

Original Article

The effect of antenatal classes on pregnant women's knowledge and attitudes toward early breastfeeding initiation

Rivayani S.Hi Usman^{1,2}, Rifzul Maulina³

¹Coordinator Midwifery at Sagea Public Health Center, Indonesia

²Undergraduate Midwifery Program, Institut Teknologi Sains and Health RS dr. Soepraoen, Indonesia

³Department of Midwifery, Institut Teknologi Sains dan Kesehatan RS dr. Soepraoen, Indonesia

Abstract:

Early breastfeeding initiation is a key newborn care practice that supports thermoregulation, early colostrum intake, maternal-infant bonding, and later exclusive breastfeeding. Antenatal classes provide structured learning for pregnant women and can strengthen knowledge, attitudes, and readiness to implement early breastfeeding initiation after delivery. This study analyzed the effect of antenatal classes on pregnant women's knowledge and attitudes about early breastfeeding initiation at Sagea Public Health Center. This quasi-experimental study used a pretest-posttest control group design. The sample consisted of 52 term pregnant women who met the inclusion criteria and were divided into an intervention group that attended antenatal classes and a control group that did not attend antenatal classes. Knowledge and attitude were measured before and after the intervention using structured questionnaires. The intervention group received antenatal class sessions that included early breastfeeding initiation concepts, benefits, practical steps, myths, and family support. Data were analyzed using descriptive statistics and chi-square testing with a significance level of 0.05. Good knowledge in the intervention group increased from 30.8% before the antenatal class to 100% after the class. Positive attitudes toward early breastfeeding initiation increased from 53.8% to 84.6% in the intervention group. Post-intervention attitude differed significantly between the intervention and control groups ($p = 0.034$). Antenatal classes improved pregnant women's knowledge and attitudes about early breastfeeding initiation. Midwives should optimize antenatal classes as a routine maternal education strategy, especially in areas with suboptimal early breastfeeding initiation coverage.

Keywords:

antenatal class. knowledge, attitude, early breastfeeding initiation, pregnant women

Article Info:

Submitted:

09-03-2026

Accepted:

24-06-2026

Published:

30-06-2026

Corresponding Author:

Rifzul Maulina

rifzulmaulina@itsk-soepraoen.ac.id

DOI: <https://doi.org/10.53713/pfcj.vxix.xxx>

This work is licensed under CC BY-SA License.



INTRODUCTION

Reducing maternal and infant mortality remains a core target in maternal and child health programs. Early breastfeeding initiation is one practical intervention that links delivery care, newborn survival, and breastfeeding continuity. The practice allows the newborn to be placed skin-to-skin on the mother's chest immediately after birth and to begin breastfeeding within the first hour of life. This

procedure supports thermal stability, stimulates oxytocin release, promotes early colostrum intake, and strengthens maternal-infant bonding. Global guidance recommends early breastfeeding initiation because it contributes to neonatal survival and supports later exclusive breastfeeding, yet implementation remains uneven across health facilities and communities (WHO, 2017; WHO & UNICEF, 2018; Khan et al., 2014).

Early breastfeeding initiation is not only a clinical procedure. It also depends on knowledge, attitude, confidence, family support, and health worker facilitation. Mothers who understand the value of colostrum, skin-to-skin contact, and the first hour after birth are more likely to accept the procedure and cooperate during labor care. Studies across different settings show that maternal education, antenatal counseling, and positive beliefs about breastfeeding increase the likelihood of early breastfeeding initiation and continuation (Acharya & Khanal, 2015; Atyeo et al., 2017; Hailemariam et al., 2015; Newby et al., 2014). In Indonesia, early breastfeeding initiation still faces barriers related to myths about colostrum, fear that newborns remain hungry, limited family encouragement, and inconsistent health worker counseling. These barriers make education during pregnancy essential because labor is often too short and too stressful for mothers to absorb new information.

Antenatal classes are designed to provide structured, participatory, and repeated learning for pregnant women. The class usually covers pregnancy danger signs, birth preparedness, nutrition, breastfeeding, newborn care, and postpartum care. In the Indonesian maternal health system, antenatal classes also function as a communication space where mothers can ask questions, share experiences, clarify myths, and develop readiness for delivery (Kementerian Kesehatan RI, 2014). This format is relevant to early breastfeeding initiation because it requires maternal readiness before labor begins. If the mother first receives detailed information during delivery, she may feel uncertain or refuse due to pain, fatigue, embarrassment, or family pressure. A well-facilitated antenatal class can prepare the mother earlier and help her develop a positive attitude toward the procedure.

