

Original Article

The effect of psychological support combined with humanistic care on the negative emotions and satisfaction with nursing among gastric cancer surgery patients

Ping Fang¹, Yi Wu²

Departments of ¹Otolaryngology, ²General Surgery, Affiliated Hangzhou First People's Hospital, Zhejiang University School of Medicine, Hangzhou, Zhejiang Province, China

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Abstract: Objective: To analyze the effects of psychological support combined with humanistic care on the negative emotions and satisfaction with nursing among gastric cancer surgery patients. Methods: This retrospective study involved 120 patients who underwent gastric cancer surgery in our hospital from January 2017 to December 2018. These patients were randomly allocated to a control group and an experimental group (60 patients in each group). For the control group, the patients received routine nursing. Meanwhile, the patients in the experimental group received psychological support combined with humanistic care. The patients' negative emotions and satisfaction with nursing were compared between the two groups. Results: The self-rating anxiety scale (SAS) and self-rating depression scale (SDS) scores and the incidence of complications in the experimental group were significantly reduced compared with the control group. The total quality of life score and the satisfaction with nursing in the experimental group were higher than they were in the control group. Compared with before the surgery, the physiological indexes in the two groups after the surgery were significantly improved. Additionally, the changes in the experimental group were more significant than those in the control group. Conclusion: Psychological support combined with humanistic care can provide gastric cancer surgery patients with alleviated negative emotions, a better recovery, reduced complications, and increased satisfaction with nursing.

Keywords: Psychological support, humanistic care, gastric cancer surgery, negative emotions, satisfaction in nursing

Introduction

Gastric cancer is a malignant gastrointestinal cancer induced by an in vivo or in vitro stimulation of the gastral mucosal epithelial cells [1]. Gastric cancer, which is the second most prevalent cancer worldwide, can occur in any part of the stomach [2]. Psychological support and humanistic care have been an important part of modern nursing. Psychological support, which refers to the process in which the medical practitioners communicate actively with the patients, is beneficial for information exchange. During the process, the medical staff and patients are influenced by each other, and their psychological states and behaviors are changed. Psychological support can provide patients with an improved psychological state and re-

duced negative emotions [3]. Anxiety is the most common clinical manifestation of pre-operative psychological stress and is an emotional response to the predictable psychological threat [4, 5]. There is still no consensus regarding the definition of humanistic care. Waston, an expert in humanistic care, believes that it is a loving interpersonal interaction that aims to help others achieve physical, spiritual, sexual, and socio-cultural well-being. Basically, humanistic care is the attitude, behavior, and even the medical environment developed to make patients feel cared for and respected by meeting each actual need to the greatest extent, resulting in the production of a sense of safety and reliability and the promotion of a healthy physical state [6].

During the perioperative period, it is necessary for the medical staff to provide effective nursing interventions during surgery, taking into account the patient's actual situation, so that the patient's condition can be relieved to a certain extent, and the best timepoint to save the patient can be seized and the impact of complications can be minimized. During the process of clinical treatment, many patients experience fear and nervousness. Therefore, both the surgery and nursing work are made more difficult. Ultimately, the therapeutic effect is influenced. In this study, 120 patients who underwent gastric cancer surgery at the Affiliated Hangzhou First People's Hospital, Zhejiang University School of Medicine from January 2017 to December 2018 were recruited to explore the effects of psychological support combined with humanistic care.

Materials and methods

General information

This study recruited 120 patients who underwent gastric cancer surgery at the Affiliated Hangzhou First People's Hospital, Zhejiang University School of Medicine between January 2017 and December 2018. The patients in the control group received routine nursing. In the experimental group, the patients received psychological support combined with humanistic care. There were no significant differences concerning the patients' baseline data or conditions ($P>0.05$).

Inclusion criteria: Patients over 18 years old; patients opting to undergo radical surgery for gastric cancer and routine postoperative hospitalization; patients without cognitive impairment who can write, read, and communicate.

Exclusion criteria: Patients with recurring gastric cancer; patients treated with a relevant tumor resection and multiple adjuvant chemotherapy; patients with multiple systemic complications; patients with other malignant tumors; patients with mental disorders.

This study was approved by the Ethics Committee of the Affiliated Hangzhou First People's Hospital, Zhejiang University School of Medicine. Informed consent forms were signed by the patients or their family members.

