

The Study on the Quality Evaluation System of Home Care Service for the Rural Elderly under the Rural Revitalization

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Abstract: With the development of urbanization, urbanization, economic prosperity and the progress of science and technology, the existing pension security system faces great challenges, the current form also puts forward a higher requirement for rural home care service. This article around the meaning of the rural family endowment service system construction, summarizes the analysis of the current main problems of the rural family endowment service evaluation system, discusses the theoretical basis of evaluation system to build, the program logic model and build steps, and put forward Suggestions on the development of the rural family endowment service evaluation system and countermeasures, in order to further optimize the service provides a theoretical help and support.

1. The Significance of the Construction of Rural Home Care Service Evaluation System

First, the pension problem is becoming more and more obvious. The economic difficulties of the elderly are one of the reasons that restrict the development of home care service. ^[1] How to build a comfortable environment for the elderly and ensure their quality life in the old age has become a major issue of the whole society. Through exploration, rural home care has great advantages in the acceptance degree of the elderly and the effective use of resources, which can effectively alleviate the outstanding contradiction of the insufficient supply of elderly care services, and to a large extent can meet the needs of the society. Therefore, further improvement of the social security for the elderly group, for the alleviation of social contradictions has a significant role.

Second, a scientific and reasonable assessment of the quality of rural home care service is of great practical significance for guaranteeing the quality of life of the elderly and promoting the development and improvement of rural home care service.

Last, studying the quality evaluation system of rural home-based care service can provide reference value for the future operation of rural home-based care service. At the same time, it has important practical significance for improving the traditional rural home-based care service.

2. The Main Problems Existing in the Evaluation System of Rural Home Care Service

2.1. The Information Disclosure and Sharing System of Home-Based Care Service Quality Evaluation is Poor

In terms of the evaluation information of the quality of home-based care service for the elderly in rural areas, there is not only a lack of open system for the whole society, but also a lack of feedback of evaluation results for the elderly in rural areas. The government should provide a fair supply environment for home-based care services and maximize the development and utilization of existing care resources. The economic difficulties of the elderly are one of the reasons that restrict the development of home care service. [2]Although the government, academia and third-party institutions will evaluate the quality of rural home care services, there are often problems of non-continuity and non-comprehensiveness. In the rural elderly endowment service quality evaluation information sharing that occupy the home, because of different evaluation subject in evaluation of the quality of the house ways and scope, is on the basis of its own actual situation and make a different adjustment, at the same time in the selection information released time, content, the form will exist a certain differences. As a result, the degree of information symmetry and sharing between each other is not high, and the amount and quality of information that can be used by each evaluation subject in quality evaluation research is small and low.

2.2. Lack of Effective Feedback and Correction Mechanism for Quality Evaluation of Rural Home-Based Care Services

In the evaluation of the quality of home care services for the rural elderly, the evaluation subject pays more attention to the short-term and one-time feedback results of the quality evaluation. After the evaluation is completed, the corresponding information is publicized at most, and then the whole evaluation process is ended. If we ignore the correction and reflection of the problems existing in the process of self-evaluation, the effect of evaluation will be greatly reduced.

2.3. The Quality Evaluation System of Rural Home Care Service Lacks a Unified Caliber

In the evaluation system of home care service quality for the elderly in rural areas, there is lack of basic information, distortion and unified caliber. In the practice process of evaluation of home care service for the rural elderly, the collection of basic information is lack of standardization and professionalism, which is unfavorable to ensure the accuracy and uniformity of information.

3. The Construction of Rural Home Care Service Evaluation System

3.1. The Theoretical Basis of Constructing the Evaluation System of Rural Home Care Service

In rural home care services, in order to have a basis to rely on, to be able to carry out services in a planned and purposeful way, it needs to have the support of a theoretical basis.

1) Physiological needs

According to the types of institutions, different functions and levels of services are formulated to ensure that the elderly can obtain quality services. Evaluation standards should also be formulated for elderly care services, based on the physical function and living ability of the elderly, and different levels of services should be allocated to the elderly after they fall ill.

2) Security requirements

The most important issue for the elderly is their health. There will be latent diseases in the aging

population. As the elderly grow older, their resistance will decline and the disease is difficult to cure.

3) The sense of belonging

When the elderly reach a certain age, they are extremely afraid of loneliness and need care to feel a sense of belonging.

