



## A Study on Supply-Demand Satisfaction of Socialized Home-based Elderly Care Services in the Rural Area of Fuyang City, Anhui Province, China

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### Abstract

**Background and Aim:** This study aims to construct a supply and demand satisfaction analysis model for rural socialized home-based elderly care services, based on social demand and satisfaction theories. It focuses on the elderly's demand expectations, perceived quality of basic and spiritual life services, and perceived value of home-based care.

**Materials and Methods:** A questionnaire survey was conducted among 600 rural elderly individuals. Data were analyzed using SPSS 27 and AMOS 26 software to assess satisfaction levels and service quality perceptions.

**Results:** Findings reveal that basic life service satisfaction significantly predicts overall satisfaction ( $\beta = 10.813$ ,  $p < 0.001$ ). The elderly expect more personalized services aligned with their daily lives, emphasizing the need for professional and patient service personnel and the importance of spiritual life services.

**Conclusion:** This study proposes a precision-targeted collaborative service supply framework, suggesting the need to realize precise service supply, clarify the roles and responsibilities of stakeholders (government, market, family, social organizations), and improve the diversified and coordinated supply mechanism for elderly care services.

**Keywords:** Rural Elderly Care; Supply and Demand Satisfaction; Home-based Elderly Care Services; Service Supply Mechanism

### Introduction

Since entering an aging society in 2000, China's aging process has continued to accelerate. According to data from the National Bureau of Statistics, the proportion of rural elderly people reached 120 million in 2023, accounting for 23.81% of the rural population (Jiao, 2023). The aging rate in rural areas is faster than that in urban areas, making the problem of elderly care increasingly prominent. Small-scale and core-structured rural families, along with the normalization of population mobility, have led to the gradual weakening of traditional family-based elderly care services (Wang, 2023).

Rural areas also face challenges such as the migration of young labor and the underdevelopment of community organizations, resulting in a shortage of elderly care resources and relatively insufficient services. The traditional elderly care service model can no longer meet the needs of modern society (Nie, Cao, & Wu, 2023). To address these challenges, the CPC Central Committee has emphasized the issue of elderly care from the 18th to the 20th National Congress, proposing a series of strategies and tasks. The State Council has also issued several guiding opinions to create a favorable policy environment for the integration of rural elderly care service resources (Huang, 2022). However, policy implementation has deficiencies, such as an overbearing government role, internalized service supply, lack of transparency in funding, and hidden dangers in service quality. Additionally, there are issues with vague contracting norms and fixed cooperation partners between the government and social market organizations, leading to single-service content, low service levels, and a lack of supervision and evaluation (Wang, 2022).

Fuyang City exemplifies these challenges, with a significant aging trend and a high proportion of rural elderly people. These elderly primarily rely on limited land income and traditional farming methods, with home-based care being the mainstay. However, as young and middle-aged individuals migrate for work, the family's capacity for elderly care is diminishing, especially for disabled, semi-disabled, or widowed elderly who face significant difficulties in daily care and spiritual comfort. Moreover, some elderly individuals cannot access basic care insurance due to financial constraints, and the high cost of rural elderly care services places a heavy burden on families.



Despite existing policies, few studies empirically examine supply-demand satisfaction models specifically adapted to rural home-based elderly care services in China. This study aims to evaluate the current supply and demand situation and satisfaction levels of rural socialized home-based elderly care services in Fuyang City. By identifying factors influencing elderly care service satisfaction, this research seeks to provide actionable recommendations for improving service quality and satisfaction. This will help the government, society, families, and the market collaborate to build a comprehensive, high-quality, rural socialized home-based elderly care service system that meets the challenges of aging and ensures the quality of life for the elderly.

## Objectives

The research purpose of this article is to improve the satisfaction with the supply and demand of socialized home care services in rural China. This purpose is achieved by solving the following research objectives:

1. Identify Influencing Factors: Determine the key factors that affect the supply and demand satisfaction of socialized home care services in rural China.
2. Analyze Relationships: Examine the relationships between variables influencing the supply and demand satisfaction of socialized home care services in rural China.
3. Enhance Satisfaction: Improve elderly satisfaction by enhancing the multiple collaborative supply mechanisms.

These objectives are designed to provide a clear and logical flow into the methodology section, ensuring that the research questions are well-aligned with the subsequent analysis.

## Literature review

**Home care** represents a shift from traditional family-based care, emerging in industrial societies where social relationships form the core support system. This model involves shared responsibility among families, governments, and society (Shi & Shao, 2024). It integrates the strengths of both traditional family pensions and social security systems (Zou, 2024). Specifically, home care is viable when the socialization of elderly care services is highly developed, allowing seniors to age in place. Key features include: (1) living in a familiar environment with existing social ties, (2) having a stable income independent of family support, and (3) accessing comprehensive social services such as food, shopping, housekeeping, nursing, healthcare, and emergency assistance, as well as fulfilling cultural, educational, and recreational needs (Chen, 2024). In China, home-based care is the predominant form of elderly care, chosen by over 92% of seniors (Chen, 2024).

**Elderly care services** are diverse, aiming to ensure the well-being and quality of life of seniors through collaborative efforts from families, governments, markets, and third-party organizations (Lei & Zhang, 2025). These services have evolved from basic food and shelter to a comprehensive model addressing health, safety, emotional support, mental health, and social interaction (Jiao, 2023). Specifically, elderly care services can be categorized into two main types: basic life needs services (e.g., diet, living environment, healthcare, and security) and spiritual life needs services (e.g., emotional support, mental health counseling, cultural activities, and social engagement) (Zhang, 2024). These services are crucial for maintaining the basic quality of life and enhancing the psychological well-being of seniors.

