Effect of PDCA Quality Management on Improving the Qualified Rate of Perioperative Health Education for Patients with Anorectal Diseases

Xia WANG, Juan ZHONG*

Yongchuan Hospital Affiliated to Chongqing Medical University, Chongqing 402160, China

122753235@qq.com

*Corresponding Author

Keywords: PDCA quality management, Anorectal diseases, Perioperative period, Qualified rate of health education

Abstract: Objective: To analyze the effect of PDCA quality management on the qualified rate of perioperative health education for patients with anorectal diseases. Methods: 76 patients with anorectal diseases who were hospitalized from October 2019 to October 2021 were randomly divided into two groups. 38 patients in group A were treated with PDCA quality management during perioperative health education, and 38 patients in group B were treated with routine health education during perioperative health education to compare management quality. Results: The scores of health education knowledge mastery in group A were higher than those in group B ($P < 0.05$). The qualified rate of health education in group A was higher than that in group B ($P < 0.05$). The complication rate in group A was lower than that in group B ($P < 0.05$). The management satisfaction of group A was higher than that in group B ($P < 0.05$). Conclusion: PDCA quality management can improve the qualified rate of health education for patients with anorectal diseases during perioperative period, make them clearly master relevant knowledge, reduce surgical complications and obtain high satisfaction of patients.

1. Introduction

There are various types of anorectal diseases, such as perianal abscess, hemorrhoids or rectal polyps. The disease occurs repeatedly and needs radical surgery [1]. Perioperative nursing intervention for patients with anorectal diseases can improve their surgical compliance, ensure the rehabilitation effect and inhibit postoperative complications [2]. Under the guidance of this theory, 76 patients with anorectal diseases were selected to analyze the role of PDCA quality management in perioperative health education.

2. Data and Method

2.1 General Data

76 patients with anorectal diseases who were hospitalized from October 2019 to October 2021 were randomly divided into two groups. 38 patients in group A, 21 males and 17 females. The age ranged from 19 to 68 years old, with a mean of (42.15 ± 1.57) years old. There were 38 patients in group B, 22 males and 16 females, age ranging from 20 to 66 years old, with a mean of (42.29 ± 1.60) years old. There was no difference after data comparison ($P > 0.05$).

2.2 Method

Group B took routine management of perioperative health education, that is, explaining disease knowledge, preoperative preparation, postoperative guidance, etc. Group A adopted PDCA quality management during perioperative health education and set up a special team. The team leader was the head nurse, and the team members were 1 chief physician, 2 doctors, 2 chief nurses and 5 nurses. They were responsible for the management of perioperative health education. The specific quality management methods are as follows: ① Planning stage: Members of the group used brainstorming

  DOI: 10.25236/isbsbh.2022.005

to analyze the current situation of health education for anorectal diseases in the perioperative period, and believed that the focus of quality management is to strengthen the training of nurses and improve their health education awareness and skills. They carried out specialized training for members of the group, improved publicity and education materials, and implemented diversified and personalized publicity and education methods. ② Implementation stage: Determine the specific responsibilities of the members of the group and cooperate effectively through division of labor and cooperation. Carry out responsibility training for nurses in the group to improve their health education skills. Comprehensively explain the importance and clinical significance of health education, improve nurses' awareness of health education, and explain the implementation measures of health education. Strengthen the assessment of knowledge training, take health education and specialized knowledge as the key content, and ensure that members of the group fully master the knowledge points. Carry out health education for patients by means of small prescription, health education sheet, warm prompt card, publicity manual and WeChat public account, distribute publicity materials for them, and explain disease and operation knowledge. Formulate the publicity and education registration form, and the members of the group shall fill in and feed back regularly, and strictly record the health education at admission, perioperative period and after discharge. Unify the process and content of health education within the group to ensure the standardization of health education. ③ Inspection stage: During the quality management period, regularly check the implementation of health education, such as key points of diet, anal lifting exercise, life precautions, etc., and evaluate patients' mastery of relevant knowledge. ④ Treatment stage: The members of the group sorted out the deficiencies in the implementation of quality management, analyzed the causes and formulated a continuous improvement plan. Incorporate the management defects and problems in this stage into the next quality cycle to continuously optimize the quality management process.

2.3 Observation Indicators

The self-made health education knowledge mastery evaluation form was used to evaluate the effect of health education, including medication, wound care, dietary guidance, functional training, defecation status, appropriate technology of traditional Chinese medicine, daily life guidance and emotional nursing. Each item is 15 points, a total of 120 points. If the score is higher than 72 points, it is qualified. Education qualification rate = number of qualified people / number of people in this group * 100%. Urinary retention, constipation, pain, postoperative bleeding, infection and swelling of the wound were observed. The self-made questionnaire was used to evaluate management satisfaction, including service attitude, preoperative preparation, postoperative monitoring and other dimensions, with a total of 100 points. The very satisfied was more than 70 points, the basic satisfied was 40-70 points, and the dissatisfied was less than 40 points.

2.4 Statistical Analysis

Data processing via SPSS21. 0 software was completed, the measurement data was compared / tested by t value, and the counting data was compared / tested by x^2 value. Assuming that the verification is meaningful, the P value was less than 0.05.

3. Results

3.1 Comparison of Health Education Effects between the Two Groups

The mastery score of health education in group A was higher than that in group B ($P < 0.05$). The qualified rate of education in group A was 94.74% (36 / 38) and 76.32% (29 / 38) in group B ($x^2 = 5.208$, $P = 0.023$).

