

Nursing Intervention of Postherpetic Neuralgia

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Abstract: The aim of this study was to evaluate the effects of different nursing interventions in patients with postherpetic neuralgia (PHN) in order to improve the quality of life and reduce the intensity of pain. A randomized controlled trial (RCT) was used to select 60 patients with postherpetic neuralgia and randomly divided into intervention group and control group, with 30 patients in each group. The intervention group received individualized nursing interventions, including psychological support, pain management education, physical therapy, and regular follow-up evaluation. The control group received routine care. The course of treatment was 3 months. Patients were assessed using a visual analogue pain scale (VAS) and Quality of Life questionnaire (QOL). The patients in the intervention group had significant improvement in pain intensity and quality of life compared with the control group. The VAS score in the intervention group was significantly lower than that before treatment, while the quality of life score was significantly improved. Personalized nursing intervention is of great significance for improving pain management and quality of life in patients with postherpetic neuralgia. The future nursing practice should increase the application of such interventions.

1. Introduction

Before discussing postherpetic neuralgia (PHN) and the significance of nursing interventions, we must first clarify the connotation of shingles and the long-term harm to human health. Shingles, which is a symptom caused by the varicella-zoster virus (VZV), is characterized by pain along the nerves and a banded rash. Although most patients experience temporary relief from pain symptoms and rash symptoms, 10 to 15 percent of patients may develop PHN, or chronic neuropathic pain, which can drag on for years and have a serious impact on their quality of life. Given the prevalence of PHN and the serious impact it can have on patients' daily lives, the importance of this study is self-evident. Although the medical industry has introduced many treatment methods, such as drug therapy and nerve suppression surgery, many patients report that the efficacy of these measures is not ideal, and the side effects are quite obvious. Therefore, the focus of current research is to seek comprehensive and targeted care approaches aimed at relieving pain in patients with PHN and further improving their standard of living. In the long history, although the research on the sequela of herpes zoster is relatively rich, the discussion on nursing intervention, especially the tailored approach is relatively lacking. Targeting pain perception, mental state, and living conditions can lead to more precise and detailed care plans that will hopefully improve outcomes. Based on the above background, this study

used randomized trial method to explore the practical effect of personalized nursing intervention in the treatment of postherpetic neuralgia patients. In this study, patients were randomly divided into experimental group and control group and given customized nursing intervention and general nursing respectively. The purpose of this study was to analyze the actual benefits of these interventions in reducing pain degree and improving quality of life in PHN patients. A variety of countermeasures, such as psychological assistance, pain relief guidance, rehabilitation exercises and regular examinations and assessments, provide comprehensive care for patients, help them cope with pain more effectively, and thus improve their living standards. The aim of this research is to provide more efficient care for patients with PHN, while exploring new research paths for nursing disciplines and building a solid foundation.

2. General information

In this study, we selected 60 patients with postherpetic neuralgia (PHN) to explore the effects of personalized care interventions in practice and the potential impact on patients' daily lives. The selection of this patient population followed strict criteria to ensure that the study was accurate and credible, as well as representative of the demographic characteristics of the population. Following a rigorous selection process, participants who may interfere with the study subjects due to disease or health problems are excluded to ensure the purity and target accuracy of the study.

The screened subjects all endured PHN symptoms lasting three months or more, revealing the persistence of chronic pain and meeting the standard criteria. The age range of this group covers 50 to 80 years old, which is quite broad. Given that shingles and posthumous neuralgia mainly affect middle-aged and older adults, the characteristics of this age group provide us with the opportunity to study the applicability and practical effectiveness of care methods in people of different ages. Despite our efforts in gender ratio, the ratio of male to female patients still reflects the current gender ratio of society^[1].

The screening of 60 patients not only judged according to the characteristics of the disease, but also took into account the living conditions and psychological status, so as to accurately evaluate the nursing effect. We understand that pain is not only physically constrained, but also influenced by individual emotions, psychological states, and social culture. In the process of design research, every aspect has been considered. To ensure the rigor and usefulness of the inquiry, we conducted a comprehensive baseline assessment for all subjects. These aspects include, but are not limited to, their experience of illness, treatment, psychological status, and standard of living. These data not only provide the direction for the next intervention measures, but also provide the data basis for changes before and after intervention.

In this research planning, we attach great importance to the health and privacy of the participants and ensure that the research process is ethical. In addition, in order to reduce potential bias, we implemented a variety of strategies, such as random allocation and blind design, to improve the accuracy and fairness of research results^[2].

We thoroughly investigated the potential effect of personalized care interventions on quality of life in patients with postherpetic neuralgia (PHN). To this end, we carefully selected and analyzed the basic information of 60 PHN patients to lay the foundation for the study. We firmly believe that the in-depth analysis of this batch of data will provide valuable references for the future management and care of PHN.

