

Effect of Case Management Nursing Service on Compliance Behavior and Quality of Life of Patients with Pulmonary Tuberculosis

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Abstract: Objective: To explore the effect of case management nursing service on compliance behavior and quality of life of patients with pulmonary tuberculosis. **Methods:** 69 cases of pulmonary tuberculosis patients in our hospital from September 2019 to August 2020 were selected as the research objects. The 69 patients were divided into study group (35 cases) and control group (34 cases). The compliance behavior, quality of life and nursing satisfaction of pulmonary tuberculosis patients were studied and analyzed. **Results:** The compliance rate of the control group was 82.35%, and that of the study group was 97.14%; The quality of life in the control group was $[61.32 \pm 7.66]$, which was significantly lower than that in the study group $[71.12 \pm 7.23]$; The satisfaction rate of the study group was 97.14%, which was significantly higher than 73.53% of the control group. **Conclusion:** In the treatment of tuberculosis patients, the use of case management nursing service can effectively improve the quality of life of patients, improve the compliance behavior of patients, and improve the treatment effect of patients, which is worthy of promotion.

Keywords: Case management nursing; Pulmonary tuberculosis; Medical compliance behavior; Quality of life

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1 Introduction

Tuberculosis is a common clinical infectious disease of respiratory system caused by *Mycobacterium tuberculosis*, which can invade many organs. With the acceleration of internationalization, the increase of population mobility, the spread of AIDS and the emergence of multi drug resistant tuberculosis, the incidence rate of tuberculosis has increased, which has increased the difficulty of controlling tuberculosis and seriously threatened human health^[1-2]. Clinically, surgical treatment can be carried out according to the patient's condition, but continuous medication must be given after the operation, and the treatment effect is closely related to the patient's compliance^[3]. Due to the limitations of conventional nursing methods, patients' compliance behavior is not ideal. Therefore, we must adopt effective intervention methods to develop good living habits, which is very important to enhance patient compliance and improve the quality of life. In this paper, 69 cases of patients with pulmonary tuberculosis in our hospital as the research object, to explore the application effect and practical value of case management nursing service in clinical, is reported as follows.

2 Material and methods

2.1 General information

69 cases of pulmonary tuberculosis patients in our hospital from September 2019 to August 2020 were

selected as the research objects. The 69 patients were divided into the study group (35 cases) and the control group (34 cases). Among the 35 patients in the study group, there were 20 men and 15 women, with an average age of 45.6 years old, while the 34 patients in the control group were 18 men and 16 women, with an average age of 46.3 years old. Patients with mental disorders, heart failure, liver injury, diabetes, and tuberculosis again need to be excluded.

2.2 Methods

The control group adopted routine nursing methods, including discharge guidance, diet nursing guidance, exercise recovery guidance, and guidance of correct family isolation.

The study group expanded the nursing service based on the case management of the control group. (1) Assessment: Case management nurses visit patients to collect basic information such as lifestyle, disease awareness, independent living ability and medical status. (2) Plan: After the evaluation, the information collected by doctors, nurses, patients and family members of case management will be comprehensively analyzed, and a feasible personalized comprehensive plan will be listed to help patients set expected goals and completion time. The plan should be specific and feasible. To ensure the smooth implementation of all plans. (3) Implementation: In the implementation stage of case management, we conducted tuberculosis knowledge education for patients and their families, asked questions about the published health manual, and used vivid images and humorous photos to understand the disease on QQ and WeChat platforms. Increase patients' interest in learning. Develop a detailed treatment plan for the patient and follow up by phone. The follow-up period focused on determining the patient's condition, explaining the knowledge related to tuberculosis once a week according to the date of discharge, and coming home once a month to understand the patient's daily eating habits. Whether the family isolation measures are complete and correctly guided. Create daily check-

in history part in QQ group, and share daily check-in status in QQ group, so that group members can supervise each other. (4) Assessment: Monitor the completion of the target, modify the plan according to the specific situation of patients, confirm the effective implementation of the plan, and communicate with doctors, patients and family members in time. Medical staff of case management organize a meeting once a week to discuss the problems in the process of case management. Remind patients to follow up in time and arrange follow-up time. During the follow-up period, the case management nurse assesses the patient's quality of life.

