The Impact of Focused Psychological Nursing on the Psychological State and Nursing Outcomes of Postoperative Prostate Cancer Patients

Fang Huang

Shanghai Seventh People's Hospital Affiliated to Shanghai University of Traditional Chinese Medicine, Shanghai, China

Abstract: Objective: To analyze the effect of focused psychological nursing intervention on the psychological status and nursing effect of patients with prostate cancer after operation. Method: 70 prostate cancer patients who underwent surgical treatment in our hospital from December 2023 to December 2024 were selected as the study subjects. They were randomly divided into the control group and the observation group. 35 patients in the control group were treated with routine nursing, and 35 patients in the observation group were treated with focused psychological nursing intervention. After that, the psychological status, nursing effect, sleep quality, quality of life, satisfaction and other indicators of the two groups were compared. Result: After nursing care, it was found that the observation group had better psychological states than the control group, and the difference between the groups was statistically significant (P<0.05); The comparison of nursing effects between the two groups shows that the observation group is higher than the control group, and the difference between the groups is statistically significant (P<0.05); The comparison of sleep quality between the two groups shows that the observation group is superior to the control group, and the difference between the groups is statistically significant (P<0.05); The comparison of the quality of life between the two groups shows that the observation group is higher than the control group, and the difference between the groups is statistically significant (P<0.05). Conclusion: Focused psychological nursing intervention for patients with prostate cancer after operation is very effective and worth clinical promotion.

***Keywords*:** focused psychological nursing; prostate cancer; postoperative patients; mentality; nursing effectiveness; effect

1. Introduction

Prostate cancer is a common malignant tumor in men, typically occurring in older males. The prostate is part of the male reproductive system and is located below the bladder, surrounding the urethra. Prostate cancer generally grows slowly, and in its early stages, there may be no obvious symptoms. As cancer cells proliferate, patients may experience symptoms such as frequent urination, urgency, painful urination, and weak urine flow. Some patients may also have hematuria and sexual dysfunction. The exact cause of prostate cancer is not well understood, but it is related to factors such as genetics, age, diet, and lifestyle [1]. Clinically, surgical intervention is commonly used, which has shown significant effectiveness. However, as a surgical procedure, patients are prone to developing negative emotions postoperatively, leading to poor prognosis. Therefore, effective nursing interventions are crucial [2]. Traditionally, routine nursing interventions have been employed, but these are often limited and especially ineffective in improving patients' emotional well-being. Focused psychological nursing intervention is a psychological treatment method aimed at addressing specific issues or needs, helping patients alleviate negative emotions such as anxiety and depression following surgery, enhancing their psychological adaptation, and improving their quality of life. Through focused psychological nursing, patients can better understand and cope with postoperative physical changes and sexual dysfunction, reducing psychological stress and fear. Moreover, focused psychological nursing can help patients establish a positive mindset and coping strategies, facilitating better adaptation to postoperative life and improving treatment compliance [3]. Based on this, the main purpose of this study is to explore the value of implementing focused psychological nursing interventions for postoperative prostate cancer patients. The details are as follows.

2. Materials and Methods

2.1 Clinical Data

This study included 70 prostate cancer patients who underwent surgery at our hospital from December 2023 to December 2024. The patients were randomly assigned to two groups: the observation group and the control group, with 35 patients in each group. The control group had a maximum age of 81 years, a minimum age of 45 years, and an average age of (63.41 ± 1.21) years. The TNM stages in the control group included T1 in 12 cases, T2 in 13 cases, T3 in 5 cases, and T4 in 5 cases,

with an average disease duration of (3.42 ± 0.24) years. The observation group had a maximum age of 80 years, a minimum age of 46 years, and an average age of (63.44 ± 1.31) years. The TNM stages in the observation group included T1 in 10 cases, T2 in 14 cases, T3 in 6 cases, and T4 in 5 cases, with an average disease duration of (3.33 ± 0.18) years. There were no significant differences in the basic data between the two groups ($P > 0.05$). This study was approved by the hospital's ethics committee.

Inclusion Criteria: Diagnosis of prostate cancer according to the diagnostic standards.Underwent surgery.Informed consent for participation in the study.Complete clinical data.Good adherence to the study protocol.