**Socialized home-based elderly care services** involve seniors aging in their family environment while receiving comprehensive support from families, governments, markets, and third-party organizations. This model emphasizes the role of social resources in enabling seniors to age at home with dignity and independence (Wu & Li, 2024). The concept of socialization in elderly care highlights the shift from family- or institution-based care to a broader social participation model, where caring for the elderly is seen as a societal responsibility rather than a purely familial one (Lv, 2023). This approach aims to protect the rights and interests of seniors within the family context and support their independent decision-making.

## Social Needs Theory





Maslow's Hierarchy of Needs theory, which originated from the article "Theory of Human Motivation" by American psychologist Abraham Maslow in 1943, is an important theory to explain the changes in the hierarchy of human needs (Wang, 2022). The theory divides human needs into five categories from low to high: physiological needs, safety needs, emotions and belonging, respect, and self-realization (Maslow, A.H., 1958). These five categories of needs are arranged in sequence. When the lower-level needs are met, higher-level needs will appear and dominate individual behavior. In the application of the needs of the elderly, this theory is also instructive (Sheng, 2020). The needs of the elderly can be divided into two categories: basic life needs and spiritual life needs, which echo the lower-level needs and higher-level needs in Maslow's Hierarchy of Needs theory (Zuo, 2024).

Basic life needs cover diet, living environment, health care, and security, and are closely linked to physiological needs and safety needs (Zou, L., 2023). The elderly need a comfortable, safe, and convenient living environment to ensure basic quality of life (Yang, 2023). At the same time, with the increase in age, the demand for health care and security is becoming increasingly prominent (Zhang, 2021).

Spiritual life involves emotional support, mental health, cultural entertainment, and social interaction, which correspond to higher-level needs such as emotions and belonging, respect, and self-realization (Shi & Jiang, 2024). The elderly need emotional care and support to relieve negative emotions such as loneliness and anxiety (Zheng, 2023). Mental health is also crucial for the elderly (Liu, Hu, & Fang, 2021). In addition, the elderly also need cultural entertainment and social interaction to enrich their lives, which helps them stay energetic, expand their social circles, and have more fun in life (Wang, 2023).

In summary, Maslow's hierarchy of needs theory provides a powerful theoretical tool for a comprehensive understanding of the needs of the elderly. Only by fully meeting the multi-level needs of the elderly can their quality of life be truly improved, and they can enjoy a happy old age (Wang, 2023).

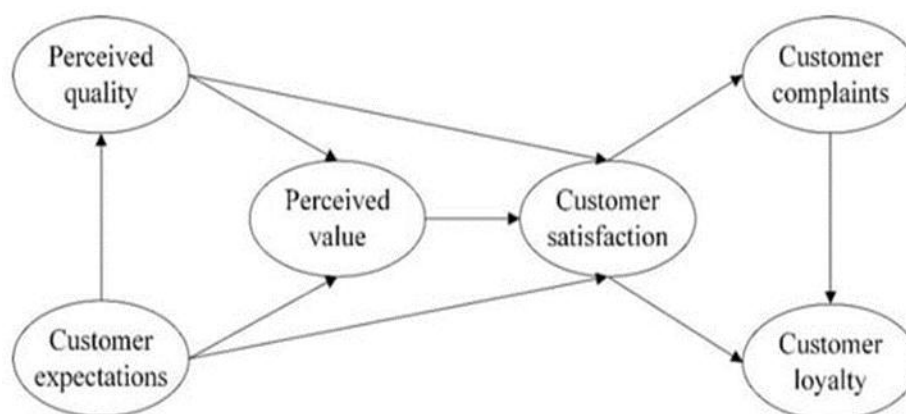
#### **Customer Satisfaction Theory**

The customer satisfaction theory originated in 1965 and was first proposed by American sociologist Cardozo (Cardozo, R.N., 1965). He believes that when the actual service effect obtained by customers exceeds expectations, they will feel satisfied, thereby increasing the possibility of repurchase. With the development of the market economy, this theory has been widely used in many disciplines, and customer satisfaction is generally regarded as an important criterion for measuring the quality of products or services.

In the development of customer satisfaction theory, several typical satisfaction theory models have emerged, including the United States (ACSI), Sweden (SCSB), Europe (ESCI), and the China Customer Satisfaction Model (CCSI). Among them, the American Customer Satisfaction (ACSI) model is a more scientific theoretical model after revision, which has been widely recognized by scholars at home and abroad.

The ACSI model is a macro indicator for measuring the quality of economic output. It is based on the process of product and service consumption and comprehensively evaluates the level of customer satisfaction. The model contains six latent variables: customer expectations, perceived quality, perceived value, customer satisfaction, customer complaints, and customer loyalty (Fornell, C., 1996). Each latent variable is measured by multiple observed variables to fully reflect all aspects of customer satisfaction. The specific relationship between variables is shown in Figure 1:





**Figure 1** ACSI model diagram

In the field of home-based elderly care services, the ACSI model is also instructive. First, by investigating the expectations of the elderly, we can understand their basic requirements and expectations for services (Liu & Xu, 2021). Second, perceived quality is the subjective feeling and evaluation of the service quality of the elderly in the actual process of receiving services. The comparison between it and customer expectations will directly affect the satisfaction level of the elderly (Wang, 2020). Finally, perceived value is the subjective evaluation of the cost-effectiveness of home-based elderly care services by the elderly after weighing the service costs and service quality. It is also an important factor that service agencies need to consider when formulating charging standards and service content (Shao, 2021).

