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Effect and Validity Analysis of Comprehensive Nursing in Patients with Chronic Nephritis

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Abstract: *Objective:* To evaluate the value of comprehensive nursing in the rehabilitation of patients with chronic nephritis. *Methods:* A total of 100 patients with chronic nephritis admitted to the hospital from August 2024 to August 2025 were enrolled in the study. They were randomly divided into two groups using a random number table: the control group (n = 50) received routine nursing, while the observation group (n = 50) received comprehensive nursing. The quality of life and complication rates between the two groups were compared. *Results:* The quality of life score in the observation group was higher than that in the control group ($P < 0.05$); the complication rate in the observation group was lower than that in the control group ($P < 0.05$). *Conclusion:* Comprehensive nursing in the rehabilitation of patients with chronic nephritis can prevent various complications and reduce the impact of the disease on quality of life, making it worthy of reference.

Keywords: chronic nephritis; comprehensive care; complications; quality of life

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1. Introduction

Chronic nephritis (CN) is an inflammatory disease of the glomeruli, renal tubules, and interstitial tissue caused by various etiologies, characterized by insidious onset, slow progression, and irreversibility. It is also a significant cause of end-stage renal disease (ESRD)[1]. Statistics indicate that the global prevalence of CN continues to rise, leading not only to complications such as edema, hypertension, anemia, electrolyte disturbances, fatigue, and uremia but also increasing psychological burden and social pressure[2]. CN management is a long-term, dynamic process, with intervention goals focused on actively preventing and treating complications to comprehensively optimize patients 'quality of life. However, the traditional disease-centered nursing model, which emphasizes symptom relief, fails to adequately meet patients' multidimensional and profound needs[3]. Comprehensive nursing, as a patient-centered, holistic, continuous, and individualized care model, integrates physiological, psychological, social, spiritual, and health behavior dimensions to provide coordinated nursing interventions from multiple perspectives. To clarify the specific value of this approach, this study enrolled 100 chronic nephritis patients admitted to the hospital from August 2024 to August 2025, and the findings are reported as follows.

2. Materials and methods

2.1. General information

A total of 100 patients with chronic nephritis admitted to the hospital from August 2024 to August 2025 were enrolled in the study and randomly divided into two groups using a random number table, with 50 cases in each group. Control group: 28 males and 22 females, aged 42–82 years (mean age: 61.24 ± 1.16 years). Observation group: 27 males and 23 females, aged 43–82 years (mean age: 61.42 ± 1.32 years). There was no statistically significant difference in baseline characteristics between the two groups ($P > 0.05$). This study was approved by the hospital ethics committee.

Inclusion criteria: (1) Compliance with the "Diagnosis and Treatment Guidelines for Chronic Glomerulonephritis"; (2) Laboratory tests (e.g., serum creatinine, blood urea nitrogen) and renal ultrasound results consistent with chronic nephritis; (3) Clear consciousness, absence of cognitive dysfunction or psychiatric disorders, ability to understand nursing instructions and cooperate with examinations.

Exclusion criteria: (1) Concomitant severe failure of vital organs such as the heart, liver, or lungs; (2) Immune system disorders (e.g., systemic lupus erythematosus) or active infectious diseases; (3) Patients with malignant tumors; (4) Presence of mental disorders, psychological conditions, or cognitive dysfunction; (5) Pregnant or lactating women; (6) Concomitant other end-stage renal disease (e.g., requiring dialysis) or acute kidney injury.

2.2. Methods

Control group: Standard care. Specific measures: Provide medication and dietary guidance to patients in accordance with medical orders and nursing protocols, while informing them of daily precautions and instructing them to promptly report any abnormalities to the physician for management.

Observation Group: Comprehensive Nursing Care. Specific Measures: (1) Disease Management and Monitoring: Under the guidance of a nephrologist, perform routine urinalysis and renal function monitoring, while controlling blood pressure to maintain it below 130/80 mmHg. Use nephroprotective antihypertensive medications under medical supervision when necessary. (2) Pharmacological Intervention: Strictly adhere to prescribed medications, paying particular attention to potential side effects. Avoid any drugs that may harm the kidneys. Consult a physician or pharmacist before using any new medications, including over-the-counter drugs and dietary supplements. (3) Dietary and Nutritional Management: Protein intake should be moderately controlled to avoid excessive burden on the kidneys while ensuring basic nutritional needs. Specific intake amounts should be personalized by a physician or clinical dietitian based on renal function staging. Maintain a low-salt diet with daily sodium intake generally recommended to be below 2000 mg to reduce edema and hypertension. Adjust potassium intake according to serum potassium levels, avoiding high-potassium foods such as bananas, oranges, and potatoes. If serum potassium is elevated, limit phosphorus intake based on serum phosphorus levels. (4) Fluid Balance Management: Adjust daily fluid intake under medical supervision based on urine output, edema status, and cardiac function. Restrict fluid intake in cases of significant edema or oliguria. Record daily fluid intake and output, including water, food-based fluids, and urine. Measure body weight under fixed conditions daily, as rapid weight gain often indicates fluid retention. (5) Lifestyle Adjustments: Engage in regular physical activities such as walking and Tai Chi that match the patient's tolerance level, avoiding strenuous exercise. (6) Self-management and education: Patients should actively learn about chronic nephritis to understand disease progression and treatment goals. They should document symptom changes such as fatigue, loss of appetite, worsening edema, significant changes in urine output, or shortness of breath, and promptly report these to the medical team. (7) Regular follow-ups and long-term monitoring: Patients should adhere to regular check-ups, adjust treatment plans (including diet and medication) based on changes in kidney function, and follow medical advice to modify rehabilitation programs.