Exclusion Criteria: Patients with renal insufficiency or arrhythmia.Patients with mental or cognitive abnormalities. Patients participating in other studies.Patients with myocardial infarction or severe brain injury.

2.2 Methods

Control Group – Routine Nursing:

The control group received routine nursing, including the following measures:

(1) Postoperative Pain Management: Regular monitoring of pain levels, appropriate use of analgesics, and providing a comfortable environment and posture.

(2) Wound Care: Regular dressing changes, maintaining wound cleanliness and dryness, monitoring for signs of infection.

(3) Fluid Management: Monitoring fluid intake and output to maintain electrolyte balance.

(4) Prevention of Complications: Encouraging early rehabilitation exercises to prevent deep vein thrombosis, urinary retention, and other complications.

(5) Bladder Training: Providing guidance on bladder training to help restore bladder function and prevent incontinence.

(6) Dietary Guidance: Offering appropriate dietary advice, encouraging the intake of protein-rich and vitamin-rich foods to promote recovery.

(7) Rehabilitation Guidance: Guiding patients on appropriate physical activities to aid in recovery and improve quality of life.

(8) Psychological Support: Providing emotional support and encouragement to help patients cope with the treatment process, reduce anxiety, and alleviate depression.

(9) Regular Follow-up: Conducting regular follow-up visits to monitor postoperative recovery and address any issues promptly.

Observation Group – Focused Psychological Nursing:

The observation group received focused psychological care, including the following measures:

(1) Individual Assessment and Personalized Intervention Plan: Through communication and assessment, understanding the patient's psychological state, needs, and issues before and after surgery. Based on the assessment, a personalized psychological nursing intervention plan was developed.

(2) Information and Education: Providing detailed information and education about prostate cancer, the surgical process, and postoperative recovery to help patients better understand their disease and treatment process. This aimed to address any questions or uncertainties, reducing fear and uncertainty.

(3) Emotional Support and Emotional Management: Listening to and supporting patients' emotional expressions, helping them manage emotions effectively using techniques such as psychological counseling and cognitive-behavioral therapy to alleviate anxiety, depression, and other negative emotions.

(4) Managing Postoperative Complications and Issues: Helping patients cope with potential postoperative complications such as urinary incontinence and sexual dysfunction. Providing information, advice, and guiding patients in seeking professional help, helping them develop positive coping strategies and improve self-regulation skills.

(5) Family and Social Support: Encouraging patients to share emotions and needs with family members, friends, or colleagues, and seek support and understanding from them. Establishing a healthy social support network through family consultations or support groups to enhance patient recovery and psychological well-being.

(6) Addressing Sexual Dysfunction: Providing sexual education and therapy counseling for patients experiencing postoperative sexual dysfunction, such as erectile dysfunction. Helping patients and their partners communicate and establish supportive sexual relationships, promoting the recovery and adjustment of sexual function.

(7) Regular Follow-up and Evaluation: Regularly following up with patients, evaluating the effects of the interventions, and monitoring changes in their psychological state. Adjusting the intervention plan as needed to ensure continuous psychological support and attention, assisting patients in adapting to their new life state, and improving quality of life and mental health over time.

2.3 Observation Indicators

2.3.1 Psychological State

The anxiety level of patients was assessed using the Self-Rating Anxiety Scale (SAS) by the nursing staff. The score range is 30-50 points, with higher scores indicating poor psychological state. The analysis was conducted before and after the nursing intervention. The Cronbach's α coefficient for SAS is 0.91.

The depression level of patients was assessed using the Self-Rating Depression Scale (SDS). The score range is 30-50 points, with higher scores indicating poor psychological state. The analysis was conducted before and after the nursing intervention. The Cronbach's α coefficient for SDS is 0.92.

2.3.2 Nursing Effect

The nursing effect was classified into three categories:

Significant Effect: After nursing, the patient's clinical indicators showed marked improvement.

Effective: After nursing, the patient's clinical indicators showed some improvement.

Ineffective: The clinical indicators did not improve.

The total effective rate = (Significant Effect + Effective) / 35 × 100.00%.

