Postprint: Application of Psychological Nursing in Rehabilitation of Elderly Stroke Patients

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Abstract

Objective To investigate the effect of psychological nursing in promoting rehabilitation of elderly stroke patients.

Methods A total of 90 elderly stroke patients admitted from January to June 2020 were selected as research subjects and divided into an observation group and a control group using the random number method, with 45 cases in each group. According to the patients' conditions, the control group received conventional rehabilitation nursing, while the observation group received psychological nursing intervention in addition to the conventional care. The Self-Rating Anxiety Scale (SAS) and Self-Rating Depression Scale (SDS) were used to evaluate emotional changes in patients; the Barthel Index was used to assess activities of daily living; and the Newcastle Satisfaction with Nursing Care Scale (NSNS) was used to evaluate patient satisfaction.

Results After intervention, the SAS and SDS scores of both groups decreased compared with pre-intervention, and the SAS and SDS scores of the observation group were lower than those of the control group, with statistically significant differences ($P < 0.01$). After intervention, the Barthel Index scores of both groups increased compared with pre-intervention, and the Barthel Index score of the observation group was higher than that of the control group, with statistically significant differences ($P<0.01$). The nursing satisfaction of the observation group was higher than that of the control group ($P<0.01$).

Conclusion On the basis of conventional treatment and nursing, implementing targeted psychological nursing intervention can effectively improve negative emotions and activities of daily living in elderly stroke patients, and has positive significance for promoting rehabilitation.

Full Text

Preamble

Title: Application of Psychological Nursing in the Rehabilitation of Elderly Stroke Patients

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Abstract

Objective: To investigate the effect of psychological nursing interventions on the rehabilitation of elderly stroke patients.

Methods: A total of [number missing] elderly stroke patients admitted between [date missing] and [date missing] were randomly divided into an observation group and a control group, with [number missing] cases in each group. All patients received routine treatment and care for stroke rehabilitation, while those in the observation group additionally received psychological nursing interventions. The Self-Rating Anxiety Scale (SAS) and Self-Rating Depression Scale (SDS) were used to assess emotional changes; the Barthel Index was used to evaluate activities of daily living; and the Newcastle Satisfaction with Nursing Scales (NSNS) was used to assess patient satisfaction.

Results: After intervention, SAS and SDS scores decreased in both groups, with significantly lower scores in the observation group compared to the control group (P<). The Barthel Index increased in both groups after intervention, with significantly higher scores in the observation group (P<). Patient satisfaction was higher in the observation group than in the control group (P<).

Conclusion: In addition to comprehensive treatment and nursing care, targeted psychological nursing interventions are potentially effective in relieving negative emotions and improving activities of daily living in elderly stroke patients, thereby promoting rehabilitation.

Keywords: elderly; stroke; psychological nursing intervention; rehabilitation; anxiety; depression; activities of daily living

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Introduction

Stroke is a major chronic disease that seriously endangers the health of Chinese residents, characterized by high incidence, recurrence, disability, and mortality rates []. Also known as "apoplexy" or "cerebrovascular accident," stroke primarily affects individuals over 60 years old with arteriosclerosis, with a slightly higher prevalence in males. The main clinical manifestations include sudden fainting, loss of consciousness, mouth and tongue deviation, speech difficulties, hemiplegia, and numbness []. Approximately 70% of stroke patients lose their independent living abilities due to physical disabilities, experience decreased psychological resilience, and develop varying degrees of psychological distress. Elderly patients in particular require prolonged bed rest, cannot care for themselves, and some cannot communicate normally, making them highly susceptible to anxiety, sadness, panic, and other negative emotions that can exacerbate their condition and cause recurrence. Therefore, nurses should provide targeted psychological care based on patients' actual conditions to accelerate recovery []. This study selected elderly stroke patients admitted to our hospital as research subjects to analyze the intervention effects of psychological nursing.

1. Materials and Methods

1.1 Study Subjects

From [date missing] to [date missing], [number missing] elderly stroke patients admitted to our hospital were selected as research subjects. All were hospitalized stroke patients in the recovery period, meeting the diagnostic criteria revised at the Fourth National Cerebrovascular Diseases Academic Conference and confirmed by cranial CT or MRI. Exclusion criteria included: severe diseases in other organs or systems; severe cognitive or language dysfunction; history of mental illness; and use of antidepressant or anti-anxiety medications in the recent past. Among the [number missing] patients, there were [number missing] males and [number missing] females, aged [age range missing] years, with an average age of ( ) years; disease duration ranged from [duration range missing] months, with an average of ( ) months; all patients were unable to care for themselves. Using the random number method, patients were divided into an observation group and a control group, with [number missing] cases in each group. Comparison of general data including gender and age between the two groups showed no statistically significant differences (P>), indicating comparability. All patients and their families provided informed consent.

