

Effect and Value of Quality Nursing Intervention in Breastfeeding after Cesarean Section among Primigravid Women

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Abstract: *Objective:* To analyze the effect of using quality nursing care for primigravid women undergoing cesarean delivery. *Methods:* A total of 80 cases of primigravid women undergoing cesarean section from June 2022 to June 2023 were randomly selected. They were divided into two groups: Group A (40 cases) received routine care and Group B (40 cases) received quality care. The division was done using a computerized randomization method. The effects of the nursing care received in the two groups were compared. *Conclusion:* Quality nursing care for primigravid women undergoing cesarean section can enhance breastfeeding rates, alleviate maternal anxiety, improve feeding practices, and enhance breastfeeding self-efficacy.

Keywords: Quality care; Primigravida; Cesarean section; Breastfeeding

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1. Introduction

Breastmilk is the optimal and high-quality nutrition for newborns, containing essential nutrients like DHA and taurine. Its composition aids in newborns' digestion and absorption, fostering optimal growth and development. Exclusive breastfeeding for the first 6 months satisfies infants' nutritional requirements and enhances their immunity and resistance^[1]. In addition, for mothers, breastfeeding can effectively reduce the prevalence of postpartum hemorrhage, breast cancer, and other diseases^[2].

As cesarean section technology advances, more primigravid women opt for this delivery method. However, postoperative factors such as maternal weakness and pain can hinder lactation and decrease breastfeeding rates^[3]. Because of their lack of breastfeeding skills and knowledge, primigravid women often have lower breastfeeding rates compared to multiparous women. Consequently, clinics are increasingly focusing on postoperative maternal care interventions to improve breastfeeding rates among primigravid women after cesarean sections^[4]. Quality nursing care for primigravid women undergoing cesarean delivery represents a novel maternal-centered nursing care approach that not only emphasizes optimizing fundamental nursing services but also addresses ma-

ternal needs from a psychological standpoint^[5]. This study aims to analyze the impact of utilizing quality care for primigravid women undergoing cesarean delivery, as outlined below.

2. Materials and methods

2.1. General information

Eighty primigravid women who underwent cesarean section from June 2022 to June 2023 were randomly selected and grouped using a computerized randomization method. Group A comprised 40 cases with an age range of 22–38 years and a mean age of 28.53 ± 3.14 years. Their gestational weeks ranged from 38 to 40 weeks with a mean of 39.12 ± 0.48 weeks, and body mass ranged from 51.15 to 86.34 kg with a mean of 63.37 ± 5.32 kg. Group B consisted of 40 cases with an age range of 21–39 years and a mean age of 28.16 ± 3.23 years. Their gestational weeks ranged from 38 to 41 weeks with a mean of 39.38 ± 0.51 weeks, and body mass ranged from 51.28 to 87.15 kg with a mean of 63.84 ± 5.29 kg. General data were compared ($P > 0.05$). Inclusion criteria for this study included being a primigravida, meeting the indication for cesarean section, fully understanding and agreeing to participate in the study, having clinical data suitable for the study, being able to cooperate with all examinations and assessments, and demonstrating a high degree of cooperation. Exclusion criteria encompassed women who were menstruating, had twin or multiple births, exhibited maternal cardiopulmonary dysfunction, were diagnosed with maternal syphilis infection, or had a diagnosis of maternal tuberculosis.

2.2. Methods

2.2.1. Group A

Group A underwent routine nursing care such as perineal cleansing, explaining the advantages of breastfeeding, and teaching breastfeeding skills.

2.2.2. Group B

Group B implemented quality nursing care for primigravid women undergoing cesarean delivery.

- (1) Postoperative education: Nursing staff provided detailed instructions on breastfeeding techniques, emphasizing its benefits, and addressed concerns. Encouragement from family members was encouraged.
- (2) Dietary advice: Mothers were advised on foods to promote milk production and those to avoid.
- (3) Breastfeeding education: Nursing staff showed instructional videos on breastfeeding and explained the process in detail. Breast massage techniques were employed to stimulate milk secretion, followed by nipple correction and warm compress application.
- (4) Ward hygiene: Regular disinfection and ventilation of the ward ensured a fresh environment. Family members were involved in assisting with basic care tasks, such as changing clothes and replacing nursing pads.