2.3.3 Sleep Quality

Sleep quality was assessed using the Pittsburgh Sleep Quality Index (PSQI). The PSQI includes seven dimensions: sleep duration, sleep quality, sleep disturbances, sleep latency, sleep efficiency, hypnotic medication use, and daytime dysfunction. The scale includes 18 items, with scores ranging from 0 to 21. Lower scores indicate better sleep quality[5]. The Cronbach's α coefficient for PSQI is 0.74, showing good reliability and validity. It is the most commonly used scale for assessing sleep quality in clinical and research settings.

2.3.4 Quality of Life

Quality of life was compared before and after the intervention using the Generic Quality of Life Inventory 74 (GQOLI-74) scoring scale. The scale includes the following dimensions:Psychological Function (20-100 points);Physical Function (20-100 points);Material Life (16-80 points);Social Function (20-100 points);A higher score indicates a better quality of life. The validity of the scale is 0.94, and the reliability is 0.92.

2.4 Statistical Methods

Data were analyzed using SPSS 22.0 software. Measurement data are expressed as ($\bar{x}$±s) and analyzed using t-tests. Categorical data are expressed as percentages (%) and analyzed using the chi-square (χ^2) test. A P value of < 0.05 was considered statistically significant.

3. Results

3.1 Comparison of Psychological State Scores Between Groups

The observation group demonstrated significantly lower SAS and SDS scores than the control group ($P < 0.05$), as shown in Table 1.

Table 1. Comparison of Psychological State Scores Between the Two Groups ($\bar{x}$±s)

Group	Sample Size	SAS		SDS	
		Before Intervention	After Intervention	Before Intervention	After Intervention
Observation Group	35	44.58±3.45	32.21±3.27	45.54±3.18	31.47±1.78
Control Group	35	44.57±3.46	40.15±2.74	45.75±3.21	36.61±2.14
t-value	-	0.012	11.011	0.275	10.924
P-value	-	0.990	0.000	0.784	0.000

3.2 Analysis of Nursing Effects Between the Two Groups

The nursing effect in the observation group was higher than that in the control group ($P < 0.05$), as shown in Table 2.

Table 2. Comparison of Nursing Effects Between the Two Groups (%)

Group	Sample Size	Significant Effect	Effective	Ineffective	Total Effective Rate(%)
Observation Group	35	25	8	2	33(94.29)
Control Group	35	20	6	9	26(74.29)

Group	Sample Size	Significant Effect	Effective	Ineffective	Total Effective Rate(%)
χ^2- value	-	-	-	-	5.285
P-value	-	-	-	-	0.021

3.3 Sleep Quality Analysis

The sleep quality of the observation group was better than that of the control group ($P < 0.05$), as shown in Table 3.

Table 3. Sleep Quality Survey Analysis Between the Two Groups ($\bar{x}\pm s$)

Group	Sample Size	Daytime Function	Sleep Quality	Sleep Latency	Sleep Duration	Sleep Efficiency
Observation Group	35	1.23±0.12	1.01±0.11	1.34±0.08	1.43±0.18	1.27±0.12
Control Group	35	1.87±0.22	1.72±0.23	1.79±0.24	1.95±0.52	1.54±0.16
T-value	-	15.108	16.475	10.523	5.590	7.986
P-value	-	0.000	0.000	0.000	0.000	0.000

3.4 Comparison of Life Quality Between the Two Groups

The life quality scores of the observation group were higher than those of the control group ($P < 0.05$), as shown in Table 4.

Table 4. Comparison of Life Quality Scores (n, $\bar{x}\pm s$)

Group	Sample Size	Psychological Function		Physical Function		Material Life		Social Function	
		Before Intervention	After Intervention	Before Intervention	After Intervention	Before Intervention	After Intervention	Before Intervention	After Intervention
Observation Group	35	67.07±2.32	89.12±3.87	66.67±2.34	82.21±3.11	57.11±2.09	71.42±2.98	68.09±2.09	81.14±3.75
Control Group	35	67.11±2.39	70.33±2.71	67.04±2.33	73.10±2.91	56.93±2.01	62.50±2.42	68.18±2.22	70.27±2.93
T-value		0.071	23.529	0.663	12.654	0.367	13.747	0.175	13.513
P-value		0.944	0.000	0.509	0.000	0.715	0.000	0.862	0.000