### Critical Evaluation and Empirical Gaps

While the ACSI model provides a comprehensive framework for evaluating service quality, its application to social services like elderly care has limitations. Commercial models may not fully capture the complexities of social service delivery, including issues of equity, accessibility, and the emotional and relational aspects of care. Additionally, there is a notable gap in empirical research distinguishing between basic life services and spiritual services in the context of rural elderly care in China. Future research should address these gaps to develop more nuanced and context-specific models for evaluating elderly care services.

### Conceptual Framework

As a service with its characteristics, rural socialized home-based elderly care services are mainly dedicated to serving rural elderly people. As a special product, the measurement of service satisfaction is different from that of commodity satisfaction. According to Gronroos (2000), if the perceived service is much greater than expected, its quality can be regarded as excellent; if the two are equal, it is acceptable; and if it is less than expected, then its quality is unacceptable. Jiao (2023) pointed out that although there are many indicators in the evaluation criteria for the quality of life of the elderly, the most important indicator among all these indicators is the subjective feelings of the elderly, and the elderly are the final judge of their quality of life. From the customer satisfaction index model, customer expectations, perceived quality, and perceived value play an important role in affecting customer satisfaction, so these three factors should be considered when evaluating the satisfaction of home-based elderly care services. According to Maslow's theory of needs, the elderly care needs of rural elderly people should include basic life needs and spiritual life needs. At present, rural socialized elderly care services are also mainly concentrated in these two aspects. Based on the above literature review and relevant model analysis, the summary is shown in Table 1.



**Table 1** Latent variables and conceptual framework

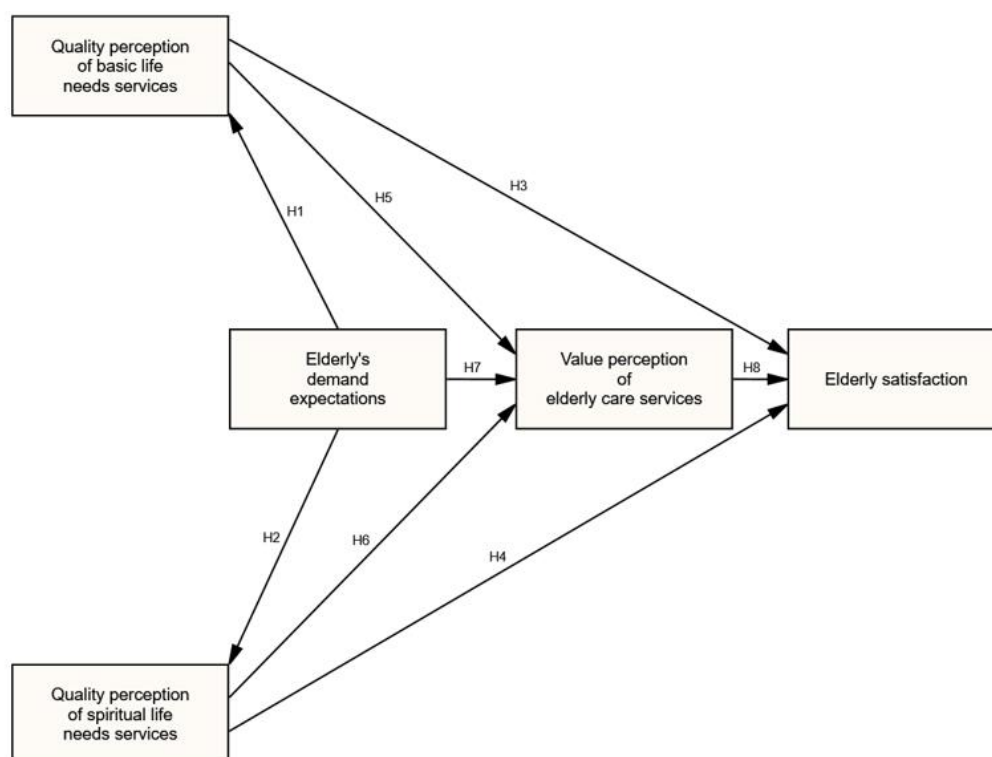
Latent Variables		Scholars															
		SCSB. (1989)	ACSI. (1994)	ECSI. (1999)	CCSI.2000()	SERVQUA. (2016)	Gronroos.2000	Jiao. (2023)	Qu. (2013)	Huang. (2022)	Liu (2022)	Dai (2022)	Li (2022)	Deng. (2023)	Bai (2023)	Zhang. (2023)	Sun. (2023)
Demand Expectation		√	√	√	√	-	√	-	√	√	√	-	√	-	-	√	√
Perceived Quality	Basic life	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Spiritual life						√	√	√	√	√	√	√	√	√	√	√
Perceived Value		√	√	√	√	-	-	-	√	√	-	-	√	-	√	√	√
Elderly satisfaction		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√

To explore the satisfaction of the elderly with the supply and demand of socialized home-based elderly care services, we should first focus on the elderly's demand expectations, because demand is the starting point and basis for service provision, and the basis for evaluating the matching degree of supply and demand of home-based elderly care services. Understanding the needs of the elderly will help to clarify the content and direction of the services. Then, evaluate the quality perception of basic living needs services, because basic living needs are the most basic and urgent needs of the elderly, and the quality of this part of the service is directly related to the daily quality and health of the elderly. After meeting basic living needs, spiritual life needs are equally important. Evaluating the quality perception of spiritual life needs services will help understand the degree of satisfaction of the elderly in terms of emotions, psychology, etc. Then, examine the elderly's value perception of socialized home-based elderly care services, which reflects the elderly's cognition of the cost-effectiveness of the service, and helps to evaluate the overall benefits of the service and the elderly's satisfaction. Finally, evaluate the elderly's satisfaction, which is a comprehensive evaluation of the service effect. The level of satisfaction directly reflects the quality of the service and the feelings of the elderly.