2.3. Observation indicators

(1) Quality of life (QOL) was assessed using the QOL scale before and after nursing care, with scores ranging from 0 to 100, where higher scores indicate better quality of life [4].

(2) Complication incidence rate, recording the occurrence of complications such as infection, cardiovascular disease, and bone metabolism disorders.

2.4. Statistical methods

Data were processed using SPSS 28.0 statistical software. Measurement data were expressed as mean ± standard deviation($\bar{x} \pm s$) and analyzed by t-test; count data were expressed as cases (percentage) and analyzed by χ^2 test. A P-value < 0.05 was considered statistically significant.

3. Bear fruit

3.1. Comparison of quality of life between the two groups

Prior to intervention, there was no statistically significant difference in quality of life scores between the two groups (P > 0.05). After intervention, the observation group showed a higher quality of life score compared to the control group, with a statistically significant difference (P < 0.05). See **Table 1**.

Table 1. Comparison of quality of life between the two groups ($\bar{x} \pm s$), points

Group	Before intervention	2 months after intervention	6 months after intervention
Observation group (n = 50)	64.22 ± 3.16	74.35 ± 4.17	83.64 ± 2.11
Control group (n = 50)	64.28 ± 3.88	70.33 ± 3.42	76.35 ± 2.66
t price	0.085	5.271	15.182
P price	0.933	< 0.001	< 0.001

3.2. Comparison of complication incidence rates between the two groups

The incidence of complications in the observation group was significantly lower than that in the control group (P < 0.05). See **Table 2**.

Table 2. Comparison of complication incidence rates between the two groups [n (%)]

Group	Infect	Angiocardiopathy	Bone metabolic disorders	Amount to
Observation group (n = 50)	1(2.00)	1(2.00)	0(0.00)	2(4.00)
Control group (n = 50)	3(6.00)	3(6.00)	2(4.00)	8(16.00)
Chi-square value	--	--	--	4.000
P price	--	--	--	0.046

4. Discussion

As a chronic disease with prolonged course, the core management of CN lies in delaying renal function decline, improving long-term quality of life, and effectively preventing complications[5]. Comprehensive nursing care during the rehabilitation phase can reduce various complications and mitigate the impact of the disease on quality of life from multiple perspectives.

The data “showing lower complication rates and higher quality of life scores in the observation group compared to the control group” indicate the high feasibility of comprehensive nursing in the rehabilitation of chronic nephritis

patients. Comprehensive nursing, through systematic health education and behavioral guidance, enhances patients 'disease awareness and self-management capabilities. CN requires long-term adherence to a low-salt, high-quality low-protein diet, strict control of water and electrolyte intake, and rational use of medications. Nursing staff provide continuous, individualized education to help patients and their families understand treatment principles and daily precautions, transforming medical advice into actionable daily behaviors. Once patients acquire basic knowledge and skills, they can more actively cooperate with treatment, avoiding treatment interruptions or behavioral deviations due to lack of knowledge, thereby reducing disease fluctuations or acute exacerbations caused by improper diet, medication misuse, or delayed infection management[6]. Furthermore, comprehensive nursing emphasizes holistic lifestyle interventions and psychosocial support, directly enhancing patients' physical resistance and psychological resilience. Chronic diseases like CN are often accompanied by anxiety and depression, and negative emotions can affect immune function through neuroendocrine mechanisms, increasing susceptibility to infections. Comprehensive nursing programs, including psychological counseling, effectively alleviate psychological stress and improve treatment adherence. At the same time, nursing plans incorporate individualized activity and rest guidance to avoid overexertion and recommend moderate exercise when the condition permits, to improve cardiopulmonary function and enhance physical fitness[7]. Adequate nutritional support and sufficient sleep management collectively help maintain a relatively stable immune state, forming an important physiological foundation for resisting infections, thus reducing the incidence of complications in nursing care.

The core of comprehensive care lies in rigorous disease monitoring and early intervention, establishing a mechanism for early warning and response to complications. Nursing is not confined to hospital settings but extends to communities and households. Through regular follow-ups and standardized assessments, nursing staff can continuously track patients 'physiological indicators, symptom changes, and treatment side effects. Upon identifying poor blood pressure control, worsening edema, abnormal laboratory indicators, or suspected signs of infection, they can promptly relay this information to the medical team to initiate early medical intervention. This proactive and continuous monitoring model effectively prevents complications, thereby significantly reducing hospitalization rates and medical risks[8]. Additionally, comprehensive care coordinates multidisciplinary resources to provide integrated and continuous care services for patients. CN management involves professionals such as nephrologists, dietitians, clinical pharmacists, and rehabilitation therapists. Comprehensive care serves as a coordinator and bridge, ensuring consistency across treatments and recommendations, avoiding information conflicts or service gaps. This seamless care system minimizes management loopholes, guarantees the full implementation of treatment plans, and optimizes overall medical outcomes. Furthermore, comprehensive care aims fundamentally to improve quality of life, not only focusing on patients' overall functional status but also assisting them in managing discomforts such as fatigue and pain caused by the disease. It also motivates patients to participate more actively in health management, achieving the goals of disease control and quality of life enhancement.

In conclusion, comprehensive nursing care during the rehabilitation of patients with chronic nephritis can reduce the incidence of complications such as infections and improve overall quality of life, which is worthy of reference.

Disclosure statement

The author declares no conflict of interest.

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