



Clinical Nursing Analysis of Psychological Intervention Combined with Dietary Care for Elderly Patients with Diabetic Peripheral Neuropathy

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Abstract

Objective: To explore the clinical nursing effect of psychological intervention combined with dietary care on elderly patients with diabetic peripheral neuropathy. **Methods:** A total of 100 elderly patients with diabetic peripheral neuropathy who were treated in our hospital were screened and randomly divided into two groups: a control group and a study group, with 50 cases in each group. The control group received routine care, while the study group received a comprehensive care model combining psychological intervention with dietary care. The psychological state scores and blood sugar levels of the two groups were compared and analyzed. **Results:** The SAS (Self-Rating Anxiety Scale) and SDS (Self-Rating Depression Scale) scores of the study group were significantly lower, and the difference was statistically significant ($P < 0.05$); the three blood sugar indexes of the study group were also lower than those of the control group, and the difference was also statistically significant ($P < 0.05$). **Conclusion:** In the care of elderly patients with diabetic peripheral neuropathy, the comprehensive approach combining psychological intervention with dietary care can not only effectively optimize their psychological state, but also achieve remarkable results in blood sugar control.

Keywords

Psychological intervention; Dietary care; Senile diabetes; Peripheral neuropathy

With the increasing aging trend, the prevalence of diabetes and its complications in the elderly continues to rise. Among them, diabetic peripheral neuropathy poses a serious threat to the quality of life of patients [1].

Therefore, clinical nursing urgently needs to take effective measures to alleviate patients' pain and improve their quality of life. This study provides clinical care for elderly patients with diabetic peripheral neuropathy through psychological intervention combined with dietary care, aiming to analyze the effects of psychological intervention on patients' psychological state and Effect of application on blood sugar levels.

1. Objects and Methods

1.1 Objects

One hundred elderly patients with diabetic peripheral neuropathy who were treated in our hospital from March 2023 to March 2024 were screened and randomly divided into two groups: a control group (50 cases) and a study group (50 cases). There were 29 males and 21 females in the control group; the age was 61-83 (71.85 ± 4.15 years); the

course of disease was 7-20 (12.41 ± 0.43) years. There were 27 males and 23 females in the study group; the age was 62-85 (72.32 ± 4.19) years; the course of disease was 8-20 (12.39 ± 0.45) years. There was no significant difference in the general data between the two groups of patients ($P > 0.05$). This study has been formally approved by the Ethics Committee of our hospital. At the same time, all enrolled patients and their families were informed and agreed to participate in this study.

1.2 Methods

The control group received routine nursing care, including daily care of patients, drug management (such as guidance on the use of oral hypoglycemic drugs and insulin), and basic medical care operations.

The research group implemented a comprehensive nursing strategy combining psychological intervention with dietary care.

(1) Psychological intervention. ① Health education: popularize diabetes-related knowledge to patients and their families, including the cause, treatment, and prevention of complications. Correct patients' misconceptions about diabetes and let them realize the necessity of treating diabetes. ② Emotional support: Nurses pay close attention to patients' emotional changes, especially negative emotions such as pessimism, anxiety, and fear caused by long-term treatment and repeated illness. Encourage patients to express their inner feelings and help them establish a positive psychological defense mechanism. Encourage patients' families to actively participate in it, provide family support and care for patients, and enhance patients' emotional support. ③ Psychological counseling: Carry out targeted psychological counseling for patients' anxiety, fear, and other psychological problems, such as relaxation training and cognitive reconstruction. ④ Communication: Medical staff actively communicate with patients to understand their needs and expectations. Respect patients' wishes and improve patient satisfaction. ⑤ Behavioral intervention: Instruct patients to have a regular work and rest schedule and develop good living habits. Encourage patients to actively participate in social activities, reduce loneliness, and improve their quality of life. (2) Dietary care. ① Dietary care plan formulation: According to the specific conditions of elderly diabetic patients, formulate a personalized diet plan for each patient. Focus on controlling total calorie intake to ensure that the intake of calories is balanced with daily consumption to meet the patient's nutritional needs while avoiding excess calories. Encourage patients to eat more foods rich in dietary fiber to lower blood sugar. Limit the intake of high-sugar, high-fat, and high-salt foods, such as candy, cakes, fried foods, etc. Encourage patients to take in high-quality protein appropriately to supplement the nutrients needed by the body. ② Dietary guidance and supervision: Popularize diabetes diet knowledge to patients and their families, including the nutritional composition of food, calorie calculation, diet matching, etc., to improve patients' diet management ability. Require patients to record their daily diet, including food types, intake, eating time, etc., so that medical staff can evaluate the patient's diet implementation and make adjustments as needed. ③ Dietary care effect evaluation: Evaluate the effect of dietary care by regularly measuring the patient's blood sugar level, weight and other indicators. If the patient's blood sugar level is not well controlled or the weight drops too fast, the medical staff will adjust the diet plan in time to ensure that the patient's nutritional needs and blood sugar control are optimal.