This order also implies a hierarchical division of the importance of different variables. From basic life needs to spiritual life needs, to the perceived value of services, and finally to overall satisfaction, it progresses layer by layer and gradually deepens. However, it should be noted that this order is not absolute. Different studies may choose different variables and orders according to different research purposes and backgrounds.

Based on the above analysis, this study proposes a conceptual framework for socialized home-based elderly care service supply and demand satisfaction (as shown in Figure 2).





**Figure 2** Conceptual Framework

## Hypothesis

From Figure 2, the hypotheses of this study are as follows:

- H1: Higher demand expectations positively predict perceived quality of basic life services.
  - H2: Higher demand expectations positively predict perceived quality of spiritual life services.
  - H3: Higher perceived quality of basic life services positively predicts elderly satisfaction.
  - H4: Higher perceived quality of spiritual life services positively predicts elderly satisfaction.
  - H5: Higher perceived quality of basic life services positively predicts elderly value perception.
  - H6: Higher perceived quality of spiritual life services positively predicts elderly value perception.
  - H7: Higher demand expectations positively predict elderly value perception.
- The establishment or rejection of the hypotheses will be determined based on their theoretical fit.

## Methodology

### Questionnaire design

This study employed a questionnaire survey method to gather data. The questionnaire was designed by first consulting established scales and existing questionnaires on elderly care services. Subsequently, interviews with relevant staff, rural elderly residents, and scholars specializing in rural home-based elderly care services were conducted to refine and improve the items in the questionnaire. The questionnaire is divided into two main sections: personal basic information and statistical analysis information. The first part collects respondents' basic information, while the second part assesses satisfaction with socialized home-based elderly care services using a 5-point Likert scale, where 1 represents "very dissatisfied" and 5 represents "very satisfied."

Specific table 2 of the questionnaire design:



**Table 2** Questionnaire design

	Latent variables	Observed variables	Variable descriptions	Question numbers
Independent variable	Personal Characteristics (PC)	Age, gender, health status, education level, economic status, living conditions, family support, etc.		1-8
	Elderly's demand expectations (DE)	Specific requirements	Demand for specific services	9-10
		Demand expectations	The extent to which services meet the expectations of the elderly	11-13
	Quality perception of socialized home-based elderly care services (QP)		Dietary needs (QPBL1)	14-17
		Quality perception of basic life needs services (QPBL)	Living environment (QPBL2)	18-20
			Health management (QPBL3)	21-25
			Safety and security (QPBL4)	26-29
			Emotional support (QPSL1)	30-33
		Quality perception of spiritual life needs services (QPSL)	Mental health (QPSL2)	34-36
			Cultural entertainment (QPSL3)	37-39
			Social interaction (QPSL4)	40-42



	Value perception of socialized home-based elderly care services (VP)	Perception of price and service	Equality of service Convenience of service Service cost Service cost performance	43-46
Dependent variable	Elderly satisfaction (ES)	Overall satisfaction	Overall satisfaction with socialized home-based elderly care services	47

### Sample Selection

The samples for this study are primarily elderly residents who have a fixed residence and live in the rural areas of Fuyang City, Anhui Province. To ensure the representativeness of the sample and to account for potential erroneous data, a sample size of 600 was determined. The questionnaire was distributed through the professional questionnaire survey platform, Questionnaire Star. Given the low education level of the rural elderly and their limited access to electronic products, village-level liaison officers assisted in distributing the questionnaires. Ethical considerations were taken into account, and informed consent was implied through the participation of the elderly residents. The sampling method used was convenience sampling, as the villages and elderly participants were selected based on accessibility and cooperation.

### Data Analysis Tools

The collected valid data were analyzed using SPSS 27 and AMOS 26. These tools were employed to process the survey results and to test the hypotheses outlined in this study.

### Control Variables

To ensure the robustness of the analysis, control variables such as health condition and family support were included in the model. These variables were selected based on their potential influence on the elderly's satisfaction with socialized home-based care services.

### Handling Missing or Biased Data

To address potential issues with missing or biased data, the following measures were taken:

**Data Cleaning:** Initial data screening was conducted to identify and remove any incomplete or inconsistent responses.

**Imputation:** For minor missing data, mean substitution was used to fill in the gaps, ensuring that the dataset remained robust for analysis.

**Bias Assessment:** The sample was checked for any potential biases, and the results were adjusted accordingly to reflect a more accurate representation of the rural elderly population in Fuyang City.

### Sample Data Statistics

The information collected in this questionnaire survey includes seven aspects: gender, age, physical condition, education level, economic status, living style, and family support. The specific information is shown in Table 3:

**Table 3** Sample data statistics

Variable	Options	Frequency n=601	Percent%
Gender	Male	325	54.2
	Female	275	45.8
Age	60-70	227	37.8
	71-80	185	30.8





Variable	Options	Frequency n=601	Percent%	
Physical condition	81-90	103	17.2	
	91or above	85	14.2	
	Very bad	53	8.8	
	Bad	107	17.8	
	Average	174	29.0	
	Good	168	28.0	
Education level	Very good	98	16.3	
	Illiterate	55	9.2	
	Primary school	156	26.0	
	Junior high school	283	47.2	
Economic status	High school and above	106	17.7	
	Income	0-5000	111	18.5
		5001-10000	214	35.7
		10001-25000	193	32.2
		25001 and above	82	13.7
	Expenditure	0-5000	122	20.3
		5001-10000	218	36.3
		10001-25000	166	27.7
		25001 and above	94	15.7
Living conditions	living alone	60	10.0	
	Spouse	192	32.0	
	Children	248	41.3	
	Other relatives	100	16.7	
	No support	86	14.3	
	Some support	147	24.5	
	Moderate support	235	39.2	
	High support	132	22.0	

From the perspective of the basic information statistics of the respondents, different elderly groups are covered, and the samples are diverse and representative, so the actual sample data obtained in this study can meet the research requirements.

