

The Demand Intention and Influencing Factors of Integrated Traditional Chinese Medicine and Elderly Care Services

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Abstract. The current demographic landscape in China is characterized by a substantial elderly population, accompanied by a deepening process of aging. Consequently, there exists a tense equilibrium between the supply and demand of elderly care services. Traditional Chinese medicine has unique advantages in "preventing disease" and health care. Integrating traditional Chinese medicine diagnosis, treatment methods and technologies into elderly care has certain value and practical significance. This article takes the integrated traditional Chinese medicine(TCM) and elderly care services as the research object, and uses the Anderson model as the theoretical framework to analyze the willingness and related influencing factors of it. Propose strategies and suggestions through analysis: establish a tendency factor assessment mechanism to accurately locate service targets; promote the transformation of enabling factors and improve public recognition of integrated TCM and elderly care services; and promote the optimization integrated TCM and elderly care services based on demand factors.

Keywords: Healthy elderly care; Traditional Chinese medicine; integrated TCM and elderly care services; Anderson model

1. Introduction

The number of elderly people in China has been increasing year by year, exceeding 200 million by the end of 2021, accounting for 14.2% of the total population in China. The elderly dependency ratio increased from 12.7% in 2012 to 20.8% in 2021. This indicates that China's elderly population has a large base and a fast growth rate, and the problem of social aging is becoming increasingly serious. At present, family elderly care is widely adopted in China. Although family elderly care has many advantages, it is difficult for the elderly to access professional medical and health services. In addition, with the fierce competition in society and the accelerated pace of life, children are unable to cope with family elderly care.

The integration of medical care and elderly care has emerged as a pivotal approach to address the inadequacy of family elderly care. This integration entails combining professional medical expertise, advanced equipment, rehabilitation training, and life assistance services. It

encompasses both physical and mental well-being, along with enhancing the overall quality of life for older adults. The concept of "treating diseases before they occur" advocated in traditional Chinese medicine is in line with the "combination of medical care and elderly care" model. Traditional Chinese medicine has unique therapeutic effects in areas such as disease prevention, disease treatment, chronic disease management, and rehabilitation. Combining traditional Chinese medicine with elderly care can better meet the elderly care needs. We define "integrated traditional Chinese medicine (TCM) and elderly care services" as: integrating the theories and technologies of traditional Chinese medicine into integrated medical care and elderly care.

There is no clear definition of the "integrated medicine and elderly care services" in foreign academic circles. However, there is a similar concept, which is long-term care (LTC). According to the definition of the World Health Organization (WHO), it refers to a system of care activities conducted by informal caregivers (family, friends, or neighbors) and professionals (health and social services) to ensure that those who do not have the ability to fully take care of themselves can continue to receive their personal needs and a higher quality of life [1], and achieve the maximum possible degree of independence, autonomy, participation, personal satisfaction, and personal dignity [2]. Ma Jie (2018) used multi-stage sampling to conduct on-site surveys of elderly people over 60 years old in 11 districts of Shanghai. They believed that the elderly in Shanghai have a greater demand for integrated TCM and elderly care services institutions. The factors such as medical tendency, education level, income level, age are the main factor affecting the elderly population's demand and choice for integrated TCM and elderly care services institutions [3]. This article chooses the Anderson model as the theoretical basis to conduct empirical research on the demand for integrated TCM and elderly care services. Logistic regression was used to determine the influencing factors of integrated TCM and elderly care services.

2. Research model and data sources

2.1 Research model

The Anderson model was proposed by American sociologist Andersen in 1968 and has become one of the core models for the utilization of healthcare services after years of development and revision [4]. The Anderson model divides the influencing factors of individual medical service needs into three levels, namely: tendency level, enabling level and demand level [5]. Tendency factors refer to an individual's tendency to seek medical services, including demographic characteristics, age and gender, etc. Enabling factors, also known as facilitative resources, refer to the personal or family and community resources that enable it to serve. Demand level refers to the individual's health status and health needs.

