WHIOCE PUBLISHING PTE. LTD.
PROVIDING
FIRST-CLASS SCIENTIFIC INFORMATION
FOR TOP SCHOLARS

2026 Volume 11, Issue 3
Advances in Precision Medicine
ISSN: 2424-9106 (Online)
ISSN: 2424-8592 (Print)

Effect of Cognitive Rehabilitation Nursing on Cognitive Function of Patients with Schizophrenia

Chunying Guo*
Xinghua Fourth People's Hospital, Taizhou 225700, Jiangsu, China

Author to whom correspondence should be addressed.

Copyright: © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: *Objective:* To explore the impact of cognitive rehabilitation nursing on the cognitive function of patients with schizophrenia. *Methods:* Patients with schizophrenia in our hospital from 2023.1 to 2026.1 were collected. The total sample size included was 58 cases. They were divided into groups using the ball-touching method and carried out different nursing methods. There were 29 cases in both the control group and the observation group. The corresponding nursing plans were routine nursing and cognitive rehabilitation nursing. *Results:* The difference in cognitive function between groups was small at the time of enrollment, and the MCCB score after nursing was higher in the observation group than in the control group, $P < 0.05$. The social function score value of the observation group was lower than that of the control group, $P < 0.05$. *Conclusion:* Patients with schizophrenia receiving cognitive rehabilitation care have significant value in promoting the improvement of patients' cognitive functions and enhancing their social functions.

Keywords: Schizophrenia; Cognitive rehabilitation nursing; Cognitive function; Social function

Online publication: March 26, 2026

1. Introduction

The main symptoms of schizophrenia include not only positive symptoms, such as hallucinations and delusions, but also negative symptoms such as apathy and loss of will. Patients are generally accompanied by cognitive impairment, so it is a complex, severe mental disorder [1]. Cognitive impairment in schizophrenia involves many fields such as attention, memory, executive function, and social cognition. It is a key factor that causes patients to become disabled in social functions and find it difficult to return to normal life and work. Although traditional drug treatment and routine care can effectively control psychotic symptoms, they have a limited effect on improving the core disorder of cognitive function [2]. Cognitive deficits will continue to hinder patients from achieving true functional recovery. Relevant studies have shown that non-drug intervention methods that directly target cognitive function, that is, cognitive rehabilitation care, are effective intervention programs for mental rehabilitation. Structured intervention models with skill training as the core can systematically train to compensate for or compensate for cognitive deficits [3]. Based on this, this article includes 58 patients to conduct a comparative analysis of the value of cognitive rehabilitation care for patients with schizophrenia in promoting the improvement of patients' cognitive functions and enhancing their social functions.

2. Materials and methods

2.1. General information

58 schizophrenia patients treated in our hospital from 2023.1 to 2026.1 were divided into a control group and an observation group using the ball-touching method. Among the 29 patients in the control group, there were 15 males and 14 females; the age range was 22 to 58 years old, with an average age of (39.72 ± 8.15) years old; the disease duration ranged from 1 to 15 years, with an average disease duration of (7.24 ± 3.86) years; the years of education ranged from 9 to 16 years, and the average years of education were (12.03 ± 2.14) years. Among the 29 patients in the observation group, there were 16 males and 13 females; the age range was 24 to 60 years old, with an average age of (40.31 ± 8.64) years; the disease duration ranged from 2 to 16 years, with an average disease duration of (7.89 ± 4.02) years; the years of education ranged from 8 to 17 years, and the average years of education were (11.76 ± 2.37) years. The baseline data of the two groups were balanced, $P > 0.05$.

Inclusion criteria: Meet the diagnostic criteria for schizophrenia in the "Chinese Expert Consensus on the Surgical Treatment of Psychiatric Diseases" [4]; be in the stable stage of the disease; be between 18 and 65 years old; have more than 6 years of education, and have basic reading comprehension and communication skills; and provide informed consent.