4) Respect the demand level

Efficient medical security and institutional services can better satisfy the happiness of the elderly, so it is necessary to meet the basic needs of the elderly in the actual activities of combining medical and nursing care. Different elderly people have different choice of institutions and consumption level, so special treatment is needed.

5) Self-actualization needs

Lack of social attention and low recognition result in low self-actualization needs. Programs for the elderly can be set up to help the elderly realize their own value and meet their demand for value in activities.^[3]

3.2. Program Logic Model of Evaluation System Construction

Program Logic Model is a model used to assist activity promoters to logically analyze whether their activity resource allocation and effectiveness requirements are balanced. Its operation can be used to express the relationship between different links of the service or plan in the form of images, which will show the relationship between the resource delivery, the activities or services provided and the effectiveness of the relationship, which is a logical and rational causal relationship.

The applicability of it is as follows: first, the model is based on service effectiveness, and the evaluation of rural home care service quality is also based on service effectiveness to evaluate the performance of public resource allocation; Second, the mode emphasizes the logical relationship between all links, which runs through the whole activity, including resource input, service process, output and benefit, and service quality assessment can also be carried out through such logical process. Third, the mode involves multiple levels, including resource investors and service providers, etc., while rural home-based care services are also related to multiple parties, such as the elderly, families and the government. Therefore, the quality of rural home care service can be evaluated through the procedural logic of resource input, service process, service output and satisfaction of all parties.

3.3 The Steps of Evaluation System Construction

3.3.1. Initial Construction of Evaluation Indicators

Service input

The investment forms care service mainly include capital input, personnel input and asset input. The capital input includes the direct input of the government, the input of service charges, the subsidies of rural restaurants for helping the elderly, smart pension projects and other projects. The personnel input mainly includes the number of management personnel in the service center, the number of full-time personnel in the service center, the number of external personnel providing services, and the professional training input for practitioners. The asset input mainly includes the input of the service center site and the corresponding elderly care facilities and equipment. In the initial construction of the service input index, except the direct government input index reflected by the proportion of fiscal expenditure, all other indicators adopted the per capital ratio^[4]. Initial construction of service input Service input indicators are shown in Table 1.

Table 1: Initial construction service input index [4]

First-level indicators	Second-level indicators	Third-level indicators
A.Service input	A1.Capital input	A11.Proportion of direct government input to regional fiscal expenditure
		A12.Ratio of various types of social subsidies to the number of elderly people in the region
		A13.Ratio of total service charges to the number of seniors receiving services
	A2.Staff input	A14.Ratio of the amount of government pension service subsidies to the number of elderly people in the region
		A15. Ratio of subsidies of service projects such as smart elderly service to the number of elderly people in the region
		A21.Ratio of the number of service centre managers to the number of elderly people receiving services
		A22.Ratio of full-time staff of service centre to the number of elderly persons receiving services
		A23.Number of external personnel providing services relative to the number of older persons receiving services
	A3.Asset input	A24.Number of volunteers vs. number of elderly people in the region
A25. Ratio of number of professionals to number of elderly persons in the region		
A26.Ratio of professional training of practitioners to total number of service personnel		
		A31. Ratio of service center site area to the number of elderly people in the region
		A32.Ratio of input value of facilities and equipment to the number of elderly people in the region

(1) Service process

The quality assessment of the process includes two aspects: the assessment of the service quality provided and the assessment of the service perception ^[4]. The service capacity of rural home care service is embodied in service process, equipment technology, late equipment maintenance, charging standard, information level and so on. Therefore, the supply capacity index is designed as follows: Service process index refers to the establishment of professional and standardized service process system; Late equipment maintenance index refers to the daily maintenance and update of the equipment providing services; Fee standard index refers to the service fee item price standard, reasonable, transparent, fully consider the economic situation of rural elderly groups; Information level index refers to the development degree of smart elderly care service projects.

