

RELATIONSHIP BETWEEN ROOMING-IN AND LACTATION TECHNIQUES WITH BREASTFEEDING SUCCESS IN AZALEA WARD, RSUD DR. M. THOMSEN, NIAS

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Abstract. Successful breastfeeding is a key indicator of maternal and infant health during the postpartum period. Rooming-in and proper lactation techniques are two critical factors that contribute to breastfeeding success. However, various barriers, including maternal health conditions, limited institutional resources, and inadequate maternal knowledge, may hinder their implementation. This study aimed to examine the association between rooming-in practices and lactation techniques with breastfeeding success among postpartum mothers. A quantitative cross-sectional design was employed. The study population consisted of 38 postpartum mothers in the Azalea Ward of RSUD dr. M. Thomsen Nias, selected using a total sampling technique. Data were collected through observation checklists and structured questionnaires and analyzed using the Chi-square test. The 38 participants, 31 (81.6%) practiced rooming-in, 30 (78.9%) demonstrated proper lactation techniques, and 31 (81.6%) achieved successful breastfeeding. Statistically significant associations were found between rooming-in and breastfeeding success ($p = 0.001$), as well as between proper lactation techniques and breastfeeding success ($p = 0.025$). Rooming-in and proper lactation techniques are significantly associated with breastfeeding success among postpartum mothers. Hospitals should maintain rooming-in policies and provide structured, hands-on breastfeeding education programs to enhance maternal and infant health outcomes.

Keywords: Rooming-In, Lactation Techniques, Breastfeeding Success, Postpartum Mothers

Abstrak. Keberhasilan menyusui merupakan salah satu indikator penting kesehatan ibu dan bayi pada masa postpartum. Pelaksanaan *rooming-in* (rawat gabung) dan penerapan teknik laktasi yang benar merupakan dua faktor penting yang berkontribusi terhadap keberhasilan menyusui. Namun, berbagai hambatan seperti kondisi kesehatan ibu, keterbatasan sumber daya fasilitas kesehatan, dan kurangnya pengetahuan ibu dapat menghambat pelaksanaannya. Penelitian ini bertujuan untuk menganalisis hubungan antara pelaksanaan *rooming-in* dan teknik laktasi dengan keberhasilan menyusui pada ibu postpartum. Penelitian menggunakan desain kuantitatif dengan pendekatan *cross-sectional*. Populasi penelitian terdiri dari 38 ibu postpartum yang dirawat di Ruang Azalea RSUD dr. M. Thomsen Nias dan dipilih menggunakan teknik total sampling. Data dikumpulkan melalui lembar observasi dan kuesioner terstruktur, kemudian dianalisis menggunakan uji Chi-Square. Dari 38 responden, sebanyak 31 orang (81,6%) melaksanakan *rooming-in*, 30 orang (78,9%) menerapkan teknik laktasi yang benar, dan 31 orang (81,6%) berhasil menyusui. Hasil analisis menunjukkan adanya hubungan yang signifikan antara *rooming-in* dengan keberhasilan menyusui ($p = 0,001$) serta antara teknik laktasi yang benar dengan keberhasilan menyusui ($p = 0,025$). Pelaksanaan *rooming-in* dan penerapan teknik laktasi yang benar berhubungan secara signifikan dengan keberhasilan menyusui pada ibu postpartum. Rumah sakit perlu mempertahankan kebijakan *rooming-in* dan menyediakan program edukasi menyusui yang terstruktur serta berbasis praktik untuk meningkatkan kesehatan ibu dan bayi.

Kata Kunci: *Rooming-In*, Teknik Laktasi, Keberhasilan Menyusui, Ibu Postpartum

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INTRODUCTION

Breastfeeding is one of the most effective interventions for improving maternal and child health outcomes. The World Health Organization (WHO) recommends early initiation of breastfeeding and exclusive breastfeeding for the first six months of life because these practices contribute substantially to infant survival, optimal growth, cognitive development, and protection against infectious diseases (World Health Organization, 2023). In Indonesia, improving breastfeeding practices is also considered a strategic effort to support the development of high-quality human resources and to reduce the burden of malnutrition, stunting, and other nutrition-related health problems among children.

Despite the well-documented benefits of breastfeeding, achieving optimal breastfeeding outcomes remains a challenge in many healthcare settings. National and international reports indicate that exclusive breastfeeding coverage is still below the expected target in several regions, including remote and underserved areas. Breastfeeding success is influenced by multiple factors, including maternal characteristics, family support, healthcare services, institutional policies, and breastfeeding management practices. Among these factors, rooming-in and appropriate lactation techniques have been consistently identified as important determinants of successful breastfeeding (World Health Organization, 2018; World Health Organization & UNICEF, 2025).