1.2 Intervention Methods

Based on patients' conditions, the control group received routine rehabilitation nursing, while the observation group received psychological nursing interventions in addition to routine care.

Routine Rehabilitation Nursing consisted of three components. First, health guidance: providing information about hospital beds, regulations, clinic arrangements, and disease status to help patients feel a sense of belonging. Second, daily care: including life care, dietary care, and skin care. Nursing staff closely monitored vital signs such as blood pressure and heart rate, formulated dietary plans based on patients' underlying diseases and physical conditions, and ensured patient comfort. Third, rehabilitation training: after patients' conditions stabilized, rehabilitation training was initiated. Department rehabilitation therapists developed individualized rehabilitation plans based on each patient's condition and cooperation level. Patients were scientifically guided through rehabilitation training and informed about the significance of early rehabilitation intervention—the earlier the rehabilitation treatment, the more beneficial for functional recovery.

Psychological Nursing Intervention comprised seven integrated components. First, training: nursing staff received training in psychological knowledge to understand patients' psychological changes after admission, master communication methods, and learn about potential negative emotions and coping strategies. Second, observation and assessment: after admission, nurses observed patients' mental and emotional changes, listened to their narratives, and inquired about their family situations, work status, and personality traits to establish good nurse-patient relationships. Relevant scales were used to assess patients' emotions. Third, psychological intervention: using psychological knowledge, nurses provided psychological interventions. During conversations, nurses maintained a kind and gentle tone and attitude to help patients feel warmth and understand the causes of their psychological stress. Patients were advised to maintain a positive mindset, with timely responses to their questions and reasonable requests fulfilled whenever possible. For patients with severe depression or low mood, encouragement was provided to engage in outdoor walks and other activities within their physical capacity, and to communicate with the outside world through speech, television, or radio to identify causes of depression. If patients were worried about their disease, health education was intensified using various methods to disseminate relevant medical knowledge, with physicians involved when necessary. Disease-related questions were analyzed and explained to improve patients' understanding, help them correctly address issues common in elderly patients, and eliminate concerns and pessimism while overcoming inferiority. Patients' progress was repeatedly encouraged, and well-recovered patients were invited to share their experiences to strengthen confidence in overcoming the disease. For agitated patients, soothing music was played to identify and address triggers. Fourth, family guidance: psychological intervention extended to family members. Nursing staff guided families to provide encouragement and care to improve patients' emotions. Communication with patients and families was increased to enhance understanding of the condition and guide them on precautions during treatment and rehabilitation. Fifth, knowledge education: to improve patient compliance, basic knowledge about stroke was disseminated to patients and families to enhance disease understanding, using supportive,

comforting, and optimistic language to guide patients in cooperating with treatment []. Sixth, handover procedures: during daily morning handovers, patients' psychological issues were emphasized, rehabilitation plans were revised, and implementation was coordinated. After afternoon treatments, regular communication with patients was organized. Seventh, relaxation therapy: patients were taught relaxation techniques, lying supine with eyes slightly closed and arms gently placed at their sides. Patients first experienced the subjective feeling of tension and relaxation (e.g., clenching and unclenching fists, tightening and relaxing jaw muscles), then performed deep breathing while imagining relaxation of muscles and joints from face to lower limbs to stabilize emotions and alleviate negative psychology.

1.3 Evaluation Indicators

Evaluation indicators included three measures. First, psychological status: assessed using the Self-Rating Anxiety Scale (SAS) and Self-Rating Depression Scale (SDS). The SAS contains 20 items scored on a 4-point scale, with higher scores indicating more severe anxiety. The raw score was multiplied by 1.25 and rounded to obtain the standard score. Scores <50 indicated no anxiety, 50-59 mild anxiety, 60-69 moderate anxiety, and >69 severe anxiety. The SDS also contains 20 items, with higher scores indicating more severe depression. The raw score was multiplied by 1.25 and rounded to obtain the standard score. Scores <53 indicated no depression, 53-62 mild depression, 63-72 moderate depression, and >72 severe depression. Second, activities of daily living: evaluated using the Barthel Index, which includes 10 items. Scores range from 0-100, with higher scores indicating better functional status. Third, satisfaction: assessed using the Newcastle Satisfaction with Nursing Scales (NSNS), which uses a 5-point scoring system from 1 (very dissatisfied) to 5 (very satisfied). Higher scores indicate greater satisfaction. Total satisfaction rate = (very satisfied + satisfied) / total number of cases × 100%. Patients completed the scales before discharge.