The SERVPERF model is used to set up the evaluation dimension of rural home-based care service quality and conduct qualitative analysis and research. In order to achieve the division of service quality evaluation dimension of science and rigor. Overall need to cover food assistance, cleaning and sanitation, medical care, recreational activities, emergency assistance and travel five major sectors. The five dimensions are described as follows: tangibility -- whether modern facilities, service environment and organizational facilities can be combined with the services provided, and the service staff's dress and appearance are clean and tidy; Reliability -- to be able to timely record and complete the promised things on time, to actively communicate with the elderly and find out the problems, and

to provide them with help; Responsiveness -- timely response to demand, to provide fast and thoughtful service; Guarantee - working time on time, service quality assurance, can get the support and recognition of the local village committee; Empathy -- put yourself in the shoes of the elderly, combine the rural reality, meet the individual needs. The initial service construction process indicators are shown in Table 2:

Table 2: Process indicators of initial service construction [4]

First-level indicators	Second-level indicators	Third-level indicators
B.Service process	B1.Supply capacity	B11.Service process: Establish a professional and standardized service process system B12.Equipment technology: Have enough professional equipment required for service B13.Post-equipment maintenance: daily maintenance and update of equipment B14.Charging standard: The prices of the charging items are standardized, reasonable and transparent B15. Information level: the development level of smart elderly care service projects
	B2.Service perception	B21.tangibles: facilities and equipment, service environment, service staff dress and look good B22.Reliability: Being trustworthy and fulfilling commitments on time B23.Responsiveness: Respond to demands in time and provide fast and thoughtful service B24.Guarantee: punctual working hours, service quality assurance B25.Empathy: Meet individual needs

(2) Services output

The details include the number of services provided and the number of people receiving services. Since the scale of rural home care service centers varies from large to small, it is difficult to truly reflect the performance level of elderly care service through the total service output. Therefore, this study adopts the ratio of the total number of people as the performance evaluation index ^[5].

The service indicators provided are reflected by the types of service projects carried out by rural home care service centers, the annual average service scale, the annual average number of door-to-door services, the annual average number of services provided by full-time personnel and the annual average number of services provided by volunteers.

The index of service recipients can be reflected by the ratio of the number of elderly people receiving services to the number of elderly people in the region, the number of elderly people receiving government subsidies to the number of elderly people in the region, and the number of disabled (disabled) elderly people receiving services to the number of elderly people receiving services, so as to steadily expand the coverage of rural home care services. The output index of the initial construction service is shown in Table 3:

Table 3: Service output index of initial construction

First-level indicators	Second-level indicators	Third-level indicators
C.Service output	C1.Service delivery	C11.Types of service projects initiated C12.Ratio of annual service scale to regional elderly population C13.Ratio of annual number of home visits to the number of elderly people in the region C14.Ratio of number of services provided by full-time staff to the number of elderly persons in the region C15.Ratio of the number of services provided by volunteers to the number of elderly people in the region
	C2.Persons receiving services	C21.Number of elderly persons receiving services as a proportion of the elderly population in the district C22.The proportion of the elderly receiving government subsidies to the regional elderly population C23.Number of disabled elderly persons receiving services as a proportion of the number of elderly persons receiving services C24.The proportion of elderly persons receiving services on subsistence allowance to the number of elderly persons receiving services C25.The proportion of empty-nest elderly persons receiving services to the number of elderly persons receiving services C26.Number of older persons receiving services as a percentage of older persons receiving services

3.3.2. Screening of evaluation indicators

(1) Selection of research methods and experts

Based on time, manpower and other factors, the revised Delphi method was adopted in this study to conduct two rounds of consultation with experts. This paper selected 16 experts from three perspectives: theoretical research, professional knowledge and practical experience: 8 scholars from the academic circle, 5 experts from relevant government departments, and 3 employees who have worked for more than 5 years.

The reliability of the Delphi method survey results is mainly reflected by the following indicators: the degree of expert authority, the degree of enthusiasm, the degree of opinion coordination and the degree of concentration. The degree of expert authority has been considered in the early stage of expert selection.

The degree of enthusiasm is expressed by the positive coefficient, which refers to the recovery rate of a questionnaire after it is issued. The higher the positive coefficient, the higher the experts' attention and recognition of the problem, and the more reliable the content of the questionnaire.

The degree of concentration of opinions can be expressed by the full score rate and the average value. The larger the full score rate and the average value is, the higher the comprehensive recognition degree of experts for this index is. The average value is above 3.5, and the full score rate is above

70%.

The degree of coordination of opinions, namely the degree of consistency, is expressed by the coefficient of variation, which directly reflects the fluctuation level of each index score and is calculated by the ratio of standard deviation to the mean value. The smaller the ratio, the smaller the deviation, the more consistent the feedback and the more credible the content of the questionnaire. Experts no longer agree when the coefficient of variation is greater than 0.25.

