

Willingness for Urban Integrated Medical-Elderly Care and Its Influencing Factors

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Abstract. With the deepening of moderate population aging in China, the scale of urban empty-nest elderly and elderly groups with chronic diseases keeps expanding. Traditional family-based elderly care can hardly satisfy both medical treatment and long-term care demands, so integrated medical and elderly care has become a vital approach to alleviate the supply-demand contradiction in elderly care. Based on the Andersen Model, this study collects 197 valid questionnaires of urban elderly residents via the Credamo platform from December 2025 to March 2026. Variables are selected from predisposing, enabling and need factors. Chi-square test and binary Logistic regression are adopted for empirical analysis. The results reveal that awareness of integrated medical-elderly care, social support, service accessibility, reimbursement convenience, family chronic-disease conditions and self-care capacity exert significant positive effects on the willingness for integrated medical-elderly care. Accordingly, this paper proposes suggestions including strengthening health education for the elderly, optimizing service spatial layout and medical insurance reimbursement procedures, and delivering targeted support for multimorbid and disabled elderly people, so as to promote the high-quality development of urban integrated medical and elderly care services.

Keywords: integrated medical and elderly care, Andersen Model, willingness of the elderly, urban elderly

1. Introduction

China has entered a society of moderate population aging. According to data from the Seventh National Population Census, people aged 60 and above account for 18.70% of China's total population. The scale of urban empty-nest, chronically-ill and disabled elderly groups keep expanding. The traditional family-based elderly care model is under mounting pressure and can hardly meet the dual practical demands of daily care and professional medical nursing for the elderly. Therefore, integrated medical and elderly care has become a critical development path for actively responding to population aging.

Although domestic integrated medical-elderly care services have been advancing rapidly, urban integrated medical-elderly care institutions are still confronted with practical dilemmas including unbalanced service layout, limited public awareness among the elderly, cumbersome medical insurance reimbursement procedures and insufficient age-friendly supporting facilities. Marked

divergences exist in elderly people's willingness to choose institutional integrated medical-elderly care.

In terms of existing theoretical studies, numerous scholars have conducted empirical analyses on the elderly's willingness for integrated medical-elderly care. Nevertheless, some researches pay insufficient attention to the heterogeneity of urban elderly groups, and there remains room for supplementing empirical studies that fully dissect the influencing mechanism behind urban elderly people's willingness for integrated medical-elderly care based on the Andersen Health-Behavior Model. Accordingly, taking the Andersen Health-Behavior Model as the theoretical foundation, this study carries out questionnaire surveys among urban elderly residents to explore the core factors affecting their willingness for integrated medical-elderly care and clarify the mechanism of each variable.

This study identifies practical pain points of urban elderly when selecting integrated medical-elderly care services. It can provide empirical reference for the government to optimize institutional layout, improve medical insurance reimbursement policies and popularize health knowledge among the elderly, so as to facilitate the high-quality development of urban integrated medical-elderly care services.

2. Literature review

2.1. Theoretical framework

The Andersen Health-Behavior Model was first proposed by Andersen in 1968 and further improved by Andersen & Newman. It establishes three analytical dimensions: predisposing, enabling and need factors, and has become a mainstream analytical tool in the research field of integrated elderly care and elderly care service willingness at home and abroad. Li Yue'e and Lu Shan systematically combed the evolutionary path of the Andersen Model in the field of health services, and verified that this framework is suitable for research on the elderly's choice-making behavior of elderly care services [1]. Chen Mingsheng further summarized ideas for localized modification of the model, providing theoretical paradigm support for domestic empirical studies on integrated medical and elderly care [2].

A unified and mature quantitative analytical paradigm has been formed in academic circles globally. Chi-square test and binary Logistic regression are widely adopted to identify influencing factors of elderly care willingness. Dijkstra implemented the three-dimensional variable system based on a cohort survey of the elderly in the Netherlands. Moustgaard & Martikainen carried out similar regression analyses using elderly samples from Northern Europe respectively. Domestic scholars including Tan Mei et al. [3], Lu, G. Q. et al. [4] and Guo Chaorong et al. [5] have adopted such econometric methods to conduct empirical research on urban elderly demand for integrated medical and elderly care, which proves good adaptability of these tools. Nevertheless, existing foreign studies are based on Western high-welfare social security systems and independent elderly-care culture. Most domestic researches focus on rural areas or community home-based care scenarios, while empirical studies adopting the complete three-dimensional framework targeting urban integrated medical-elderly care hospitals are insufficient.

