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Application of the Integrated Medical-Care-Rehabilitation Nursing Model in Elderly Patients with Chronic Diseases

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Abstract: *Objective*: To explore the connotation of the integrated medical-care-rehabilitation nursing model and its application effect in elderly patients with chronic diseases. *Methods*: A total of 122 elderly patients with chronic diseases admitted to our hospital from January 2023 to June 2023 were selected and randomly divided into an observation group (62 cases) and a control group (60 cases). Both groups received routine nursing during hospitalization. After discharge, the control group received conventional continuous nursing, while the observation group was given the integrated medical-care-rehabilitation nursing model. The psychological status of the elderly patients in the two groups was compared before nursing and 6 months after nursing. Assessments were made on their clinical symptoms of mental health, self-care ability, health behaviors, and mastery of knowledge about elderly chronic diseases. *Results*: Six months after nursing, the scores of self-rated clinical symptoms of mental health and negative coping in both groups were lower than those before nursing ($P < 0.05$). Meanwhile, the scores of negative coping, self-care ability, and health behaviors in both groups were higher than those before nursing ($P < 0.05$). *Conclusion*: The integrated medical-care-rehabilitation nursing model can not only improve the nursing quality for elderly patients with chronic diseases but also foster their positive mentality, help them understand knowledge about diet and health care related to chronic diseases, enhance their self-care ability and health awareness, and assist them in achieving better recovery [1].

Keywords: Integrated medical-care-rehabilitation nursing model; Elderly patients with chronic diseases; Clinical nursing; Application path

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1. Introduction

With the increasingly serious aging problem in China, the number of elderly patients with chronic diseases is also on the rise. How to better care for elderly patients with chronic diseases and help them recover their health as soon as possible has become one of the main goals of major hospitals and nursing staff [2]. Elderly chronic

diseases include hypertension, hyperlipidemia, diabetes, etc., which are characterized by high incidence rate, high disability rate and difficulty in radical cure, and cause damage to the movement and language of elderly patients. The clinical nursing of elderly patients with chronic diseases includes daily nursing, medication guidance and spiritual care. Harbin Pharmaceutical actively explains to them the knowledge of diet precautions and reasonable exercise for chronic diseases, further enhances their health awareness, and provides them with comprehensive and professional rehabilitation guidance [3]. Continuous nursing advocates extending nursing to the nursing guidance after patients are discharged from the hospital, ensuring that patients can still enjoy the same continuous care as during hospitalization after discharge and guiding them to recover, but its application is not very extensive [4]. The integration of medical treatment, elderly care and rehabilitation is a new nursing model, which organically integrates medical treatment, elderly care and rehabilitation, integrates medical resources, provides professional diagnosis and treatment care, rehabilitation guidance, psychological consultation and other services for elderly patients with chronic diseases, and constructs a new nursing model of "treating diseases when there is illness and recuperating when there is no illness".

2. Materials and methods

2.1. Clinical data

A total of 122 elderly patients with chronic diseases admitted to our hospital from January 2023 to June 2023 were selected as the research subjects. The inclusion criteria were as follows: (1) Patients diagnosed with chronic diseases such as hypertension, coronary heart disease, heart disease, and diabetes in the Department of Cardiology or Endocrinology, excluding malignant tumors and other diseases; (2) Patients with a disease duration of more than 1 year and aged over 60 years; (3) Patients voluntarily participated in the study and signed the informed consent form.

The 122 patients were randomly divided into the observation group and the control group. In the observation group, there were 36 male patients (61.29%) and 26 female patients (38.71%), with an average age of (71.28 ± 8.23) years and an average disease duration of (3.59 ± 1.24) years. Among them, 25 cases had coronary heart disease (83.87%), 15 cases had hypertension (24.19%), 15 cases had diabetes (24.19%), and 7 cases had other diseases (11.29%). In the control group, there were 35 male patients (58.33%) and 25 female patients (41.67%), with an average age of (70.61 ± 6.08) years and an average disease duration of (3.84 ± 1.51) years. Among them, 20 cases had coronary heart disease (33.33%), 16 cases had hypertension (26.67%), 15 cases had diabetes (25%), and 9 cases had other diseases (15%). There was no statistically significant difference in general data between the two groups ($P > 0.05$).

2.2. Methods

Both groups of elderly patients with chronic diseases received routine nursing care during hospitalization, and the nursing staff were the same batch of nurses.

