# <u>ORIGINAL RESEARCH</u>

# Application of Perioperative Pain Management in the Perioperative Nursing of Labia Minora Plasty and its Effect on the Rehabilitation of Patients

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### ABSTRACT

**Objective** • The objective of this study is to investigate effective pain management strategies for women undergoing labiaplasty surgery. By focusing on pain relief, patient rehabilitation, and satisfaction improvement, we aim to enhance the overall patient experience and outcomes of this common gynecological plastic surgery.

**Methods** • A total of 126 individuals diagnosed with labia minora hypertrophy and who underwent plastic surgery on their labia minora within the period of July 2020 to July 2023 were chosen as the participants for this study. They were divided into an observation group and a comparison group, each consisting of 63 cases, based on the different nursing methods. The comparison group was treated with routine perioperative nursing after labia minora surgery, and the observation group was treated with perioperative pain nursing management based on the comparison group. Postoperative pain score, comfort score, incision healing time, first urination time, night Pittsburgh Sleep Quality Index (PSQI) score, complications, and satisfaction were compared between the two groups. All data were established in an Excel database, and statistical analysis was performed using SPSS26.0. Statistical methods used include descriptive analysis, *t* tests, and Chi-square tests.

**Results** • The mean incision healing time of the observation group was  $3.90\pm0.61$  days, and that of the control group was  $3.62\pm0.64$  days. The mean incision healing time of the observation group was significantly different from that of the control group (P < .05). VRS scores and PSQI

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### INTRODUCTION

The labia minora holds significant importance within the female reproductive system, as it is situated bilaterally adjacent to the vaginal opening. Comprised of a collection of symmetrical lip-like tissues, this anatomical structure is classified as a type of skin fold. In its typical state, the labia minora exhibits a soft texture, devoid of subcutaneous adipose tissue, and possesses a slender morphology.<sup>1</sup> However, in cases where the distance from the central base to the lateral edge of the labia minora surpasses 4cm, the labia minora undergoes

scores were significantly lower in both groups 1 week aftercare compared with 1 day before care, indicating improvements in pain and sleep quality. The improvement degree of VRS score and PSQI score in the observation group was significantly different (P < .05). The number of incision infections, hematoma, flap necrosis, skin scar, delayed healing, and total complication rate were 3 in the observation group and 11 in the comparison group, indicating that the complication rate in the observation group was significantly lower than that in the comparison group. The comparison difference was statistically significant (P < .05). Through the Chi-square test, the nursing satisfaction and perineal aesthetic effect satisfaction of the observation group, were significantly higher than those of the comparison group, and the difference was statistically significant (P < .05).

**Conclusions** • The implementation of perioperative pain nursing management has been shown to effectively alleviate pain in patients diagnosed with labia minora hypertrophy. This approach not only enhances treatment comfort but also significantly reduces the occurrence of postoperative complications. Additionally, it accelerates the healing process of incisions, improves the quality of incision healing, and enhances patient satisfaction with both the aesthetic outcome of the perineal area and the quality of nursing care provided. (*Altern Ther Health Med.* 2024;30(4):118-123)

thickening, resulting in a long ear-like or asymmetrical shape, which is referred to as hyperplasia. This condition can be attributed to congenital or acquired factors such as chronic inflammation, improper masturbation or sexual behavior, and stimulation by male hormones<sup>2</sup>.According to studies, hypertrophy of the labia minora may lead to increased friction in the perineum during daily activities, which increases the risk of perineal rupture and the possibility of infection.<sup>3</sup> In addition, enlarged labia minora can also change the direction of the urine line, causing inconvenience to the life of the patient. More importantly, as a kind of deformity, hypertrophy of the labia minora will not only have an impact on the physiological function of the patient but also cause serious damage to the mental health of the patient.