2.2. The factors of the willingness for integrated medical-elderly care

Demographic characteristics, residential patterns and service cognition are core predisposing factors affecting the elderly's care choices. Studies reveal that elderly groups with higher income and

education are more willing to receive integrated medical-elderly care. Urban empty-nest elderly lacking family care resources depend more on professional institutions. Better understanding of relevant policies can reduce the elderly's bias against institutional elder care, and cognition moderates the relationship between health demands and pension decisions.

Enabling factors including service accessibility, medical security and social support act as important external constraints. Longer distance to care institutions lowers participation willingness, while complicated medical reimbursement procedures hinder the choice of institutional care. Digital barriers also prevent the elderly from accessing pension resources. Social support from families and communities helps weaken the preference for home-based elder care rooted in traditional culture and relieve the elderly's resistance to institutional services.

As core need factors, personal health conditions drive the demand for integrated medical-elderly care. Chronic diseases and disability push the elderly to seek institutional services that combine rehabilitation and daily care. Cross-national comparisons show that although the logic of elder care demands is similar globally, choice paths vary. Restricted by traditional family values, Chinese elderly tend to choose integrated care institutions mainly when facing multiple chronic illnesses or complete disability.

2.3. Research review

The Andersen Model is widely adopted to explore elderly care willingness. Existing literature confirms demographic; economic and health factors jointly shape elderly care decisions. However, foreign findings lack local adaptability, while domestic empirical research targeting urban integrated medical-elderly care hospitals remains insufficient. Against this backdrop, this study adopts the three-dimensional framework of Andersen Model and incorporates emerging variables. Based on questionnaire data, chi-square test and binary Logistic regression are utilized to supplement localized research on integrated medical-elderly care willingness.

3. Research design and variable analysis

3.1. Survey design

This study focuses on urban elderly residents' willingness to choose integrated medical-elderly care services, aiming to analyze the effects of predisposing, enabling and need factors on their decision-making of elderly care service selection. Questionnaire data were collected via the Credamo online platform from December 2025 to March 2026, and a total of 197 valid samples were finally obtained. Following the academic principle of "hypothesis prior to empirical analysis", all descriptive statistical analyses of predisposing, enabling and need factors are arranged after the research hypotheses are proposed. This subsection only introduces the basic demographic information of survey samples.

3.2. Variable selection

Based on the Andersen Model, the willingness for integrated medical-elderly care is set as the binary dependent variable, where 0 represents unwillingness and 1 represents willingness.

For predisposing factors, age, residential status, monthly household income, educational attainment, pre-retirement occupation, pension insurance, medical insurance [6], physical health status, awareness of integrated medical-elderly care, social support and dietary habits are adopted

for hypothesis derivation [7]. It is hypothesized that elderly people with older age, non-local-family residence, higher household income, higher education level, pre-retirement experience as managers or professional technicians in government agencies, enterprises and institutions, covered by pension and medical insurance, poor physical condition, awareness of integrated medical-elderly care, high-level social support and poor dietary habits show stronger willingness for integrated medical-elderly care [8].

In terms of enabling factors, service experience, distance to service sites, difficulty in digital operation for medical-elderly care, external service support, reimbursement convenience and service satisfaction are selected. Elderly residents who have used relevant services, live closer to service sites, face lower barriers in digital operation, obtain sufficient external support, enjoy simple reimbursement procedures and hold higher service satisfaction tend to prefer integrated medical-elderly care [9].

For need factors, hypotheses are proposed based on genetic medical history, family-shared chronic diseases, smoking status, drinking frequency, fall history, self-rated health and self-care ability. Those with genetic medical history, family chronic diseases, smoking habits, high drinking frequency, fall history, poor self-rated health and weak self-care ability are supposed to have higher willingness for integrated medical-elderly care [10]. The overall hypothesis is put forward accordingly: urban elderly residents with the above-mentioned predisposing, enabling and need characteristics exhibit higher willingness for integrated medical-elderly care.

