Analysis of the Clinical Value of Psychological Intervention in Gastric Cancer Care

Wenwen Li, Yan Xu, Jiao Jin, Fang Wang, Hua Zhang, Xuelan Yan, Shanshan Cui*

Affiliated Hospital of Hebei University, Baoding, Hebei 071000, China

Corresponding author: Shanshan Cui, 17725551956@163.com

Abstract: *Objective:* To analyze the application value of psychological intervention in gastric cancer nursing. *Methods:* This study analyzes gastric cancer patients admitted to hospitals from May 2022 to May 2023. Based on research requirements and patient willingness, 80 patients were selected and divided into observation and control groups using a lottery method. The control group received conventional nursing care, while the observation group received psychological intervention in addition to conventional nursing care. *Results:* After the psychological intervention, patients in the observation group showed significant improvements in anxiety and depression, better sleep quality, remarkable enhancement in psychological resilience, higher levels of health literacy, and increased nursing satisfaction compared to the control group ($P < 0.05$). *Conclusion:* Incorporating psychological intervention into the nursing care of gastric cancer patients enhances their psychological adjustment ability and improves treatment adherence.

Keywords: Psychological intervention; Gastric cancer; Nursing; Application

1. Introduction

In recent years, the incidence rate of gastric cancer has gradually increased and tends to affect younger populations, largely due to changes in lifestyle and dietary structure. This trend has prompted our country to focus more on improving therapeutic measures. The treatment of gastric cancer patients typically involves surgery and chemotherapy, which can cause significant pain and increase the likelihood of negative emotions in patients. Such negative emotions can adversely affect the treatment process and reduce the quality of life for patients [1].

Traditional nursing models often fall short as they lack comprehensive measures, making it difficult to provide detailed care across all aspects of a patient's needs. Specifically, conventional nursing models tend to overlook the psychological state of patients, leading to psychological stress that can hinder recovery.

Implementing a psychological intervention model can improve nursing measures by addressing patients' psychological conditions. This involves adjusting intervention programs, enhancing psychological guidance, providing encouragement, and implementing principles of humanistic care. Such an approach helps patients

develop a positive treatment mindset, increases their confidence in treatment, ensures the orderly progress of the treatment process, improves sleep quality, alleviates negative moods, and strengthens psychological recovery and health literacy. Consequently, this comprehensive approach enhances the overall treatment level and the quality of life for patients.

2. Materials and methods

2.1. General information

In this study, patients suffering from gastric cancer were selected, and the timeline of the study was from May 2022 to May 2023. Using a randomization method, 80 patients were divided into the observation group and the control group. **Table 1** shows that there is no significant difference in the basic information of the patients in the two groups ($P > 0.05$).

Inclusion criteria: (1) Diagnosed with gastric cancer based on established criteria; (2) Provided informed consent and voluntarily participated in the study; (3) Expected survival period greater than 1 year. Exclusion criteria: (1) Patients with gastrointestinal bleeding; (2) Patients with psychiatric disorders; (3) Patients with poor compliance [2].

Table 1. General information

Group	Gender		Age (years)		Duration of illness (months)	
	Male	Female	Range	Mean	Range	Mean
Observation group ($n = 40$)	24	16	43–74	58.12 ± 4.38	2–6	4.32 ± 0.21
Control group ($n = 40$)	23	17	42–73	59.01 ± 4.43	2–7	5.35 ± 0.18
t / χ^2	1.187	1.116	1.439	0.765	0.701	0.764
P	0.282	0.185	0.143	0.537	0.643	0.568

2.2. Methodology

2.2.1. Control group

Routine care was provided, including:

(1) Communication with patients to enhance disease education.

(2) Management of patients' medication status as per medical prescriptions.

(3) Maintenance of the ward environment to ensure suitable temperature and humidity [3].

2.2.2. Observation group

In addition to the routine care provided to the control group, psychological interventions were implemented. This involved:

(1) Analyzing patients' characteristics and clinical data to adjust the psychological intervention program.

(2) Implementing humanistic care principles by increasing communication frequency, educating patients about gastric cancer, and encouraging them to ask questions about their treatment, such as surgical precautions.

(3) Enhancing psychological counseling strategies and support to improve patients' cooperation with the treatment plan [4].

Health promotion and education were also carried out, encouraging patients to face surgery with confidence and improving their understanding of all aspects of the surgery. This involved:

(1) Acting as a listener to understand patients' true thoughts, thereby improving trust and providing psychological hints through facial expressions or gestures [5].

(2) Communicating with patients' family members to involve them in psychological guidance, reducing patients' psychological pressure, and improving their psychological adjustment.

Nursing staff also assessed patients' gastrointestinal function and adjusted their dietary structure based on their nutritional status. This aimed to:

(1) Show attentiveness to patients' needs.

(2) Address causes of psychological pressure and develop targeted solutions.

(3) Alleviate patients' panic and enhance their resilience to setbacks, supporting subsequent treatment development.

2.3. Observation of indicators

(1) Psychological resilience: Assessed using the Conner-Davidson Psychological Resilience Scale (CD-RISC) [6].