With the continuous development of plastic cosmetic technology, surgical methods for hypertrophy of the labia minora are also constantly improving, aiming to correct physiological function while paying more attention to aesthetic effects. Labia minora plastic surgery is an effective cosmetic procedure that can significantly improve the condition of labia minora hypertrophy.<sup>4</sup> However, at present, systematic nursing measures have not been established to meet clinical needs. Pain nursing management is a widely used clinical management model whose goal is to alleviate the pain of patients and provide them with a full range of services. This management mode has achieved good results in practice and has been recognized and praised by patients and their families.<sup>5</sup> As such, a total of 126 cases of patients diagnosed with labia minora hypertrophy were chosen as the subjects of this study, aiming to investigate the implementation of perioperative pain management in perioperative nursing for labia minora plastic surgery and its impact on patient rehabilitation.

# MATERIALS AND METHODS

### Comparison of general information

A total of 126 patients with labia minora hypertrophy who received plastic surgery on labia minora from July 2020 to July 2023 were selected as the study objects. According to the different nursing methods, they were divided into an observation group and a comparison group with 63 cases each. Our observation group of 63 patients ranged in age from 18 to 37 years, with an average age of (26.92±8.17) years. Among them, 48 cases were from rural areas, and 15 cases were from urban areas. In terms of education level, there were 16 cases of primary school and below, 10 cases of middle school, 22 cases of high school, and 15 cases of junior college and above. Of these cases, 22 had unilateral labia minora hypertrophy, and 41 had bilateral labia minora hypertrophy. In the control group, we looked at 63 cases ranging in age from 18 to 48 years, with a mean age of (27.68±8.51) years. Among them, there were 40 cases from rural areas and 23 cases from urban areas. In terms of education level, there were 14 cases of primary school and below, 19 cases of middle school, 13 cases of high school, and 17 cases of junior college and above. Of these cases, 20 had unilateral labia minora hypertrophy, and 43 had bilateral labia minora hypertrophy. When comparing the general data of the two groups, we found no statistically significant difference (P > .05), indicating comparability between the two groups. The hospital Medical Ethics Committee has approved this study.

# Nursing Methods

The control group received routine perioperative care, including preoperative guidance for perineal cleaning, skin preparation, and wearing loose pure cotton underwear. At the same time, the patient was orally introduced to the surgical procedure and precautions. The patient was then sent to the operating room after completing the preoperative preparation. After surgery, the nurse will instruct the patient to keep the perineum clean and dry to avoid infection of the incision caused by contamination of the dressing. In addition, the patient will also do a good job of medication care and inform the patient to fast spicy, stimulating food after surgery, eat more fresh fruits and vegetables, and keep stool unobserved to avoid constipationinduced incision tear. In the process of nursing, patients will also be given psychological comfort and guidance. The observation group implemented perioperative pain nursing management on the basis of the comparison group.

Preoperative pain management: In the preoperative stage, the nurse will explain to the patient in detail the relevant information about the surgery, including the procedure, precautions, and the potential level of pain. At the same time, they will provide psychological support to help patients relieve tension, anxiety, and other negative emotions.In addition, in order to prevent infection and reduce postoperative pain, the nurse will also guide the patient in performing perineal cleaning and preparing the skin. Intraoperative pain management: During surgery, in order to reduce the patient's pain and discomfort, the nursing staff will take a variety of analgesic measures. To begin with, the utilization of local anesthetic drugs has proven to be an effective means of mitigating the pain resulting from surgical incisions. Additionally, the nursing personnel will engage in ongoing communication with the patient throughout the surgical procedure, aiming to provide solace and divert their attention. Moreover, caregivers should also provide guidance to patients on the implementation of appropriate breathing and relaxation techniques, with the objective of minimizing postoperative bleeding and alleviating discomfort.

