

Effect of Psychological Nursing Combined with Health Education on the Quality of Life of Patients with Lung Cancer

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Abstract: *Objective:* To analyze the effect of psychological nursing combined with health education on the quality of life of patients with lung cancer. *Methods:* 80 patients with lung cancer admitted to our hospital's Department of Cardiothoracic Surgery from January 2022 to December 2022 were selected as the research objects. Those who received basic nursing care from January to June were classified as the reference group, and those who received psychological nursing and health education from July to December were classified as the combination group, with 40 cases in each group. The combination group was given psychological nursing and health education; the reference group was given primary nursing care. The negative emotions experienced, the nursing satisfaction, the pain levels 1–7 days after operation, and the quality of life of both groups were compared. *Results:* Before the intervention, there was no statistically significant difference in the negative emotions between the two groups of patients ($P > 0.05$); after the intervention, the combination group experienced significantly less negative emotions compared to the control group ($P < 0.05$). Besides, the nursing satisfaction evaluation indicators such as targeted measures, nursing effects, individualized treatment, and level of professionalism of the combination group were significantly better than those in the reference group ($P < 0.05$). There was no significant difference in the pain level of both groups of patients 1 day after surgery ($P > 0.05$); however, in 3d and 7d after the surgery, the combination group experienced significantly less pain than the reference group ($P < 0.05$). The social skills, physical pain, health status, physiological function, and other quality of life scores in the combined group were significantly higher than those in the reference group ($P < 0.05$). *Conclusion:* Psychological nursing and health education can improve the quality of life of patients with lung cancer.

Keywords: Enhanced rehabilitation nursing; Lung cancer; Perioperative period

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1. Introduction

Lung cancer is a malignant tumor that occurs in the respiratory system. People who smoke are more likely to suffer from this disease. This disease has become the disease with the highest mortality rate ^[1]. The incidence of lung cancer is on the rise worldwide, seriously affecting human life and health ^[2]. The disease damages

the body's health and reduces the patient's quality of life. Therefore, psychological nursing is crucial for lung cancer patients to eliminate their psychological barriers, so that they can actively cooperate with the treatment program. Besides, they should also be educated on the disease to improve their awareness of it^[3]. The objective of this paper was to study and analyze the effect of psychological nursing combined with health education on the quality of life of patients with lung cancer.

2. General information and methods

2.1. General information

Eighty patients with lung cancer admitted to our hospital's Department of Cardiothoracic Surgery from January 2022 to December 2022 were selected as the research objects. Those who received basic nursing care from January to June were classified as the reference group, and those who received psychological nursing and health education from July to December were classified as the combination group, with 40 cases in each group. The reference group consisted of 21 males and 19 females, aged 38–65 years, with an average age of 51.34 ± 1.52 years; the course of the disease was 3 to 8 months, with an average duration of 5.22 ± 0.35 months. The combination group consisted of 22 males and 18 females, aged 39–65 years, with an average age of 51.46 ± 1.48 years; the course of the disease ranged from 2 to 8 months, with an average duration of 5.35 ± 0.39 months. There was no statistically significant difference in general information between the two groups ($P > 0.05$).

Inclusion criteria: (1) diagnosed with lung cancer, (2) signed an informed consent.

Exclusion criteria: (1) incomplete clinical data, (2) survival period of less than three months, (3) unconscious, (4) non-independent.

2.2. Methods

The reference group underwent basic nursing. The combination group underwent psychological nursing and health education, which included the following aspects. (1) Communication: After the patients were admitted to the department, the staff assisted the admission process promptly and introduced themselves to the patients. The staff talked to the patients and helped them familiarize themselves with the hospital environment. The nurses were professional and gentle when communicating with the patients. (2) Patient assessment: The patients characteristics were observed, including their personalities, knowledge level, family background, etc. During the patient's hospitalization, treatment, and nursing measures were implemented based on the doctor's orders. In the process of contacting patients and patrolling the ward, the patient's condition and the emotional changes of the patients were also noted. (3) Emotional care: The patients' emotional state and worries about the disease were understood, and the nurses comforted them. Successful cases were also introduced to patients to reduce their psychological burden. (4) Disease education: Considering the education level of the patients, suitable education methods were selected, and the disease was explained in detail to help the patients understand it from a scientific and medical perspective. The introduction began with an explanation of the disease's pathogenesis, the factors that contribute to its occurrence, available treatment methods, and the expected prognosis. Following this, the purpose of medication and the treatment method were introduced in accordance with the patient's treatment plan. (5) Respiratory function exercise: The lung function of lung cancer patients will be severely impaired. Therefore, the patients were taught the importance of respiratory function exercises, and how to perform those exercises.

2.3. Observation indicators

(1) Negative emotions were compared and evaluated with Self-Rating Anxiety Scale (SAS) and Self-Rating Depression Scale (SDS).

- (2) The nursing satisfaction, including targeted measures, nursing intervention effects, individualized treatment, and level of professionalism of both groups were compared.
- (3) The postoperative pain (1–7d after surgery) was evaluated using the Visual Analogue Scale (VAS), ranging from 0–10 points.
- (4) The quality of life of patients was evaluated using a short-form survey (SF-36), ranging from 0–100 points.