Health education theory holds that knowledge serves as a cognitive basis for attitude formation and behavior change. Knowledge alone does not guarantee practice, but it provides mothers with a framework for evaluating the benefits and risks of a health behavior. When knowledge comes from trusted health workers, mothers are more likely to believe the information and use it during decision-making (Glanz et al., 2008). Evidence from antenatal education research also shows that prenatal counseling and breastfeeding education can improve breastfeeding self-efficacy, intention, and success when education addresses practical skills, beliefs, and support needs rather than only delivering general information (Kronborg et al., 2012; Cetindemir & Cangol, 2024; McGovern et al., 2024). Small-group education can also improve discussion quality by allowing participants to feel more confident asking questions and comparing experiences (Svensson et al., 2008).

Recent evidence from Indonesian and regional journals supports the relevance of maternal education for breastfeeding-related outcomes. Adisti et al. (2024) reported that pregnancy classes significantly improved pregnant women's knowledge. Lestari et al. (2025) showed that booklet-based education improved pregnant women's knowledge in a pretest-posttest design. Wanadi et al. (2023) found a significant relationship between mothers' knowledge and exclusive breastfeeding behavior. Safira and Luthfiyana (2024) identified maternal factors associated with exclusive breastfeeding, while Pakilaran et al. (2022) highlighted family support as an important factor. Family support is also relevant because mothers often make infant feeding decisions within a family system. Kurniyawan et al. (2023) emphasized that family support can increase health awareness, including exclusive

breastfeeding and routine health checks. This evidence suggests that antenatal classes should not only target individual knowledge but also strengthen attitudes and encourage mothers to involve their families.

The antenatal class at Sagea Public Health Center is expected to improve pregnant women's knowledge and attitudes about early breastfeeding initiation. However, the extent of its effect needs to be empirically assessed using pretest and posttest data. The present study was therefore conducted to analyze the effect of antenatal classes on pregnant women's knowledge and attitudes about early breastfeeding initiation. The study focused on two outcomes, namely knowledge and attitude, because both are proximal determinants of maternal readiness to accept and implement early breastfeeding initiation during delivery. The findings may help midwives, program managers, and policymakers improve antenatal class implementation, particularly in areas where early breastfeeding initiation coverage remains below target.

At the local service level, antenatal classes are also useful for standardizing messages across antenatal care, delivery care, and postpartum counseling. This is important because early breastfeeding initiation can fail when mothers receive different messages from health workers, family members, or peers. Indonesian evidence shows that early breastfeeding initiation is influenced by maternal characteristics, health service contact, and contextual factors, so education must be delivered before delivery and reinforced by midwives during labor (Nurokhmah et al., 2023). For this reason, antenatal classes should be evaluated not only as routine activities but also as measurable health education interventions.

Prenatal education is also relevant because it can influence multiple maternal behaviors. Caine et al. (2012) reported that prenatal education through case management affected breastfeeding-related behavior and smoking cessation, showing that pregnancy is an important period for modifying health behavior before birth.

METHOD

This study used a quasi-experimental design with a pretest-posttest control group approach. The design was selected because the study aimed to compare changes in pregnant women's knowledge and attitudes before and after exposure to an antenatal class between two groups. The intervention group consisted of pregnant women who attended antenatal classes, while the control group consisted of pregnant women who received routine antenatal care but did not attend the antenatal class sessions during the study period. The study was conducted at Sagea Public Health Center in 2025 as part of the evaluation of the maternal and newborn health program.

The study population included all term pregnant women who visited the antenatal care service during the study period and met the eligibility criteria. Inclusion criteria were third-trimester pregnant women who could communicate in Indonesian, were willing to participate, and planned to give birth within the public health center service area. Exclusion criteria were pregnant women with severe obstetric complications requiring immediate referral, women who could not complete the pretest or posttest, and women who declined to sign informed consent. A total of 52 respondents were included and divided into two groups of 26 respondents each. The sampling process used simple random

selection from eligible pregnant women registered during the recruitment period, after which respondents were allocated to the intervention and control groups based on attendance in the antenatal class program.