Postoperative pain management: Caregivers need to select appropriate pain assessment tools, continuously assess the patient's pain level, and collate specific data collected to create dynamic scales that reflect the different stages of the patient's recovery process. Based on the specific degree of pain experienced by the patient, the nursing staff should provide corresponding nursing measures. When the pain is mild, the nursing staff can guide the patient to take a kneeling side position or deep breathing to relieve the pain; When the pain is obvious, the nursing staff should inform the attending doctor in time and provide the patient with analgesic drugs in strict accordance with the doctor's advice. Simultaneously, it is imperative to advise patients against prolonged periods of standing during routine activities and to refrain from exerting force on wounds through impulsive movements of the lower limbs. Furthermore, it is recommended to replace the dressing on the morning of the initial postoperative day, followed by the initiation of sitting baths in the evening, once in the morning, and once in the evening, for a duration of approximately 7-10 days. These baths should involve the utilization of gynecological lotion and warm boiling water, with a recommended duration of 10-20 minutes per session. Caregivers have the potential to mitigate the adverse effects of negative emotional tendencies, such as tension, anxiety, and fear, on postoperative pain experienced by patients. This can be achieved through the implementation of music therapy and distraction techniques, which aim to enhance patients' comfort during treatment and enhance their overall satisfaction with the care provided. Furthermore, nursing staff can play a pivotal role in fostering patients' confidence in their recovery by introducing them to successful rehabilitation cases within the ward. By adopting a patient-centered approach, nursing staff can facilitate increased communication among patients and alleviate negative psychological states.

### Observation indicators and judgment criteria

(1) Possible complications such as incision infection, hematoma, flap necrosis, skin scar, and delayed healing were observed and recorded in the two groups of patients after surgery. The incidence of postoperative complications was compared between the two groups, and the incidence of postoperative complications was calculated and compared between the two groups.

(2) The incision healing time and healing grade of the two groups were recorded in detail. The evaluation of the healing grade of incisions will be made with reference to the criteria of the relevant literature. The skin is smooth, the incision has no hyperplasia and induration, the appearance is smooth, and the surrounding tissue and skin are all grade-A healing. The incision appears hyperplasia, induration, uneven appearance, or the color difference between the incision tissue and the surrounding tissue is grade B healing; Grade C healing occurs when the incision is split or healed by infection.

(3) Satisfaction with perineal aesthetic effect: The investigator will introduce the incision healing indicators and knowledge related to perineal aesthetics to the patients and provide the opportunity to take photos or observe the perineal mirror so that the patients can score according to their own feelings about the appearance of the perineal. The full score is 10 points; less than 4 points are not satisfied, less than 8 points and higher than 4 points are basically satisfied, and more than 8 points are satisfied. Satisfaction is calculated as: (basically satisfied + satisfied)/ group case  $\times 100\%$ .

(4) Nursing satisfaction: Patients will be evaluated according to their feelings about nursing measures received during the whole process of medical treatment, which is divided into unsatisfactory, general, and satisfied. Satisfaction is calculated as: (general + satisfaction)/ group case ×100%.

(5) Pain rating: The verbal rating scale (VRS) is a commonly used pain assessment tool that Huskisson developed in the 1970s. VRS is a scale that verbally expresses the degree of pain, usually assessed and expressed by the patient himself [6]. The VRS rates pain into five levels, each described by an easily understood word or phrase: painless as 1 point, mild pain as 2 points, moderate pain as 3 points, severe pain as 4 points, and severe pain as 5 points. Patients can choose the appropriate level of description according to their pain experience. VRS can accurately express and record the pain degree of patients, helping doctors understand the pain situation of patients and make corresponding treatment plans. At the same time, VRS can also be used to study the nature and characteristics of pain, as well as to evaluate the effectiveness of treatment. VRS has good reliability and effectiveness and can accurately reflect the pain degree of patients. VRS has high reliability and validity in different populations and is an effective pain assessment tool.

