

Factors Associated With Breastfeeding Behavior Among Migrant Postpartum Mothers In Chonburi Province

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Abstract

This correlational study aimed to examine the level of breastfeeding behavior among migrant postpartum mothers and the factors associated with breastfeeding behavior in Chonburi Province. The sample consisted of 125 migrant postpartum mothers selected through convenience sampling. Data were collected between December 2024 and May 2025. Data were collected using 7 structured questionnaires: 1) A Personal and obstetric information, 2) the breastfeeding Behavior Assessment form, 3) The Infant Feeding Intentions Questionnaire, 4) the Iowa Infant Feeding Attitude Scale, 5) the Group reference norm for breastfeeding, 6) the Breastfeeding Attrition Prediction Tool, and 7) the Breastfeeding Support from Nurses. The (Cronbach's alpha) of the instruments were 0.71, 0.85, 0.74, 0.72, 0.75, and 0.87, respectively. Data were analyzed using descriptive statistics, Pearson's correlation coefficient, and the point-biserial correlation coefficient

The findings showed that breastfeeding behavior was at good level. Breastfeeding behavior was significantly positively correlated with perceived breastfeeding control ($r = .263, p = .003$), breastfeeding support ($r = .220, p = .015$), breastfeeding experience ($r = .219, p = .015$), breastfeeding subjective norm ($r = .203, p = .025$), and breastfeeding intention ($r = .197, p = .029$). However, no significant relationship was found between breastfeeding attitude and breastfeeding behavior ($r = .072, p = .429$).

Findings suggested that enhancing perceived control, providing adequate support, and reinforcing positive social norms and intentions may improve breastfeeding behavior among migrant mothers. Culturally sensitive counseling and care are recommended to promote successful breastfeeding practices.

Key words: Breastfeeding behaviors, Postpartum mothers, Migrant, Factors associated

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Introduction

Exclusive breastfeeding (EBF) is essentials for infant and maternal health, providing optimal nutrition, immunity, cognitive development, and reducing maternal risk of chronic diseases such as breast cancer and cardiovascular disorders. At the societal level, EBF lowers healthcare expenses and improves population health outcomes (Modugno et al., 2019; WHO, 2021). Despite these benefits, global EBF rates remain low at 44% (UNICEF, 2023), and in Southeast Asia, rates are also low 38.2% in Myanmar, 39% in Cambodia and 44.9% in Laos to only 14% in Thailand (UNICEF, 2022). Migrant mothers in industrial provinces like Chonburi face other challenges, including limited maternity leave, poor status, language barriers, and traditional practices such as prelacteal feeding, which leading to reduce EBF rates.

Multiple factors influence successful EBF, including sociodemographic characteristics, cultural and migration-related factors, maternal experience, psychological factors, and social support from family, partners, and healthcare providers. Psychological determinants attitudes, subjective norms, and perceived behavioral control are core to the Theory of Planned Behavior (Ajzen, 1991), the foundation of maternal intention, the strongest predictor of breastfeeding behavior (Al Hourri et al., 2022; Huang et al., 2023). Support from healthcare professionals enhances confidence and promote breastfeeding, while prior breastfeeding experience improves skill and persistence (Arif & Gaafar, 2022).

Although these factors are well-documented internationally, research specifically examining breastfeeding behavior among postpartum migrant mothers in Thailand is limited. Most Thai studies focus on nationals, and migrant-focused research is insufficient or outdated. Addressing this gap is essential to inform culturally sensitive nursing interventions that promote successful EBF and improve maternal-child health outcomes in this vulnerable population.

Objectives

1. To explore the level of breastfeeding behavior among migrant postpartum mothers in Chonburi province.
2. To explore the factors associated with breastfeeding behavior among migrant postpartum mothers in Chonburi province including breastfeeding intention, breastfeeding attitude, breastfeeding subjective norm, perceived breastfeeding control, breastfeeding support, and breastfeeding experiences.

