

Questionnaire Survey Analysis of Lower Limb Dysfunction Rehabilitation for Stroke Patients at Home

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Abstract

Objective To explore the influencing factors for stroke patients and their families to choose community health home-based beds for rehabilitation of lower limb dysfunction, so as to provide data support for optimizing grassroots home rehabilitation services for stroke patients and improving the accessibility and effectiveness of rehabilitation. **Methods** A total of 218 stroke patients with lower limb dysfunction under home-based bed management from Shenzhen Pingshan District People's Hospital and 10 community health service centers were enrolled as research subjects. Relevant data were collected by self-designed questionnaires. SPSS 23.0 software was used for statistical analysis, and Logistic regression analysis and Spearman correlation analysis were performed to screen the key influencing factors. **Results** The demand for training and guidance for caregivers and family members, the demand for comprehensive assistance from general practitioners, and the demand for rehabilitation service items were positive influencing factors for participation in community home-based bed rehabilitation, while the number of caregivers was a negative influencing factor. **Conclusion** In promoting home-based bed rehabilitation services for stroke patients with lower limb dysfunction, it is necessary to focus on strengthening the training of rehabilitation skills for multiple dysfunctions, and carry out innovative measures such as providing counseling and training for caregivers together with social workers to reduce caregiving pressure. Relevant service procedures should be optimized to boost the acceptance and continuous participation of patients and their families. Strengthening standardized services of general practitioner teams, improving the integrated rehabilitation system of home visits combined with online services, and optimizing the medical expense guarantee mechanism are important measures to promote the sustainable development of home-based bed rehabilitation services.

Keywords Home-based hospital bed; Stroke; Lower limb dysfunction; Questionnaire survey; Influencing factors

1 Introduction

Stroke is a sudden cerebral circulatory disorder, classified into ischemic stroke and hemorrhagic stroke [1-2], primarily affecting the elderly. This disease has a high incidence and poor prognosis, with a trend toward younger onset in recent years [3], and often results in severe hemiplegia as a sequela [4]. During the

Fund: Scientific research project of the health system of Pingshan District, Shenzhen (202252).

© The Author(s) 2026. CC BY-NC-SA 4.0. **Article History:** Received: May 26, 2026; Accepted: May 26, 2026; Published: June 15, 2026. *Medical Research*, ISSN 2664-0333 (Print), ISSN 2664-0341 (Online). Published by Creative Publishing Co., Limited (CPCL®). <https://mrhk.cc>, <https://cpcl.hk>, Email: cpcl@cpcl.hk.

critical recovery period [5], stroke patients with post-stroke hemiplegia need to undergo long-term rehabilitation to restore bodily functions [6]. However, long-term care for patients with post-stroke sequelae and transferring them to specialized hospital rehabilitation imposes significant labor and financial burdens on the entire family, adding another substantial strain to an already heavy family burden. If community healthcare family doctors can intervene promptly after a patient's discharge and establish home-based rehabilitation beds, it can greatly alleviate the burden on families of stroke patients and significantly improve patients' recovery and quality of life. In recent years, the development of home-based rehabilitation beds in Shenzhen has accelerated, conveniently providing stroke patients with opportunities for long-term rehabilitation training and functional recovery [7]. This study examines the timely transfer of discharged stroke patients to nearby community healthcare centers to establish home-based rehabilitation beds. Using questionnaire surveys, the study analyzes the implementation plan of home-based rehabilitation beds to better meet the needs of stroke patients and their families, enabling patients to quickly continue rehabilitation at community home-based beds after discharge and improve their prognosis. The detailed analysis is as follows:

2 Materials and Methods

2.1 Research Subjects

Using a random sampling method, 218 patients with lower limb dysfunction after stroke who were hospitalized or established home beds in Pingshan District People's Hospital in Shenzhen and 10 community health service centers from January 2023 to December 2025 were selected as the subjects of the survey. Inclusion criteria: (1) Meet the diagnostic criteria of the "Chinese Guidelines for the Diagnosis and Treatment of Acute Ischemic Stroke 2018" [8] and the "Chinese Guidelines for the Diagnosis and Treatment of Cerebral Hemorrhage 2019" [9], confirmed by CT or MRI; (2) Presence of unilateral or bilateral lower limb dysfunction, Fugl-Meyer lower extremity motor function score (FMA-LE) ≤ 30 points; (3) Meet the admission standards for home beds, stable vital signs, no severe cognitive impairment, mental illness, or serious cardiac, hepatic, or renal complications; (4) Patients and their families are informed and provide consent, voluntarily participating in this study. Exclusion criteria: (1) Combined with other neurological diseases causing lower limb dysfunction; (2) Unable to cooperate with questionnaire surveys and rehabilitation assessments; (3) Withdrawal from home bed service or transfer to another hospital during the study. This study was approved by the hospital's medical ethics committee, and all study subjects signed informed consent forms.

2.2 Research Methods

2.2.1 Survey Instruments

Based on the actual situation of community health family-bed rehabilitation services for stroke, and in combination with expert consultation, a self-made "Survey on Factors Influencing the Choice of Lower Limb Function Rehabilitation in Community Health Family-Bed for Stroke" was developed. After a preliminary survey ($n=30$) and subsequent revisions, a formal survey of 230 questionnaires was conducted, of which 218 were valid and exhibited good reliability and validity. The questionnaire contains 8 dimensions and 21 questions:

- (1) Socio-demographic characteristics: gender, age, marital status, education level, employment status, previous occupation;
- (2) Disease-related information: type of stroke, duration since stroke onset, type of lower limb dysfunction (muscle weakness, abnormal muscle tone, gait disorder, balance disorder);

- (3) Family caregiving situation: main caregiver for daily life, caregiving duration, caregiver training and guidance needs;
- (4) Rehabilitation service provision: frequency of rehabilitation services by family doctor team, home-based rehabilitation items (physical therapy, occupational therapy, rehabilitation assessment, traditional Chinese medicine rehabilitation, complication prevention);
- (5) Previous rehabilitation experience: in-hospital rehabilitation, professional institution rehabilitation, receipt of family-bed rehabilitation;
- (6) Rehabilitation service demands: desired frequency of home-based rehabilitation, demand for online rehabilitation services in addition to home visits (remote guidance, video tutorials, online assessment, health consultation, rehabilitation progress tracking);
- (7) Service satisfaction: satisfaction with rehabilitation services, concerns about existing rehabilitation services (professionalism, rehabilitation effect, safety risks, cost, privacy protection);
- (8) Economic factors: acceptable monthly cost range for family-bed rehabilitation.

2.2.2 Survey Methods

The one-on-one face-to-face survey was conducted by members of a community health family doctor team who had undergone standardized training. They explained the purpose, content, and completion method of the survey to patients and their families in detail, and had them complete the WeChat questionnaire or paper questionnaire on the spot, which was collected immediately. A total of 230 questionnaires were distributed, and 218 valid questionnaires were collected, with an effective recovery rate of 94.8%. At the same time, patient home bed records or hospitalization medical records were retrieved to verify objective information such as disease course and rehabilitation service records, ensuring the accuracy of the data.

2.2.3 Observation Indicators

Using whether the patient chooses home-based rehabilitation as the dependent variable (0 = not participated, 1 = participated), and using socio-demographic characteristics, disease characteristics, care resources, service supply, demand items, service satisfaction, and economic factors as independent variables, analyze the influence of each factor on the choice of home-based rehabilitation; at the same time, analyze the correlation between the frequency of rehabilitation services, satisfaction, level of concern, and lower limb function recovery and rehabilitation compliance.