Exclusion criteria: severe vision or hearing impairment; combined with serious organic diseases; history of alcohol or drug abuse and dependence in the past 3 months; fluctuating condition or severe uncooperation.

2.2. Method

2.2.1. Control group

Patients in the control group received basic clinical routine nursing services. The nursing staff followed the doctor's orders and urged the patients to take medicines on time and in the right amount, track physical reactions after taking the medicines, record abnormal manifestations promptly, and do a good job in medication safety control; ensure that the patients' basic life needs are met during hospitalization, do a good job in ward environment organization and safety protection, and maintain a stable and orderly rest environment; carry out basic disease knowledge education, answer simple questions of patients and their families, mainly passively implement medical orders and daily life management, and do not carry out any special intervention and training for cognitive deficiencies.

2.2.2. Observation team

This group of patients received cognitive rehabilitation care as follows.

2.2.2.1. Develop an individualized rehabilitation plan

After the patient's condition stabilizes after admission, the nursing staff uses standardized cognitive assessment tools to check the status of the patient's core cognitive areas, such as attention, memory, and executive functions, and distinguish areas of advantageous cognition from areas of deficiency. The nursing team joins hands with the supervisor's physician and rehabilitation therapist to formulate a three-month exclusive rehabilitation plan based on the patient's cognitive impairment characteristics, cultural level, and personal preferences. Abandoning general goals, the overall cognitive improvement goal is broken down into specific tasks that can be implemented and measured every week, so that each intervention fits the patient's actual situation and ensures that nursing intervention is accurate and executable.

2.2.2.2. Structured cognitive special training

Layered training is carried out for different cognitive deficiencies. Attention training takes the form of deletion tasks and listening to number retellings, etc., to gradually strengthen the patient's ability to continuously focus and directionally filter information. Memory training combines story retelling, object classification recall and associative memory skills to simultaneously improve patients' working memory and long-term memory levels. Executive function training exercises

patients' thinking flexibility and independent decision-making ability through card sorting, planning, problem scenario simulation and other methods. Information processing speed is gradually improved with the help of simple response tests and rapid naming exercises. The training follows a rhythm from easy to difficult and is carried out one-on-one or in groups. When patients make progress, they are given positive encouragement in a timely manner to enhance rehabilitation compliance.

2.2.2.3. Social function adaptive training

Special guidance is carried out around social adaptability, and emotional pictures and video materials are used to help patients identify the emotional states conveyed by different expressions and tones, and improve their emotional perception and discrimination abilities. Situation interpretation and role-playing exercises are carried out in combination with real social situations, so that patients can learn to capture social cues, understand other people's thoughts and make appropriate responses. Nursing staff combine the skills learned through cognitive training with daily hospitalization scenarios, guide patients to apply the training results in life, promote the transformation of cognitive abilities into social functions, reduce the occurrence of abnormal behaviors, and help patients gradually adapt to social and life rhythms.

2.2.2.4. Family collaborative support intervention

Regularly organize family members to participate in health education activities, explain in detail the core logic of rehabilitation related to cognitive impairment and the practical skills of family care, guide family members to accompany the patient in an encouraging way, and help the patient use cognitive strategies to deal with daily affairs in life. When the patient is about to be discharged from the hospital, the nursing staff once again comprehensively assesses the patient's cognitive and social functional status, works with the patient and family members to plan home rehabilitation content after discharge, clarifies follow-up arrangements and phased rehabilitation goals, builds a coherent rehabilitation support system inside and outside the hospital, and consolidates the effect of early intervention.

2.3. Observation indicators

(1) Cognitive function: The Schizophrenia Cognitive Function Battery Consensus Version (MCCB) is used to evaluate the condition. The higher the score, the better the cognitive function of the patient.
(2) Social function: evaluated using the Inpatient Psychiatric Rehabilitation Outcomes Rating Scale (IPROS). The higher the score, the more serious the social function deficit.