(2) Health literacy: Evaluated using a self-developed questionnaire.

(3) Anxiety and depression: Measured using the SDS and SAS scales.

(4) Sleep quality: Assessed using the Richards-Campbell Sleep Scale (RCSQ).

(5) Patient satisfaction with nursing care: Investigated using a self-developed questionnaire.

2.4. Statistical analysis

Data were processed using SPSS 25.0 to leverage modern technology for enhanced data processing efficiency. T-tests and χ^2 tests were conducted to determine data changes and clarify study results. P values of less than 0.05 indicated the differences in the data were statistically significant.

3. Results

3.1. Psychological resilience

As shown in **Table 2**, the psychological resilience of the observation group after the intervention was relatively high ($P < 0.05$).

Table 2. Psychological resilience before and after the intervention in both groups (points; mean ± SD)

Group	Timing	Emotional endurance	Abilities	Acceptance of change	Vigor	Containment
Observation group (n = 40)	Before intervention	15.42 ± 1.87	17.01 ± 2.31	10.31 ± 1.14	3.56 ± 0.51	5.56 ± 0.71
	After intervention	21.43 ± 2.21	23.43 ± 1.14	16.12 ± 2.18	7.12 ± 0.61	7.98 ± 1.01
Control group (n = 40)	Before intervention	15.58 ± 1.68	16.43 ± 2.28	10.25 ± 1.25	3.62 ± 0.46	5.61 ± 0.75
	After intervention	18.54 ± 2.11	19.87 ± 1.31	12.57 ± 1.67	5.49 ± 0.64	6.75 ± 0.84
t / P values of the observation group before and after intervention		8.358 / < 0.05	8.987 / < 0.05	9.453 / < 0.05	10.234 / < 0.05	9.765 / < 0.05
t / P values of the control group before and after intervention		9.384 / < 0.05	6.251 / < 0.05	8.654 / < 0.05	5.987 / < 0.05	6.238 / < 0.05
t / P intergroup values after intervention		6.542 / < 0.05	6.436 / < 0.05	10.231 / < 0.05	10.128 / < 0.05	10.563 / < 0.05

3.2. Health literacy

Table 3 shows that the observation group had relatively higher post-intervention health literacy ($P < 0.05$).

Table 3. Changes in health literacy before and after the intervention in both groups (points; mean ± SD)

Group	Timing	Willingness to support economically	Access to information	Willingness to improve health	Communication and interaction skills
Observation group (*n* = 40)	Before intervention	3.71 ± 0.32	25.42 ± 3.31	10.31 ± 2.01	24.58 ± 3.61
	After intervention	7.32 ± 0.61	31.56 ± 3.87	15.98 ± 2.88	34.03 ± 4.72
Control group (*n* = 40)	Before intervention	3.68 ± 0.28	25.24 ± 3.28	10.25 ± 1.95	24.65 ± 3.56
	After intervention	5.21 ± 0.32	27.87 ± 4.12	13.26 ± 2.67	29.01 ± 4.67
t / *P* values of the observation group before and after intervention		8.231 / < 0.05	8.654 / < 0.05	5.543 / < 0.05	6.342 / < 0.05
t / *P* values of the control group before and after intervention		9.786 / < 0.05	7.542 / < 0.05	9.234 / < 0.05	6.543 / < 0.05
t / *P* intergroup values after intervention		6.341 / < 0.05	6.765 / < 0.05	8.347 / < 0.05	5.392 / < 0.05

3.3. Anxiety and depression

As shown in **Table 4**, the degree of improvement in the adverse emotions of the patients in the observation group was higher ($P < 0.05$).

Table 4. Status of anxiety and depression mood changes in the two groups (points; mean ± SD)

Group	Timing	SAS score	SDS scores
Observation group (*n* = 40)	Before intervention	55.01 ± 5.32	54.02 ± 4.31
	After intervention	39.43 ± 3.61	36.12 ± 4.87
Control group (*n* = 40)	Before intervention	54.98 ± 5.28	53.84 ± 4.28
	After intervention	48.65 ± 3.32	47.87 ± 3.12
t / *P* values of the observation group before and after intervention		8.432 / < 0.05	8.138 / < 0.05
t / *P* values of the control group before and after intervention		6.432 / < 0.05	7.231 / < 0.05
t / *P* intergroup values after intervention		10.341 / < 0.05	9.765 / < 0.05

3.4. Sleep quality

Table 5 shows that the sleep quality of the patients in the observation group was relatively better and the improvement effect was significant ($P < 0.05$).

Table 5. Status of changes in sleep quality in the two groups (points; mean ± SD)

Group	Before intervention	After intervention	*t*	*P*
Observation group (*n* = 40)	61.89 ± 7.52	78.12 ± 7.36	10.648	0.001
Control group (*n* = 40)	62.02 ± 7.56	67.45 ± 7.75	9.587	0.003
t	0.437	11.675	–	–
P	0.672	0.001	–	–

3.5. Patient satisfaction with nursing care

As shown in **Table 6**, the satisfaction of patients in the observation group was relatively high ($P < 0.05$).