(6) Comfort score: Kolcaba's General Comfort Questionnaire (GCQ) is a pain assessment tool based on the concept of comfort, proposed by Kolcaba in 1992.<sup>7</sup> This scale is designed to provide a more comprehensive, multidimensional assessment of a patient's comfort with pain treatment. The GCQ contains 40 questions covering different aspects of comfort, including pain, physical, psychological, social, and environmental. Each question is scored on a 1-4 Likert Scale, where 1 means strongly disagree, and 4 means strongly agree. For the negative question, 1 indicates strong agreement, and 4 indicates strong disagreement. Total score: 40 to 160; the higher the total score, the better the patient's comfort. GCQ has good internal consistency, retest reliability, and validity. It accurately reflects the pain level and comfort of the patient and is suitable for different populations and language backgrounds.

(7) Night Pittsburgh Sleep Quality Index (PSQI) score: The Night Pittsburgh Sleep Quality Index (PSQI) was developed by Dr. Buysse et al. in the Department of Psychiatry at the University of Pittsburgh to assess the quality of sleep of individuals at night.8 The index includes 19 items related to sleep quality, sleep duration, sleep efficiency, sleep disorders, use of hypnotic drugs, and many other aspects. Each item was scored on a 0-3 scale, with an overall score of 0-21, with higher scores indicating poorer sleep quality. PSQI has good reliability and validity. The PSQI was first published by Dr. Buysse et al. in 1989 and has since been validated and revised several times. Liu Xianchen translated PSQI into Chinese in 1996 and verified it in Chinese people, proving that PSQI is suitable for Chinese people. PSQI has been widely used in clinical and basic research to assess an individual's sleep quality.

### Statistical analysis

Excel software was used to establish a database for all the patient data included in our study. After logical verification, the data were imported into Statistic Package for Social Science (SPSS) 26.0 software (IBM, Armonk, NY, USA) for data analysis. Counting data is expressed as integers or percentages,  $\chi^2$  tests are used for comparison between groups, and rank sum tests are used for ordered variables. The measurement data were represented by mean ± standard deviation, and *t* test was applied when patients' age, VRS score, GCQ score, and PSQI score followed normal distribution. *P* < .05 indicates a statistically significant difference.

# RESULTS

# Comparison of perioperative relevant indicators

Comparison of incision healing time and healing grade between two groups. The mean wound healing time was  $3.90\pm0.61$  days in the observation group and  $3.62\pm0.64$  days in the control group. The mean incision healing time of the observation group was significantly different from that of the control group (P = .006). In the observation group, 54 cases (85.71%) achieved grade A healing, 6 cases (9.52%) achieved grade B healing, and 3 cases (4.77%) achieved grade C healing. In the comparison group, 49 cases (85.71%) achieved grade A healing, 10 cases (85.71%) achieved grade B healing, and 4 cases (85.71%) achieved grade C healing. There was no significant difference between the two groups (P = .500). See Table 1. **Table 1.** Comparison of incision healing time and healing grade between the two groups  $[x \pm sd, n(\%)]$ 

	Mean incision	Grade of incision healing			
	healing time (d)	A grade	B grade	C grade	
Observation Group (n=63)	3.90 ±0.61	54 (85.71)	6 (9.52)	3 (4.77)	
Comparison group (n=63)	3.62 ± 0.64	49 (85.71)	10 (85.71)	4 (85.71)	
$t/\chi^2$	2.513		1.386		
P value	.006		.500		

**Table 2.** Comparison of postoperative pain comfort and sleep quality scores between the two groups ( $\overline{x} \pm$  sd, scores)

	VRS	scores	GCQ	scores	PSQI scores		
	1 day before	1 week after	1 day before	1 week after	1 day before	1 week after	
	nursing	nursing	nursing	nursing	nursing	nursing	
Observation Group (n=63)	3.50 ±0.78	1.10 ±0.23	88.97 ±11.73	143.37±10.92	16.08±3.25	2.89±1.12	
Comparison group (n=63)	$3.72 \pm 0.74$	$1.22 \pm 0.15$	88.54 ±11.35	137.33±11.08	16.15±3.12	3.35±1.05	
t	1.624	3.468	0.209	3.081	0.123	2.378	
P value	.053	.0003	.417	.001	.451	.009	