2.4. Statistical analysis

Statistical analysis was conducted using SPSS 21.0. The count data was represented by (n [%]) and analyzed by a χ^2 test; the measurement data was represented by mean \pm standard deviation and analyzed by a t -test. $P < 0.05$ indicated statistical significance.

3. Results

3.1. Negative emotions

Before the intervention, there was no statistically significant difference in the negative emotions between the two groups of patients ($P > 0.05$); after the intervention, the combination group experienced significantly less negative emotions compared to the control group ($P < 0.05$), as shown in **Table 1**.

Table 1. The comparison of negative emotions between the two groups (mean \pm standard deviation)

Group	Number of cases	Anxiety		Depression	
		Before intervention	After intervention	Before intervention	After intervention
Combination group	40	67.24 \pm 3.56	38.51 \pm 4.61	68.57 \pm 5.51	39.22 \pm 4.68
Reference group	40	67.41 \pm 3.75	51.68 \pm 4.69	68.37 \pm 5.19	52.31 \pm 4.65
<i>t</i>	-	0.2079	12.6657	0.1671	12.5487
<i>P</i>	-	0.8358	0.0000	0.8617	0.0000

3.2. Nursing satisfaction

Besides, the nursing satisfaction evaluation indicators such as targeted measures, nursing effects, individualized treatment, and level of professionalism of the combination group were significantly better than those in the reference group ($P < 0.05$), as shown in **Table 2**.

Table 2. The comparison of rehabilitation indicators between the two groups (mean \pm standard deviation)

Group	Number of cases	Targeted measures	Effect of nursing intervention	Personalized treatment	Technical expertise
Combination group	40	8.21 \pm 1.56	12.57 \pm 4.66	3.24 \pm 1.56	2.87 \pm 0.56
Reference group	40	11.52 \pm 2.64	34.25 \pm 5.84	5.64 \pm 1.89	4.83 \pm 1.56
<i>t</i>	-	6.8268	18.3522	6.1938	7.4789
<i>P</i>	-	0.0000	0.0000	0.0000	0.0000

3.3. Pain assessment

There was no significant difference in the pain level of both groups of patients 1 day after surgery ($P > 0.05$); however, in 3d and 7d after the surgery, the combination group experienced significantly less pain than the reference group ($P < 0.05$), as shown in **Table 3**.

Table 3. Postoperative pain assessment between groups on 1–7d (mean ± standard deviation)

Group	Number of cases	1d after operation	3d after operation	7d after operation
Combination group	40	3.98 ± 0.45	2.15 ± 0.56	1.35 ± 0.46
Reference group	40	3.89 ± 0.52	2.94 ± 0.74	2.21 ± 0.54
<i>t</i>	–	0.8277	5.3840	7.6675
<i>P</i>	–	0.4103	0.0000	0.0000

3.4. Quality of life

The social skills, physical pain, health status, physiological function, and other quality of life scores in the combined group were significantly higher than those in the reference group ($P < 0.05$).

Table 4. The comparison of quality of life between the two groups (mean ± standard deviation)

Group	Number of cases	Social skills	Body pain	Health condition	Physiological function
Combination group	40	83.21 ± 2.51	84.27 ± 2.69	83.21 ± 2.85	84.55 ± 2.37
Reference group	40	75.14 ± 2.69	74.25 ± 2.94	75.28 ± 2.96	74.19 ± 2.68
<i>t</i>	-	13.8725	15.9029	12.2057	18.3145
<i>P</i>	-	0.0000	0.0000	0.0000	0.0000

4. Discussion

In recent years, more and more patients with lung cancer (lung cancer), a malignant tumor originating from bronchial tissue, are characterized by cough, sputum, and chest pain^[4,5]. Research has found that lung cancer has a certain degree of familial aggregation but is not contagious. The prognosis will be better if treatment is taken in the early stages. In the later stages, there is a risk of distant metastasis, involving multiple organs and multiple tissue injuries, and it will become challenging to treat^[6,7].

When confronted with lung cancer, numerous patients experience a profound sense of pessimism, leading to a loss of interest in life and potentially impacting their ability to undergo treatment for the disease^[8,9]. Routine nursing has little effect on patients' psychology and disease cognition, so it is essential to implement a new nursing model^[10].

Psychological nursing operates on the principles of emotional guidance, which aims to alleviate the patient's preoccupation with their illness and reduce psychological burdens by means of effective communication and diversion of their attention^[11]. Besides, the patients will be educated on the disease^[12]. The joint application of psychological nursing and health education can correct patients' misperceptions about lung cancer, and this will help improve their mood, and allow them to face life with an optimistic attitude^[13].

The utilization of psychological nursing and health education has led to a reduction in destructive emotions, high satisfaction with nursing measures, significant pain relief, and a considerable improvement in the quality of life^[14]. This nursing program holds a crucial position in patient treatment, as it can augment the effectiveness of clinical medicine and extend patients' survival periods^[15].

5. Conclusion

In summary, the combination of psychological nursing and health education has a significant impact on lung

cancer patients. Therefore, this nursing model should be popularized.

Disclosure statement

The authors declare no conflict of interest.

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