3. Method

In this study, we implemented a rigorous and creative approach to ensure an accurate and reliable assessment of the effectiveness of tailored care interventions for patients with herpes sequelae. In this

process, we have been focusing on the rationality and rationality of the planning plan, and the pursuit of serious and responsible in the implementation stage. Every effort is made at each step to ensure that the accuracy matches the set objectives of the study, thus ensuring the accuracy and credibility of the results^[3].

First, the study was conducted on the basis of a randomized controlled trial that divided 60 patients with postherpetic neuralgia into groups: a single group receiving usual care (called the control group) was evaluated against a separate group receiving a personalized care intervention (called the intervention group). Computer generated random number tables are widely used in random distribution to ensure fair distribution and uncertainty. The key to ensuring the credibility of research results lies in the rigorous implementation of this process.

In the process of implementing personalized nursing intervention, we comprehensively evaluate the pain degree, psychological state, daily routine and social and cultural environment of patients, and then construct a comprehensive intervention plan involving multiple areas. These programs include not only drug management and rehabilitation treatment, but also psychological assistance, health guidance and lifestyle adjustment, aiming to comprehensively improve the overall health level and quality of life of patients. The personalized treatment plan for each patient is developed according to his or her unique individual attributes in order to achieve an exact match to the needs^[4].

To assess the effects of the intervention, a series of criteria were developed, such as pain degree, quality of life assessment (such as the SF-36 scale), and mental health status (including the assessment of depression and anxiety). In order to study the changes caused by the intervention, individual data before and after the intervention are carefully evaluated. In addition, we will pay close attention to patient satisfaction and acceptance of interventions as additional criteria to measure the effectiveness of interventions.

In order to ensure the accuracy and effectiveness of the data, we have adopted various methods in the collation and analysis of the data. Pre-verified data collection tools ensure their reliability and effectiveness. In the data processing stage, we will use narrative statistics, difference comparison tests (such as T-test and Chi-square test) and multi-factor analysis methods (such as regression analysis) to deeply explore the effectiveness of intervention and its associated factors^[5-6]. In addition, the statistical analysis is carried out in a professional statistical software environment to ensure the correctness and reliability of the data analysis. Finally, in order to ensure the legitimacy of the investigation, we have obtained the express consent of all participants before the project starts, ensuring that they fully understand the objectives and processes of the research, as well as their rights and responsibilities in the research. All researchers follow the ethical norms and legal provisions to ensure that personal safety and privacy rights are well protected.

Based on this theoretical framework, we are committed to comprehensively and deeply exploring the efficacy of personalized nursing intervention in the treatment of postherpetic neuralgia patients and its effect on patients' quality of life. This will contribute to the treatment and management of PHN, and at the same time bring new inspiration and guidance to other fields of exploration and practice^[7].

4. Result

After a 6-month personalized care intervention, our sophisticated data analysis revealed a series of remarkable and encouraging results that not only demonstrate the positive impact of personalized care on patients with postherpetic neuralgia (PHN), but also provide important guidance and implications for future clinical practice. The following is a detailed analysis of the key findings of the study, presented in three carefully designed tables.

As can be seen from Table 1, the mean pain score of the intervention group decreased significantly

after the personalized nursing intervention, from 7.8 to 4.2, reflecting the significant effect of the personalized intervention in reducing pain in patients with PHN. Although there was a slight decrease in the control group, the improvement was limited, which further emphasizes the importance and effectiveness of personalized nursing interventions.

Table 1: Comparison of pain intensity (before and after intervention)

Group	Mean pain score before intervention (10-point scale)	Mean post-intervention pain score (10-point scale)	P-value
Intervention group	7.8	4.2	<0.001
Control group	7.6	7.1	0.05

Table 2: Quality of life assessment (SF-36 scale score, before and after intervention)

Group	Average score before intervention	Mean score after intervention	P-value
Intervention group	45	75	<0.001
Control group	44	48	0.2

In terms of improvement in quality of life, Table 2 shows the results as assessed by the SF-36 scale. Average scores in the intervention group improved significantly from 45 to 75, a leap that fully demonstrates the effectiveness of personalized care interventions in improving quality of life for patients with PHN. In contrast, the score improvement of the control group was limited, which further confirmed the necessity and urgency of personalized intervention.

Table 3: Mental health status (depression and anxiety scores, before and after intervention)

Group	Pre-intervention depression score	Post-intervention depression score	Pre-intervention anxiety score	Post-intervention anxiety score	P-value
Intervention group	16	6	18	7	<0.001
Control group	15	14	17	16	0.1

Table 3 focuses on the changes in patients' mental health. The depression and anxiety scores of the intervention group have significantly decreased, from 16 to 6 for depression and from 18 to 7 for anxiety, indicating that personalized nursing intervention is not only effective in controlling physiological pain, but also plays a positive role in improving patients' mental health. The control group showed limited improvement in this respect, highlighting the unique value of personalized intervention.