## Results

This section outlines the data analysis process, covering descriptive statistics, reliability and validity tests, structural equation modeling (SEM), and hypothesis testing.

### Descriptive Statistical Analysis

Using SPSS 27, descriptive statistics were computed for key variables. A summary table highlighting these variables is presented below:

**Table 4** Descriptive statistics

Variable	Mean	SD	Strongly Dissatisfied (%)	Dissatisfied (%)	Neutral (%)	Satisfied (%)	Strongly Satisfied (%)
DE	3.96	0.62	5.5	5.3	15.2	35.0	39.0
QPBL	3.93	0.58	5.7	5.5	16.0	36.3	36.5
QPSL	3.92	0.60	6.0	6.2	15.8	37.0	35.0
VP	3.94	0.59	5.3	5.7	16.5	35.5	37.0
ES	3.87	0.61	5.5	6.5	17.7	36.0	34.3

Interpretation: The average satisfaction levels of rural elderly with socialized home-based care services range from 3.87 to 3.99, indicating overall high recognition with minor variations. However, there is room for improvement, especially for services with lower satisfaction scores.

### Reliability and validity test

This study used SPSS 27.0 and AMOS 26.0 software to conduct reliability tests, validity tests, and confirmatory factor analysis on 600 valid questionnaires to ensure the reliability and validity of the data and provide a solid foundation for subsequent research and analysis.

SPSS 27.0 software was used to conduct reliability analysis on each variable, and Cronbach's alpha was used in the reliability analysis to describe the reliability of the questionnaire. According to the measurement questionnaire, the overall Cronbach's alpha coefficient reached 0.976, and the Cronbach's alpha coefficients of each variable were greater than 0.7, which means that the reliability of the measurement scale of this study is good, and the questionnaire data have high stability and reliability.

This study used SPSS 27.0 to perform exploratory factor analysis (EFA) on the questionnaire. Generally, a KMO value greater than 0.6 is considered acceptable. The KMO of each variable in this study is greater than 0.6, and the p-value is less than 0.05, which indicates that the validity of the measurement scale in this study is good.

AMOS 26.0 was used to perform confirmatory factor analysis on the variables through the structural equation model. From the analysis results, the average variance extraction AVE of all variables was a minimum of 0.532 and a maximum of 0.643, both greater than 0.5; the combined reliability CR value of all variables was a minimum of 0.784 and a maximum of 0.878, both greater than 0.7. Therefore, from the above data results, it can be seen that the scale of this study has good convergent validity.

**Table 5** Reliability and validity test table

Item	Alpha	KMO	Sig	CR	AVE
DE	0.795	0.710	<.001	0.784	0.547
QPBL	0.947	0.981	<.000	0.857	0.602
QPSL	0.911	0.972	<.000	0.878	0.643
VP	0.802	0.807	<.001	0.820	0.532

### Structural equation model and hypothesis test

The model fit test is to evaluate the degree of fit between the model and the data by testing the test statistic corresponding to the model. This study used AMOS 26.0 to analyze the model, and the final model fitting results are shown in Table 6. The  $\chi^2/df$  value was 1.101, the RMSEA value was 0.013, the GFI value was 0.943, the AGFI value was 0.935, and the NFI value was 0.955, all of which met the adaptation standards, indicating that the SEM model of rural socialized home-based elderly care service supply and demand satisfaction has a good fit with the research data, that is, the data fits the model, and path coefficient analysis can be performed.