2.3 Observation indexes

The patients' compliance behavior was divided into three research indicators: complete compliance, partial compliance and non-compliance. The compliance rate = complete compliance + partial compliance; Nursing satisfaction was divided into satisfaction, general satisfaction and dissatisfaction. Satisfaction rate = satisfaction + general satisfaction. Nursing satisfaction was evaluated by questionnaire, of which (80,100] was satisfaction, (60,80] was general satisfaction, and less than or equal to 60 was dissatisfaction.

2.4 Statistical methods

SPSS 25 statistical software was used to analyze the data. If it conforms to the normal distribution, the results were expressed as mean \pm SD. χ^2 test was used, and $P < 0.05$ was taken as the cut-off value to determine that the difference was statistically significant.

3 Results

3.1 Compare the compliance behavior between the two groups

The study found that the compliance rate of the control group was 82.35%, and that of the study group was 97.14%. The compliance rate of the control group was significantly lower than that of the study group.

Table 1. Comparison of compliance behavior between two groups

Group	Complete compliance [n (%)]	Partial compliance [n (%)]	Non compliance [n (%)]	Compliance rate [n (%)]
Control group (n = 34)	19(55.88)	9(26.47)	6(17.65)	28(82.35)
Study group (n = 35)	24(68.57)	10(28.57)	1(2.86)	34(97.14)
χ^2		14.365		
P		<0.05		

3.2 The nursing satisfaction and quality of life of the two groups were compared

The results showed that the quality of life of the control group was $[61.32 \pm 7.66]$, which was significantly

lower than that of the study group $[71.12 \pm 7.23]$; The satisfaction rate of the study group was 97.14%, which was significantly higher than 73.53% of the control group.

Table 2. Comparison of nursing satisfaction and quality of life between the two groups $[n (\%), \bar{x} \pm s]$

Group	Quality of life	satisfied	Generally satisfied	Dissatisfied	Satisfaction rate
Control group ($n = 34$)	61.32±7.66	18(52.94)	7(20.59)	9(26.47)	25(73.53)
Study group ($n = 35$)	71.12±7.23	26(74.29)	8(22.85)	1(2.86)	34(97.14)
χ^2		15.265			
P		<0.05			

3 Discussion

Yu Weimin studied the application effect of case management nursing service in postoperative nursing of rectal cancer, and concluded that the application of case management nursing service in postoperative nursing of rectal cancer can effectively improve the self-care ability of patients and improve the quality of life of patients; Yang Suxia studied the application effect of the nursing in the treatment of cervical cancer, and concluded that the use of case management nursing service can not only improve the self-care ability of patients, but also improve the self-efficacy and quality of life of patients, alleviate the emotion of patients, and reduce the occurrence of depression^[1,2]. Tuberculosis is a serious threat to the physical and mental health and quality of life of patients, and has become the focus of public health and social attention^[3]. Regular long-term clinical treatment can effectively control the recurrence of the disease, but most patients can not be standardized treatment. Its long treatment cycle, high treatment costs, many side effects, lack of professional management and supervision make it difficult to effectively seek medical treatment, which has a direct impact on the treatment effect of the disease^[4]. Therefore, it is particularly important to strengthen the nursing intervention outside the hospital^[5].

To sum up, the case management nursing service in the treatment of tuberculosis patients can effectively improve the quality of life of patients, improve the compliance behavior of patients, and improve the treatment effect of patients, which is worthy of promotion.

References

- [1] Yu WM. Effect of extended nursing service of case management on self-care ability and SF-36 score of patients with colostomy after colorectal cancer surgery[J]. Journal of Mathematical Medicine, 2021,34 (01): 151-152
- [2] Yang SX. Effect of extended service of case management on patients with cervical cancer undergoing radiotherapy and chemotherapy[J]. Heilongjiang Medical Science, 2020,43 (06): 195-196
- [3] Liu CL. The effect of extended nursing service based on case management on the postoperative situation of rectal cancer patients after enterostomy[J]. Henan Medical Research, 2020,29 (34): 6500-6502
- [4] Liu Y. Effect of extended nursing service of case management on postoperative compliance behavior and quality of life of patients with pulmonary tuberculosis[J]. Chinese Medical Guide, 2020,18 (32): 225-226
- [5] Wang QZ, Gong DH. Current situation and control strategy of tuberculosis[J]. Chin J Antituberculosis, 2017, 39(3): 198-201.