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Abstract: *Objective:* To analyze the effect of perioperative comfort care for patients with hysteromyomectomy (HYS). *Methods:* Seventy cases of HYS patients admitted to our hospital from October 2022 to October 2023 were randomly selected and divided into Group A (control group, 35 cases, conventional care) and Group B (observation group 35 cases, comfort care). The effects of the two groups before and after nursing care were compared. *Results:* The self-rating anxiety (SAS) scores, exercise of self-care agency (ESCA) scores, and nursing satisfaction scores at the time of discharge of Group B were better than in Group A after nursing care (P < 0.05). *Conclusion:* Perioperative comfort care for HYS patients improved the patient's adverse emotions, self-care ability, and nursing satisfaction.

Keywords: Uterine fibroid; Perioperative nursing; Comfort nursing; Self-care ability

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#### **1. Introduction**

Uterine fibroid (UF) is a disease of the female-specific reproductive system that is mostly benign. If the disease is allowed to develop, it is likely to be associated with a variety of serious complications, which not only cause serious damage to the physical and mental health of the patient but may lead to death <sup>[1]</sup>. Surgery is currently the most effective and thorough clinical treatment for UF, but it is a traumatic operation and increases stress. Hence, patients are prone to severe psychological and physiological stress during the perioperative period. High-quality nursing interventions such as comfort care during the perioperative period can not only lay the foundation for successful surgery but also improve surgical efficacy and shorten postoperative recovery time <sup>[2]</sup>. The conventional disease-centered nursing care used in the clinic has failed to meet the expected nursing effect due to insufficient targeting and neglect of the patient's condition changes. Comfort nursing pays more attention to the subjective feelings and needs of the patients. The implementation of patient-centered nursing interventions

can improve the patient's comfort, reduce physiological and psychological stress reactions, improve the effect of postoperative recovery, and shorten the recovery time <sup>[3]</sup>. This study analyzes the effect of comfort care during perioperative care for HYS patients.

# 2. Information and methods

## 2.1. General information

Seventy hysteromyomectomy (HYS) patients who were admitted to our hospital from October 2022 to October 2023 were selected and randomly grouped into Group A (control) and Group B (observation), 35 cases each. Group A consisted of subjects aged 23–62 years old, with an average age of  $36.68 \pm 3.32$  years. The subjects weighed 45.61-87.75 kg, with an average of  $63.54 \pm 6.37$  kg. The duration of the disease ranged from 1–4 years, with an average duration of  $2.25 \pm 0.58$  years. Group B consisted of subjects aged 24–65 years old, with an average of  $36.93 \pm 3.45$  years. The subjects weighed 45.58-87.85kg, with an average age of  $63.12 \pm 6.41$  kg. The disease duration ranged from 1–5 years, with an average duration of  $2.38 \pm 0.62$  years. General information between the two groups was comparable (P > 0.05). Inclusion criteria: (1) Patients diagnosed with HYS; (2) patients with complete data; (3) consented. Exclusion criteria: (1) Patients with a combination of malignant tumors; (2) psychiatric disorders, immune, and hematologic diseases.

# 2.2. Methods

Group A adopted routine nursing care such as condition monitoring, medication guidance, diet, and exercise intervention. Group B adopted comfort nursing. During the preoperative stage, the nursing staff helped familiarize the patients with the hospital environment. The ward was regularly cleaned and disinfected daily, and the temperature and humidity of the ward were also adjusted to improve the ward's environment. Warm-colored decorations were placed in the ward to make the patients visually comfortable. Appropriate educational methods were chosen according to the actual situation of the patients to help them understand the procedure, precautions, safety of the operation, and expected recovery effect after the operation. This helps dispel the patient's fear of the operation, improves their bad mood, and encourages them to accept the operation optimistically. Family members were advised to care for and encourage the patients, and provide them with sufficient spiritual support. During the intraoperative stage, After the patient entered the room, the operating equipment was introduced to the patient, and nurses used words and gestures to keep them calm. The patient was also kept as warm and comfortable as possible. During the postoperative period, the patient was informed about the successful surgery as soon as they woke up. Changes in the patient's vital signs and indicators were closely monitored. In cases of abnormalities, the doctor was immediately notified and symptomatic treatment was performed. The patient was put into a comfortable position to reduce pain and instructed to cough effectively. They were also turned over regularly to avoid pressure sores. The patient's perineum was cleaned and they were instructed to increase their water intake appropriately. Patients were advised not to consume gas-producing foods.

