be seen that the health status of the elderly is still acceptable and they can take care of themselves basically. Therefore, their caregivers are mainly themselves, followed by their spouses and children, and a small number of the elderly choose to employ nannies and hourly workers. Because widows or children are too busy to take care of them in time, more and more elderly people choose to hire nannies. The retired elderly still want to participate in community activities. Their demand for recreational activities and geriatric universities is the highest. At the same time, the demand for legal counseling and psychological counseling is greater than previous studies. As a result, nearly 20% of the elderly have legal and psychological needs, indicating that the legal awareness of the elderly has improved. Because of the heavy work of their children, they may not take care of the elderly properly. Therefore, the elderly themselves pay more attention to the development of mental health[8].

### 4.2 Analysis of demand of the elderly in the community for the elderly

The elderly engaged in business or service industry before retirement have relatively higher daily care needs, which is due to hard work causing greater physical damage, and therefore greater demand for daily care[9]. The elderly with a monthly income of 4000-4999 have a higher demand for daily care than those with lower income, because they have a relatively good economic base and can afford the cost of daily care, so they have a higher demand for daily care. The type of medical insurance is the influencing factor of the demand for medical services of the elderly. The demand for medical services of the elderly in the new rural cooperative medical system is low, probably because the medical service security of these elderly people is low, and the elderly who participate in the new rural cooperative medical system have a lower awareness of medical care than other elderly people because of the fact that the elderly in the new rural cooperative medical system have a lower awareness of medical care than other elderly people. Their demand for medical services is relatively low. Older people who choose basic medical insurance for urban residents and those whose pre-retirement jobs are general clerks, commercial service workers and non-farm laborers have lower demand for spiritual support. Because compared with the old people who are managers and technicians of organs, enterprises and institutions before retirement, their work environment before retirement involves less

content of spiritual life. After retirement, they are restricted by the economic basis and have relatively less demand for spiritual support.

## **5. Conclusion**

### **5.1 Improving the home-based pension model and formulating relevant rules and regulations**

The government should take the development of home-based care for the elderly in the community as a key part of the government's work. It should pay more attention to the work of home-based care for the elderly in the community. At the same time, the construction of home-based care for the elderly in the community should be moderately inclined in the policy, and some preferential policies should be given to the investors so as to encourage all sectors of society to participate in home-based care. The development of pension undertakings is coming. We should improve and supplement the related policies and regulations for the construction of community home-based pension, so as to ensure the healthy development of community home-based pension from the policy level[10].

### **5.2 Emphasizing the training of professional talents and improving the quality of staff**

Educational departments should attach importance to the development of relevant majors in colleges and universities, pay attention to the cultivation of students related to community home-based pension specialty, and provide students with sufficient internships and employment opportunities, so as to improve the professional quality of community pension institutions personnel, and regularly conduct business training for those who have already worked in the community, so as to enhance their professional skills, so that the community home-based pension model has a high level of sustainable development.

### **5.3 improving the service items guided by the needs of the elderly**

The present home-based pension service in China should start from four dimensions of daily life care, medical services, community activities and spiritual support, and provide services for different groups of people based on the model established by the needs of the elderly in the community. In the design of service items for the elderly at home in our country, we should adjust the service mode and content in time according to the needs of the elderly at different ages and in different health conditions. At the same time, we should pay more attention to the spiritual needs of the elderly, so that the elderly can live a quality life in their old age.

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