2.3. Indicator observation

- (1) Breastfeeding rate: Breastfeeding rate = (exclusively + partial) breastfeeding cases / total cases $\times 100\%$.
- (2) SAS score: The SAS scale was used to evaluate the psychological state of patients, with a maximum of 4 points for each item, which indicates severe anxiety; and a minimum of 0 points, which indicates no anxiety symptoms. Assessment items: anxiety, fear, premonition, panic, fatigue, restlessness.
- (3) Clinical indicators: Clinical indicators include time taken for uterine regrowth, time taken for first lactation, number of breastfeeding sessions per day, amount of lactation at 48-hour postpartum, and time taken for sufficient lactation at 3-day postpartum.

- (4) BSES score: BSES score was used to measure breastfeeding self-efficacy, with the highest score being 75 points for each item, which indicates high efficacy; and the lowest score being 15 points for each item, which indicates low efficacy.

2.4. Statistical analysis

The data were analyzed using SPSS 25.0 software, with measurement data presented as mean \pm standard deviation and count data as percentages (%). The t-test and chi-squared test were utilized to determine statistical significance, with $P < 0.05$ considered statistically significant.

3. Results

3.1. Breastfeeding rate

The breastfeeding rate of Group B was higher than that of Group A at 3 days and 3 months after surgery ($P < 0.05$), as shown in **Table 1**.

Table 1. Comparison of breastfeeding rate between the two groups [n (%)]

Group	3-day post-operation				3-month post-operation			
	Exclusively	Partial	Non-breastfeeding	Breastfeeding rate	Exclusively	Partial	Non-breastfeeding	Breastfeeding rate
Group B (n = 40)	26 (65.00)	12 (30.00)	2 (5.00)	38 (95.00)	20 (50.00)	14 (35.00)	6 (15.00)	34 (85.00)
Group A (n = 40)	16 (40.00)	15 (37.50)	9 (22.50)	31 (77.50)	10 (25.00)	13 (32.50)	17 (42.50)	23 (57.50)
χ^2	-	-	-	5.164	-	-	-	7.383
<i>P</i>	-	-	-	0.023	-	-	-	0.006

3.2. Comparison of SAS scores

The SAS scores of the two groups were comparable at 1-day postoperation ($P > 0.05$), and the scores of Group B were lower than Group A at the time of discharge ($P < 0.05$), as shown in **Table 2**.

Table 2. Comparison of SAS scores at 1-day post-operation and time of discharge [mean \pm SD (points)]

Group	Anxiety		Fear		Premonition		Panic		Fatigue		Restlessness	
	1-day	TOD	1-day	TOD	1-day	TOD	1-day	TOD	1-day	TOD	1-day	TOD
Group B (n = 40)	3.07 \pm 0.35	1.18 \pm 0.43*	3.05 \pm 0.42	1.15 \pm 0.42*	3.08 \pm 0.45	1.13 \pm 0.47*	3.04 \pm 0.45	1.17 \pm 0.44*	3.06 \pm 0.41	1.14 \pm 0.49*	3.12 \pm 0.36	1.12 \pm 0.45*
Group A (n = 40)	3.11 \pm 0.46	1.74 \pm 0.52*	3.03 \pm 0.32	1.75 \pm 0.53*	3.03 \pm 0.47	1.78 \pm 0.56*	3.01 \pm 0.36	1.77 \pm 0.59*	3.02 \pm 0.43	1.73 \pm 0.51*	3.09 \pm 0.40	1.76 \pm 0.54*
<i>t</i>	0.437	5.248	0.239	5.611	0.485	5.623	0.329	5.155	0.425	5.276	0.352	5.758
<i>P</i>	0.662	0.000	0.811	0.000	0.628	0.000	0.742	0.000	0.671	0.000	0.725	0.000

Abbreviation: TOD, time of discharge. Comparison with 1-day post-operation within the same group * $P < 0.05$.

3.3. Clinical indicators

The clinical indexes of Group B were better than those of Group A ($P < 0.05$), as shown in **Table 3**.