## **2.3. Indicator observation**

## 2.3.1. SAS score

The self-rating anxiety (SAS) scale was used to evaluate the psychological state of the patients, including items like anxiety, fear, unfortunate premonition, panic, and palpitation. The higher the score, the greater the state of anxiety.

#### 2.3.2. ESCA score

The exercise of self-care agency (ESCA) scale was used to evaluate the patient's self-care ability with the following items: health knowledge (85 points), self-concept (40 points), self-care responsibility (30 points), self-care skills (60 points), with a total score of 215 points.

#### 2.3.3. Nursing care satisfaction score

A self-made scale was used to assess the patient's satisfaction with nursing care, which included active service, health promotion, communication skills, operation level, and hospitalization environment. The higher the score, the higher the satisfaction with nursing care.

## 2.4. Statistical analysis

The SPSS 25.0 software was used to process the data. Measurement data were expressed as mean  $\pm$  standard deviation and compared using the *t*-test. Count data were expressed as % and analyzed using the chi-squared ( $\chi^2$ ) test. Results were considered statistically significant at *P* < 0.05.

## 3. Results

## **3.1.** Comparison of SAS scores

As shown in **Table 1**, the SAS of Group B was lower than that of Group A after nursing care (P < 0.05).

Group	Cases, n	Anxiety		Fear		Foreboding		Panic		Palpitations	
		Before nursing care	After nursing care	Before nursing care	After nursing care	Before nursing care	After nursing care	Before nursing care	After nursing care	Before nursing care	After nursing care
Group B	35	$\begin{array}{c} 3.08 \pm \\ 0.52 \end{array}$	$\begin{array}{c} 0.67 \pm \\ 0.41^* \end{array}$	$3.02\pm0.43$	$0.75 \pm 0.31^{*}$	$\begin{array}{c} 3.07 \pm \\ 0.47 \end{array}$	$0.71 \pm 0.42^{*}$	$3.05\pm0.56$	$\begin{array}{c} 0.64 \pm \\ 0.39^* \end{array}$	$3.01\pm0.48$	$0.68 \pm 0.47^{*}$
Group A	35	$\begin{array}{c} 3.06 \pm \\ 0.49 \end{array}$	$1.19 \pm 0.42^{*}$	$3.05\pm0.46$	$\begin{array}{c} 1.52 \pm \\ 0.64^* \end{array}$	$\begin{array}{c} 3.03 \pm \\ 0.46 \end{array}$	$\begin{array}{c} 1.68 \pm \\ 0.64^* \end{array}$	$3.12\pm0.57$	$\begin{array}{c} 1.24 \pm \\ 0.58^* \end{array}$	$3.05\pm0.51$	$\begin{array}{c} 1.53 \pm \\ 0.87^* \end{array}$
t	-	0.165	5.241	0.281	6.405	0.359	7.496	0.518	5.078	0.337	5.085
Р	-	0.869	0.000	0.778	0.000	0.720	0.000	0.606	0.000	0.736	0.000

 Table 1. Comparison of SAS scores between the two groups before and after nursing care (mean ± standard deviation, points)

Note: Comparison with this group before care \*P < 0.05.

## **3.2.** Comparison of ESCA scores

As shown in **Table 2**, the ESCA scores of Group B were higher than those of Group A after nursing care (P < 0.05).

 Table 2. Comparison of ESCA scores between the two groups before and after nursing care (mean ± standard deviation, points)

Group	Cases, n	Health knowledge (85 points)		Self-concept (40 points)		Self-care responsibility (30 points)		Self-care skills (60 points)		Total score (215 points)	
		Before nursing care	After nursing care	Before nursing care	After nursing care	Before nursing care	After nurs- ing care	Before nursing care	After nursing care	Before nursing care	After nursing care
Group B	35	51.34 ± 4.72	${68.53 \pm \atop {6.41}^{*}}$	$\begin{array}{c} 20.29 \pm \\ 2.82 \end{array}$	$31.25 \pm 3.56^{*}$	10.34 ± 1.25	$18.53 \pm 2.14^{*}$	$\begin{array}{r} 35.78 \pm \\ 3.34 \end{array}$	${\begin{array}{r} 48.69 \pm \\ 5.31^{*} \end{array}}$	$\begin{array}{c} 140.13 \pm \\ 6.34 \end{array}$	$162.53 \pm 9.84^{*}$
Group A	35	$\begin{array}{c} 51.67 \pm \\ 4.78 \end{array}$	${\begin{array}{c} 60.17 \pm \\ 5.23^{*} \end{array}}$	$\begin{array}{c} 20.12 \pm \\ 2.75 \end{array}$	$27.54 \pm \\ 2.43^{*}$	10.46 ± 1.27	${15.71 \pm \atop 1.62^{*}}$	$\begin{array}{c} 36.24 \pm \\ 3.41 \end{array}$	${\begin{array}{r} 43.35 \pm \\ 3.76^{*} \end{array}}$	$\begin{array}{c} 141.67 \pm \\ 6.48 \end{array}$	$\frac{150.27 \pm }{8.52^{*}}$
t	-	0.290	5.978	0.255	5.092	0.398	6.215	0.570	4.855	1.004	5.572
Р	-	0.772	0.000	0.799	0.000	0.691	0.000	0.570	0.000	0.318	0.000