Methods

The patients in the control group received routine nursing, which mainly consisted of the establishment of a good rehabilitation environment and the close monitoring of their vital signs, urine volume, and infections [7].

In the experimental group, the patients received psychological support combined with humanistic care: (1) Before the surgery. In order to reduce the patients' nervousness, the nursing staff communicated with them actively and enthusiastically. Meanwhile, the family members were instructed to encourage the patients to make them feel cared for and hopeful for the future [6]. To provide the patients with additional relief from their nervousness and enhanced confidence in the operations, the patients who had successfully undergone gastric cancer surgery were introduced and even invited to the exchange meeting to share their feelings and nursing methods. On the day before the surgery, a pre-operative visit, which lasted for at least 40 min, was implemented to help the staff become fully aware of the patients' concerns about their operations. The questions raised by patients were actively answered. At the same time, the patients' medical history was carefully recorded in order to be well prepared for any abnormalities that might occur during surgery [7]. On the night before the surgery, the patients were instructed to get adequate rest to increase the success rate of the surgery on the next day. For patients who sleep poorly, incense or sleeping pills were used to ensure a good night's sleep [8]; (2) During surgery. In the operating room, the nursing staff were supposed to fully take the patients' treatment and recovery history and closely observe the patients' symptoms, which were beneficial for the release of stress; (3) After surgery. According to the patients' treatment methods and actual conditions, a reasonable diet plan was made to strictly control their diet. In order to be discharged as early as possible, the patients were instructed to get a good sleep. In addition, going to bed early and getting up early were strongly recommended [9]. In the course of the treatment, many patients suffered from negative emotions due to their own illnesses or family problems. Therefore, the nursing staff were supposed to communicate with the patients as much as possible to relieve their

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Table 1. Baseline data ($\bar{x} \pm sd$)

Group	Control group (n=60)	Experimental group (n=60)	t/ χ^2	P
Gender (male/female)	40/20	39/21	0.370	0.847
Age (years)	39.4±11.1	38.5±10.3	0.462	0.645
Course of disease (years)	8.90±9.90	8.67±9.21	0.134	0.894
BMI (kg/m ²)	20.93±3.24	21.26±3.87	0.506	0.614
TNM staging			0.693	0.707
Grade I	12	13		
Grade II	24	21		
Grade III	24	26		
Surgical method			2.850	1.000
Total gastrectomy	29	29		
Partial gastrectomy	29	30		
Gastrojejunostomy	2	1		

Note: BMI: body mass index.

negative emotions. In the process of communication, the patients' feelings during the treatment process were noted, and the nurses were therefore aware of the shortcomings of the treatment. In this way, relevant treatment was better formulated and perfected [10]. Previous treatment experience was also applied to the treatment of the current patients. What's more, specialists were hired to provide guidance on rehabilitation. In order to improve the quality of the rehabilitation, the nursing staff were supposed to reasonably arrange patients' daily diets and rest to ensure that they had adequate nutrition and sleep, which helps to control patients' relevant indicators and reduce the occurrence of postoperative complications.

Outcome measures

In this study, the clinical indicators related to nursing work were monitored and recorded. The self-rating anxiety scale (SAS) and the self-rating depression scale (SDS) scores, the incidence of complications, and the satisfaction with nursing were compared between the two groups.

SAS: On the day before and at the end of the nursing, the patients were required to complete the scale. A raw score was obtained by adding the points corresponding to the patients' answers. The level of anxiety was graded according to the modified score, which was calculated as the raw score multiplied by 1.25. The cut-off value of the SAS score was 50

points, and the higher the score, the more severe the anxiety [11].

SDS: This scale was created by Zung in 1965. There are 20 items (10 positive and 10 negative) reflecting subjective feelings of depression. Each item was divided into 4 grades based on the frequency of symptoms.

The satisfaction with nursing was assessed using a self-made questionnaire, which consisted of working attitudes, nursing professionalism, the degree of caring, the environment for the diagnosis and

treatment, and the nursing skills on the day of discharge. The results were classified as satisfied, basically satisfied, or dissatisfied. Satisfaction in nursing = (satisfied + basically satisfied)/the total number of patients × 100%.

