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Research on the Impact and Effect of Breastfeeding Guidance Path Combined with Holistic Nursing on the Quality of Maternal and Infant Care

Zhen Ma*
Yixing Haijia Hospital, Yixing 214200, Jiangsu, China

**Author to whom correspondence should be addressed.*

Abstract: *Objective:* To explore the impact of breastfeeding guidance path combined with holistic nursing on the quality of maternal and infant care. *Methods:* The full-term pregnant women in our hospital from 2023.7 to 2025.7 were collected. The total sample size included was 36 cases. They were divided into groups using the ball-touching method and carried out different clinical nursing methods. There were 18 cases in both the control group and the observation group. The corresponding nursing plan was routine nursing; breastfeeding guidance path combined with overall nursing. *Results:* The exclusive breastfeeding rate in the observation group was higher than that in the control group, and the artificial feeding rate in the observation group was lower than that in the control group, $p < 0.05$. The first breastfeeding time in the observation group was shorter than that in the control group, and the breastfeeding duration and BAT score in the observation group were higher than those in the control group, $p < 0.05$. The nursing quality score of the observation group was higher than that of the control group, $p < 0.05$. The difference in maternal happiness between groups was small when entering the group. After nursing, the maternal happiness score in the observation group was higher than that in the control group, $p < 0.05$. *Conclusion:* The application of breastfeeding guidance path combined with holistic nursing has significant value in increasing exclusive breastfeeding rate and maternal happiness, improving breastfeeding status and nursing quality.

Keywords: Breastfeeding guidance path; Holistic nursing; Breastfeeding rate; Happiness; Nursing quality

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1. Introduction

Breastfeeding is a core link in maternal and infant health, and its successful implementation is affected by many factors, including maternal physiological status, mastery of breastfeeding skills, and quality of nursing support [1]. The current clinical routine nursing model mostly focuses on basic life care and lacks systematic feeding guidance and psychological intervention, resulting in limited increase in exclusive breastfeeding rate and prominent problems of maternal postpartum maladaptation [2,3]. With the promotion of the concept of holistic nursing, combining standardized paths with personalized intervention has become a new direction to improve maternal and infant outcomes. Studies have shown that this nursing

model has a positive effect on improving the quality of maternal and infant care and maternal happiness through multi-dimensional interventions such as stepped skills training, dynamic health monitoring and structured psychological support [4]. This study is based on the breastfeeding guidance path combined with the holistic nursing model, selecting full-term pregnant women as the subjects, comparatively analyzing the intervention effects, providing evidence-based basis for optimizing clinical nursing practice, and formulating reference strategies for promoting breastfeeding policies.

2. Materials and methods

2.1. General information

The 36 full-term maternal patients were all included in the period from 2023.7 to 2025.7. The ball-touching method was used to divide the samples into two groups (18 cases/group). The name of the group was control group [age 23–30 years old, mean (26.89 ± 3.83) years old; gestation week 38–41 weeks, mean (39.97 ± 1.66) weeks], observation group [age 23–32 years old, mean (27.04 ± 3.75) years; gestation week 38–42 weeks, mean (40.07 ± 1.52) weeks]. The baseline data of the two groups were balanced, $p > 0.05$.

2.2. Method

The control group received routine care. Nursing staff monitored maternal vital signs and infant feeding status regularly every day, provided basic breastfeeding posture guidance, ensured a clean environment for mother and infant in the same room, and provided routine dietary advice and wound care based on maternal postoperative recovery needs. Infant care mainly focused on regularly recording body weight and defecation frequency, without interfering with feeding frequency.

The observation group implemented a breastfeeding guidance path combined with overall care.

(1) Standardized breastfeeding guidance

Using stepped breastfeeding skills training, implemented in stages starting immediately after delivery. In the first stage, a professional lactation consultant will evaluate the mother's breast condition one-on-one, and develop a personalized latch position plan based on the baby's sucking reflex. Simulation teaching aids will be used to demonstrate The correct lifting technique is shown; in the second stage, the baby's oral movement training is included, finger massage is used to strengthen the flexibility of the tongue tie, and real-life breastfeeding video playback and analysis are conducted daily to correct the mother's arm support angle and the baby's head deflection problem; in the third stage, peer education is introduced, and mothers who have successfully breastfed are arranged to share their experiences to reduce operational anxiety.

(2) Dynamic health management

Establish a closed-loop maternal health monitoring system to record body temperature, lochia symptoms, and breast tenderness through a mobile APP every day, and the system automatically generates risk warnings. The nutritionist designed a three-phase meal plan based on the postoperative recovery stage. In the early stage, liquid food was used to promote the recovery of gastrointestinal function. In the mid-term, high-DHA foods such as salmon were added to promote lactation. In the later stage, calcium and iron complexes were supplemented to prevent osteoporosis.