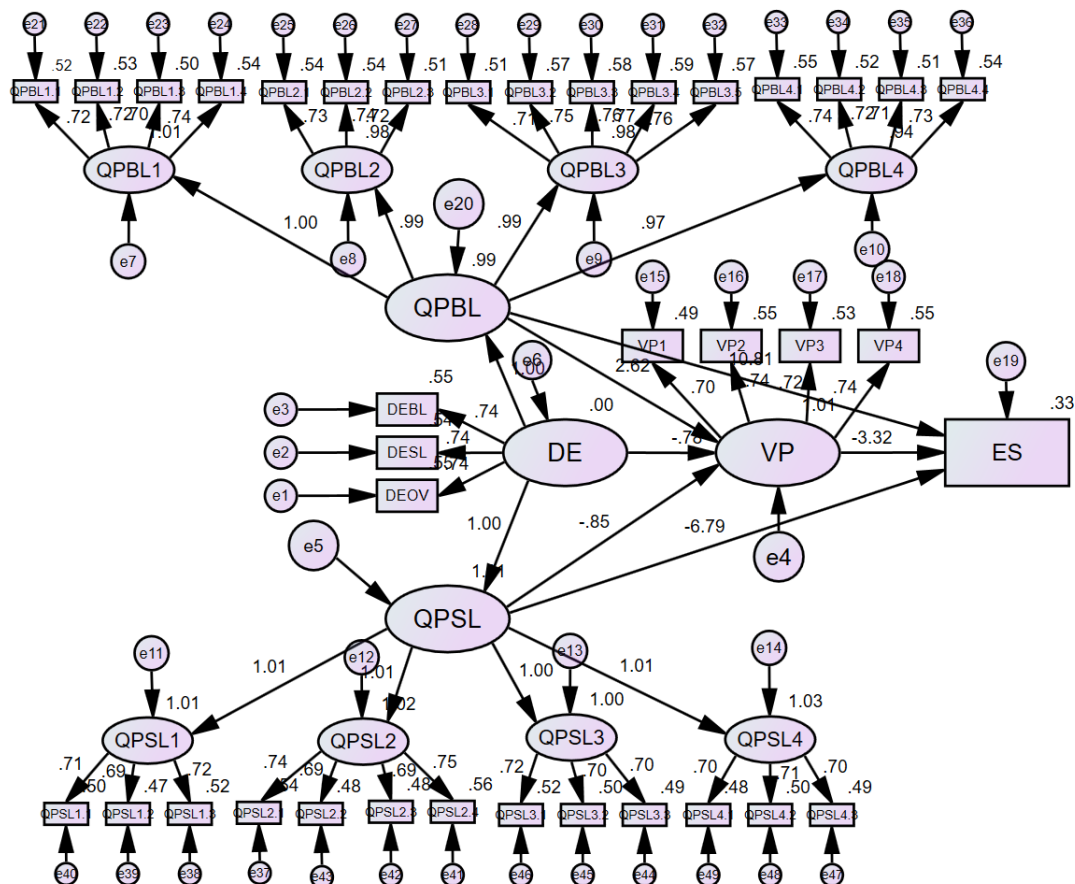
**Table 6** Model fit

Statistical quantity	test	Fitness standard	Model parameters	Fitness results
$\chi^2/df$		<3	1.098	Fit
RMSEA		<0.05	0.013	Fit
GFI		>0.9	0.943	Fit
AGFI		>0.9	0.935	Fit
NFI		>0.9	0.955	Fit

### Hypothesis test results

After the path analysis diagram of the community home-based elderly care service satisfaction model was constructed, the survey data were imported into the path analysis diagram. The model was standardized and analyzed using AMOS 27.0 software to obtain the standardized path coefficient diagram between the

factors affecting the supply and demand satisfaction of socialized home-based elderly care services, as shown in Figure 3.



**Figure 3** Standardized path coefficient diagram of factors affecting the satisfaction of socialized home-based elderly care service supply and demand

The standardized coefficients shown in the path coefficient diagram can determine the relationship between the variables and the influence coefficient, and the influence coefficient can be used to determine the degree of influence between the variables. The specific results are shown in Table 7.

**Table 7** Hypothesis test

	Impact path	Estimate	Result	Interpretation
H1	DE--QPBL	0.997	Accept	Demand expectations positively predict the perceived quality of basic life services.
H2	DE--QPSL	1.004	Accept	Demand expectations positively predict the perceived quality of spiritual life services.
H3	QPBL--ES	10.813	Accept	The perceived quality of basic life services positively impacts elderly satisfaction.
H4	QPSL--ES	-6.789	Rejected	The perceived quality of spiritual life services does not significantly impact elderly satisfaction.
H5	QPBL--VP	2.623	Accept	The perceived quality of basic life services positively impacts value perception.



	Impact path	Estimate	Result	Interpretation
H6	QPSL--VP	-0.849	Rejected	The perceived quality of spiritual life services does not significantly impact value perception.
H7	DE--VP	-0.780	Rejected	Demand expectations do not significantly predict value perception.
H8	VP--ES	-3.316	Rejected	Value perception does not significantly impact elderly satisfaction.

### Interpretation of Rejected Hypotheses

H4: The perceived quality of spiritual life services does not significantly impact elderly satisfaction. This may be because the perceived quality of spiritual life services is relatively abstract, and the evaluation criteria for these services vary among the elderly, leading to an insignificant impact on satisfaction.

H6: The perceived quality of spiritual life services does not significantly impact value perception. This suggests that there may be potential measurement issues in assessing the perceived quality of spiritual life services or that value perception is influenced by other unmeasured factors.

H7: Demand expectations do not significantly predict value perception. This indicates that the relationship between demand expectations and value perception is complex and may be moderated by other variables.

H8: Value perception does not significantly impact elderly satisfaction. This is likely because elderly satisfaction is influenced by a variety of factors, not just value perception. For example, the convenience of services, the professionalism of service providers, and family support may play more important roles in shaping satisfaction.

### Discussion

This study reveals the complex relationships among the elderly's expectations, perceptions of service quality, value perceptions, and satisfaction. The results show that:

1. Expectations and Quality Perceptions: The elderly's expectations are positively correlated with their quality perceptions of both basic and spiritual life services. Higher expectations lead to more positive quality perceptions, but this relationship does not directly translate into increased satisfaction. This suggests that while higher expectations can enhance the perceived quality of services, satisfaction is influenced by a broader range of factors beyond just quality perceptions.

2. Impact of Quality Perceptions on Satisfaction: Quality perceptions of basic life services have a positive impact on satisfaction, while those of spiritual life services have a negative impact. This may be because basic life services are essential and directly affect quality of life, whereas quality perceptions of spiritual life services are influenced by more subjective factors. Cultural conservatism and the prioritization of basic needs might play a role here. In many rural communities, there is a strong emphasis on meeting basic needs first, and spiritual services, while important, may not be perceived as equally critical. This cultural context could explain why higher quality perceptions in spiritual services do not translate into higher satisfaction.