Conceptual Framework

The theoretical foundation for this study was the theory of planned behavior from Ajzen's (1991) which posits that behavior is shaped by intention through attitudes, subjective norms, and perceived behavioral control. Positive attitudes toward breastfeeding, supportive social norms, and high confidence enhance breastfeeding initiation and continuation (Wen et al., 2021; Zhang et al., 2021). In addition to TPB, breastfeeding support from healthcare providers and mothers' previous

experiences further strengthen exclusive breastfeeding practices (Nuampa et al., 2023). The conceptual framework in this study is shown in Figure 1.

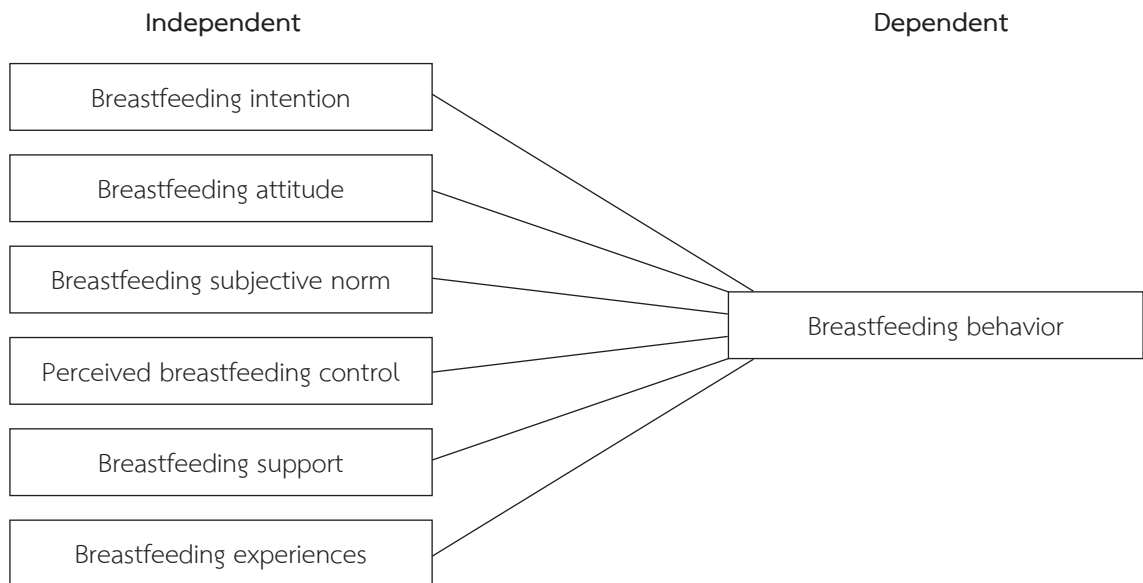


Figure 1 conceptual framework

Methods

Correlational research was used to address this study. Data were Chonburi hospital, Laem Chabang Hospital and Pattaya Bhattamakun Hospital at postpartum wards from December 2024 to May 2025

The study samples were migrant postpartum mothers from Myanmar, Cambodia, and Laos who admitted in Chonburi Hospital, Laem Chabang Hospital, and Pattaya Bhattamakun Hospital at postpartum wards. The inclusion criteria as follows (1) 24-48 hours postpartum mothers (2) age 18 years or older, (3) mother and infant has no complications, such as severe postpartum hemorrhage, preterm birth, HIV, etc., (4) mothers were able to breastfeed (5) mother and infant were living together in the same house and (6) mother was able to understand and communicate Thai language. Mothers who have psychological problems, such as depression, would exclude from the study.

Determine the sample by using Pearson's correlation by set power analysis from G*power by 3.1.9.4. The total sample is 125.

Seven research instrument includes

- 1) Personal and obstetric information consists of 15 questions, consisted of 15 questions covering demographics, obstetric history, and breastfeeding experience.
- 2) Breastfeeding behavior assessment form (Lertsakornsiri et al, 2018)
- 3) The breastfeeding intentions questionnaire (Nommsen-Rivers et al., 2009) on the ideas of Ajzen (1991) translated by wannasen et al., (2022)

4) The breastfeeding attitude questionnaire by De La Mora et al., (1999) translated by Lertsakornsiri et al., (2018)

5) The breastfeeding subjective norm questionnaire. Based on the idea of planned behavior theory, translated into Thai by wannasen et al, (2022)

6) The perceived breastfeeding control questionnaire. Developed by Janke's (1994) Breastfeeding Attrition Prediction Tool (BAPT) translated into Thai by Wannasen, (2022).