1.4 Statistical Methods

Statistical analysis was performed using SPSS software. Measurement data were expressed as mean ± standard deviation ($\bar{x} \pm s$) and compared between groups using t-tests. Count data were expressed as percentages (%) and compared using ^{2} tests. The significance level was set at α=0.05, with P<0.05 considered statistically significant.

2. Results

2.1 Comparison of Psychological Status

Before intervention, there were no statistically significant differences in SAS and SDS scores between the two groups (P>). After intervention, both groups showed decreased SAS and SDS scores compared to baseline, with significantly lower scores in the observation group than in the control group (P<) .

2.2 Comparison of Activities of Daily Living

Before intervention, there were no statistically significant differences in Barthel Index scores between the two groups (P>). After intervention, both groups showed increased Barthel Index scores compared to baseline, with significantly higher scores in the observation group than in the control group (P<) .

2.3 Comparison of Nursing Satisfaction

The nursing satisfaction rate in the observation group was ( )%, significantly higher than that in the control group ( )% (P<) .

3. Discussion

Multiple factors contribute to psychological disorders in elderly stroke patients. First, loss of independence: most stroke patients experience motor dysfunction, leading to decreased quality of life and strong psychological reactions. They become self-centered in their actions, simultaneously needing and rejecting assistance, creating severe psychological imbalance []. Second, pessimism and disappointment: the sudden loss of functional capacity and ability to work, coupled with decreased quality of life, directly disrupts patients' original life rhythms, delivering a heavy psychological blow that leads to pessimism and disappointment []. Third, anxiety and impatience: sudden bed rest and slower-than-expected functional recovery make patients feel they have become a burden to their families, resulting in emotional instability manifested as decreased appetite, irritability, and insomnia, with some patients requiring sedatives []. Fourth, personality changes: long-term disease suffering may cause elderly stroke patients to become stubborn, narrow-minded, anxious, and irritable, filled with loneliness and longing for family communication, requiring sympathy and understanding from others. Disconnection from the outside world and uncertainty about disease outcomes also contribute to personality changes []. Fifth, treatment resistance: elderly patients often have multiple comorbidities such as coronary heart disease, diabetes, and cerebral infarction, and long-term medication use with adverse effects can lead to refusal of treatment, manifested as refusing medication, crying during treatment, and resistance. Sixth, pessimistic mood: patients feel unwell, worry about incurability or permanent disability, and lose meaning in life []. Seventh, lack of family support: stroke is a chronic disease requiring long hospitalization, severely affecting family members' energy as they must balance family and work responsibilities. After discharge, patients lack professional rehabilitation training at home and retain multiple functional disorders and sequelae. Eighth, economic factors: prolonged hospitalization creates financial pressure, reduced family income, and significant treatment costs, causing patients to experience anxiety, tension, and distress.

Effective psychological nursing interventions can improve negative emotions and activities of daily living in elderly stroke patients, positively impacting rehabilitation. In this study, based on routine treatment and nursing care, nursing staff

improved patient observation and psychological status assessment, applied psychological knowledge for intervention, provided family guidance and knowledge education, and taught relaxation techniques to patients and families. Additionally, nursing staff improved handover procedures, timely revised rehabilitation plans based on patient recovery status, and provided comprehensive psychological guidance throughout the entire process. Notably, family members play a crucial role in psychological nursing []. Healthcare staff should communicate with families to gain their understanding and cooperation, encouraging them to actively participate in passive exercises, provide greater care and consideration, and help patients build confidence. Throughout the process, healthcare staff should maintain enthusiastic, positive, and hopeful attitudes to infect patients and eliminate feelings of disappointment and loneliness.

In conclusion, psychological nursing is extremely important for elderly stroke patients. As nursing staff, keen insight is required to detect patients' emotional changes and provide timely guidance []. Nurses must possess not only good psychological qualities but also rich communication skills, applying psychological knowledge to conduct targeted psychological counseling, improve patients' negative emotions, enhance rehabilitation compliance and quality of life, and promote recovery.

Conflict of Interest Statement: The authors declare no conflicts of interest.

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Note: Figure translations are in progress. See original paper for figures.