**Table 3.** Comparison of complications between the two groups [n(%)]

	Incision		Flap	Skin	Delayed	Complication
	infection	hematoma	necrosis	scar	healing	rate
Observation Group (n=63)	1 (1.58)	0	0	1 (1.58)	1 (1.58)	3 (4.76)
Comparison group (n=63)	3 (4.76)	1 (1.58)	1 (1.58)	2 (3.17)	4 (6.35)	11 (17.46)
$\chi^2$	1	\	/	\	\	5.143
P value	/	\	/	\	\	.023

**Table 4.** Comparison between nursing satisfaction and perineal aesthetic effect satisfaction [n(%)]

	Nursing satisfaction				Aesthetic effect satisfaction				
		Basic		Total		Basic		Total	
	dissatisfy	satisfaction	satisfaction	satisfaction	dissatisfy	satisfaction	satisfaction	satisfaction	
Observation	2 (3 17)	21 (33 33)	40 (63 49)	61 (96.83)	6 (9 52)	27 (42.86)	30 (47 62)	57 (90.48)	
Group (n=63)	2 (3.17)	21 (33.33)	40 (03.49)	01 (90.85)	0 (9.32)	27 (42.80)	30 (47.02)	37 (90.46)	
Comparison	10 (15 97)	22 (26 51)	20 (47 62)	52 (94 12)	10 (20 57)	22 (26 51)	22 (24 02)	45 (71.42)	
group (n=63)	10 (13.87)	23 (30.31)	30 (47.02)	33 (04.13)	10 (20.57)	23 (30.31)	22 (34.92)	43 (71.42)	
$\chi^2$	5.895					7	.412		
P value	.015						.006		

# Comparison of postoperative pain comfort and sleep quality scores

Postoperative pain comfort and sleep quality scores were compared between the two groups. The VRS score is a Visual Analog Scale for postoperative pain that is used to assess a patient's pain level. On the first day before nursing, the score of the observation group was 3.50±0.78 points, and that of the control group was 3.72±0.74 points. One week after nursing, the score of the observation group was 1.10±0.23 points, and that of the control group was 1.22±0.15 points. GCQ score is a questionnaire score used to assess patients' postoperative pain comfort. On the first day before nursing, the score of the observation group was 88.97±11.73 points, and that of the control group was 88.54±11.35 points. One week after nursing, the score of the observation group was 143.37±10.92 points, and that of the comparison group was 137.33±11.08 points. The PSQI score is used to evaluate the score of the patient's sleep quality, and the lower the score, the better the sleep quality. On the first day before nursing, the score of the observation group was 16.08±3.25 points, and that of the control group was 16.15±3.12 points. One week after nursing, the score of the observation group was 2.89±1.12 points and that of the control group was 3.35±1.05 points. It can be seen from the data that VRS scores and PSQI scores of both groups were significantly reduced 1 week aftercare compared with 1 day before care, indicating that pain degree and sleep quality were improved. The improvement degree of VRS score and PSQI score in the observation group was significantly different (P < .05). At the same time, the GCQ score of the observation group was higher than that of the control group one week after nursing, and the degree of improvement of the GCQ score was also significantly different (P < .0003). The improvement in pain comfort in the observation group was higher than that in the comparison group. See Table 2.

### Comparison of postoperative complications

We evaluated the incidence of different postoperative complications in both groups, including incision infection, hematoma, flap necrosis, skin scarring, and delayed healing. In the observation group, incision infection occurred in 1 patient (1.58%), hematoma in 0 patients, flap necrosis in 0 patients, skin scar in 1 patient (1.58%), delayed healing in 1 patient (1.58%), and the total complication rate was 3 patients (4.76%). In the comparison group, incision infection occurred in 3 patients (4.76%), hematoma in 1 patient (1.58%), flap necrosis in 1 patient (1.58%), skin scar in 2 patients (3.17%), delayed healing in 4 patients (6.35%), and the total complication rate was 11 patients (17.46%). The results indicated that the incidence of complications in the observation group was significantly lower than that in the comparison

group, and the difference was statistically significant (P < .05). See Table 3.