7) Breastfeeding support questionnaire (Chisuwan et al., 2012).

The instruments were piloted with 30 migrant postpartum mothers who met inclusion criteria and tested for reliability using Cronbach's alpha. The results were as follows: breastfeeding behavior assessment form = 0.71, breastfeeding intentions questionnaire = 0.85, breastfeeding attitude questionnaire = 0.74, breastfeeding subjective norm questionnaire = 0.72, perceived breastfeeding control questionnaire = 0.75, and breastfeeding support questionnaire = 0.87, indicating acceptable to high reliability. Breastfeeding experience was measured using direct questions about prior breastfeeding practice and duration; therefore, no reliability testing was required.

The data collection was conducted in the following sequences.

Following ethical approval from Burapha University and the participating hospitals, the researcher collaborated with head nurses in the postpartum wards to identify eligible migrant mothers based on the inclusion criteria. After explaining the study purpose in simple Thai and obtaining informed consent, seven questionnaires were administered, the researcher was read aloud to ensure participants' clear understanding.

Each session took approximately 20-30 minutes, during which participants were listens item by item. After completing the questionnaires, the researchers asked the mothers about any concerns or questions they had regarding breastfeeding difficulties or challenges and thanked participants for their contribution.

Data Analysis

Utilized in data analysis and result interpretation; statistical significance is at the 05 level. From SPSS Version 27 for Windows the descriptive statistics such as: range, mean, and standard deviation were used to describe continuous factors including breastfeeding behavior, breastfeeding intention, breastfeeding attitude, breastfeeding subjective norm, perceived breastfeeding control, breastfeeding support and breastfeeding experiences.

The Pearson correlation coefficient (r). and point biserial correlation (r_{pb}) was performed Ethical approval for this study was obtained from the Institutional Review Board (IRB) Committee of Burapha University on 20 September 2024 (Approval No. HS095/2567(C1)). Additional approval from Chonburi Provincial Public Health Office on September 27, 2024 (Approval No. CBO Rec 67-063). Ethical approval for Chonburi Hospital on November 29, 2024 (Approval No. 104/67/O/q).

Results

The participants were 122 migrant postpartum mothers aged 25-29 years ($M = 28.84$, $SD \pm 5.42$), mostly from Myanmar (34.4%) and Cambodia (33.6%), with a mean residence in Thailand of 7.59 years. Nearly all were married/partnered (96.7%). Education levels were primarily middle school (32%) and primary school (29.5%). The mean monthly income was 20,204.92 THB (range 6,000-50,000), and most worked in factories or general labor (86.1%). The majority were multigravida (72.1%) and multiparous (70.5%). The mean gestational age at first ANC visit was 13.57 weeks. All had vaginal deliveries, with infants' mean birth weight of 3,122.95 g. About 68.3% had prior breastfeeding experience ($M = 9.90$ months), with intended breastfeeding duration averaging 8.58 months. Husbands (65.6%) and mothers (25.4%) were the main breastfeeding decision-makers.

The participants' breastfeeding behavior scores with a mean of 50.65 ($SD \pm 6.16$), participants 69.7% implying generally good level of breastfeeding behaviors as shown in Table 1.

In terms of the factors associated with breastfeeding behavior among migrant postpartum mothers. The results revealed that five factors significantly associated with breastfeeding behavior among migrant postpartum mothers included perceived breastfeeding control ($r = .263$, $p = .003$), breastfeeding support ($r = .220$, $p = .015$), breastfeeding experience ($r = .219$, $p = .015$), breastfeeding subjective norm ($r = .203$, $p = .025$) and breastfeeding intention ($r = .197$, $p = .029$). However, breastfeeding attitude ($r = .072$, $p = .429$) did not show statistically significant correlations with breastfeeding behavior as shown in Table 2.

Table 1 Number and percentage of the level of breastfeeding behavior (n = 122).