4. Discussion

Prostate cancer is a common malignant tumor in men, originating from malignant cells in the prostate tissue and classified as a cancer of the male reproductive system. Prostate cancer typically grows slowly and presents no obvious symptoms in the early stages. As the tumor grows and spreads, patients may experience urinary symptoms such as frequent urination, urgency, and pain. In severe cases, complications such as urinary retention and bone metastasis may occur [7-8]. If prostate cancer is not treated in a timely manner, the tumor cells may spread to other parts of the body via the blood or lymphatic system, such as the bones or lymph nodes, forming metastatic tumors and increasing the difficulty and risks of treatment. Surgery is one of the common methods for treating prostate cancer, but effective postoperative nursing intervention is crucial for the patient's recovery [9]. Routine nursing care is generally simple and non-specific, which leads to less than ideal outcomes. Focused psychological care interventions can effectively help patients address postoperative psychological distress and issues, enhancing their psychological adaptability and quality of life [10-11]. Focused psychological care can develop personalized plans based on the patient's individual differences and needs, provide psychological support, and meet their requirements. At the same time, it offers detailed information about the disease and treatment, reducing uncertainty and fear. This intervention also provides emotional support and coping strategies, addresses postoperative complications and issues, and encourages patients to share their emotions and needs with family and friends, creating a healthy support network to promote recovery and mental health. Finally, regular follow-up and assessment ensure continuous psychological support and maximize recovery outcomes [12-13].

The results of this study show that the psychological state scores of patients in the observation group were significantly better than those in the control group ($P < 0.05$). This suggests that implementing focused psychological care intervention can significantly improve patients' negative emotions. The reason for this is that focused psychological care uses emotional support, emotional management, and cognitive restructuring techniques to help patients effectively address postoperative negative emotions such as anxiety, depression, and fear, promoting emotional regulation and recovery. Under psychological

nursing intervention, patients can better recognize and understand their emotional changes, learn effective emotional regulation strategies, enhance psychological resilience and the ability to cope with setbacks, and reduce the negative impact of adverse emotions on their lives. Through communication and interaction with psychological experts, patients can release emotions, reduce stress, rebuild a positive mindset and confidence, and improve their quality of life and happiness [14].

The sleep quality scores of patients in the observation group were significantly better than those in the control group ($P < 0.05$). This indicates that focused psychological care intervention can significantly improve the quality of sleep in patients. The reason for this improvement is that focused psychological care helps alleviate anxiety, tension, and fear after surgery, adjusts the patient's mindset, and reduces psychological pressure, which in turn improves sleep quality. Through psychological counseling, relaxation training, and cognitive behavioral therapy, patients can better manage emotional fluctuations after surgery and reduce the occurrence of sleep difficulties and disorders. Focused psychological care also helps patients develop good sleep habits and regular sleep patterns, enhancing sleep quality and effectiveness. After receiving effective psychological support, patients experience improved sleep quality, which promotes physical recovery and improves their quality of life. Therefore, focused psychological care has a positive effect on improving the sleep quality of patients after prostate cancer surgery [15].

The life quality scores, satisfaction, and nursing effect in the observation group were significantly better than those in the control group ($P < 0.05$), indicating that focused psychological care intervention significantly improved patients' life quality and satisfaction. The reason for this is that focused psychological care helps patients effectively cope with postoperative psychological pressure and anxiety, enhancing their acceptance of treatment and willingness to cooperate, thereby promoting the rehabilitation process. Through emotional support, psychological counseling, and psychological education, patients are more likely to adjust their mindset, reduce anxiety and depression, and strengthen their confidence and determination to recover. After receiving effective psychological guidance and support, patients are more likely to actively participate in rehabilitation training, follow medical instructions, improve rehabilitation outcomes, and reduce the occurrence of complications, thus improving life quality and satisfaction [16].

5. Conclusion

In conclusion, focused psychological care intervention for patients after prostate cancer surgery has multiple advantages, including personalized attention, provision of information and education, emotional support and management, family and social support, and enhanced life quality. It helps patients better adapt to postoperative life and promotes recovery and mental health.

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