2.3 Statistical Methods

Statistical analysis was performed using SPSS 23.0 software. Measurement data with a normal distribution are expressed as mean ($\bar{x}$) $\pm$ standard deviation (s), and comparison between two groups is performed using the t-test; for non-normally distributed data, they are expressed as median M (P25, P75), and comparison between two groups is performed using the Mann-Whitney test; ordinal data are analyzed using the Mann-Whitney test; count data are expressed as frequency and percentage, and comparison between groups is performed using the chi-square test. Binary logistic regression analysis was used to analyze the factors influencing participation in community health family bed rehabilitation. A P value less than 0.05 was considered statistically significant. (Note: * $P < 0.05$, ** $P < 0.01$; percentages were calculated based on the effective sample size or the sample size of the corresponding group.)

3 Results

3.1 General Analysis of Research Subjects

Among the 218 patients, 145 have participated in community health home bed rehabilitation, accounting for 66.51%; 73 cases were not involved in community health home bed rehabilitation, accounting for 33.49%. 144 were male, accounting for 66.06%, and 74 were female, accounting for 33.94%. In this data, age was recorded in a grouped format, with the largest group aged 40–59, totaling 116 cases, accounting for 53.21%; Next are those aged 60–79, with 91 cases and 41.74%. In terms of age structure, the survey subjects were mainly middle-aged and elderly, meeting the basic characteristics of those seeking post-stroke rehabilitation services.

In terms of education level, those with primary school or below accounted for the largest share at 22.94%, followed by junior high school at 21.56%, and high school at 18.81%. Regarding marital status, married couples living with their spouse accounted for the highest proportion, with 182 cases, accounting for 83.49%; 12 divorced cases, accounting for 5.50%; 16 cases were widowed, accounting for 7.34%. In terms of occupation, professional technical personnel accounted for the highest proportion at 21.56%, followed by agricultural, forestry, animal husbandry, fishery, and water conservancy production personnel (farmers) at 17.43%, commercial/service personnel at 17.43%, clerical and related personnel at 14.68%, and heads of government agencies and enterprises and institutions at 11.93%. Regarding employment, 116 were employed, accounting for 53.21%; There were 99 unemployed individuals, accounting for 45.41%.

In terms of stroke type, ischemic stroke accounted for 165 cases, accounting for 75.69%; There were 53 cases of hemorrhagic stroke, accounting for 24.31%. The time since stroke/stroke is mainly 3–6 months and within 3 months, with 101 cases occurring within 3–6 months, accounting for 46.33%; Within three months, 92 cases were reported, accounting for 42.20%. Care duration was mainly from January to March, with 117 cases, accounting for 53.67%. Rehabilitation services are most frequently provided once a week, with 114 cases and 52.29%; 85 cases occurred three to five times a week, accounting for 38.99%. In terms of satisfaction, there were 179 cases of very satisfied or relatively satisfied total, accounting for 82.11%, indicating that the overall service evaluation is relatively good.

3.2 Demand for Stroke Rehabilitation Services and Main Concerns When Receiving Rehabilitation Services

Table 1. Rehabilitation service needs of stroke patients

Service Item	Frequency	Percentage (%)
Physical Therapy	218	100.00
Occupational Therapy	182	83.49
Rehabilitation Assessment	152	69.72
Traditional Chinese Medicine Rehabilitation	214	98.17
Complication Prevention	148	67.89
Nutrition and Dietary Advice	96	44.04
Complication Prevention Guidance	146	66.97
Family Caregiver Skill Training	123	56.42
Other	14	6.42

Analysis of the rehabilitation service needs of stroke patients is shown in Table 1. The demand for physical therapy is 218 cases, accounting for 100.00%, the highest among all service items; the demand for traditional Chinese medicine rehabilitation is 214 cases, accounting for 98.17%; the demand for occupational therapy is 182 cases, accounting for 83.49%; there is also high demand for rehabilitation assessment, complication prevention, guidance on preventing complications, and family caregiving skills training. This

indicates that patients' expectations for community health and home-based rehabilitation are not limited to basic follow-up, but they hope to receive more comprehensive services in rehabilitation assessment, training guidance, complication management, and improvement of family caregiving abilities.