The independent variable was participation in antenatal classes. The dependent variables were pregnant women's knowledge and attitudes about early breastfeeding initiation. Knowledge was assessed using a structured questionnaire that covered definition, timing, skin-to-skin contact, colostrum, benefits for the newborn, benefits for the mother, and the role of health workers and family. Knowledge scores were categorized into good, sufficient, and poor based on the study instrument's scoring cut-off. Attitude was assessed using statements about willingness to initiate early breastfeeding, acceptance of colostrum, comfort with skin-to-skin contact, confidence in breastfeeding soon after birth, and agreement with midwife assistance. Attitude scores were categorized as positive or negative.

The antenatal class intervention was delivered by trained midwives through interactive discussion, short explanations, question-and-answer sessions, and practical counseling in line with maternal and newborn care guidelines. The class material emphasized the importance of initiating breastfeeding within the first hour, correct newborn placement on the mother's chest, the value of colostrum, prevention of hypothermia, reduction of postpartum bleeding risk through oxytocin stimulation, and family support during delivery. The control group received standard antenatal services without the structured class intervention. Both groups completed the same pretest before the intervention period and the same posttest after the intervention period.

Data were checked for completeness before analysis. Univariate analysis described the distribution of knowledge and attitude in each group before and after the intervention. Bivariate analysis used the chi-square test to compare categorical outcomes between groups. When a table contained a zero cell, the result was interpreted descriptively because the chi-square assumption was not fulfilled. The level of significance was set at 0.05. Ethical principles were maintained throughout the study. Respondents received an explanation about the study objective, voluntary participation, confidentiality, and their right to withdraw at any time. All respondents provided informed consent before data collection.

RESULT

The study included 52 pregnant women, with 26 respondents in the antenatal class group and 26 respondents in the control group. The analysis focused on changes in knowledge and attitudes about early breastfeeding initiation before and after the intervention.

Table 1. Distribution of Knowledge and Attitudes Regarding Early Breastfeeding Initiation Before and After the Intervention in the Treatment and Control Groups (N = 52)

Variable	Category	Treatment Group (n = 26)		Control Group (n = 26)	
		Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)
Knowledge	Good	8 (30.8)	26 (100.0)	7 (26.9)	6 (23.1)
	Sufficient	8 (30.8)	0 (0.0)	9 (34.6)	8 (30.8)
	Poor	10 (38.5)	0 (0.0)	10 (38.5)	12 (46.2)
Attitude	Positive	14 (53.8)	22 (84.6)	16 (61.5)	14 (53.8)
	Negative	12 (46.2)	4 (15.4)	10 (38.5)	12 (46.2)

Note. Treatment group = mothers who participated in antenatal classes; Control group = mothers who did not participate in antenatal classes.

Table 1 presents the distribution of respondents' knowledge and attitudes regarding early breastfeeding initiation before and after the intervention. At baseline, poor knowledge was observed in 38.5% of respondents in both groups. Following the intervention, all participants in the treatment group (100.0%) achieved a good level of knowledge, whereas the proportion of respondents with poor knowledge in the control group increased from 38.5% to 46.2%.

Similarly, the proportion of respondents with a positive attitude increased markedly in the treatment group, from 53.8% before the intervention to 84.6% after. In contrast, the control group experienced a decline in positive attitudes from 61.5% to 53.8%, accompanied by an increase in negative attitudes. These findings suggest that participation in antenatal classes effectively improved both knowledge and attitudes toward early breastfeeding initiation.

Table 2. Comparison of Knowledge Levels Regarding Early Breastfeeding Initiation Between the Treatment and Control Groups Before and After the Intervention (N = 52)

Assessment	Group	Good n (%)	Sufficient n (%)	Poor n (%)	Total n (%)	p-value
Pretest	Following antenatal class	8 (30.8)	8 (30.8)	10 (38.5)	26 (100)	0.939
	Not following antenatal class	7 (26.9)	9 (34.6)	10 (38.5)	26 (100)	
	Total	15 (28.8)	17 (32.7)	20 (38.5)	52 (100)	
Posttest	Following antenatal class	26 (100.0)	0 (0.0)	0 (0.0)	26 (100)	—†
	Not following antenatal class	6 (23.1)	8 (30.8)	12 (46.2)	26 (100)	
	Total	32 (61.5)	8 (15.4)	12 (23.1)	52 (100)	

Note. †The chi-square test was not performed for the posttest comparison because one or more cells contained zero frequencies, violating the assumptions of the test.