(3) Infant feeding monitoring

Analyze digestion and absorption efficiency based on photos of excrement characteristics. The nursing team adjusts feeding intervals based on monitoring results, initiates a non-nutritive sucking stimulation program for infants with insufficient intake, introduces an infant behavioral status assessment scale to distinguish hunger crying from colic, implements targeted intervention such as holding an airplane or hot compress, and establishes a triple log of feeding-sleep-excretion. The head nurse will check abnormal trend items daily.

(4) Structured psychological support

Set up an interdisciplinary psychological intervention team, use cognitive behavioral therapy to screen mothers

for postpartum emotions, and conduct daily 15-minute mindfulness breathing training for high-risk individuals; set up a 24-hour breastfeeding hotline, staffed by nurses who have received crisis intervention training, to ensure that Ensure that breastfeeding-related problems are solved within 10 minutes; monthly family support workshops are held to guide family members to participate in night-time breastfeeding rotation and burping operations to reduce maternal fatigue; a three-level emergency response process for breastfeeding difficulties is established to achieve a seamless connection from initial treatment at the nurse station to specialist consultation.

2.3. Observation indicators

The feeding methods of the two groups were counted, and the rates of exclusive breastfeeding, artificial feeding, and mixed feeding were compared.

The first breastfeeding time and breastfeeding duration of the two groups of mothers were recorded and compared; the mother-to-infant feeding (BAT) scale was used to evaluate from four dimensions: feeding timing, foraging status, sucking status and nipple attachment status. Each dimension contains 4 items, and the score range of each item is 0–3 points, and the score is proportional to the maternal and infant feeding status.

The self-made nursing quality questionnaire evaluates from five dimensions: breastfeeding technical guidance, maternal health management, infant feeding monitoring, psychological support, and question response speed. Each dimension has a full score of 20 points, and the total score is 100 points.

A questionnaire on maternal role adaptation in the puerperium was used to evaluate maternal happiness before and after the intervention and make comparisons.

2.4. Statistical methods

The calculation software used for the relevant data is SPSS25.0. The feeding status, breastfeeding score, nursing quality score, and happiness score are measurement data, and the feeding method is count data. The former is described by ($\bar{x} \pm s$), *t*-value test; the latter is described by frequency and composition ratio, χ^2 test. $p < 0.05$ is statistically significant.

3. Results

3.1. Compare the feeding methods of the two groups of mothers

The exclusive breastfeeding rate in the observation group was higher than that in the control group, and the artificial feeding rate in the observation group was lower than that in the control group, $p < 0.05$. See **Table 1** for details.

Table 1. Comparison of maternal feeding methods between the two groups (n, %)

Group	n	Exclusive breastfeeding	Artificial feeding	Mixed feeding
Control group	18	10 (55.56%)	6 (33.33%)	2 (11.11%)
Observation group	18	16 (88.89%)	1 (5.56%)	1 (5.56%)
χ^2	-	4.985	4.434	0.364
p	-	0.026	0.035	0.546

3.2. Comparison of feeding status and breastfeeding scores between the two groups

The first breastfeeding time in the observation group was shorter than that in the control group, and the breastfeeding duration and BAT score in the observation group were higher than those in the control group, $p < 0.05$. See **Table 2** for details.

Table 2. Comparison of feeding status and BAT scores between the two groups ($\bar{x} \pm s$)

Group	n	First breastfeeding time (min)	Breastfeeding duration (min)	BAT score (points)
Control group	18	35.72 ± 6.11	11.52 ± 3.76	8.21 ± 1.43
Observation group	18	29.63 ± 6.20	17.34 ± 6.20	9.50 ± 2.03
t	-	2.968	3.405	2.204
p	-	0.006	0.002	0.034

3.3. Compare the nursing quality scores of the two groups

The nursing quality score of the observation group was higher than that of the control group, $p < 0.05$. See **Table 3** for details.

Table 3. Comparison of nursing quality scores ($\bar{x} \pm s$)

Group	n	Breastfeeding technical guidance	Mother's health management	Infant feeding monitoring	Psychological support	Question response speed	Total score
Control group	18	16.17 ± 2.85	14.39 ± 3.12	13.83 ± 2.97	12.72 ± 3.41	15.28 ± 2.76	72.39 ± 9.77
Observation group	18	18.22 ± 1.34	17.56 ± 2.01	16.89 ± 2.45	15.94 ± 2.88	18.06 ± 1.72	86.67 ± 8.38
t	-	2.762	3.624	3.392	3.061	3.627	4.707
p	-	0.009	0.001	0.002	0.004	0.001	0.000

3.4. Compare the happiness of the two groups of mothers before and after intervention

The difference in maternal happiness between groups was small when entering the group. After nursing, the maternal happiness score in the observation group was higher than that in the control group, $p < 0.05$. See **Table 4** for details.