Table 2. Main concerns when receiving rehabilitation services

Concern Category	Frequency	Percentage (%)
Cost Issues	193	88.53
Technical Issues	141	64.68
Time Issues	100	45.87
Continuity of Services	189	86.70
Equipment Issues	152	69.72
Transportation Issues	104	47.71
Communication Issues	146	66.97
Privacy Protection	163	74.77

Regarding the main concerns when receiving rehabilitation services, cost issues account for the highest proportion at 88.53%; continuity issues account for 86.70%; privacy protection accounts for 74.77%; equipment and communication issues are also relatively prominent. This indicates that when patients choose or continue to receive community health home-based rehabilitation, in addition to focusing on the service content itself, they also pay great attention to the financial burden, medical insurance reimbursement, service continuity, privacy protection, and whether communication with medical staff is sufficient. These factors should be key areas for improvement in the promotion of community health services and the optimization of home-based bed service processes.

3.3 Analysis of Differences Between Baseline Data of the Two Groups

Table 3. Baseline characteristics comparison between the two groups

Variable	Category	Non-participant group (n=73)	Participant group (n=145)	Total	Chi-square	P
Gender	Male	48(65.75)	96(66.21)	144(66.06)	0.000	1.000
	Female	25(34.25)	49(33.79)	74(33.94)		
Age (years)	20-39 岁	2(2.74)	3(2.07)	5(2.29)	0.724	0.868
	40-59 岁	36(49.32)	80(55.17)	116(53.21)		
	60-79 岁	33(45.21)	58(40.00)	91(41.74)		
	80-99 岁	2(2.74)	4(2.76)	6(2.75)		
Marital Status	Unmarried	1(1.37)	1(0.69)	2(0.92)	1.538	0.820
	Married, living with spouse	62(84.93)	120(82.76)	182(83.49)		
	Married, separated from spouse	1(1.37)	5(3.45)	6(2.75)		
	Divorced	3(4.11)	9(6.21)	12(5.50)		
	Widowed	6(8.22)	10(6.90)	16(7.34)		
Educational Level	Primary school or below	25(34.25)	25(17.24)	50(22.94)	15.915	0.014*
	Junior high school	9(12.33)	38(26.21)	47(21.56)		
	High school	15(20.55)	26(17.93)	41(18.81)		
	Technical secondary school	7(9.59)	30(20.69)	37(16.97)		
	Junior college	11(15.07)	16(11.03)	27(12.39)		
	Bachelor's degree	5(6.85)	6(4.14)	11(5.05)		
	Postgraduate or above	1(1.37)	4(2.76)	5(2.29)		
Employment Status	Unemployed	32(43.84)	67(46.21)	99(45.41)	1.544	0.462
	Employed	39(53.42)	77(53.10)	116(53.21)		
	Working after retirement	2(2.74)	1(0.69)	3(1.38)		
Occupational History	Agricultural, Forestry, Animal Husbandry, Fishery and Water Conservancy Production Personnel (Farming)	14(19.18)	24(16.55)	38(17.43)	2.617	0.855
	Heads of Government Agencies, Institutions and Enterprises	6(8.22)	20(13.79)	26(11.93)		
	Professional and Technical Personnel	15(20.55)	32(22.07)	47(21.56)		
	Clerks and related workers	13(17.81)	19(13.10)	32(14.68)		
	Commercial/service personnel	12(16.44)	26(17.93)	38(17.43)		
	Agriculture, forestry, animal husbandry, fishery & water conservancy workers	6(8.22)	9(6.21)	15(6.88)		
	Production, transportation and equipment operators	7(9.59)	15(10.34)	22(10.09)		