Table 2 compares respondents' knowledge levels regarding early breastfeeding initiation between the treatment and control groups before and after the intervention. Before the intervention, there was no significant difference in knowledge between the two groups ($p = 0.939$), indicating that the groups were comparable at baseline. Following the intervention, all respondents in the antenatal class group (100.0%) achieved a good level of knowledge, whereas only 23.1% of respondents in the control group were categorized as having good knowledge, and 46.2% remained in the poor knowledge category. Although no inferential statistical test was performed for the posttest comparison due to zero cell frequencies, the descriptive findings demonstrate substantial improvement in knowledge among mothers who participated in the antenatal classes.

Table 3. Comparison of Attitudes Toward Early Breastfeeding Initiation Between the Treatment and Control Groups Before and After the Intervention (N = 52)

Assessment	Group	Positive n (%)	Negative n (%)	Total n (%)	p-value
Pretest	Following antenatal class	14 (53.8)	12 (46.2)	26 (100)	0.779
	Not following antenatal class	16 (61.5)	10 (38.5)	26 (100)	
	Total	30 (57.7)	22 (42.3)	52 (100)	
Posttest	Following antenatal class	22 (84.6)	4 (15.4)	26 (100)	0.034*
	Not following antenatal class	14 (53.8)	12 (46.2)	26 (100)	
	Total	36 (69.2)	16 (30.8)	52 (100)	

Note. $p < 0.05$ indicates statistical significance.

Table 3 compares respondents' attitudes toward early breastfeeding initiation between the treatment and control groups before and after the intervention. Before the intervention, there was no significant difference in attitudes between the two groups ($p = 0.779$), indicating that the groups were comparable at baseline. After the intervention, a statistically significant difference was observed ($p = 0.034$). The proportion of respondents with positive attitudes increased to 84.6% among mothers who participated in antenatal classes, whereas the control group showed only 53.8%. These findings indicate that participation in antenatal classes was effective in improving maternal attitudes toward early breastfeeding initiation.

DISCUSSION

The findings show that antenatal classes improved pregnant women's knowledge about early breastfeeding initiation. The proportion of respondents with good knowledge in the intervention group increased from 30.8% before the class to 100% after the class. This change indicates that structured learning during pregnancy can yield a clear, measurable cognitive benefit. The finding is consistent with Adisti et al. (2024), who reported that pregnancy classes improved pregnant women's knowledge, and with Lestari et al. (2025), who found that structured education using booklet media significantly improved pregnant women's knowledge. The current study strengthens this evidence in the context of early breastfeeding initiation. It shows that mothers can understand the meaning, timing, benefits, and practical steps of early breastfeeding initiation when midwives deliver the material in a structured antenatal class.

Knowledge improvement can be explained by the nature of the antenatal class. Unlike brief counseling during routine antenatal care, the class provides more time, interaction, repetition, and peer discussion. Mothers can ask about colostrum, skin-to-skin contact, newborn crying, and family concerns. This process helps transform technical information into practical understanding. Health education theory holds that knowledge serves as the cognitive foundation for attitudes and actions (Glanz et al., 2008). In this study, the educational material not only defined early breastfeeding initiation but also explained why it matters for newborn warmth, early immunity, bonding, and the continuation of exclusive breastfeeding. This matters because mothers often refuse or delay early breastfeeding initiation due to uncertainty, myths, and fear that colostrum is insufficient. By correcting misconceptions, antenatal classes can reduce doubt before labor.

The findings also indicate that antenatal classes improved maternal attitudes. Positive attitudes increased from 53.8% to 84.6% in the intervention group, while the control group decreased from 61.5% to 53.8%. The post-intervention difference between the two groups was statistically significant ($p = 0.034$). Attitude change is important because early breastfeeding initiation requires the mother's cooperation immediately after birth. A mother with a positive attitude is more likely to accept skin-to-skin contact, trust colostrum, and allow the baby to latch on in the first hour. This finding supports Newby et al. (2014), who showed that infant feeding knowledge, attitudes, and beliefs predict antenatal intention. It also aligns with Acharya and Khanal (2015), who found that maternal education status influences early breastfeeding initiation, and Atyeo et al. (2017), who highlighted the role of beliefs and practices in early breastfeeding initiation.

Antenatal classes may change attitudes through at least three mechanisms. First, they provide credible information from midwives. Mothers are more likely to trust information from skilled health workers than from informal sources. Second, the class creates peer interaction. Pregnant women can compare experiences and receive support from other mothers, which can strengthen confidence. Third, the class addresses myths directly. Negative beliefs about colostrum, infant hunger, and the need for prelacteal feeding can be challenged before delivery. This mechanism is supported by Kronborg et al. (2012), who found that antenatal training can improve breastfeeding outcomes, and by Cetindemir and Cangol (2024), who showed that structured breastfeeding education improved maternal self-efficacy and breastfeeding success.