2.2 Data source

The questionnaire design was based on Anderson's theoretical model as a theoretical basis. The factors are divided into three aspects, investigation of tendency factors, investigation of enabling factors, and investigation of demand factors. Tendency factors include age, educational level, marital status, and ethnic category. Enabling factors include income status, source of income, pension insurance status, number of children, monthly acceptable medical

expenses, residential status, and child support. The demand factors include self-care ability, chronic disease status, physical health status, cognitive level of the integrated TCM and elderly care services, and views on integrated TCM and elderly care services institutions. The above factors are all independent variables, and the dependent variable is selected as "Is there a demand for integrated TCM and elderly care services". In this formal survey, a total of 300 questionnaires were distributed, and 271 questionnaires were collected, with a recovery rate of 90%. Among them, 249 were valid questionnaires, with a recovery rate of 83%.

3. Results

This article uses a logistic regression analysis model, which is as follows.

$$\text{Logit}(p) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \quad (1)$$

Among them, X_1 is the tendency factor, X_2 is the enabling factor, and X_3 is the demand factor.

The results are shown in Table 1. Among the tendency factors, age and ethnic category have statistically significant effects on the willingness to demand integrated TCM and elderly care services. Older people and the Han nationality elderly have greater demand for integrated TCM and elderly care services. Among the enabling factors, the number of children has a negative impact on the demand for integrated TCM and elderly care services. The more children, the lower the demand. The elderly whose main source of income is assistance are more willing to choose the integrated TCM and elderly care services than those with other sources of income (child provision, pension insurance, retirement pension). Moreover, the elderly with pension insurance are more likely to choose the service than those without pension insurance.

The elderly supported by their children are more willing to choose integrated TCM and elderly care services. The result shows that integrated TCM and elderly care services are favored by elderly people of different economic levels, and services are not "high consumption". Also, the elderly's demand for integrated TCM and elderly care services is affected by their children.

At the level of enabling factors, the P-value of self-care level is less than 0.05. Elderly people who are completely self-care have an 82.7% lower probability of willingness to demand than those who are partially self-care. Elderly people with poor health conditions have higher willingness to demand.

People who have a certain understanding of integrated TCM and elderly care services have a higher willingness to demand them. It is worth noting that if there are institutions near the elderly that provide relevant integrated TCM and elderly care services, their willingness to demand will be lower. This may be because elderly people are not satisfied with existing service institutions. This is an issue worthy of our deep thought and study.

Table 1. Binary Logistic results

	β	Significance (P)	OR	95% CI	
				Lower limit	Upper limit
Age	1.172	0.001***	3.228	1.578	6.600
Education (control group: junior high school and below)		0.741			
Education (high school)	0.352	0.508	1.421	0.501	4.029
Education (College)	0.295	0.669	1.343	0.347	5.202
Education (Undergraduate)	0.706	0.304	2.026	0.527	7.798
Marital status (control group: none)	-1.103	0.085	0.332	0.095	1.163
Ethnicity (control group: Han)	-3.045	0.001***	0.048	0.008	0.300
Number of children	-1.096	0.000***	0.334	0.184	0.606
Income	-0.228	0.585	0.796	0.351	1.803
Main source of income (control group: pension)		0.049*			
Main source of income (provided by children)	-0.157	0.768	0.855	0.301	2.428
Main source of income (pension insurance)	0.913	0.093	2.491	0.860	7.220
Main source of income (relief)	-2.502	0.016*	0.082	0.011	0.626
Main source of income (other)	-21.714	0.999	0.000	0.000	0.000
Living status (control group: living alone)		0.721			
Living status Living with spouse or children	-1.107	0.378	0.331	0.028	3.869
Living status (nursing home or other)	-0.701	0.672	0.496	0.019	12.678
Pension insurance (control group: none)	-1.920	0.001***	0.147	0.045	0.475
Child support (control group: not supported)	1.227	0.008**	3.410	1.370	8.484
Medical expenses	-0.084	0.110	0.431	0.153	1.210
Self care level (control group: completely unable to take care of oneself)	-1.756	0.001***	0.173	0.063	0.472
Chronic disease	-0.008	0.980	0.992	0.532	1.852
Health status (control group: bad)		0.010**			
Health status (general)	-2.384	0.002**	0.092	0.020	0.432
Health condition (good)	-2.414	0.007**	0.089	0.015	0.521
Cognitive level (control group: never heard of)		0.002**			
Cognitive level (heard but not clear)	1.829	0.002**	6.225	1.949	19.890
Cognitive level (very familiar)	3.560	0.028**	35.160	1.466	843.010
Institutional situation (control group: no understanding)	-2.820	0.002**	0.060	0.010	0.367