3. Relationship Between Quality and Value Perceptions: Quality perceptions of basic life services are positively correlated with value perceptions, while those of spiritual life services are negatively correlated. This indicates that improving the quality of basic life services enhances value perceptions, while the quality of spiritual life services does not easily translate into value perceptions. This discrepancy could be due to the subjective nature of spiritual services, which may be harder to quantify and evaluate compared to basic services.

4. Expectations and Value Perceptions: Expectations are negatively correlated with value perceptions. Higher expectations may lead to lower value perceptions, reflecting a gap between





expectations and actual services that can affect overall evaluation. This finding suggests that when expectations are not met, the perceived value of services decreases, which in turn affects satisfaction.

5. Value Perceptions and Satisfaction: Value perceptions are negatively correlated with satisfaction. Lower value perceptions can weaken the positive impact of quality perceptions on satisfaction and may even lead to decreased satisfaction. The relationship between them can be explained by the Expectation-Disconfirmation Theory. This theory posits that dissatisfaction arises when perceived performance falls short of expectations. In the context of rural elderly care services, this dissatisfaction may be exacerbated by limited resources and the prioritization of basic needs. This highlights the importance of focusing not only on service quality but also on the elderly's value perception of services.

## Conclusion

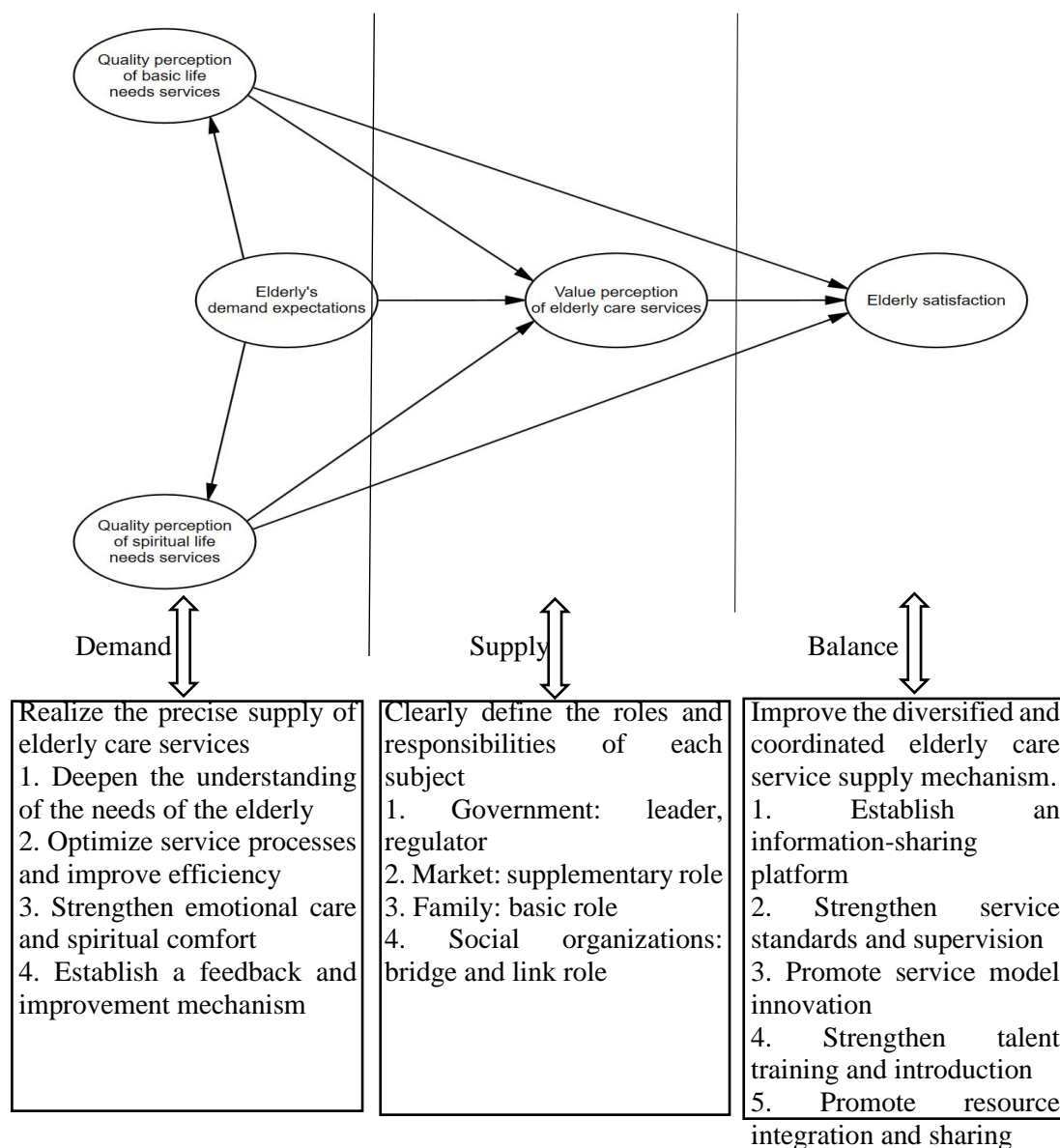
Through the above research analysis, it is evident that the elderly's demand expectations, quality perceptions of basic life services, quality perceptions of spiritual life services, and value perceptions of elderly care services all impact the elderly's satisfaction. Among these factors, the quality perception of basic life services has the most significant influence on the elderly's satisfaction. The demand for elderly care services among rural elderly individuals is primarily focused on basic life services, especially medical care and daily assistance, although the demand for spiritual life services is also increasing.