The role of family support should also be considered. Although the present study measured only knowledge and attitudes among pregnant women, breastfeeding behavior often occurs within a family system. Decisions about early breastfeeding initiation and exclusive breastfeeding may be influenced by husbands, mothers, mothers-in-law, and other family members. Pakilaran et al. (2022) emphasized the importance of family support for exclusive breastfeeding, while Purba et al. (2026) found that family support predicts breastfeeding self-efficacy among postpartum mothers. Kurniyawan et al. (2023) also stated that family support can increase health awareness, including awareness of exclusive breastfeeding and routine health checks. This means antenatal classes could be strengthened by inviting husbands or key family members to select sessions, especially when discussing early breastfeeding initiation and newborn feeding decisions.

The relationship between knowledge and breastfeeding behavior is further supported by Wanadi et al. (2023), who reported a significant association between mothers' knowledge of exclusive breastfeeding and their exclusive breastfeeding behavior. Safira and Luthfiyana (2024) also showed that maternal factors are associated with exclusive breastfeeding practices. These findings are relevant because early initiation of breastfeeding is often the first step toward exclusive breastfeeding. If mothers understand and accept early initiation, they may become more confident in continuing breastfeeding after discharge. Other studies also show that prenatal and postpartum support can strengthen breastfeeding self-efficacy and exclusive breastfeeding outcomes (Miller et al., 2022; Rodriguez-Gallego et al., 2024; Zeng et al., 2024). Therefore, antenatal classes should be considered part of a continuum of breastfeeding support, not a stand-alone activity.

This study has practical implications for Sagea Public Health Center. Midwives should optimize antenatal class implementation by ensuring regular scheduling, consistent attendance, clear learning objectives, and interactive methods. The class should include visual media, demonstration, discussion, and myth correction. Restyo and Maulina (2026) showed the importance of lactation-

related interventions in supporting breast milk production, while Sari et al. (2023) described the role of oxytocin massage in breast milk production. These interventions are not identical to early breastfeeding initiation, but they emphasize that breastfeeding support should involve both education and practical skills. Mothers need to understand not only what early breastfeeding initiation is, but also how it will be done in the delivery room and what support they can request from midwives and family members.

The study also has methodological limitations. The sample size was relatively small, with 26 respondents in each group. Knowledge and attitude were measured using questionnaires, so responses may be influenced by social desirability after class attendance. The study did not measure actual early breastfeeding initiation practice during delivery, exclusive breastfeeding continuation, or long-term breastfeeding outcomes. Future research should include observation of early breastfeeding initiation in the delivery room and follow-up until at least six months postpartum. Future studies should also measure family support, midwife performance, facility readiness, and newborn factors, because early breastfeeding initiation requires coordination between maternal readiness and health worker practice.

Overall, the findings support antenatal classes as an effective educational strategy to improve knowledge and attitudes about early breastfeeding initiation. The greatest improvement occurred in knowledge, with all intervention participants reaching the good category after class attendance. Attitude also improved significantly compared with the control group. These results indicate that antenatal classes can strengthen maternal readiness for early breastfeeding initiation and should remain a routine component of maternal health services at Sagea Public Health Center.

CONCLUSION

Antenatal classes improved pregnant women's knowledge and attitudes about early breastfeeding initiation at Sagea Public Health Center. Good knowledge in the intervention group increased from 30.8% before the antenatal class to 100% after the class. Positive attitudes also increased from 53.8% to 84.6%, with a significant post-intervention difference compared with the control group ($p = 0.034$). Midwives should optimize antenatal classes as a structured education strategy for early breastfeeding initiation. Program managers should strengthen class scheduling, facilitator quality, learning media, and family involvement to support early breastfeeding initiation and later exclusive breastfeeding.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