2.4. Statistical methods

The calculation software used for relevant data is SPSS 25.0. Cognitive function and social function scores are measurement data, described in mean ± standard deviation (SD), and t-value test. $P < 0.05$ is statistically significant.

3. Results

3.1. Compare the cognitive functions of the two groups of patients before and after treatment

The difference between the groups in cognitive function was small at the time of enrollment, and the MCCB score after nursing was higher in the observation group than in the control group, $P < 0.05$. See **Table 1** for details.

Table 1. Comparison of MCCB scores between the two groups before and after treatment (mean ± SD)

Group		Information processing speed	Attention/ alertness	Working memory	Language learning	Visual learning	Problem solving	Social cognition
Control group (n = 29）	Before care	38.22 ± 8.14	33.61 ± 4.75	37.99 ± 4.31	37.57 ± 5.14	38.76 ± 7.15	39.74 ± 7.53	44.26 ± 6.55
	After care	47.31 ± 5.54	42.20 ± 5.15	43.12 ± 5.34	47.70 ± 5.52	49.01 ± 5.56	45.03 ± 5.10	47.52 ± 5.31
Observation group (n = 29)	Before care	37.55 ± 8.33	32.85 ± 5.64	37.28 ± 6.64	36.94 ± 7.20	38.77 ± 7.86	38.90 ± 6.51	43.54 ± 6.89
	After care	50.69 ± 5.85	45.93 ± 5.70	46.31 ± 5.74	51.38 ± 6.40	52.09 ± 4.57	47.93 ± 3.15	50.82 ± 5.17
t Comparison within the control group		4.971	6.603	4.026	7.233	6.094	3.132	2.082
P Comparison within the control group		0.000	0.000	0.000	0.000	0.000	0.003	0.042
t Comparison within the observation group		6.952	8.784	5.540	8.072	7.889	6.724	4.551
P Comparison within the observation group		0.000	0.000	0.000	0.000	0.000	0.000	0.000
t Comparison between groups before nursing		0.310	0.555	0.483	0.384	0.005	0.454	0.408
P Comparison between groups before nursing		0.758	0.581	0.631	0.703	0.996	0.651	0.685
t Comparison between groups after nursing		2.259	2.615	2.191	2.345	2.305	2.605	2.398
P Comparison between groups after nursing		0.028	0.012	0.033	0.023	0.025	0.012	0.020

3.2. Compare the social function scores of the two groups

The social function score value of the observation group was lower than that of the control group, $P < 0.05$. See **Table 2** for details

Table 2. Comparison of social function scores between the two groups (mean ± SD)

Group	n	Industrial and medical conditions	Living ability	Social skills	Pay attention to hygiene ability	Concern and interest	Total score
Control group	29	15.32 ± 2.57	14.13 ± 2.51	11.18 ± 2.69	9.48 ± 1.15	13.64 ± 2.38	63.75 ± 7.52
Observation group	29	13.45 ± 2.52	12.41 ± 2.38	9.02 ± 2.75	9.17 ± 1.38	12.48 ± 1.35	56.53 ± 7.76
t	--	2.798	2.678	3.024	0.929	2.283	3.598
P	--	0.007	0.010	0.004	0.357	0.026	0.001

4. Discussion

Schizophrenia is a severe mental illness that is chronic and has a high risk of disability. Compared with symptom control, patients' deeper rehabilitation needs lie in comprehensive functional recovery, that is, through continuous intervention, helping patients gradually repair and improve their independent life, carry out social interactions, participate in professional activities and other core social functions, which is also the key to ensuring patients' return to family and society [5].

Cognitive rehabilitation nursing is based on the theory of neuroplasticity and is a structured psychosocial intervention. The core is to use repeated, highly targeted special training, combined with scientific strategic learning guidance, to target improve or compensate for patients' cognitive deficiencies in dimensions such as attention, memory, logical thinking, and social information processing. The entire intervention process always adheres to the principle of assessment first, formulates exclusive plans based on individual differences, strictly refers to each patient's cognitive function impairment map, and tailors training tasks and intervention content that are realistic [6,7]. Compared with the traditional nursing model, cognitive rehabilitation nursing has outstanding initiative and skill-oriented advantages, completely breaking the limitations of passive care in conventional nursing, allowing nursing staff to transform from mere caregivers into organizers, guides and supervisors of rehabilitation training [8].