# Comparison of nursing satisfaction and perineal aesthetic effect satisfaction

Comparison of nursing satisfaction and perineal aesthetic effect satisfaction between the two groups. The number of nursing dissatisfaction in the observation group was 2 (3.17%), the number of basic satisfaction was 21 (33.33%), the number of satisfaction was 40 (63.49%), and the number of total satisfaction was 61 (96.83%). There were 6 people (9.52%) who were dissatisfied with perineal aesthetic effect, 27 people (42.86%) who were basically satisfied, 30 people (47.62%) who were satisfied, and 57 people (90.48%) who were overall satisfied. In the comparison group, the number of nursing dissatisfaction was 10 (15.87%), the number of basic satisfaction was 23 (36.51%), the number of satisfied was 30 (47.62%), and the number of total satisfaction was 53 (84.13%). There were 18 persons (28.57%) dissatisfied with the perineal aesthetic effect, 23 persons (36.51%) basically satisfied, 22 persons (34.92%) satisfied, and 45 persons (71.42%) overall satisfied. Through the Chi-square test, the nursing satisfaction and perineal aesthetic effect satisfaction of the observation group were significantly higher than those of the comparison group, and the difference was statistically significant (P < .05). See Table 4.

### DISCUSSION

The labia minora serves a crucial protective function for the perineal organs, effectively safeguarding the vagina against external bacterial intrusion. Additionally, as an innate barrier, the labia minora assumes a highly sensitive role during sexual activities, functioning as the primary recipient of sexual stimulation and significantly influencing the overall quality of one's sexual experiences. The shape of the labia minora has symmetry, which is an important embodiment of vulva morphology aesthetics with mirror symmetry. However, hypertrophy of the labia minora is a malformation of the vulva, which can have physiological and psychological effects on patients.9 First, hypertrophy of the labia minora may affect its ability to block outside bacteria from invading the vagina, thus disrupting the vagina's natural protective mechanisms. Secondly, hypertrophy of the labia minora can also have a negative impact on the quality of one's sexual life. The enlarged labia minora may make the receiving area of sexual stimulation less sensitive, resulting in a less pleasurable sexual experience. In addition, hypertrophy of the labia minora will also cause damage to the vulva's aesthetic form and affect the overall beauty of the vulva. For the problem of hypertrophy of labia minora, plastic surgery of labia minora is an effective treatment. At present, there are a variety of surgical methods available in clinical practice, such as linear resection and suture, single pedicle tissue flap method, "V" resection of labia margin, wedge resection, etc.<sup>10-12</sup> However, the conventional excision method presents certain issues. For instance, the edges of the incision after surgery may exhibit increased thickness and susceptibility to forming shell-like scars, thereby impacting not only the aesthetic contour of the vulva but also potentially inducing psychological distress in the patient. Consequently, the emergence of labia minora surgery aims to address these concerns. This procedure is designed to be close to the edge of the labia minora, and the thickness of the labia minora is trimmed by the appropriate removal of the outer surface and the inner central part of the labia minora. Ultimately, the technique involves suturing the outer perimeter of the labia minora, thereby successfully maintaining the inherent pigmentation and anatomical demarcation of the labial skin, circumventing the presence of visible incision marks, and significantly enhancing the aesthetic outcome of vulvoplasty.