Rooming-in refers to the practice of keeping mothers and newborns together in the same room for 24 hours a day following childbirth. This approach enables mothers to recognize infant feeding cues, initiate breastfeeding more frequently, strengthen mother–infant bonding, and receive direct support from healthcare providers. Rooming-in is also one of the key recommendations of the Baby-Friendly Hospital Initiative (BFHI) because of its positive contribution to breastfeeding initiation and continuation (World Health Organization, 2018). However, the implementation of rooming-in is often constrained by maternal and neonatal health conditions, limited hospital infrastructure, insufficient staffing, and variations in institutional commitment to breastfeeding support programs.

In addition to rooming-in, correct lactation techniques are essential for breastfeeding success. Appropriate positioning and attachment facilitate effective milk transfer, reduce nipple pain and breast engorgement, and improve maternal comfort during breastfeeding. Conversely, incorrect breastfeeding techniques may lead to breastfeeding difficulties, inadequate milk transfer, maternal discomfort, and premature introduction of formula feeding (Anggraeni et al., 2021; Bertalina et al., 2025). Inadequate maternal knowledge and limited breastfeeding counseling further contribute to these challenges. Several studies have

demonstrated significant associations between rooming-in practices, breastfeeding techniques, and successful breastfeeding outcomes (Marnika & Novita, 2025; Bertalina et al., 2025). Nevertheless, evidence from the Nias region remains limited. Previous research conducted in the Nias Islands reported that exclusive breastfeeding practices were influenced by socio-cultural factors, knowledge gaps, family beliefs, and structural barriers within the healthcare system (Meher & Zaluchu, 2024). These findings suggest that local evidence is needed to better understand the factors affecting breastfeeding success and to guide context-specific interventions.

At RSUD dr. M. Thomsen, Nias, rooming-in is implemented for mothers and newborns who meet clinical eligibility criteria. Although breastfeeding education is available, observations in Azalea Ward indicate that some mothers still experience difficulties in breastfeeding and may introduce formula feeding because they perceive their breast milk supply to be insufficient or because they experience pain during breastfeeding. These conditions indicate potential gaps in breastfeeding support and lactation management that require further investigation. Research on the relationship between rooming-in, lactation techniques, and breastfeeding success in this setting is important because the findings can provide evidence for improving hospital-based breastfeeding support programs. Understanding these relationships may assist healthcare providers in designing targeted interventions, strengthening breastfeeding counseling services, optimizing rooming-in implementation, and ultimately increasing exclusive breastfeeding rates among postpartum mothers. Therefore, this study aimed to analyze the relationship between rooming-in and lactation techniques with breastfeeding success among postpartum mothers in Azalea Ward, RSUD dr. M. Thomsen, Nias. The findings are expected to contribute to evidence-based strategies for improving maternal and infant health outcomes through enhanced breastfeeding support services.

METHOD

This study employed a quantitative cross-sectional design to analyze the relationship between rooming-in and lactation techniques with breastfeeding success at a single point in time, without repeated measurements. The study was conducted in Azalea Ward at RSUD dr. M. Thomsen, Nias (Jl. dr. Ciptomangunkusumo No. 15, Gunungsitoli City, North Sumatra Province), during February 2026, encompassing the stages of preparation, data collection, data processing, and data analysis. The study population comprised all 38 postpartum mothers admitted to Azalea Ward during the study period. Given the small and finite

population size, total sampling was applied, incorporating all 38 eligible postpartum mothers as study participants. Data were collected using observation checklists to assess rooming-in practices and lactation techniques, and structured questionnaires to obtain respondent characteristics. Data processing followed sequential stages of editing, scoring, coding, data entry, and tabulation. All collected data were entered into a master table and analyzed using SPSS. Univariate analysis was performed to describe the frequency distribution of each study variable, while bivariate analysis was conducted using the Chi-Square test to examine the statistical association between rooming-in and lactation techniques with breastfeeding success. Ethical approval and research permissions were obtained prior to data collection from the relevant institutional authorities.

RESULTS

Univariate Analysis

Univariate analysis was conducted to describe the frequency distribution of respondent characteristics and main study variables. Table 1 presents the distribution of age, parity, type of delivery, education level, and employment status among the 38 study participants.