3.3. Chi-square test

3.3.1. Analysis on predisposing factors and urban elderly's willingness for integrated medical-elderly care

Chi-square test results demonstrate that residential status, pre-retirement occupation, pension insurance, frequency of physical exercise, awareness of integrated medical-elderly care, social support and dietary habits exert significant impacts on the elderly's willingness for integrate medical-elderly care($P < 0.05$). Respondents living close to or together with family members show higher acceptance. Willingness varies significantly across pre-retirement occupation groups, among which clerical staff present the highest acceptance rate. Elderly people covered by pension insurance have remarkably higher willingness than those without pension insurance. Those keeping regular physical exercise are more inclined to choose integrated medical-elderly care. Improved awareness of integrated medical-elderly care corresponds to higher acceptance. Higher-level social support is associated with greater acceptance of the new-type elderly-care model. Elderly residents with healthier dietary habits also show stronger willingness. By contrast, age, monthly household income, educational attainment and medical insurance do not produce statistically significant effects.

3.3.2. Analysis of enabling factors and urban elderly's willingness for integrated medical-elderly care

Chi-square test results show that all six enabling variables exert significant effects on the elderly's willingness to choose integrate medical-elderly care($P < 0.05$). The shorter the distance to integrated medical-elderly care service sites, the stronger the elderly's willingness for such care. Longer commuting distance will significantly reduce the acceptance rate. Lower operational difficulty of digital medical-elderly care services corresponds to higher acceptance willingness among the elderly, and digital literacy affects the choice of elderly care modes. The higher the elderly's support

level for integrated medical-elderly care services, the stronger their willingness to choose them, and external support can promote the transformation of elderly care concepts. Reimbursement convenience positively affects elderly care willingness; streamlined reimbursement procedures can ease the elderly's economic concerns. Higher satisfaction with service use enables the elderly to continuously select the integrated medical-elderly care model, and positive service experience can improve their acceptance level.

3.3.3. Analysis of need factors and urban elderly's willingness for integrated medical-elderly care

Chi-square test results show that three need-factor variables including genetic medical history, family chronic-disease conditions and self-care ability are statistically significant ($P < 0.05$). The willingness to accept integrated medical-elderly care among the elderly with genetic medical history is significantly higher than that of those without such history, as their demand for long-term health monitoring boosts their motivation to choose such services. The more types of family chronic diseases the elderly have, the stronger their willingness for integrated medical-elderly care; the demand for long-term chronic-disease care drives the elderly to adopt this care model. Self-care ability is negatively correlated with elderly care willingness. The poorer the self-care ability, the higher the elderly's dependence on integrated medical-elderly care services and the stronger their acceptance willingness. Smoking status and self-rated health status exert no significant effects on elderly care willingness.

3.4. Analysis of influencing factors based on binary logistic regression model

According to the results of binary Logistic regression analysis, awareness of integrated medical-elderly care services, social support level, difficulty of digital operation, reimbursement convenience, residential distance, dietary habits, family chronic disease conditions and self-care ability are the core factors significantly affecting the elderly's choice of integrated medical-elderly care hospitals. Many variables can positively promote the elderly's willingness of choice.

From the perspective of predisposing factors in Table 1, compared with the reference group who only have a basic understanding of integrated medical-elderly care, the better the elderly understand integrated medical-elderly care services, the significantly higher the probability that they choose integrated medical-elderly care hospitals; the healthier their dietary habits are, the stronger their willingness of choice.

Table 1. Binary logistic regression of predisposing factors

Factors	β	Walds χ^2	P	OR(95%CI)
Predisposing factors				
Residential status (Reference group: living with spouse)		5.660	.129	
Close-distance residence within the same city (≤ 30 minutes)	-1.450	4.736	.030	.235(.064~.866)

Table 1. (continued)

Long-distance residence within the same city (>30 minutes)	-.787	1.571	.210	.455(.133~1.559)
Pre-retirement occupation (Reference group: heads of government agencies, enterprises and institutions)		5.581	.134	
Professional technicians	.966	1.955	.162	2.628(.678~10.185)
Clerical staff	.888	3.303	.069	2.431(.933~6.337)
Other occupations	-.186	.120	.729	.830(.290~2.376)
Frequency of physical exercise (Reference group: irregular)		1.423	.491	
About once a week	.322	.574	.449	1.380(.599~3.179)
Almost every day	-.253	.230	.631	.776(.276~2.185)
Awareness of integrated medical-elderly care (Reference group: almost no understanding)		17.118	.002	
Basic understanding	17.899	-	-	-
Vague understanding	16.363	-	-	-
Relatively well-informed	19.238	-	-	-
Fully well-informed	39.607	-	-	-
Level of social support (Reference group: very sufficient)		2.581	.630	
Relatively sufficient	.788	.786	.375	2.199(.385~12.547)
General	.431	.220	.639	1.538(.254~9.316)
Relatively insufficient	-.226	.041	.839	.798(.091~7.023)
Very insufficient	-17.997	-	-	-
Dietary habits (Reference group: very healthy)		5.222	.156	
Relatively healthy	-1.490	4.187	.041	.225(.054~.939)
General	-1.437	2.938	.086	.238(.046~1.229)
Relatively unhealthy	-2.309	4.223	.040	.099(.011~.899)
Very unhealthy	-17.680	-	-	-