2.2.1. Control group

The 60 patients in the control group received routine continuous nursing care. On the day of their discharge, nursing staff conducted a comprehensive health assessment, which covered their physical condition, recovery status, and medication usage in detail. Based on the patients' symptoms and the attending physician's medical advice, a post-discharge nursing guidance form was designed, specifying the standards and contraindications for medication use,

monitoring of blood glucose, blood pressure, and heart rate, dietary recommendations, and other precautions [5]. Nurses should patiently explain the contents of the form to patients and their families, register the patients' mobile phone numbers and home addresses, and communicate with the community hospitals in the patients' residential areas. Community nurses will establish rehabilitation files, conduct home follow-ups once a week, and make telephone return visits to inquire about the patients' physical recovery after discharge, remind them to return for reexamination in a timely manner, and hold health lectures on elderly chronic diseases in community hospitals [6].

2.2.2. Observation group

The 62 patients in the observation group were given an integrated medical-nursing-rehabilitation care model, with nursing work carried out around medical treatment, elderly care, and rehabilitation. Firstly, an integrated medical-nursing-rehabilitation care team was established, consisting of community nursing staff, general practitioners, nutritionists, rehabilitation physicians, traditional Chinese medicine (TCM) practitioners, and geriatric nursing specialists from our hospital. All team members have more than 5 years of work experience and rich clinical treatment and nursing experience. The care team provides elderly patients with chronic diseases with professional medical services, full-body rehabilitation, TCM health preservation guidance, etc., and constructs a new integrated medical-nursing-rehabilitation care model. It organizes weekly team meetings to adjust the care methods, health guidance content, and humanistic care according to indicators such as the patients' physical recovery and medication usage [7]. One day before the patient is discharged from the hospital, the integrated medical-nursing-rehabilitation care team and experts from our hospital conduct a comprehensive assessment of the patient and formulate an individualized continuous care plan based on the patient's medical records, medication status, and rehabilitation progress. Secondly, our hospital and the community hospital jointly set up an integrated medical-nursing-rehabilitation ward, coordinate medical resources, and establish calligraphy rooms, painting rooms, physical therapy rooms, and rehabilitation training rooms to facilitate rehabilitation, psychological counseling, and nursing guidance [8]. Thirdly, the integrated medical-nursing-rehabilitation care team can establish electronic health records based on the hospitalization information of the 62 patients, upload these records to the official website of our hospital, and nursing staff will record the patients' nursing records and update the electronic health records in a timely manner. This allows the chief physicians of the cardiology and endocrinology departments of our hospital to understand the patients' subsequent rehabilitation and provide guidance to the care team. In addition, the care team should provide medical, elderly care, and rehabilitation guidance according to the patients' conditions. For example, for patients with hypertension and diabetes, they explain the use of blood glucose meters and blood pressure monitors, urge them to measure blood pressure daily and blood glucose regularly, recommend a sugar-controlled diet list, and urge them to participate in integrated medical-nursing-rehabilitation care on time. Moreover, experts from the cardiology and endocrinology departments of our hospital have compiled a popular science manual on elderly chronic diseases, which introduces the symptoms, causes, commonly used drugs, and health preservation skills of common elderly chronic diseases, shares relevant medical records, and distributes the manual to patients to facilitate their continued learning of elderly chronic disease rehabilitation knowledge after discharge [9].

2.3. Evaluation criteria

2.3.1. Mental state

Mental health tests will be conducted on patients before nursing and 6 months after nursing. The Symptom Checklist 90 (SCL-90) and Simplified Coping Style Questionnaire (SCSQ) will be used to assess the patients'

mental health status. Timely psychological interventions will be provided to help them overcome negative emotions during the rehabilitation process, offer more humanistic care, encourage their active cooperation with subsequent rehabilitation treatments, and assist them in recovering as soon as possible.

2.3.2. Self-care ability

The self-care ability of 122 patients will be evaluated before nursing and 6 months after nursing. The assessment will mainly cover indicators such as health knowledge, nursing skills, and self-care responsibility. The total score ranges from 0 to 172, with a higher score indicating stronger self-care ability of the patient.

2.3.3. Healthy behaviors

Patients will undergo a health-promoting lifestyle test before nursing and 6 months after nursing. A comprehensive assessment will be carried out from six aspects: nutritional status, spiritual growth, physical exercise, stress regulation, and self-actualization. The total score ranges from 52 to 208, with a higher score indicating stronger health awareness and a healthier lifestyle of the patient.

2.3.4. Mastery of disease-related knowledge

Tests on knowledge related to elderly chronic diseases will be conducted on patients in both groups before nursing and 6 months after nursing to understand their knowledge of the types, causes, exercise, medication treatment, etc., of elderly chronic diseases. A higher score indicates that the patient has a better understanding of elderly chronic diseases, stronger self-care awareness, and better ability to cooperate with the integrated medical-nursing-rehabilitation care work.