1.3 Observation indicators

When assessing the patient's psychological state, the Self-Rating Anxiety Scale (SAS) and the Self-Rating Depression Scale (SDS) were used as tools; at the same time, the patient's fasting blood glucose, 2-hour postprandial blood glucose level, and glycosylated hemoglobin were monitored.

1.4 Statistical analysis

The collected data were statistically analyzed using SPSS 22.0 software. The measurement data were expressed by t test and $\bar{x} \pm s$. If $P < 0.05$, it was considered that there was a statistical difference between the data and it was significant.

2. Results

2.1 Comparison of psychological status between the two groups of patients

The SAS and SDS scores of the study group were significantly lower than those of the control group, and this

difference was statistically significant ($P < 0.05$). The specific data are shown in Table 1.

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

Group	Number of cases	SAS Scoring	SDS score
Research Group	50	44.35±2.79	44.81±1.43
Control group	50	56.83±1.83	55.84±1.41
<i>t</i>	-	26.448	38.837
<i>P</i>	-	0.001	0.001

2.2 Comparison of blood glucose levels between the two groups

The fasting blood glucose, 2-hour postprandial blood glucose, and glycosylated hemoglobin levels in the study group were significantly lower than those in the control group, and this difference was also statistically significant ($P < 0.05$). The detailed data are shown in Table 2.

Table 2. Comparison of blood sugar levels between the two groups of patients ($\bar{x} \pm s$)

Group	Number of cases	Fasting blood glucose (mmol/L)	Blood glucose 2 hours after meal (mmol/L)	Glycated hemoglobin (%)
Research Group	50	6.02±0.70	8.41±1.03	6.10±1.23
Control group	50	6.46±0.89	9.82±1.43	8.39±1.83
<i>t</i>	-	2.748	5.657	7.344
<i>P</i>	-	0.007	0.001	0.001

3. Discussion

Elderly diabetic peripheral neuropathy is a common and serious complication of diabetes. Its typical symptoms include pain, numbness and paresthesia in the extremities, which significantly reduce the patient's quality of life [2]. As the disease progresses, the incidence of peripheral neuropathy also increases, posing a huge challenge to elderly diabetic patients. If appropriate nursing measures are not taken in time, the patient's symptoms may worsen, the quality of life may further deteriorate, and even serious consequences such as diabetic foot and amputation may occur, which will bring heavy economic and psychological burdens to patients and their families [3].

The therapeutic effect of traditional routine nursing methods on elderly patients with diabetic peripheral neuropathy is often limited. This is mainly because traditional nursing methods mainly focus on monitoring physiological indicators and drug treatment, but fail to fully meet the psychological and dietary needs of patients [4]. In fact, the patient's psychological state and eating habits have an important impact on the treatment and rehabilitation of the disease. Psychological intervention occupies an important position in non-drug therapy. By paying attention to the patient's psychological state, providing emotional support, psychological counseling and other services, it can alleviate the patient's negative emotions such as depression and anxiety, and improve their confidence and compliance in treatment [5]. Dietary care provides personalized diet plans based on the patient's dietary needs, helps patients establish healthy eating habits, control blood sugar levels, and thus alleviate the symptoms of peripheral neuropathy [6]. The results of this study showed that the study group performed better than the control group in both psychological state and blood sugar levels ($P < 0.05$). This fully proves that psychological intervention plays a key role in the rehabilitation process of elderly patients with diabetic peripheral neuropathy. It can not only stimulate the patient's positive emotions, but also help promote the overall recovery of the body [7]. After the intervention of dietary care, the patient's eating habits were reasonably adjusted, and his blood sugar level was effectively managed and controlled. Dietary management not only helps to alleviate the symptoms of peripheral neuropathy, but also reduces the risk of other complications and improves the patient's quality of life [8]. This combined care model not only improves the patient's treatment effect and quality of life, but also reduces the financial pressure on the patient, demonstrating its extremely high application value and practicality in clinical practice [9].

In summary, psychological intervention combined with dietary care, as an innovative nursing strategy, has shown significant advantages in the clinical care of elderly patients with diabetic peripheral neuropathy. Therefore, it is strongly recommended that this combined care model be widely adopted in clinical practice to provide better quality and more comprehensive nursing services.

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