Table 1. Frequency distribution of age, parity, type of delivery, education level, and employment status

No.	Variable	f	%
1	Age		
	≤ 20 and > 35 years	13	34.2
	20–35 years	25	65.8
	Total	38	100
2	Parity		
	1 and ≥ 4 children	15	39.5
	2–3 children	23	60.5
	Total	38	100
3	Type of Delivery		
	Normal (Vaginal)	32	84.2
	Cesarean Section	6	15.8
	Total	38	100
4	Education Level		
	Basic Education	22	57.9
	Higher Education	16	42.1
	Total	38	100
5	Employment Status		
	Employed	26	68.4
	Unemployed	12	31.6
	Total	38	100

As shown in Table 1, the majority of respondents (25, or 65.8%) were aged 20–35 years, classified as non-risk reproductive age, while 13 respondents (34.2%) were in the risk age group (≤ 20 or > 35 years). Regarding parity, 23 respondents (60.5%) had 2–3 children, while 15 respondents (39.5%) had either a first child or four or more children. In terms of delivery type, 32 respondents (84.2%) delivered vaginally, and 6 respondents (15.8%) underwent cesarean section. With regard to education, the majority (22 respondents, 57.9%) had basic education, while 16 respondents (42.1%) had higher education. Based on employment status, 26 respondents (68.4%) were employed, while 12 respondents (31.6%) were not. Table 2 presents the frequency distribution of the three main study variables: rooming-in, lactation technique, and breastfeeding success.

Table 2. Frequency distribution of rooming-in, lactation technique, and breastfeeding success

No.	Variable	f	%
1	Rooming-In		
	Practiced	31	81.6
	Not Practiced	7	18.4
	Total	38	100
2	Lactation Technique		
	Correct	30	78.9
	Incorrect	8	21.1
	Total	38	100
3	Breastfeeding Success		
	Successful	31	81.6
	Unsuccessful	7	18.4
	Total	38	100

As shown in Table 2, 31 respondents (81.6%) practiced rooming-in, while 7 respondents (18.4%) did not. Regarding lactation technique, 30 respondents (78.9%) applied correct breastfeeding techniques, while 8 respondents (21.1%) applied incorrect techniques. With respect to breastfeeding success, 31 respondents (81.6%) successfully breastfed, while 7 respondents (18.4%) were unsuccessful.

Bivariate Analysis

Bivariate analysis using the Chi-Square test was performed to examine the associations between rooming-in and breastfeeding success, and between lactation techniques and breastfeeding success.

Table 3. Cross-tabulation of rooming-in and breastfeeding success

Rooming-In	Breastfeeding Success				Total		p-value
	Successful		Unsuccessful				
	f	%	f	%	f	%	
Practiced	29	76.3	2	5.3	31	81.6	0.001
Not Practiced	2	5.3	5	13.2	7	18.4	
Total	31	81.6	7	18.4	38	100	

As shown in Table 3, of the 31 respondents (81.6%) who practiced rooming-in, 29 (76.3%) successfully breastfed and 2 (5.3%) were unsuccessful. Among the 7 respondents (18.4%) who did not practice rooming-in, 5 (13.2%) were unsuccessful and only 2 (5.3%) successfully breastfed. Statistical analysis yielded a p-value of 0.001 ($p < 0.05$), indicating a statistically significant association between rooming-in and breastfeeding success.

Table 4. Cross-tabulation of lactation technique and breastfeeding success

Lactation Technique	Breastfeeding Success				Total		p-value
	Successful		Unsuccessful				
	f	%	f	%	f	%	
Correct	27	71.1	3	7.9	30	78.9	0.025
Incorrect	4	10.5	4	10.5	8	21.1	
Total	31	81.6	7	18.4	38	100	

As shown in Table 4, of the 30 respondents (78.9%) who applied correct lactation techniques, 27 (71.1%) successfully breastfed and 3 (7.9%) were unsuccessful. Among the 8 respondents (21.1%) who applied incorrect breastfeeding techniques, 4 (10.5%) were successful and 4 (10.5%) were unsuccessful. Statistical analysis yielded a p-value of 0.025 ($p < 0.05$), confirming a statistically significant association between correct lactation technique and breastfeeding success.

DISCUSSION

The findings revealed that the majority of respondents (31 of 38 mothers, or 81.6%) practiced rooming-in in Azalea Ward. This reflects the hospital policy mandating rooming-in for mothers without complications who did not undergo cesarean section. A total of 7 mothers (18.4%) did not practice rooming-in: 6 had undergone cesarean section and 1 had obstetric complications that required separation. Rooming-in is defined as the practice of caring for the mother and newborn in the same room for 24 hours to facilitate early physical contact and to support breastfeeding success, while also enabling healthcare workers to provide timely education and guidance. Similar findings have been reported in other studies, in which the majority of mothers practiced rooming-in as a result of institutional policies and active support from healthcare personnel (Marnika & Novita, 2025).