Variable	Category	Non-participant group (n=73)	Participant group (n=145)	Total	Chi-square	P
Stroke type	Ischemic type	48(65.75)	117(80.69)	165(75.69)	5.103	0.024*
	Hemorrhagic type	25(34.25)	28(19.31)	53(24.31)		
Time since stroke onset	Within 3 months	32(43.84)	60(41.38)	92(42.20)	0.502	0.918
	3–6 months	34(46.58)	67(46.21)	101(46.33)		
	6 months–1 year	4(5.48)	9(6.21)	13(5.96)		
	More than 1 year	3(4.11)	9(6.21)	12(5.50)		
Caregiving duration	0–1 month	0(0.00)	14(9.66)	14(6.42)	8.534	0.036*
	1–3 months	40(54.79)	77(53.10)	117(53.67)		
	3–6 months	28(38.36)	42(28.97)	70(32.11)		
	6–12 months	5(6.85)	12(8.28)	17(7.80)		
Frequency of rehabilitation services	3–5 times per week	18(24.66)	67(46.21)	85(38.99)	10.838	0.013*
	Once per week	49(67.12)	65(44.83)	114(52.29)		
	Once per month	5(6.85)	9(6.21)	14(6.42)		
	Irregular, rarely attend	1(1.37)	4(2.76)	5(2.29)		
	Never provided	0(0.00)	0(0.00)	0(0.00)		
Overall satisfaction	Very satisfied	7(9.59)	24(16.55)	31(14.22)	3.288	0.511
	Relatively satisfied	55(75.34)	93(64.14)	148(67.89)		
	Neutral	6(8.22)	13(8.97)	19(8.72)		
	Dissatisfied	3(4.11)	8(5.52)	11(5.05)		
	Very dissatisfied	2(2.74)	7(4.83)	9(4.13)		
Acceptable cost	500–1000 CNY	42(57.53)	93(64.14)	135(61.93)	0.640	0.424
	1001–2000 CNY	31(42.47)	52(35.86)	83(38.07)		
	2001–3000 CNY	0(0.00)	0(0.00)	0(0.00)		

Chi-square tests were used to analyze whether there were differences in baseline data between the two groups participating and not participating in community health service home bed rehabilitation; the results are shown in Table 3. There were no statistically significant differences between the two groups in terms of gender, age, marital status, employment status, occupation type, time since stroke, satisfaction, and acceptable cost ($P>0.05$), indicating that the above data are generally similar between the two groups.

There were statistically significant differences between the two groups in terms of education level, stroke type, care duration, and rehabilitation service frequency ($P<0.05$). Among them, the difference in education level was significant ($\chi^2=15.915$, $p=0.014<0.05$), indicating that the education structure of patients who participated and did not participate in community health service home bed rehabilitation was not completely consistent; the difference in stroke type was significant ($\chi^2=5.103$, $p=0.024<0.05$), with the proportion of ischemic stroke in the participating group at 80.69%, higher than 65.75% in the non-participating group; the difference in care duration was significant ($\chi^2=8.534$, $p=0.036<0.05$), indicating that patients at different care stages participated differently in community health service home bed rehabilitation; the difference in rehabilitation service frequency was significant ($\chi^2=10.838$, $p=0.013<0.05$), with 46.21% of the participating group receiving services three to five times a week, significantly higher than 24.66% in the non-participating group.

3.4 Mann-Whitney Test for Rank Data and Required Quantities

Table 4. Difference in ordinal data and demand quantity between two groups

Variable	Non-participant group (n=73) M(P25,P75)	Participant group (n=145) M(P25,P75)	Z	P
Age	3.000(3.0,4.0)	3.000(3.0,4.0)	0.547	0.535
Educational level	3.000(1.0,4.0)	3.000(2.0,4.0)	-1.106	0.261
Employment status	2.000(1.0,2.0)	2.000(1.0,2.0)	0.416	0.633
Time since stroke onset	2.000(1.0,2.0)	2.000(1.0,2.0)	-0.469	0.607
Caregiving duration	2.000(2.0,3.0)	2.000(2.0,3.0)	1.453	0.107
Frequency of rehabilitation services	2.000(2.0,2.0)	2.000(1.0,2.0)	2.301	0.010**
Satisfaction	2.000(2.0,2.0)	2.000(2.0,2.0)	0.216	0.795
Acceptable cost	1.000(1.0,2.0)	1.000(1.0,2.0)	0.795	0.345
Number of main barriers selected	4.000(4.0,5.0)	5.000(5.0,6.0)	-5.752	0.000**