The elderly's demand expectations are at the core of socialized home-based elderly care services (Wu & Li, 2024). Accurately grasping the needs of the elderly can provide a clear direction for elderly care services, considering the differences among the elderly, and improving the perception of service quality. The elderly's perception of the value of elderly care services involves whether the services are worth the money and the comprehensive evaluation of the elderly care service system (Lu & Xu, 2020). The collaborative services of the government, the market, the family, and social organizations can enhance this perception. In socialized home-based elderly care services, the balance of supply and demand is key (Zheng, 2019). A diversified and collaborative supply mechanism can integrate resources, coordinate all parties, avoid duplication or loss of services, provide more comprehensive and high-quality elderly care services, and allow the elderly to enjoy seamless elderly care services, thereby improving their satisfaction with the elderly care service system.

To improve the satisfaction of elderly care services and achieve a balance between the supply and demand of elderly care services, it is essential to first achieve a precise supply of elderly care services, secondly clarify the roles and responsibilities of the government, market, family, and social organizations, and finally improve the multi-faceted collaborative elderly care service supply mechanism. Therefore, this study proposes the following conclusions (Figure 4):







**Figure 4** Analysis of research results

These findings underscore the importance of aligning service provision with the diverse and evolving needs of the elderly population. By focusing on precise demand identification, coordinated service delivery, and continuous quality improvement, policymakers can develop more effective elderly care policies that enhance the well-being and satisfaction of the elderly in China. Future research should continue to explore innovative models and strategies to address the unique challenges of rural elderly care, ensuring that all elderly individuals receive the support and services they need to age with dignity and comfort.

## Recommendation

Based on the conclusion of this study, this section provides comprehensive suggestions for the providers (government) and main producers (families, markets, and social organizations) of socialized home-based elderly care services. The insights of this study into the relationship between the elderly's



expectations of needs, the quality perception of basic life needs services, the quality perception of spiritual life needs services, the value perception of socialized home-based elderly care services, and the elderly's satisfaction provide a solid foundation for these suggestions.

### **Recommendations for the Providers (Government) of Socialized Home-Based Elderly Care Services**

#### **Short-term (Quick Wins)**

**Establish and Improve the Supervision System:** The government should establish and improve the comprehensive supervision system for elderly care services, clarify the supervision responsibilities of various departments, implement checklist-based supervision, and ensure that elderly care institutions operate in good faith and compliance with the law.

**Strengthen Multi-departmental Coordination:** The government should continue to strengthen the multi-departmental coordination mechanism, fully utilize the role of the joint conference mechanism for elderly care services at all levels, and work together to solve the difficult and blocked problems in elderly care services.

**Improve Service Standardization:** The government should focus on improving the standardization and regularization of elderly care services, implement local standards in the field of elderly care services, and accelerate the establishment of service quality standards and evaluation systems for elderly care institutions.

#### **Long-term Reforms**

**Improve the Legal and Policy System:** The government should further improve the legal and policy system for community home-based elderly care services, build a complete policy system for community home-based elderly care services, and put community home-based elderly care services on a standardized track.

**Promote Service Model Innovation:** Encourage the development of innovative service models, such as integrating technology and telemedicine to enhance service delivery.

**Enhance Talent Training and Introduction:** Invest in training programs for caregivers and service providers to ensure they have the necessary skills and knowledge to meet the evolving needs of the elderly.

### **Recommendations for the producers (family, market, and social organizations) of socialized home-based elderly care services**

#### **Short-term (Quick Wins)**

**Family:** Strengthen mutual assistance and support among family members, build a harmonious family environment, and improve the quality of life of the elderly. Learn from international experience and adopt measures such as family subsidies and tax exemptions to reduce the burden of family elderly care.

**Market:** Promote the market-oriented operation of home-based elderly care services, introduce professional operation teams, and improve service levels. Encourage social capital to invest in the construction of elderly care service facilities and expand service coverage.

**Social Organizations:** Give full play to the supplementary role of social organizations in elderly care services, integrate community resources, and provide diversified services. Strengthen cooperation between social organizations, the government, and the market to jointly promote the development of home-based elderly care services.

#### **Long-term Reforms**

**Establish Pilot Projects or Demonstration Sites:** Propose and implement pilot projects or demonstration sites to test and refine service models in real rural contexts.

**Develop Comprehensive Service Networks:** Build integrated service networks that connect families, markets, and social organizations to provide seamless care.

**Promote Resource Integration and Sharing:** Foster collaboration and resource sharing among different stakeholders to optimize service delivery and reduce redundancy.





## Recommendations for future research on socialized home-based elderly care services

### Short-term (Quick Wins)

**Service System Construction and Improvement:** Explore how to strengthen the infrastructure, such as venues and facilities, to meet the diversified service needs of the elderly. Study the market-oriented operation mechanism and promote the high-level professional and chain operation of home-based elderly care service sites.

**Funding Guarantee and Policy Support:** Analyze the limitations of existing funding guarantee channels and explore diversified funding methods. Study the role and optimization strategy of government procurement of services to improve service coverage and sustainability.

### Long-term Reforms

**Service Team and Management Mechanism:** Investigate the professional level of the current service team and propose ways to improve service quality and talent development. Study the improvement of the management system and evaluation system to promote the standardization and regularization of elderly care services.

**Policy and Legal Framework:** Continue to refine and implement policies and legal frameworks that support the long-term sustainability and quality of home-based elderly care services.

**Cross-disciplinary Research:** Encourage cross-disciplinary research that combines insights from sociology, gerontology, and economics to develop comprehensive solutions for elderly care.

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