Of the 38 mothers, 30 (78.9%) breastfed using correct techniques, while 8 (21.1%) did not. Incorrect techniques were most commonly observed among mothers who had undergone cesarean section and did not practice rooming-in, as well as primiparous mothers and those with obstetric complications. Notably, the type of delivery was not found to be the primary barrier to breastfeeding success; rather, maternal willingness and support from family members and healthcare workers were identified as more decisive factors. Breastfeeding technique education has been shown to improve maternal comfort, reduce pain, and strengthen the commitment to exclusive breastfeeding for up to six months (Bertalina et al., 2025). These findings are consistent with those of Virgo (2021), who reported that correct breastfeeding technique improves lactation success, whereas improper technique can lead to breast pain and difficulties in infant feeding. Of the 38 mothers, 31 (81.6%) achieved breastfeeding success, while 7 (18.4%) did not. Breastfeeding failure was most commonly associated with cesarean section, obstetric complications that necessitated separation, incorrect lactation techniques, lower education level, and primiparous status. Breastfeeding success is critically influenced by correct technique, including proper positioning, effective latch, and adequate infant suction. When applied correctly, these techniques promote milk flow and meet the infant's nutritional requirements; conversely, incorrect technique frequently causes pain, nipple soreness, and impediments to continued breastfeeding (Kemenkes RI, 2020).

Rooming-in promotes breastfeeding success through multiple mechanisms: it increases mother–infant closeness and facilitates on-demand feeding, strengthens emotional bonding, improves access to breastfeeding education, and reduces the risk of neonatal infection. These findings are consistent with the recommendations of the Baby-Friendly Hospital Initiative (BFHI), which designates rooming-in as a core strategy to improve exclusive breastfeeding coverage (World Health Organization, 2018). Furthermore, the present study confirms that correct breastfeeding technique is significantly associated with breastfeeding success. Mothers who understood and applied correct techniques achieved greater success, while those with incorrect techniques experienced pain, breast engorgement, and breastfeeding failure. Education and individualized support from healthcare workers have been demonstrated to enhance mothers' breastfeeding skills and self-efficacy (Bertalina et al., 2025; Anggraeni et al., 2021). Taken together, both rooming-in and lactation technique education represent modifiable, facility-level interventions with substantial potential to improve exclusive breastfeeding rates in Indonesian hospitals.

The implication of the study findings indicate that strengthening rooming-in implementation and providing systematic lactation technique education should become priority strategies in postpartum care services to improve breastfeeding success and support the achievement of exclusive breastfeeding targets.

CONCLUSION

This study demonstrated a statistically significant association between rooming-in and breastfeeding success ($p = 0.001$), as well as between correct lactation technique and breastfeeding success ($p = 0.025$), among postpartum mothers in Azalea Ward, RSUD dr. M. Thomsen, Nias. These findings underscore the critical importance of consistently implementing rooming-in policies and providing structured, practical breastfeeding technique education to promote exclusive breastfeeding. Healthcare facilities and integrated community health posts (posyandu) should use these findings as evidence for strengthening breastfeeding support programs, while mothers and communities should be educated regarding the significance of rooming-in and proper lactation techniques for both maternal comfort and infant health. Future researchers are encouraged to explore additional determinants of breastfeeding success, including family support systems, socio-cultural influences, and the health conditions of both mothers and infants, to provide a more comprehensive understanding of exclusive breastfeeding behavior in the Nias context.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proposed. First, RSUD dr. M. Thomsen and other healthcare facilities in Nias should strengthen and consistently enforce rooming-in policies for all eligible postpartum mothers, ensuring that both structural barriers (e.g., room capacity, staffing) and clinical barriers (e.g., post-cesarean recovery protocols) are adequately addressed. Second, structured, hands-on breastfeeding technique education should be routinely provided to all postpartum mothers not solely on family request with particular attention given to mothers who have undergone cesarean section, primiparous mothers, and those from lower education backgrounds. Third, community-level interventions through posyandu networks should be developed to extend breastfeeding support beyond the hospital setting and address socio-cultural barriers to exclusive breastfeeding. Fourth, future studies should adopt larger, multi-site samples and longitudinal designs to better assess the long-term impact of rooming-in and lactation education on exclusive breastfeeding outcomes across diverse Indonesian communities.

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