(2) The first questionnaire survey

In this paper, the initial build community home endowment service quality evaluation index into questionnaire, experts in the field of distributed to 16 pension services, applicable to the importance of each index and degree of select the likert scale, 5 representative is very important, 4 represents the more important, the important, 3 on behalf of the general 2 represents the less important, are the representative is not important. In addition, the questionnaire also has a "Remarks" column for experts to express their opinions and suggestions. A total of 16 questionnaires were sent out and 15 were recovered, with a recovery rate of 93.75%. Therefore, the experts were very positive.

① Statistical analysis of first-level index questionnaire survey results

The statistical results of 15 authoritative experts on the importance and applicability of the first-level indicators in the evaluation index system show that the average value of the three first-level indicators is greater than 4, the full score rate is greater than 70%, and the coefficient of variation is less than 0.25, indicating that the first-level assessment indicators are highly recognized by experts, with unanimous opinions and credible index content. Therefore, the first level assessment indicators will be retained and no repeat consultation will be given in the second Delphi questionnaire.

② Statistical analysis of questionnaire survey results of secondary indicators

The statistical results of 15 experts on the importance of secondary indexes in the index system show that the average of secondary indexes are all greater than 4, the full score rate is greater than 70%, and the coefficient of variation is within 0.25. This indicates that the second-level indicators are highly recognized by experts with unanimous opinions, and the index content is credible.

③ Statistical analysis of questionnaire survey results of three-level indicators

From the perspective of expert concentration and coordination degree, the average value of 34 third-level indicators except A21, A26, C14 and C24 is more than 4, and the full score rate is more than 70% except these 4 indicators. Except for C14 and C24, the coefficients of variation were all within 0.25. Combined with the actual investigation results of the second-level indicators, this paper included A21, A26, C14 and C24 in the third-level indicators for deletion consideration.

(3) The second questionnaire survey

After sorting out and summarizing the results of the first Delphi method questionnaire, some indicators were modified, deleted and retained, and the modified three-level indicator system was fed back to 15 experts, who were asked to score the importance and applicability of each indicator on Likert scale again. The questionnaire still has a "remarks" column for experts to express their opinions and suggestions. A total of 15 questionnaires were sent out, and 14 were recovered, with a recovery rate of 93.33%, indicating that the experts were very positive.

From the two aspects of expert concentration and coordination degree, the average value of the 30 third-level indicators is greater than 4, the full score rate is greater than 70%, and the coefficient of variation is within 0.25, indicating that the expert opinions are relatively concentrated and have a certain statistical consistency. In addition, in the second survey, no other opinions and suggestions of experts were received for each indicator, and the indicator screening was completed.

3.3.3. Evaluation Index Weight Determination

Subjective weighting method is a method for decision-makers to compare, assign and calculate the

weight of various indicators. The most widely used method is the analytic Hierarchy Process (AHP). Objective weighting method is a method to calculate the weight of indicators based on objective data and historical data. It mainly includes principal component analysis method. Based on the reasons such as multiple structure levels, many projects involved and lack of objective historical data, this study uses AHP to determine the weight of the index and objectively quantifies the subjective judgment of experts.

(1) Establish a pairwise judgment matrix. Invite experts to compare the importance of each level of indicators in pairs, and use the scale method of 1-9 to make a judgment.

(2) Hierarchical single sort. According to the expert survey, the pairwise importance judgment results of each index at the same level are obtained. Through the normalization processing and consistency test, the weight ratio of the level is obtained.

(3) Total hierarchical sorting. According to the single rank of each index in the same level, the importance weight ratio of the index in the same level is obtained. ^[5]