Level of Breastfeeding behavior	N	Percentage (%)
Good breastfeeding behavior	85	69.7
Moderate breastfeeding behavior	36	29.5
Low breastfeeding behavior	1	0.8

Table 2 Correlation matrix between independent and dependent variables (n = 122)

Variable	1	2	3	4	5	6	7
1 Breastfeeding intention	1.000						
2 Breastfeeding attitude	.405**	1.000					
3 Breastfeeding subjective norm	-.061	-.221*	1.000				
4 Perceived breastfeeding control	.323*	.352*	-.027	1.000			
5 Breastfeeding support	.197*	.223*	-.016	.216*	1.000		
6 Breastfeeding experiences	.033	-.085	-.082	.177	-.006	1.000	
7 Breastfeeding behavior	.197*	.072	.203*	.263**	.220*	.219*	1.000

Discussion

Breastfeeding behavior

The participants demonstrated a generally good level of breastfeeding behavior. This can be explained by cultural norms that emphasize the maternal role in child-rearing among migrant communities, where breastfeeding is often regarded as a natural and expected practice. In addition, most participants were living with their husbands and had prior maternal experience, both of which are known to reinforce confidence and skills in breastfeeding. Previous studies similarly reported that multiparity, family support, and cultural expectations contribute to improved breastfeeding performance (Tariquijaman et al., 2022). These findings highlight the combined influence of cultural predispositions and maternal resources in shaping behavior.

Factors associated with breastfeeding behavior

Five factors were significantly associated with breastfeeding behavior.

Perceived behavioral control emerged as the strongest association. Mothers who believed in their ability to successfully breastfeed were more persistent in overcoming challenges. This supports the Theory of Planned Behavior (TPB), which emphasizes control beliefs as a critical determinant of health-related actions (Ajzen, 1991; Wen et al., 2021; Sayed & Bugis, 2023).

Breastfeeding support was also significant. Guidance, encouragement, and follow-up from nurses help mothers manage difficulties such as latching problems or concerns about milk supply. This finding aligns with evidence that professional support sustains exclusive breastfeeding and reduces early cessation (Nuampa et al., 2023).

Breastfeeding experience contributed positively. Mothers with prior experience were better equipped with knowledge and confidence, enabling them to cope with practical challenges. Experiential learning has been shown to reinforce maternal competence and improve breastfeeding duration (Sangin et al., 2022).

Subjective norms showed a positive association. The influence of husbands, family members, and healthcare providers reinforced breastfeeding practices. This finding is consistent with TPB, which identifies normative pressure as an important motivator for health behaviors (Chansiri et al., 2022).

Breastfeeding intention was also significant, suggesting that strong motivation and willingness can translate into actual practice. This reinforces TPB's proposition that intention is the most proximal determinant of behavior (Ajzen, 1991; Wen et al., 2021).

Interestingly, attitude toward breastfeeding was not significantly associated with behavior. This indicates that although mothers may hold favorable views of breastfeeding, attitudes alone do not guarantee practice. Structural and social constraints, such as work demands, limited resources, and cultural practices, may outweigh personal beliefs. This is consistent with studies showing that external support and enabling environments are more influential than attitudes in sustaining breastfeeding (Klomyong et al, 2024).

Nurses play a vital role in promoting breastfeeding among migrant mothers by addressing key factors such as perceived control, support, experience, norms, and intention. They can enhance

self-efficacy through training, provide continuous encouragement, tailor advice to prior experience, deliver culturally sensitive education, and reinforce intention. Strengthening these aspects helps sustain positive breastfeeding behavior. However, the limitation of this study as relied on a questionnaire originally validated in Thai populations, which may not fully capture migrant mothers' unique experiences. In addition, the use of convenience sampling may limit the generalizability of the results, and some expected variables, such as breastfeeding attitude, were not significantly correlated with behavior, suggesting that other unmeasured factors may also influence outcomes.