Statistical methods

All the data were analyzed using SPSS statistical software version 22.0 (IBM, USA). The measurement data were expressed as the mean ± standard deviation ($\bar{x} \pm sd$). Independent sample t tests were used for the inter-group comparisons, and paired t-tests were applied for the before-after comparisons within the same group. The enumeration data were expressed as the number/percentage (n/%); the comparisons were conducted using chi-square tests. A difference was statistically significant when the P value was less than 0.05.

Results

Baseline data

As displayed in **Table 1**, there were no significant differences concerning gender, age, course of disease, body mass index (BMI), TNM staging, or the surgical methods used between the two groups (all P>0.05).

SAS and SDS scores

As shown in **Table 2**, the SAS and SDS scores in the experimental group after the intervention

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Table 2. SAS and SDS scores ($\bar{x} \pm sd$)

Group	SAS score		SDS score	
	Before the intervention	After the intervention	Before the intervention	After the intervention
Control group (n=60)	58.02±5.19	50.10±2.25*	55.80±2.38	40.92±2.38*
Experimental group (n=60)	58.22±5.30	48.76±2.01*	54.68±2.72	39.68±2.12*
t	0.209	-3.423	-1.279	-3.043
P	0.835	0.001	0.203	0.003

Note: SAS: self-rating anxiety scale; SDS: self-rating depression scale. Compared with before the intervention, *P<0.05.

Table 3. Quality of life ($\bar{x} \pm sd$)

Item	Time	Experimental group (n=60)	Control group (n=60)
General health	Before intervention	24.84±3.12	23.89±3.26
	After intervention	35.54±4.14**##	24.45±3.15**
Physiological function	Before intervention	54.23±5.09	54.48±5.45
	After intervention	65.37±6.50**##	55.05±5.58**
Energy	Before intervention	34.65±3.21	35.02±4.21
	After intervention	45.60±4.71**##	35.41±3.69**
Physical pain	Before intervention	45.85±4.15	44.07±5.12
	After intervention	64.32±7.41**##	44.17±4.62**
Social function	Before intervention	48.50±4.11	49.08±5.01
	After intervention	65.47±6.98**##	49.45±5.65**
Emotional function	Before intervention	46.14±5.12	46.55±5.23
	After intervention	63.52±6.47**##	47.56±5.14**
Mental health	Before intervention	51.32±4.25	50.98±6.14
	After intervention	54.24±3.66**##	51.23±5.36**
Total physical health	Before intervention	140.35±15.30	142.36±16.34
	After intervention	198.50±20.22**##	144.52±18.65**
Total mental health	Before intervention	178.54±26.50	180.85±22.63
	After intervention	235.32±32.01**##	182.45±20.47**
Total score	Before intervention	324.14±31.04	323.25±35.59
	After intervention	427.44±44.13**##	325.36±33.25**

Note: Compared with before the intervention, **P<0.01; compared with the control group, ##P<0.01.

were both lower than they were in the control group (48.76±2.01 vs 50.10±2.25, P<0.05; 39.68±2.12 vs 40.92±2.38, P<0.05).

Quality of life scores

Compared with the control group, the quality of life scores in the experimental group were significantly increased (427.44±44.13 vs 323.25±35.59, P<0.05, **Table 3**).

Vital signs

The physiological indexes in both groups after the surgery were improved when compared with those before surgery; in addition, the changes in the experimental group were more

significant than those in the control group (all P<0.05, **Table 4**).

Satisfaction with nursing

The satisfaction with the nursing in the experimental group was significantly higher when compared with the control group (96.67% vs 78.33, P<0.05, **Table 5**).

Complications

As illustrated in **Figure 1**, the incidences of complications in the experimental group (3 cases, 5.00%) were significantly lower than those in the control group (14 cases, 23.33%), complications which included dizziness (6

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Table 4. Vital signs ($\bar{x} \pm sd$, n=60)

Time	Heart rate beats/min)	Respiration rate (breaths/min)	SBP at admission (mmHg)	DBP at admission (mmHg)
Before surgery				
Control group	107.5±14.9	20.1±4.9	132.9±23.5	77.9±11.6
Experimental group	105.9±11.4	19.9±4.1	133.4±23.1	76.1±10.9
After surgery				
Control group	99.4±14.1*	17.4±4.1*	125.4±20.9*	71.8±14.4*
Experimental group	90.9±11.4* [#]	13.9±3.4* [#]	110.2±20.5* [#]	62.5±13.2* [#]

Note: SBP: systolic blood pressure; DBP: diastolic blood pressure. Compared with before the surgery, *P<0.05; compared with the control group, [#]P<0.05.