Among enabling factors in Table 2, shorter distance to service sites, simpler operation of digital platforms, more convenient reimbursement procedures, and positive attitudes toward integrated medical-elderly care services can significantly promote the elderly's choice of integrated medical-elderly care institutions.

Table 2. Binary logistic regression of enabling factors

Factors	β	Walds χ^2	P	OR(95%CI)
Enabling factors				
Distance to integrated medical-elderly care service sites (Reference group: 0–5 minutes)		7.284	.063	
>5–10 minutes	0.067	.003	.956	1.069(.096~11.858)
>10–15 minutes	–0.449	.140	.709	.639(.061~6.708)
>15 minutes	–1.200	.977	.323	.301(.028~3.251)
Difficulty in using digital integrated medical-elderly care services (Reference group: very difficult)		4.111	.391	
Relatively difficult	–0.399	.331	.565	.671(.172~2.612)
Moderate	0.458	.419	.518	1.581(.395~6.332)
Relatively easy	–0.140	.031	.860	.869(.182~4.143)
Very easy	–0.051	.001	.972	.951(.056~16.019)
Attitude toward integrated medical-elderly care services (Reference group: strongly oppose)		11.994	.007	
Relatively oppose	18.369	-	-	-
Neutral	20.214	-	-	-
Relatively support	20.506	-	-	-
Strongly support	19.365	-	-	-
Convenience of reimbursement (Reference group: very inconvenient)		9.285	.054	
Relatively inconvenient	–23.223	-	-	-
Neutral	–22.705	-	-	-
Relatively convenient	–21.722	-	-	-
Very convenient	–20.916	-	-	-

In terms of need factors in Table 3, elderly individuals with more types of common family illnesses and poorer self-care ability have stronger demand for integrated medical-elderly care hospitals and are more willing to choose such elderly care services. Other variables such as demographic characteristics, frequency of physical exercise, and pre-retirement occupation fail to pass the significance test, and have no obvious driving effect on the elderly's willingness to choose elderly care services.

Table 3. Binary logistic regression of need factors

Factors	β	Walds χ^2	P	OR(95%CI)
Need Factors				
Family chronic disease conditions (Reference group: 0 type)		6.480	.090	
1 type	-.638	2.044	.153	.529(.221~1.267)
2 types	.229	.213	.644	1.257(.477~3.315)
3 types and above	-.692	.767	.381	.501(.107~2.354)
Self-care ability (Reference group: completely unable to take care of oneself)		8.673	.034	
Basically unable to take care of oneself	20.545	-	-	-
Partially self-caring	21.506	-	-	-
Fully self-caring	20.512	-	-	-

4. Conclusions

Based on the Andersen Behavioral Model of Health Services Use, this study conducts an empirical test on the willingness of urban elderly people to adopt integrated medical-elderly care from three dimensions: predisposing factors, enabling factors and need factors. The regression results indicate that cognition of integrated medical-elderly care and social support among predisposing factors can positively promote the elderly's choice of integrated medical-elderly care model. In terms of enabling factors, the convenience of medical insurance reimbursement, service support, lower difficulty of digital operation, and shorter distance to medical-elderly care service sites exert significant promoting effects on the willingness to receive elderly care. For need factors, the prevalence of family chronic diseases and self-care ability significantly affect the choices of the elderly. Elderly individuals with chronic diseases and poor self-care ability are more inclined to receive integrated medical-elderly care services. Several demographic characteristics examined in this study have no stable influence on the willingness of urban elderly people to choose integrated medical-elderly care. It reveals that the elderly's willingness for integrated medical-elderly care is jointly shaped by multiple conditions including individual subjective cognition, external resource supply and personal health needs.

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