Note: Comparison with the pre-nursing care in this group \*P < 0.05.

#### 3.3. Comparison of nursing satisfaction scores

As shown in **Table 3**, the nursing satisfaction scores of Group B were higher than those of Group A at discharge (P < 0.05).

**Table 3.** Comparison of nursing satisfaction scores between the two groups before and after nursing care (mean  $\pm$ standard deviation, points)

Group	Cases, n	<b>Proactive services</b>		Health promotion		Communication skills		<b>Operation level</b>		Hospitalization environment	
		Before nursing care	After nursing care	Before nursing care	After nursing care	Before nursing care	After nursing care	Before nursing care	After nursing care	Before nursing care	After nursing care
Group B	35	$\begin{array}{c} 73.32 \pm \\ 3.26 \end{array}$	$87.94 \pm 3.27^{*}$	73.15 ± 3.24	$\begin{array}{r} 87.32 \pm \\ 3.41^{*} \end{array}$	$\begin{array}{c} 73.52 \pm \\ 4.12 \end{array}$	$87.26 \pm 3.25^{*}$	$\begin{array}{c} 73.35 \pm \\ 4.52 \end{array}$	$87.67 \pm 3.49^{*}$	$\begin{array}{c} 73.26 \pm \\ 4.23 \end{array}$	$87.56 \pm 3.47^{\ast}$
Group A	35	$\begin{array}{c} 73.21 \pm \\ 3.24 \end{array}$	$\begin{array}{c} 80.81 \pm \\ 3.16^* \end{array}$	$\begin{array}{c} 73.26 \pm \\ 3.43 \end{array}$	$\begin{array}{c} 80.24 \pm \\ 3.53^{*} \end{array}$	$\begin{array}{c} 73.68 \pm \\ 4.25 \end{array}$	$\begin{array}{c} 80.31 \pm \\ 3.14^{*} \end{array}$	$\begin{array}{c} 73.46 \pm \\ 4.48 \end{array}$	$80.46 \pm 3.37^{*}$	73.81 ± 4.32	$80.39\pm3.45^{\ast}$
t	-	0.141	9.250	0.137	8.534	0.174	9.098	0.102	8.792	0.538	8.668
Р	-	0.887	0.000	0.890	0.000	0.862	0.000	0.918	0.000	0.592	0.000

Note: Comparison with this group before care \*P < 0.05.

## 4. Discussion

Currently, the main mode of clinical treatment of UF is laparoscopic surgery, which has the advantages of minimal damage to healthy tissues, minimally invasive, and short-term postoperative recovery. HYS patients generally experience serious psychological problems during the perioperative period due to the fear that the surgery will affect their fertility and sexual function. Not only does this affect the patient's comfort and quality of life during the perioperative period but also affects the implementation and effectiveness of the surgery <sup>[4]</sup>. Therefore, high-quality nursing measures such as comfort care for HYS patients during the perioperative period can improve their perioperative comfort, and quality of life, and reduce adverse emotions. With the improvement of people's health consciousness, the requirements for nursing services have been increased, where the quality of perioperative nursing services directly impacts the operation and prognosis. If the patients have more serious psychological problems during the perioperative period, it will lead to serious stress reactions. Not only will this affect the smooth implementation of the operation but also prolongs the patient's recovery time. Therefore, improving the quality of perioperative nursing services and comprehensively improve the holistic, personalized, targeted nursing work, aimed at psychological, physiological, social, spiritual, and other aspects

of the patient to ensure they are in a comfortable state <sup>[7]</sup>.