Table 5. Satisfaction with nursing (%)

Group	Satisfied	Basically satisfied	Dissatisfied	Satisfaction rate
Experimental group (n=60)	49 (81.67)	9 (15.00)	2 (3.33)	58 (96.67)
Control group (n=60)	37 (61.67)	10 (16.67)	13 (21.67)	47 (78.33)
χ^2				7.619
P				0.006

[12]. Psychological support can improve patients' psychological states and relieve their anxiety. Knowledge on gastric cancer and gastric cancer surgery are introduced to the patients with simple and easy-to-

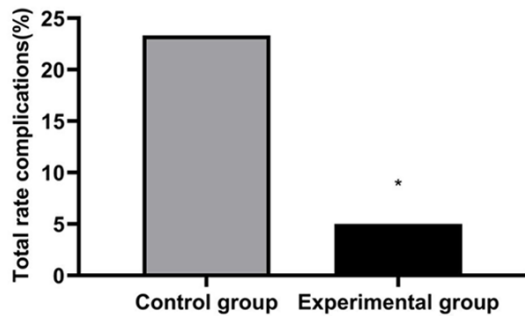


Figure 1. Comparison of the total rate of complications compared with the control group, *P<0.05.

cases, 10.00%), nausea (4 cases, 6.67%), and chest tightness (4 cases, 6.67%).

Discussion

During the perioperative period, patients are prone to negative emotions. Gastric cancer is known to be an extremely common disease. It was reported that psychological support combined with humanistic care plays an important role in the treatment of patients with gastric cancer [11].

During the psychological support combined with humanistic care period, a close relationship is established between patients and medical staff, making patients more cooperative

understand language in order to alleviate their anxiety [13]. Additionally, the patients are aware of the surgical methods and the potential abnormal conditions during the operation, which is helpful for the release of tension and the enhancement of confidence in the treatment process [14]. In this study, the SAS and SDS scores in the experimental group were lower than those in the control group, suggesting that the negative emotions in the experimental group were significantly more relieved.

Patients treated with programmed nursing are likely to have more time for recovery and subsequent rehabilitation [15, 16]. Here, our results showed that the physiological indexes in both groups after the surgery were improved compared with the indexes before the surgery. In addition, the improvements in the experimental group were more significant than those in the control group, indicating that psychological support combined with humanistic care can significantly stabilize patients' vital signs [17]. The patients unable to take care of themselves cannot actively adjust their psychological states, making the treatment tricky [18]. In our study, the quality of life scores in the experimental group were significantly increased compared with the control group, suggesting that psychological support combined with humanistic care can eliminate negative emotions and

minimize complications. Therefore, patients are more willing to accept the treatment. In addition, the satisfaction with nursing in the experimental group was higher than it was in the control group, a finding consistent with the results reported by Xu et al. In their study, a more scientific evaluation tool (the modified inpatient satisfaction questionnaire) was used to investigate the satisfaction rate of psychological nursing combined with humanistic care, and the results showed that the overall satisfaction and satisfaction rate were increased [19, 20]. Somjen et al. reported that psychological support combined with humanistic care can reduce complications and shorten healing times, meeting the needs of patients [21]. In our study, the number of patients with complications such as dizziness, nausea, and chest tightness in the control group were 14, with 3 in the experimental group (23.33% vs 5.00%, $P < 0.05$).

The survey was administered to inpatients admitted to our hospital for gastric cancer, and the number of cases was small. Future studies will be conducted in a larger number of patients admitted to hospitals in different regions and care levels.

In summary, psychological support combined with humanistic care can provide gastric cancer surgery patients with alleviated negative emotions, a better recovery, reduced complications, and increased satisfaction with nursing.

Disclosure of conflict of interest

None.

Address correspondence to: Yi Wu, Department of General Surgery, Affiliated Hangzhou First People's Hospital, Zhejiang University School of Medicine, No. 261 Huansha Road, Shangcheng District, Hangzhou 310006, Zhejiang Province, China. Tel: +86-13600540476; E-mail: wuyi1h8z@163.com

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