Variable	Non-participant group (n=73) M(P25,P75)	Participant group (n=145) M(P25,P75)	Z	P
Number of caregivers selected	3.000(3.0,3.0)	2.000(2.0,3.0)	3.618	0.000**
Number of demands for caregiver and family counseling & training	5.000(4.0,5.0)	7.000(6.0,8.0)	-8.515	0.000**
Number of rehabilitation service demands	5.000(4.0,5.0)	6.000(6.0,7.0)	-7.743	0.000**
Number of general practitioner comprehensive assistance demands	5.000(4.0,6.0)	6.000(6.0,7.0)	-8.247	0.000**
Number of online service demands	3.000(3.0,4.0)	4.000(4.0,5.0)	-6.961	0.000**
Number of main concerns selected	5.000(4.0,5.0)	6.000(5.0,6.0)	-6.729	0.000**
Number of social support selected	2.000(2.0,2.0)	2.000(2.0,2.0)	0.000	1.000

The Mann-Whitney test was used to analyze the differences in ordinal data and demand quantity variables between the two groups. The results showed that there were no statistically significant differences between the two groups in ordinal variables such as age, education level, employment status, time since stroke, caregiving duration, satisfaction, and acceptable cost ($p > 0.05$). The frequency of rehabilitation services showed a statistically significant difference between the two groups ($Z = 2.301$, $P = 0.010$), indicating that those who had participated in rehabilitation through community health center home beds generally had a higher frequency of rehabilitation services.

Regarding demand quantity indicators, there were statistically significant differences between the two groups in the number of main barriers selected, the number of caregiver selections, the number of demands selected by caregivers and family members for counseling and training, the number of rehabilitation service items selected, the number of selections for comprehensive assistance from family doctors, the number of selections for online service needs, and the number of main concerns ($P < 0.01$). Among these, the median values for the participated group were higher than those of the non-participated group in the number of main barriers, the demand for counseling and training by caregivers and family members, the number of rehabilitation service items selected, the number of selections for comprehensive assistance from family doctors, the number of online service requirements, and the number of main concerns, indicating that those who participated in community health center home bed rehabilitation usually had more complex functional problems, stronger service demands, and clearer service concerns. The median number of caregiver selections was higher in the non-participated group, which may be related to the fact that non-participated patients relied more on multiple family caregivers, while participants more often obtained external professional support through community health center home bed services.

3.5 Analysis of Influencing Factors

Variables with practical significance from univariate analysis and demand analysis were included in a binary logistic regression model, with participation in community health family bed rehabilitation as the dependent variable (0 = not participated, 1 = participated). Demographic information, stroke situation, caregiving status, service frequency, satisfaction, acceptable costs, number of main obstacles, number of counseling and training needs for caregivers and family members, number of rehabilitation service project demands, number of comprehensive assistance needs from family doctors, number of online service demands, number of concerns, and number of social support factors were used as independent variables. The Forward LR method was used to screen influencing factors.

Table 5. Summary of binary logistic regression analysis results

Variable	Regression coefficient (β)	Standard error (SE)	Z-value	Wald Chi-square	P-value	Odds ratio (OR)	95% CI of OR
Intercept / Constant	-8.272	1.511	-5.474	29.967	0.000**	0.000	0.000 – 0.005
Number of demands for caregiver & family counseling and training	0.718	0.220	3.261	10.632	0.001**	2.049	1.331 – 3.154
Number of general practitioner comprehensive assistance demands	0.837	0.247	3.394	11.518	0.000**	2.309	1.424 – 3.744
Number of caregivers selected	-0.867	0.261	-3.322	11.038	0.000**	0.420	0.252 – 0.701
Number of rehabilitation service demands	0.443	0.190	2.335	5.454	0.020*	1.557	1.074 – 2.259
Acceptable cost: 1001–2000 CNY	-0.976	0.472	-2.069	4.280	0.039*	0.377	0.150 – 0.950
Caregiving duration: 6–12 months	1.448	0.762	1.900	3.611	0.057	4.254	0.956 – 18.937