4. Suggestions and Countermeasures for the Development of Rural Home Care Service Evaluation System

4.1 Improve the Information Disclosure and Information Sharing System of Home-Based Care Service Quality Evaluation

From the perspective of national macro-control, there are no unified policies and regulations to encourage and support the vigorous development of home-based elderly care. ^[6]The government should lead third-party organizations, academia and other parties to participate in the establishment of a broad and effective public sharing platform, and regularly realize the stable disclosure and sharing of rural home care service quality evaluation information. At the same time, the system and rules of information disclosure and sharing shall be formulated, and corresponding provisions shall be made on the time node, the way of information disclosure, and the related confidential content and time limit, so as to ensure the continuous stability of information disclosure in the evaluation system of rural home care service quality. In the actual operation process, the evaluation system and information sharing system of home care service for the rural elderly are constructed, and the information platform system integrating the functions of information collection, information summary and information reporting is constructed. The database of the rural elderly, the database of service personnel and the database of service management quality are established. The disclosure of the evaluation system of home care service quality for the rural elderly is not only to accept the supervision and inspection of all aspects of the society, but also to point out the improvement path for the model of home care for the rural elderly, and to provide accurate information for potential rural elderly groups to find suitable ways of home care for their own rural. Information disclosure should be based on the characteristics of the elderly group's weak ability to obtain information, make and distribute publicity brochures about information search methods, carry out public lectures and other activities, so that the evaluation results of home care can be truly used by the elderly in rural areas.

4.2. Set Up Special Evaluation Institutions and Cultivate Evaluation Talents

Rural management personnel have low educational level and lack of professional knowledge and skills in rural management. ^[7] To a third party in the quality evaluation institutions more specification institutions as the main body, the correct guidance of the government and academia was established under the guidance of professional or select several nationwide relative standard and professional evaluation institutions, to enhance the overall quality of the rural home endowment service evaluation system, but also can realize the effective combination between multiple quality evaluation subjects.

The central government may set unified national standards for the evaluation of home-based care services for the rural elderly, such as guidelines, rules and regulations, and evaluation benchmarks, so that local governments, third-party evaluation agencies and other evaluation parties can follow. Evaluation personnel quality directly determines the effectiveness of the quality evaluation system can play, the evaluation main body in strengthening their own training and promotion at the same time, can regularly through specialized quality evaluation institutions unified training of related projects, the basic rules and standards of the industry through the way of training is extended, to realize the standardization of the evaluation of personnel, professional.

4.3. Pay Attention to the Construction of Feedback and Correction Mechanism in the Evaluation System

In the evaluation of the quality of rural home care service, the evaluation subject should abandon the short-term and one-time quality evaluation concept, establish a long-term modification and feedback mechanism, and try to improve the evaluation system along with the evaluation practice. By effectively collecting the internal feedback from the evaluation subject, namely the relevant government agencies, third-party institutions, academia and other evaluation parties, evaluation objects and service objects, and combining with the actual situation to make specific adjustments to different problems, practice in different environments, and give feedback to the problems in practice.^[8]In this system, the government should pay attention to maintain the smooth operation of the mechanism and make corresponding adjustments in time.^[9]

4.4 Establish a Unified Evaluation Index for the Quality of Home-Based Care Services for the Rural Elderly

We can evaluate from the perspectives of applicability, publicity and tangibility. but in the process of establishing the unified rules and regulations for the evaluation index of rural home care service, it is necessary to highlight the needs of the elderly in rural areas and set evaluation indexes from various perspectives that may affect their satisfaction. Make their satisfaction and recognition of home care service become the ultimate goal of carrying out evaluation activities. For our country, which is still in the initial development of the rural home care service, evaluation party also needs to make detailed evaluation on the construction of some medical institutions, the maintenance of public facilities and the basic quality of the service personnel. Unified and perfect evaluation index of home-based care service quality is conducive to promoting the development process of evaluation index of home-based care service quality for the rural elderly and improving the credibility of service evaluation results.^[10]

4.5. Combination of Unity and Particularity in the Construction of Home-Based Care Service Quality Evaluation System

The unification of service quality evaluation system standards is of great significance to ensure the reliability and comparability of evaluation results. In the process of constructing the evaluation system of the quality of home care service for the elderly in rural areas, we should only carry out a simple general quality evaluation according to the actual situation. The corresponding adjustment should be made according to the government policy, economic development and social and cultural background of the place where evaluation activities are carried out. At the same time, we should also consider some areas that have not been covered by home-based care services, according to the local actual policy, economic and cultural conditions, work out a quality evaluation system in line with the actual situation of the region, so that the evaluation policy is accurate and forward-looking.

5. Conclusion

The study of the rural home care service quality is not only an essential requirement of establishing and perfecting the development mechanism of the elderly service industry in our country. Rural family endowment service quality evaluation system of research and construction can strengthen and perfect the pension service system construction, make the elderly can better enjoy the high quality of pension services, let the benefits really benefit the masses, at the same time, which is also helpful for deepening the construction of the service-type government, by constructing scientific and reasonable quality evaluation system, thus to improve the reasonable allocation of public resources.

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