Table 3. Comparison of clinical indexes (mean ± SD)

Group	Time taken for uterine regrowth (d)	Time taken for first lactation (h)	Number of breastfeeding sessions per day (times)	Lactation at 48-hour postpartum (mL)	Lactation at 3-day postpartum (mL)	Time taken for sufficient lactation (h)
Group B (n = 40)	3.28 ± 0.54	16.63 ± 1.86	6.84 ± 1.32	192.87 ± 12.23	224.63 ± 15.74	24.56 ± 3.87
Group A (n = 40)	4.62 ± 0.87	21.37 ± 2.42	5.28 ± 1.14	175.63 ± 10.57	201.15 ± 13.58	30.28 ± 4.24
<i>t</i>	8.276	9.821	5.656	6.745	7.143	6.301
<i>P</i>	0.000	0.000	0.000	0.000	0.000	0.000

3.4. BSES scores

BSES scores of the two groups at 1d postoperatively were compared between the two groups ($P > 0.05$). Group B scored higher than Group A at discharge ($P < 0.05$), as shown in **Table 4**.

Table 4. Comparison of BSES scores (mean ± SD, points)

Group	Feeding skills		Psychological activity	
	1-day	TOD	1-day	TOD
Group B (n = 40)	47.62 ± 4.58	67.86 ± 5.37*	49.53 ± 4.74	65.14 ± 5.56*
Group A (n = 40)	47.13 ± 4.61	61.59 ± 5.13*	49.89 ± 4.73	60.48 ± 5.14*
<i>t</i>	0.476	5.339	0.340	3.892
<i>P</i>	0.634	0.000	0.734	0.000

Abbreviation: TOD, time of discharge. Comparison with 1-day post-operation within the same group * $P < 0.05$.

4. Discussion

High-quality nursing care for primigravid women undergoing cesarean section plays a crucial role in promoting breastfeeding initiation and enhancing maternal postoperative recovery. Breastfeeding offers numerous benefits for newborns, including optimal nutrition, enhanced immunity, and bonding with the mother [6]. High-quality nursing care for primiparous women undergoing cesarean section plays a crucial role in promoting breastfeeding initiation and enhancing maternal postoperative recovery. Breastfeeding offers numerous benefits for newborns, including optimal nutrition, enhanced immunity, and bonding with the mother [7]. Additionally, post-operative pain and physical weakness further deter primigravid women from breastfeeding [8]. Therefore, implementing high-quality nursing care tailored to the needs of primigravid women undergoing cesarean sections can increase breastfeeding rates and improve maternal postoperative recovery outcomes.

In this study, the breastfeeding rate (3 days and 3 months after surgery), SAS and BSES scores at discharge, and clinical indicators in Group B were better than those in Group A ($P < 0.05$), which proved that quality nursing care improves breastfeeding indicators of primigravid women. In conventional nursing care, nursing staff simply explains breastfeeding methods to mothers after delivery, neglecting the psychological changes of mothers. Besides, nursing staff are often overwhelmed with heavy workloads, which leads to low-quality nursing care [9]. In contrast, quality care for primigravid women undergoing cesarean section not only provides comprehensive breastfeeding education but also offers timely correction of improper breastfeeding techniques.

Moreover, it includes psychological interventions to address maternal mood issues, ensuring optimal lactation outcomes and maternal well-being^[10]. Quality care emphasizes meeting the diverse needs of mothers and newborns, offering comprehensive support across physiological, psychological, and social dimensions to ensure a positive postoperative experience and successful transition to motherhood^[11]. This approach optimizes and enhances routine care, incorporating scientific and systematic nursing measures tailored specifically for primigravid women undergoing cesarean section. By providing both physical and psychological comfort to mothers, quality care fosters a sense of satisfaction and motivation among nursing staff^[12]. Primigravid women often lack breastfeeding experience, leading to potential risks such as improper posture and increased energy expenditure, which can contribute to postoperative complications. Research indicates that most primiparous women experience breast discomfort during breastfeeding and desire timely guidance. Postpartum nursing staff play a crucial role in instructing mothers on proper breastfeeding positions, such as the sitting cuddling position, to minimize physical strain and prevent newborns from compressing the surgical incision. This approach reduces the risk of hemorrhage. Additionally, nurses assist mothers in nipple stimulation to enhance milk production and recommend alternating feeding between breasts to optimize breastfeeding outcomes.

5. Conclusion

Quality nursing care for primigravid women undergoing cesarean section has been shown to increase the breastfeeding rate, alleviate negative emotions in mothers, improve the feeding situation, and enhance breastfeeding self-efficacy.

Disclosure statement

The author declares no conflict of interest.

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