Table 6. Patient satisfaction with nursing care of the two groups [n (%)]

Group	Very satisfied	Satisfied	Unsatisfied	Overall satisfaction
Observation group ($n = 40$)	22 (55.00)	15 (37.50)	3 (7.50)	37 (92.50)
Control group ($n = 40$)	18 (45.00)	12 (30.00)	10 (25.00)	30 (75.00)
χ^2	–	–	–	11.254
P	–	–	–	0.001

4. Discussion

Currently, due to significant changes in people's lifestyles and increasing stress levels, coupled with irregular diets, the incidence rate of gastric cancer has been gradually increasing. Gastric cancer is often characterized by a lack of early symptoms, and by the time it is detected, the disease may have already progressed to the middle or late stages. Treatment typically involves surgery and chemotherapy, during which patients endure not only physical pain but also significant psychological stress, increasing the likelihood of negative emotions [7,8]. Additionally, for patients in advanced stages of gastric cancer, the mortality rate is high and complications are numerous. This often leads to negative emotions, decreased treatment compliance, and reduced treatment efficacy.

Therefore, it is essential to focus on the comprehensive care of gastric cancer patients, taking into account their psychological changes. Applying psychological intervention can help eliminate patients' negative emotions, encourage a positive attitude toward treatment, improve patient cooperation, enhance their quality of life, and prolong their survival.

This study shows that integrating psychological intervention with nursing care in treating gastric cancer patients significantly improves their mood compared to conventional nursing methods ($P < 0.05$). Patients in the observation group demonstrated better sleep quality, higher psychological resilience, improved health literacy, and greater satisfaction with nursing care than those in the conventional nursing group ($P < 0.05$). In the psychological intervention process, nursing staff consider the patient's actual situation and the causes of their stress, utilizing psychological care skills such as the focus intervention solution model and affective conditioning approaches. This enhances the patient's psychological regulation, boosts their confidence in treatment, and supports the advancement of the treatment program [9,10].

In conclusion, to improve treatment levels and patient compliance in the treatment of gastric cancer, psychological intervention programs should be tailored to the patient's psychological conditions. This involves educating patients about the disease, deepening their understanding of surgical precautions, enhancing their confidence in treatment, addressing their negative emotions promptly, improving their sleep quality, and enhancing their health literacy. These measures will provide a better nursing experience, improve patient satisfaction, and enhance the quality of life for patients.

Disclosure statement

The authors declare no conflict of interest.

References

[1] Sun A, Feng Y, 2023, Effect of Psychological Intervention on Disease Coping Style and Satisfaction of Patients Undergoing Radical Gastric Cancer Surgery. China Metallurgical Industry Medical Journal, 40(6): 629.

[2] Sheng J, 2023, The Effect of Positive Psychology Intervention on the Prognosis of Gastric Cancer Patients with Postoperative Chemotherapy. Journal of Hebei North College (Natural Science Edition), 39(12): 33–34 + 39.

[3] Zong X, Cui L, Dang S, et al., 2024, Effects of Psychological Intervention with the Concept of Rehabilitation Forward on Health Beliefs and Psychological Resilience of Gastric Cancer Patients. Chinese Journal of Health Psychology, 32(1): 34–39.

[4] Yan SM, Zhang QL, 2023, Effect of Group Psychological Counseling with Rapid Rehabilitation Forward Care on Patients with Gastric Cancer Combined with Essential Hypertension. Cardiovascular Disease Prevention and Control Knowledge, 13(26): 45–47 + 50.

[5] Yang L, Yang Q, Wang L, et al., 2023, Effects of Regular Psychological Counseling on Physical and Mental Health of Gastric Cancer Patients. Psychology Monthly, 18(15): 185–187.

[6] Cai L, Chen Y, 2023, Exploration of the Effect of Psychological Care on Negative Emotions and Sleep Time of Postoperative Gastric Cancer Patients. World Journal of Sleep Medicine, 10(7): 1605–1607.

[7] Huang Y, 2023, Analysis of the Impact Value of Sleep Intervention Combined with Psychological Care on Sleep Quality, Psychological Status and Quality of Life of Gastric Cancer Patients. World Journal of Sleep Medicine, 10(6): 1299–1301 + 1305.

[8] Liu L, 2023, Application Effect of Focalized Psychological Guidance Combined with Participatory Dietary Intervention in the Postoperative Care of Female Gastric Cancer Patients. Women's and Children's Health Guide, 2(8): 153–155.

[9] Guo J, Yang X, 2023, Effects of Stepped Psychological Care Combined with Focused Solution Model on Psychological Resilience and Health Literacy of Gastric Cancer Immunotherapy Patients. Clinical Medicine Research and Practice, 8(10): 128–130.

[10] Liu J, Yang R, Yu H, 2023, Effects of Psychological Nursing Intervention on Psychological Status, Quality of Life and Nursing Satisfaction of Gastric Cancer Patients. Psychology Monthly, 18(4): 169–171.