The SAS score of Group B was lower than that of Group A after nursing care (P < 0.05). This confirms that comfort nursing for HYS patients in the perioperative period can better improve their negative emotions. This is because HYS patients often worry about the surgical effect and the postoperative impact on fertility and sexual function, hence the existence of a strong stigma against the disease. Accompanied by the fear of increasing the burden on the family, these negative emotions will stimulate physiological and psychological stress reactions that reduce the patient's sense of comfort<sup>[8]</sup>. In the process of implementing comfort care, nursing staff must pay attention to the improvement of the patient's physical and mental comfort throughout the perioperative period. Nursing staff should communicate with patients to gain their trust, prompting them to actively cooperate with the follow-up treatment and nursing care. Publicity can be carried out according to the patient's actual situation so they comprehensively understand the disease and knowledge related to the operation. This can help dispel their concerns and increase the patient's confidence in the operation, thereby alleviating their negative emotions<sup>[9]</sup>.

The ESCA score of Group B was higher than that of Group A after nursing care (P < 0.05), confirming that comfort nursing for HYS patients in the perioperative period can improve their self-care ability. Perioperative nursing staff comprehensively implement comfort care to ensure that patients can obtain comprehensive, high-quality nursing services throughout the nursing process, so that their body and mind are in the most comfortable state, prompting patients to actively participate in the treatment of the disease, take the initiative to cooperate with the operation of medical and nursing staff, and prompting them to take the initiative to improve their self-care ability.

The nursing satisfaction score at discharge in Group B was higher than that in Group A (P < 0.05). This confirms that providing comfort care to HYS patients in the perioperative period can improve their satisfaction with nursing services. Nursing staff implemented targeted measures to improve the patient's comfort from environmental, psychological, social, and paraphernalia aspects. Comfort care improves the individualization and humanization of nursing services, and enhances environmental, psychological, and daily life care throughout the perioperative period to achieve the overall improvement of patient comfort <sup>[10]</sup>. Through the comprehensive implementation of comfort care, nursing staff can significantly improve the patient's bad mood and psychological comfort, which helps patients maintain a good sleep state, improve their immunity and surgical tolerance, reduce the risk of postoperative complications in the perioperative period, and ultimately increase their satisfaction with the nursing services.

## 5. Conclusion

Comfort care during the perioperative care of HYS patients improved their bad mood, self-care ability, and nursing satisfaction.

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# References

- [1] Cheng C, 2023, Application Effect of Comfort Nursing in Patients Undergoing Laparoscopic Myomectomy. Chinese Journal of Border Health and Quarantine, 46(2): 142–144.
- [2] Shi X, Yan W, Xu M, et al., 2022, Application Effect of Accelerated Rehabilitation Surgical Care in Laparoscopic Myomectomy. China Cancer Clinics and Rehabilitation, 29(1): 114–117.
- [3] Zhang Q, 2023, Study on the Application Value of Comfort Nursing in Postoperative Care of Patients with Uterine Fibroids. Chinese Science and Technology Journal Database (Digest Edition) Medicine and Health, 2023(1): 19–21.
- [4] Liu J, Chen X, Fan Y, 2019, Effect of Comfortable Seamless Quality Nursing on Postoperative Recovery of Patients with Uterine Fibroids. China Cancer Clinics and Rehabilitation, 2019(6): 747–750.
- [5] Wang Q, 2022, The Effect of Comfort Care in The Clinical Care Pathway of Uterine Fibroid Surgery Patients. China Medical Guide, 20(4): 164–166 + 170.
- [6] Li Mi, Liu X, Wu J, 2022, Influence of Systematic Health Education Combined with Comfort Nursing on Postoperative Rehabilitation Effect of Patients with Uterine Fibroids. Qilu Nursing Journal, 28(8): 72–75.
- [7] Cao H, 2021, Analyzing the Application Value of Comfort Nursing in The Care of Patients with Uterine Fibroids.
   World Digest of Recent Medical Information, 2021(14): 365–366.
- [8] Jiang A, Qian B, Liu Y, 2021, Analysis of the Application Effect of Comfort Nursing Combined with Psychological Intervention in Uterine Fibroid Patients after Surgery. Psychology Monthly, 16(24): 93–95.
- [9] Si Y, Li L, 2020, The Application Effect of Comfort Nursing in The Postoperative Care of Uterine Fibroid Surgery Patients. Practical Gynecological Endocrinology Electronic Journal, 7(2): 141.
- [10] Qu M, 2020, Impact of Detail-Centered Operating Room Comfort Care on Quality of Life and Complications in Patients Undergoing Myomectomy. Wisdom Health, 2020(12): 129–130.

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