The results of the logistic regression analysis showed that the variables ultimately included in the model were the number of training and guidance needs selected for caregivers and family members, the number of comprehensive assistance needs selected from family physicians, the number of caregivers, the number of rehabilitation service items needed, acceptable costs, and a caregiving duration of 6–12 months. The model results indicate that the number of training and guidance needs selected for caregivers and family members, the number of comprehensive assistance needs selected from family physicians, and the number of rehabilitation service items needed are positive influencing factors for participating in community health home bed rehabilitation.

The regression coefficient for the number of caregivers is OR=0.420, $p < 0.01$, which suggests that the more caregivers there are, the relatively lower the likelihood of participating in community health home bed rehabilitation. This may be related to sufficient internal family caregiving resources and the partial substitution of external professional services. The OR value for acceptable costs of 1001–2000 yuan compared to 500–1000 yuan is 0.377, indicating a negative relationship with participation in community health home bed rehabilitation in this model, suggesting that there may be some complexity between cost-bearing capacity and service payment expectations. Further explanation should take into account insurance reimbursement ratios, service content, and patient payment willingness. Caregiving duration of 6–12 months shows a marginal trend in the model, suggesting that those with longer caregiving periods may be more inclined to participate in home bed rehabilitation, but this still needs to be verified in combination with sample size and specific service stages.

3.6 Summary Analysis

Comprehensive analysis shows: Among the subjects of this study, more than 60% had already participated in community health center (CHC) home-based long-term care rehabilitation. The patients were mainly aged 40–79, with ischemic stroke being the predominant type, and the time since stroke mainly concentrated within 3 months and 3–6 months. The main disabilities of the patients focused on lower limb mobility impairment, numbness, poor balance and susceptibility to falls, as well as declines in memory and attention, indicating that home rehabilitation services should focus on motor function, sensory function, fall-prevention balance training, cognitive training, and improvement of activities of daily living skills.

From the perspective of demand, patients had high needs for physical therapy, traditional Chinese medicine rehabilitation, occupational therapy, rehabilitation assessment, complication prevention, and caregiver skill training. This reflects that CHC home-based long-term care rehabilitation services should not be limited to simple follow-up, but should establish a comprehensive service model including assessment, training, guidance, monitoring, caregiver training, and continuous follow-up. Patients who had participated in CHC home-based long-term care rehabilitation showed higher needs than non-participants in multiple functional rehabilitation service items, training and guidance for caregivers and family members, comprehensive assistance from family doctors, online service requirements, and number of concerns, indicating that those who actually participate in services usually have more concentrated needs, more

complex problems, and also require systematic management. At the same time, concerns regarding cost burden, service continuity, communication efficiency, privacy protection, and transportation accessibility need to be addressed and workflows optimized to improve patients' and families' acceptance of and sustained participation in CHC home-based long-term care rehabilitation services.

4 Conclusion

Community health center home-based rehabilitation is an important rehabilitation model for patients with lower limb dysfunction after a stroke. With the aging population, the trend of younger stroke onset, as well as government attention and the maturity of supporting policies, the necessity and importance of home-based rehabilitation are becoming increasingly prominent. It will surely be an important measure to meet the rehabilitation needs of stroke patients, improve the three-tier medical treatment system, and reduce the burdens on families and society. In the future, it will be necessary to strengthen professional training for family doctor teams, integrate 'home visit and online' joint social worker services, provide caregiver and family counseling training, and build a comprehensive service system including continuous follow-up. At the same time, it is also necessary to strengthen supporting health insurance policies to improve patients' and families' acceptance of and continued participation in community health center home-based rehabilitation services, helping patients return to their families and society as soon as possible.

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