4. Research Conclusion and Suggestion

4.1 Research Conclusion

The tendency factors for elderly people to choose integrated TCM and elderly care services include age and ethnicity. The older the age, the stronger the demand willingness. minority elderly people have a stronger willingness than the Han nationality. Through in-depth questioning during the survey, the elderly said that many nursing homes charge high fees and have cumbersome procedures. It is not convenient for the elderly to travel and register. They hope to introduce agency services to help the elderly complete things that they cannot or are not convenient to complete; they hope to simplify the procedures.

The enabling factors for elderly people to choose integrated TCM and elderly care services include the number of children, main sources of income, pension insurance, and child support. The number of children may affect the elderly's sense of happiness, mental state, and dependence in daily life. The main sources of income and pension insurance mainly affect the living security of the elderly, which in then affects their willingness to demand. Children's support has a very positive impact on their physical and mental health, especially for elderly people whose children are the main source of income. Whether children support or not has a greater impact on their willingness to demand. Therefore, increasing children's support is an important way to increase their willingness to demand.

The demand factors for elderly people to choose integrated TCM and elderly care services include self-care level, health status, cognitive level, and service institutions. Elderly people with lower levels of self-care have a stronger willingness to demand, while elderly people with good health conditions have lower willingness. Elderly people only spend time and energy paying attention to their own health when their health condition is poor, and their health awareness needs to be improved, which shows that the concept of disease prevention has not been widely accepted. Among the survey subjects, 191 elderly people stated that they had never heard of the integrated service of traditional Chinese medicine and medical care, accounting for about 77%. 52 elderly people stated that they had heard of it but were not very clear, indicating that the majority of elderly people have a low understanding of the integrated TCM and elderly care services.

4.2 Suggestions

4.2.1 Establish a tendency factor evaluation mechanism and accurately locate service targets

From the perspective of tendency factors, the establishment of a unified propensity factor evaluation mechanism can more accurately locate the potential demand groups of integrated TCM and elderly care services. Based on the age, combined with the level of self-care and health status of integrated TCM and elderly care services, conduct a comprehensive health assessment, and accurately identify the elderly's needs based on the evaluation results. Enable elderly people with different health conditions to receive precise and appropriate services.

4.2.2 Promote the transformation of enabling factors and increase the public recognition of the integrated TCM and elderly care services

In China's perception of elderly care, children's providing for the aged is the most common, so their support is also an important part. The low support rate of the children indicates that the children may have misunderstandings in the cognition of the integrated TCM and elderly care services. The government should strengthen policy support, promote the development of the integrated TCM and elderly care services, support the extension of participating entities from hospitals and other medical institutions to community elderly care institutions, improve medical diagnosis and treatment technology, enhance public recognition, and thus increase the support rate for elderly children.

4.2.3 Guided by demand factors, promote the optimization of the integrated TCM and elderly care services content

On the one hand, the government should increase health expenditure and mobilize enterprises and institutions to jointly build service institutions that can provide multi-dimensional, multi-level, and diverse services to meet the needs of elderly people with different levels of self-care and health conditions. On the other hand, the government and social organizations need to increase the promotion of integrated TCM and elderly care services, popularize relevant conceptual knowledge, and improve the public's understanding of it.

5. Conclusion

The findings of this research have contributed to the literature on integrated TCM and elderly care services. As a sample, representatives of the elderly in Kunming were chosen and choose the Anderson model as the theoretical basis to conduct empirical research on the demand for integrated TCM and elderly care services. The study identifies the factors that affect the development of integrated TCM and elderly care services, then proposes suggestions for the future development of it. As with any research, this study also has its limitations. The main limitation of this study is the limited number of survey respondents. Future research will consider respondents from more regions to obtain more insights.

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