Through in-depth analysis of the contents of the above three tables, it is clear that personalized nursing intervention has achieved remarkable results in reducing the pain of PHN patients, improving their quality of life and improving their mental health status. These results not only validate the effectiveness of personalized nursing interventions, but also provide a new perspective and approach for the treatment and management of PHN. Future research could further explore different types of personalized interventions to continuously optimize and improve the treatment outcomes and quality of life for patients with PHN.

5. Discuss

In this study, we conducted a detailed evaluation of personalized care interventions in patients with postherpetic neuralgia (PHN), revealing a significant impact on improving pain intensity, quality of

life, and mental health status. These results not only provide a valuable reference for clinical practice, but also point the way for future research. Below, we discuss in depth the implications of these findings, potential mechanisms, and implications for future research.

5.1. Influence of personalized nursing intervention on pain intensity of PHN patients

After in-depth exploration of the apparent effectiveness of personalized care interventions in alleviating pain in patients with postherpetic neuralgia (PHN), we summarized the following core issues. These topics not only highlight the innovative highlights of this study, but also provide directions for future clinical practice and exploration. Studies have shown that individualized care for patients is excellent at reducing suffering. This gain was made possible by a significant reduction in pain experienced by patients in the trial group. The reduction in pain is not just a numerical change - in fact, it means that patients experience significantly less pain in their daily lives, which will benefit their physical and mental well-being and happiness.

The results of pain reduction are due to the rigorous formulation and implementation of a full range of treatment measures in a personalized treatment plan. These strategies cover various levels such as drug adjustment, rehabilitation exercise, psychological guidance, and so on, with the aim of completely eliminating the pain sensation of patients. In addition, in view of the differences of individual living habits and social and cultural environment, it is necessary to take corresponding measures in order to realize personalized intervention and improve its effectiveness and adaptability.

Second, the results showed that in the group that received the intervention, they achieved a clear improvement in quality of life. This change is not only reflected in the improvement of daily behavioral ability, but also in the psychological state and social interaction of patients. The results of this study reveal that the significance of personalized care intervention is not only to relieve patients' physical discomfort, but more importantly, it improves the level of quality of life and makes them glow with higher vitality in daily affairs and social activities. The comprehensive quality of life optimization shows that specialized care measures take into account not only the physical needs of patients, but also their psychological, social and general well-being, thus significantly improving the quality of life.

Ultimately, the study showed that nursing care played a key role in improving patients' psychological well-being. After the implementation of the intervention, the patient's mood improved significantly, which fully demonstrates the importance of mental support in the recovery stage of herpes neuralgia. The patient's understanding of the management of the disease is broadened, and the means of coping with the disease are improved, thus alleviating the psychological stress caused by the disease. The optimization of mental health plays a vital role in improving the quality of life and facilitating long-term rehabilitation.

5.2. Significant improvement in quality of life in the intervention group

The significant improvement in quality of life among patients in the intervention group, particularly the leap in SF-36 scale scores, reveals the potential of personalized care interventions to promote the overall well-being of patients with PHN. The improved quality of life is reflected not only in pain control, but also in patients' mental health, social activities and ability to live daily. This suggests that the success of personalized care interventions lies not only in their direct management of symptoms, but also in their ability to comprehensively consider and meet the full range of patient needs, thereby promoting patient health and well-being on a broader level.

5.3. Significant improvement in mental health in the intervention group

In this study, the significant improvement in mental health of patients in the intervention group, especially the reduction in depression and anxiety scores, provides us with direct evidence that personalized care interventions improve the mental state of patients with PHN. The improvement in mental health may be due to the inclusion of elements such as psychological support and health education in personalized intervention plans, which help patients better understand and cope with their illness and reduce the psychological burden brought by the illness, thus improving the mental health status of patients. This finding highlights the importance of paying attention to and supporting patients' psychological states in the treatment and care of PHNS.

6. Conclusions

In summary, the study found that tailored nursing care plays a pivotal role in the treatment of postherpetic neuralgia (PHN) and demonstrates its practical effects. It is particularly effective in relieving pain, improving quality of life and improving mental health. These achievements not only provide solid theoretical support for medical practice, but also provide valuable reference for future exploration and practice. Future research is expected to further analyze the role of personalized intervention strategies in the treatment of PHN patients, while improving and integrating relevant methods, so as to achieve a wider and deeper application. In addition, we need to study the actual effectiveness of personalized interventions in different groups to ensure their popularity and practical application value. Continue to explore the practice to support the development of accurate and efficient treatment and care strategies for people with PHN, thereby significantly improving their quality of life and health.

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