The results showed that the difference between the groups in cognitive function was small at the time of enrollment, and the MCCB score after care was higher in the observation group than in the control group, $P < 0.05$. The social function score value of the observation group was lower than that of the control group, $P < 0.05$. The reason is that systematic sub-module training at the cognitive level, such as attention scheduling, memory strategy application, and executive function problem-solving simulation, provides targeted and repeated activation and practice opportunities for patients' damaged neurocognitive circuits, and promotes compensatory reorganization or efficiency improvement of related brain area functions, which is measured as a general improvement in the scores of all dimensions of MCCB [9]. Cognitive abilities improved at the level of social functions are the basis for improving social functions. Through emotion recognition and social situation role-playing training, patients' social cognitive abilities are directly exercised, making them more able to accurately interpret the intentions and emotions of others. The improvement of working memory and executive functions allows patients to better maintain dialogue clues in complex and changeable social interactions. Combining cognitive strategies with hospital life scenarios accelerates the transformation process from laboratory training to real-world applications [10].

5. Conclusion

In summary, cognitive rehabilitation care for patients with schizophrenia has significant value in promoting the improvement of patients' cognitive functions and enhancing their social functions.

Disclosure statement

The author declares no conflict of interest.

References

[1] Cao Y, Nie Q, Zhu BQ, 2025, Effect of Cognitive Rehabilitation Nursing Combined with Integrated Psychological Nursing on Patients with Schizophrenia. Psychological Monthly, 20(22): 148–150.

[2] Zhang L, Hu LZ, Fang Y, 2024, The Impact of the Mental Rehabilitation Nursing Model Under the Theory of Positive Psychology on the Cognition and Recovery Level of Patients with Schizophrenia. China Medical Herald, 21(13): 158–161.

[3] Zhou LP, Ming PX, Ye WX, 2024, Research on the Application of Cognitive Rehabilitation Exercise Nursing for Patients with Schizophrenia. Journal of Qingyuan Vocational and Technical College, 17(2): 49–53.

[4] Lai YJ, 2024, Chinese Expert Consensus on Surgical Treatment of Psychiatric Disorders. Chinese Journal of Neuropsychiatric Diseases, 50(7): 385–402.

[5] Zhang YY, 2023, Effect of Cognitive Rehabilitation Nursing on Cognitive Dysfunction in Patients with Schizophrenia. Jilin Medicine, 44(6): 1682–1685.

[6] Ma YP, 2024, Evaluation of the Application Effect of Cognitive Rehabilitation Nursing on Improving Cognitive Dysfunction in Patients with Schizophrenia. Medical Frontiers, 14(8): 105–107.
[7] Zhou YH, 2022, Effect of EEG Biofeedback Therapy Device Combined with Rehabilitation Nursing on Neurotrophic Factor Levels and Cognitive Function in Patients with Schizophrenia. Medical Equipment, 35(4): 137–139.
[8] Li LH, Zhou KQ, Liu SX, et al., 2021, Application of Rehabilitation Nursing in the Treatment of Schizophrenia and Its Impact on Cognitive Ability. China Health Standards Management, 12(22): 147–149.
[9] Luo Q, 2021, Effect of Cognitive Rehabilitation Nursing on Cognitive Dysfunction in Patients with Schizophrenia. Medical Diet Therapy and Health, 19(13): 222–223.
[10] Huang L, 2020, Research on the Impact of Targeted Rehabilitation Nursing on Cognitive Function in Patients with Chronic Schizophrenia. Chinese Practical Medicine, 15(33): 201–202.

Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.