2.4. Statistical methods

This article uses SPSS 21.0 statistical software for data analysis. Measurement data are expressed as x±s and analyzed by t-test; counting data are expressed as percentages. A P value < 0.05 is considered statistically significant.

3. Results

A comparison of the SCL-90 and SCSQ scores between the two groups at different times shows that, as can be seen from the data in **Table 1**. After 6 months of nursing, the SCL-90 scores of both the observation group and the control group decreased significantly, the positive coping scores of the SCSQ increased, and the negative coping scores decreased, as shown in **Table 1**.

Table 1. Comparison of SCL-90 and SCSQ scores between the two groups at different time points (points, x±s)

Group		SCL-90 score	SCSQ score	
			Positive coping score	Negative coping score
Observation group (n=62)	Before nursing	163.02 ± 36.25	20.75 ± 3.58	13.14 ± 2.59
	6 Months after nursing	120.25 ± 22.14	28.07 ± 2.81	8.57 ± 3.28
Control group (n=60)	Before nursing	165.02 ± 35.13	20.12 ± 2.10	13.5 ± 2.83
	6 Months after nursing	146.23 ± 21.00	25.17 ± 3.18	10.48 ± 2.49

4. Discussion

4.1. Strengthening the collaboration between hospitals and community-based hospitals

China's aging trend is becoming increasingly evident, and the incidence of chronic diseases is rising significantly, which seriously threatens the physical and mental health of the elderly and aggravates the family medical burden. Due to the weak health awareness of elderly patients and their limited understanding of chronic diseases, they have difficulty in self-care and need the guidance of professional nursing staff. Elderly chronic diseases require long-term monitoring, and the formation of good healthy living and eating habits is necessary to control the development of the disease and further improve the elderly's quality of life. In order to further help elderly chronic disease patients control their conditions and recover, hospitals should actively collaborate with community-based hospitals, and actively promote the integrated medical-elderly-care-rehabilitation nursing model. This new nursing model should be gradually promoted to community-based hospitals and families, accelerating the transformation from clinical prevention and treatment to the long-term management model of chronic diseases, to facilitate the elderly to enjoy high-quality nursing services at their doorsteps [10]. Focusing on helping elderly chronic disease patients after discharge is conducive to improving the clinical treatment and nursing level of community-based hospitals.

The integrated medical-elderly-care-rehabilitation nursing model can meet the elderly care, medical, and rehabilitation needs of elderly chronic disease patients. It can not only scientifically guide them in taking medicine, physical exercise, daily nursing, and rehabilitation training after discharge, but also cultivate their healthy lifestyle and help them recover as soon as possible [11]. For example, the nurses in the cardiology department of the hospital can cooperate with community nursing staff to carry out the integrated medical-elderly-care-rehabilitation nursing model for patients with hypertension and coronary heart disease. On the one hand, they can guide patients to use electronic blood pressure monitors, urge them to detect blood pressure and heart rate every day, and remind them to take medicine on time. On the other hand, they can distribute brochures on the prevention and treatment of elderly chronic diseases in community-based hospitals, so that patients and their families can understand the relevant knowledge of chronic diseases, and create a good rehabilitation environment for elderly chronic disease patients [12].

4.2. Improving the integrated medical-elderly-care-rehabilitation nursing ability of nursing staff

Hospitals should actively organize the nursing staff of departments related to elderly chronic diseases, such as the cardiology department, cardiovascular department, and endocrinology department, to participate in training, enabling them to systematically learn the integrated medical-elderly-care-rehabilitation nursing model [13]. This can not only enrich their professional knowledge but also take the lead in promoting this new nursing model in the hospital, further improving the hospital's nursing level and creating a good social reputation. Nursing staff should give more psychological care to elderly chronic disease patients, especially those with sequelae. Through continuous encouragement and guidance, they can help patients regain confidence in life and urge them to actively cooperate with rehabilitation treatment, so as to help them recover [14].

5. Conclusion

In conclusion, the integrated medical-elderly-care-rehabilitation model can enhance the health awareness and self-

care ability of elderly chronic disease patients, help them develop healthy lifestyles, make them more cooperative with the guidance of nursing staff, and is conducive to controlling the development of the disease and recovering as soon as possible. At the same time, this model is beneficial for elderly chronic disease patients to understand the relevant knowledge of the disease, help them overcome anxiety and fear, shape a positive attitude, customize rehabilitation programs for patients, truly integrate medical care, elderly care and rehabilitation, minimize the harm caused by chronic diseases to elderly patients, and further improve their happiness index in their later years [15].

Disclosure statement

The author declares no conflict of interest.

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