Table 1 Comparison of Health Education Effects between the Two Groups [$\bar{x} \pm s$ / Min]

Group	Cases	Medication	Wound care	Dietary guidance	Functional	defecation status	appropriate	daily life guidance	emotional nursing

					training		technology of traditional Chinese medicine		
A group	38	11.25±1.34	11.69±1.29	12.02±1.09	11.76±1.26	12.49±1.85	12.31±1.77	11.97±1.58	11.76±1.40
B group	38	9.24±1.26	9.38±1.27	10.01±1.04	9.77±1.25	10.27±1.84	9.87±1.70	9.42±1.50	9.07±1.32
t	-	6.736	7.866	8.224	6.912	5.245	6.129	7.215	8.618
P	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

3.2 Comparison of Complication Rate between the Two Groups

The complication rate of group A was lower than that of group B ($P < 0.05$).

Table 2 Comparison of Complication Rates between the Two Groups [n /%]

Group	Cases	Urinary retention	constipation	pain	postoperative bleeding	infection	swelling	Incidence
A group	38	0	1（2.63）	1（2.63）	0	0	1（2.63）	7.89（3/38）
B group	38	1（2.63）	2（5.26）	3（7.89）	1（2.63）	1（2.63）	2（5.26）	26.32（10/38）
x^2	-	-	-	-	-	-	-	4.547
P	-	-	-	-	-	-	-	0.033

3.3 Comparison of Management Satisfaction between the Two Groups

The management satisfaction of group A was higher than that of group B ($P < 0.05$).

Table 3 Comparison of Management Satisfaction between the Two Groups [n /%]

Group	Cases	Very satisfied	Basic satisfied	Dissatisfied	Satisfaction
A group	38	20（52.63）	17（44.74）	1（2.63）	97.37（37/38）
B group	38	16（42.11）	14（36.84）	8（21.05）	78.95（30/38）
x^2	-	-	-	-	6.176
P	-	-	-	-	0.013

4. Conclusion

The recurrence rate of anorectal diseases is high and the disease types are diverse, which will seriously reduce the basic quality of life of patients. Most patients with anorectal diseases have limited awareness of disease knowledge and low compliance with surgical treatment [3]. The focus of anorectal diseases can be removed through surgical treatment, supplemented by perioperative nursing, which can accelerate the recovery of the disease, improve the comfort of patients and shorten the hospitalization cycle [4]. In perioperative nursing, health education is the primary nursing measure, which can improve the knowledge of patients, and then actively cooperate with the operation and postoperative nursing operation. Routine perioperative health education mostly takes the form of unified publicity and education, and does not carry out individualized publicity and education in combination with the patient's educational level and condition, which has nursing limitations [5]. PDCA quality management can improve the publicity and education skills of nurses through systematic and professional knowledge training, alleviate patients' anxiety, optimize patients' self-care awareness and reduce the disease recurrence rate [6]. PDCA quality management is divided into four steps. The special team formulates the health education process and implementation plan, and carries out skill training for nurses in the form of multimedia to ensure

that each nurse can master the key and difficult points of health education. The management quality can be continuously optimized through the management in the inspection and treatment stage to ensure that each patient can fully master the content of health education [7].

The results showed that the health education score of group A was higher than that of group B, the qualified rate of education was higher than that of group B, and the complication rate of group A was lower than that of group B, management satisfaction was higher than that of group B ($P < 0.05$). It shows that PDCA quality management can achieve better results, optimize the knowledge mastery of patients with anorectal diseases, improve the qualified rate of education, reduce postoperative complications and obtain high management satisfaction. However, there are still deficiencies in this study, such as whether patients can strictly implement self-management in the home environment and whether the exercise training program is reasonable. It is necessary to strengthen discharge follow-up in future research to ensure the comprehensiveness and continuity of quality management.

In conclusion, PDCA quality management can be used as a common management method of perioperative health education for anorectal diseases, which has high feasibility and scientificity.

References

[1] Feng Suwen, Xie Fangping. Effect of PDCA quality management on improving the qualified rate of perioperative health education for patients with anorectal diseases [J]. Nursing of Integrated Traditional Chinese and Western Medicine (Chinese and English), vol.5, no.8, pp.130-133, 2019.

[2] Yuan Caixia, Zhang Rui, Zhou Xiaoyan, et al. Application of nursing safety management in nursing management of patients with anorectal diseases [J]. China Health Nutrition, vol.28, no.17, pp.118, 2018.

[3] Wang Xiaoyan. Effect of flat nursing management mode on perioperative nursing quality of new nurses in anorectal department [J]. Journal of Traditional Chinese Medicine Management, vol.26, no.5, pp.102-103, 2018.

[4] Yuan Hexue, Liu Zongjian, Pan Chunlai, et al. Effect of perioperative pain management on benign anal diseases [J]. Chinese Journal of Anorectal Diseases, vol.41, no.9, pp.65-66, 2021.

[5] Chen Lijun. Advantages of TCM syndrome differentiation nursing in disease management [J]. Journal of Traditional Chinese Medicine Management, vol.29, no.1, pp.92-93, 2021.

[6] Chen Qunde, Yang Bolin. Research experience of traditional Chinese medicine in the treatment of postoperative constipation of anorectal diseases [J]. Health Literature Collection, vol.22, no.16, pp.147-148, 2021.

[7] Yang Qionghua. Effect of extended care on self-management behavior and quality of life in breast cancer patients undergoing chemotherapy [J]. Scientific Health Preservation, vol.23, no.1, pp.139-140, 2020.