Table 4. Comparison of happiness between two groups of mothers before and after intervention ($\bar{x} \pm s$)

Group	n	Health concerns	Energy	Life satisfaction and interest	Melancholy or happy mood	Control of emotions and behavior	Relaxation and tension	Total score
Before care	Control group (n = 18)	4.10 ± 1.33	12.15 ± 2.10	4.24 ± 1.06	11.13 ± 1.30	10.62 ± 1.27	15.02 ± 1.10	57.26 ± 5.37
	Observation group (n = 18)	3.96 ± 1.20	11.93 ± 1.75	4.11 ± 1.02	11.02 ± 1.25	10.50 ± 1.30	14.93 ± 1.27	56.45 ± 4.80
	t	0.332	0.341	0.375	0.259	0.280	0.227	0.477
	p	0.742	0.735	0.710	0.797	0.781	0.822	0.636
After care	Control group (n = 18)	5.62 ± 1.35	14.70 ± 1.80	6.65 ± 1.34	13.72 ± 1.25	12.25 ± 1.33	16.21 ± 1.72	69.04 ± 6.74
	Observation group (n = 18)	6.67 ± 1.42	16.07 ± 2.02	7.59 ± 1.24	14.57 ± 1.36	13.72 ± 1.41	17.39 ± 1.49	76.01 ± 6.48
	t	2.274	2.148	2.184	2.182	3.218	2.200	3.163
	p	0.029	0.039	0.036	0.036	0.003	0.035	0.003

4. Discussion

In the postpartum period, mothers face dual challenges of physiological recovery and learning of breastfeeding skills. Breastfeeding-related complications such as cracked nipples and mastitis occur frequently. Coupled with postpartum mood swings, feeding interruptions or premature introduction of formula milk are easy to cause [5]. The traditional nursing model often ignores individualized guidance and continuous tracking, making it difficult to meet the dynamic needs of mothers. In addition, infants have problems such as insufficient sucking ability and imperfect digestive functions. Professional assessment and intervention are required to ensure effective feeding [6,7]. Therefore, building a systematic nursing plan that takes into account physical support and psychological adjustment has become the key to improving breastfeeding rates. The breastfeeding guidance path combined with holistic care takes standardized breastfeeding technical guidance as the core, combines the comprehensiveness of holistic nursing, and achieves breastfeeding behavior optimization and maternal and infant health promotion through staged skill training, closed-loop health management and multi-disciplinary collaborative psychological intervention. The main purpose is to break the limitations of fragmented care and integrate feeding guidance, nutritional support, infant monitoring and emotional management into a coherent path [8]. The advantages of breastfeeding guidance path combined with holistic nursing are that step-by-step training improves operational accuracy and reduces the incidence of breastfeeding pain; dynamic data monitoring enables early identification and early intervention of problems; family participation mechanism relieves maternal isolation and enhances feeding confidence [9].

The results showed that the exclusive breastfeeding rate in the observation group was higher than that in the control group, and the artificial feeding rate in the observation group was lower than that in the control group, $p < 0.05$. The first breastfeeding time in the observation group was shorter than that in the control group, and the breastfeeding duration and BAT score in the observation group were higher than those in the control group, $p < 0.05$. The nursing quality score of the observation group was higher than that of the control group, $p < 0.05$. The difference in maternal happiness between groups was small when entering the group. After nursing, the maternal happiness score in the observation group was higher than that in the control group, $p < 0.05$. Analysis of the reasons: Staged training of breastfeeding techniques shortens the time to master skills, and live video feedback effectively corrects incorrect postures; the health monitoring system accelerates postpartum recovery and maintains lactation through nutrition and physical sign management; the psychological support team reduces the interference of anxiety on feeding through emotional screening and emergency response [10]. The improvement in nursing quality scores reflects the close connection of multi-dimensional services, such as infant behavior scales to distinguish causes of crying and targeted measures to reduce ineffective feeding. The full coverage of holistic care further consolidates the sustainability of the intervention effect.

In summary, the application of breastfeeding guidance path combined with holistic nursing has significant value in increasing exclusive breastfeeding rate and maternal well-being, and improving breastfeeding status and nursing quality.

About the author

Ma Zhen (1989,02), Gender: Female, Nationality: Han, Education: Bachelor’s degree, Title: Nurse in charge, Research direction: maternal and infant nursing.

Disclosure statement

The author declares no conflict of interest.

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