The increasing emphasis on women's aesthetic preferences has led to a rise in the demand for hypertrophy plastic surgery of the labia minora. In response to clinical requirements, surgical techniques are continuously being enhanced, and novel clinical nursing measures are being proposed. However, the conventional perioperative nursing mode lacks systematization and individualization, which can not meet the clinical needs well. To address this problem, perioperative pain management was used in this study. This nursing mode is developed by consulting the existing literature and combining the clinical actual situation and nursing needs with a good scientific basis to better meet the nursing needs of patients. The results of this study showed that the incidence of postoperative complications in the observation group with perioperative pain management was only 4.76%, which was significantly lower than that in the traditional nursing control group (17.46%). This result hints at the effectiveness of perioperative pain management in reducing the incidence of postoperative complications. The reason why perioperative pain management can achieve such results, on the one hand, is that it has a strong pertinence and systemization and can better meet the nursing needs of patients with different cognitive levels. On the other hand, pain management can dynamically adjust nursing measures at different postoperative stages, effectively improve the pertinence of nursing measures, achieve better preventive effects, and thus reduce the incidence of postoperative complications.<sup>13</sup>

The results of this study further showed that the mean incision healing time of patients in the observation group who implemented perioperative pain management was significantly shorter than that in the control group, and the incision healing grade was better than that in the control group. These results indicate that perioperative pain management can effectively promote incision healing and improve the grade of incision healing, so as to avoid the formation of incision scars and effectively maintain the aesthetic effect of vulva plastic surgery. A reduction in the incidence of complications echoed this result. To explore this result further, we analyzed how perioperative pain management promotes incision healing and improves healing grades. First, perioperative pain management emphasizes measures such as perineal skin preparation and clothing preparation before surgery to fully prepare for surgery and avoid the risk of postoperative incision friction and infection. Secondly, postoperative incision care, dietary care, and other measures effectively ensure that the incision is clean and sterile, avoid forced defecation and other behaviors to increase the tension of the incision, prevent the incision split, and reduce the pain of the incision. Furthermore, implementing these measures can also mitigate the potential contamination of the incision by excreta, thereby significantly decreasing the likelihood of incision infection. Additionally, a favorable level of incision healing can prevent scar formation, minimize skin pigmentation surrounding the incision, and ultimately guarantee the preservation of the natural skin color in the surgical region, consequently enhancing the aesthetic outcome of the vulva. These results not only improve the aesthetic satisfaction of patients but also help improve nursing satisfaction, thus improving the quality of nursing. It is worth mentioning that education content in perioperative pain management effectively improves patients' cognitive ability and mastery of vulva aesthetic indicators, which is conducive to the objectivity of patients' evaluation of postoperative vulva aesthetics.<sup>14</sup> By improving patients' aesthetic evaluation ability, not only patients' aesthetic satisfaction but also nursing satisfaction can be improved, thus improving nursing quality.15 To sum up, perioperative pain management is a comprehensive and systematic nursing approach. Through a series of measures such as preoperative preparation, postoperative nursing, and dietary guidance, it can effectively promote incision healing,

reduce the risk of incision infection, improve vulva aesthetic effect, and enhance patients' aesthetic satisfaction and nursing satisfaction. Therefore, perioperative pain management deserves to be widely used and promoted in clinical practice.

### CONCLUSION

Perioperative pain nursing management has significant application value in plastic surgery of hypertrophy of labia minora. Through a series of comprehensive nursing measures, it can effectively reduce the pain of patients, reduce the incidence of postoperative complications, promote incision healing, and improve the satisfaction of perineal aesthetic effect and nursing satisfaction. Hence, it is imperative to extensively advocate and implement perioperative pain nursing management in clinical practice to enhance the overall outcome and patient contentment in plastic surgery for hypertrophy of the labia minora.

### ETHICAL COMPLIANCE

The ethics committee of Nanjing Maternity and Child Health Care Hospital approved this study. Signed written informed consent were obtained from the patients and/or guardians.

#### CONFLICT OF INTEREST

The authors have no potential conflicts of interest to report relevant to this article.

### AUTHOR CONTRIBUTIONS

DY and BZ designed the study and performed the experiments, JL collected the data, YY analyzed the data, DY and BZ prepared the manuscript. All authors read and approved the final manuscript.

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