Future quantitative studies should apply predictive models to identify key factors influencing breastfeeding behavior among migrant mothers. Developing and testing intervention programs, while examining cultural and related factors, is also recommended. Increasing the sample size and including mothers from different nationalities would improve both the applicability and relevance of the findings.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Chisuwan, C., Prasopkittikun, T., Sangperm, P., & Payakkaraung, S. (2012). Predictive power of support from husbands, grandmothers, and nurses on duration of exclusive breastfeeding. *Nursing Science Journal of Thailand*, 30(1), 70-80.
- Chansiri, S., Phahuwatanakorn, W., & Yusamran, C. (2018). Influences of breastfeeding attitude, subjective norm, and self-efficacy on intention to exclusive breastfeeding among teenage pregnant women. *Nursing Science Journal of Thailand*, 35(4), 49-60. <https://he02.tci-thaijo.org/index.php/ns/article/view/116181>
- Gu, Y., Xiang, Y., Chen, X., Wang, L., Shan, C., & Ji, M. (2025). Evaluating and predicting exclusive breastfeeding behavior based on an energy vitality model during women's lactation: A longitudinal study. *BMC Pregnancy and Childbirth*, 25(1), 768. <https://doi.org/10.1186/s12884-025-07851-2>
- Lertsakornsiri & Saibae, (2018). The relationship between self-efficacy, self-esteem, attitude toward breastfeeding and breastfeeding behaviors in the first-time teenage postpartum mothers. *Journal of Nursing and Education*. <https://he01.tci-thaijo.org/index.php/JNAE/article/view/152482>
- Mora, A. D. L., Russell, D. W., Dungy, C. I., Losch, M., & Dusdieker, L. (1999). The Iowa infant feeding attitude scale: Analysis of reliability and validity 1. *Journal of Applied Social Psychology*, 29(11), 2362-2380.
- Klomyong, S., Sripum, J., Karabutr, T., & Kulanuwat, A. (2024). A comparative study of pregnancy outcomes between pregnant teenagers and adults at Uthai Thani Hospital. *Nursing Journal of The Ministry of Public Health*, 34(2), 149-159. retrieved from <https://he02.tci-thaijo.org/index.php/tnaph/article/view/270895>

- Nuampa, S., Kuesakul, K., Prasong, S., & Sudphet, M. (2023). Social support for breastfeeding practice during the COVID-19 second wave in Thailand: A cross-sectional study. *Journal of Human Lactation*, 39(2), 206-216.
- Sangin, S., Chuenarrom, N., & Cheidchim, R. (2022). Factors predicting six-month exclusive breastfeeding in eastern region of thailand. *Nursing Science Journal of Thailand*, 38(3), 22-34. <https://he02.tci-thaijo.org/index.php/ns/article/view/241138>
- Sayed, S. H., & Bugis, B. A. (2023). Predicting perceived exclusive breastfeeding behavior among higher education female students in Saudi Arabia: Application of the theory of planned behavior using structural equation modeling. *African journal of reproductive health*, 27(5), 58-71. <https://doi.org/10.29063/ajrh2023/v27i5.6>
- Tariqujjaman, M., Hasan, M. M., Mahfuz, M., Hossain, M., & Ahmed, T. (2022). Association between mother's education and infant and young child feeding practices in South Asia. *Nutrients*, 14(7), 1514. <https://doi.org/10.3390/nu14071514>
- Wannasen, S., Sangin, S. & Suppasri, P. (2022). Factors predicting intention to exclusive breastfeeding among mothers with elective cesarean section at a private hospital, bangkok metropolis. *Nursing Science Journal of Thailand*, 41(1), 12-26. <https://he02.tci-thaijo.org/index.php/ns/article/view/255871>
- Wen, J., Yu, G., Kong, Y., Wei, H., Zhao, S., & Liu, F. (2021). Effects of a theory of planned behavior-based intervention on breastfeeding behaviors after cesarean section: A randomized controlled trial. *International journal of nursing sciences*, 8(2), 152-160. <https://doi.org/10.1016/j.ijnss.2021.03.012>
- World Health Organization. (2021). Infant and young child feeding. <https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding>
- Zhang, Y., Qian, X., & Xiao, Y. (2021). Social support, subjective norms, and exclusive breastfeeding in Chinese mothers of preterm infants: A longitudinal study. *BMC Pregnancy and Childbirth*, 21, Article 89.