REFERENCES

- Acharya, P., & Khanal, V. (2015). The effect of mother's educational status on early initiation of breastfeeding: Further analysis of three consecutive Nepal Demographic and Health Surveys. *BMC Public Health*, 15, 1069. <https://doi.org/10.1186/s12889-015-2405-y>
- Adisti, Novelia, S., & Evelianti, M. (2024). The effect of pregnancy class on mothers' knowledge regarding pregnancy. *Health and Technology Journal (HTechJ)*, 2(1), 87–92. <https://doi.org/10.53713/htechj.v2i1.149>
- Atyeo, N. N., Frank, T. D., Vail, E. F., Sperduto, W. A. L., & Boyd, D. L. (2017). Early initiation of breastfeeding among Maya mothers in the Western Highlands of Guatemala: Practices and beliefs. *Journal of Human Lactation*, 33(4), 781–789. <https://doi.org/10.1177/0890334416682729>
- Aulia Restyo, V., & Maulina, R. (2026). The effect of lactation massage on breast milk production in postpartum mothers. *Health and Technology Journal (HTechJ)*, 4(2), 167–173. <https://doi.org/10.53713/htechj.v4i2.591>
- Caine, V. A., Smith, M., Beasley, Y., & Brown, H. L. (2012). The impact of prenatal education on behavioral changes toward breastfeeding and smoking cessation in a Healthy Start population. *Journal of the National Medical Association*, 104(5–6), 258–264. [https://doi.org/10.1016/S0027-9684\(15\)30159-0](https://doi.org/10.1016/S0027-9684(15)30159-0)
- Cetindemir, E. O., & Cangol, E. (2024). The effect of breastfeeding education given through the teach-back method on mothers' breastfeeding self-efficacy and breastfeeding success: A randomized controlled study. *BMC Pregnancy and Childbirth*, 24, 453. <https://doi.org/10.1186/s12884-024-06601-0>
- Glanz, K., Rimer, B. K., & Viswanath, K. (2008). *Health behavior and health education: Theory, research, and practice* (4th ed.). Jossey-Bass.
- Hailemariam, T. W., Adebaba, E., & Sufa, A. (2015). Predictors of early breastfeeding initiation among mothers of children under 24 months of age in rural part of West Ethiopia. *BMC Public Health*, 15, 1076. <https://doi.org/10.1186/s12889-015-2420-z>
- Kementerian Kesehatan Republik Indonesia. (2014). *Pedoman pelaksanaan kelas ibu hamil*. Kementerian Kesehatan Republik Indonesia.
- Khan, J., Vesel, L., Bahl, R., & Martines, J. C. (2015). Timing of breastfeeding initiation and exclusivity of breastfeeding during the first month of life: Effects on neonatal mortality and morbidity. *Maternal and Child Health Journal*, 19(3), 468–479. <https://doi.org/10.1007/s10995-014-1526-8>
- Kronborg, H., Maimburg, R. D., & Vaeth, M. (2012). Antenatal training to improve breastfeeding: A randomised trial. *Midwifery*, 28(6), 784–790. <https://doi.org/10.1016/j.midw.2011.08.016>
- Kurniyawan, E. H., Balqis, M., Irfan Aditya Pratama, M., Putri Permata Hati, H., Ega Isfadillah, O., Tri Afandi, A., & Rosyidi Muhammad Nur, K. (2023). Farm family support in increasing health awareness. *Health and Technology Journal (HTechJ)*, 1(6), 616–627. <https://doi.org/10.53713/htechj.v1i6.122>
- Lestari, F., Indrayani, T., & Choirunissa, R. (2025). The effect of education using booklet media on pregnant women's knowledge about chronic energy deficiency (CED). *Nursing and Health Sciences Journal (NHSJ)*, 5(3), 411–419. <https://doi.org/10.53713/nhsj.v5i3.578>
- McGovern, L. M., O'Toole, L., Laws, R. A., Skinner, T. C., McAuliffe, F. M., & O'Reilly, S. L. (2024). An exploration of prenatal breastfeeding self-efficacy: A scoping review. *International Journal of Behavioral Nutrition and Physical Activity*, 21, 95. <https://doi.org/10.1186/s12966-024-01641-3>

- Miller, J. D., Collins, S. M., Boateng, G. O., Widen, E. M., Natamba, B., Achoko, W., & Martin, S. L. (2022). Pathways linking social support, self-efficacy, and exclusive breastfeeding among women in northern Uganda. *Global Public Health*, 17(12), 3506–3518. <https://doi.org/10.1080/17441692.2022.2110918>
- Newby, R., Brodribb, W., Ware, R. S., & Davies, P. S. W. (2014). Infant feeding knowledge, attitudes, and beliefs predict antenatal intention among first-time mothers in Queensland. *Breastfeeding Medicine*, 9(5), 266–272. <https://doi.org/10.1089/bfm.2014.0012>
- Nurokhmah, S., Middleton, L., Febrihartanty, J., & Hendarto, A. (2023). Trends and determinants of early initiation of breastfeeding in Indonesia: A multivariate decomposition analysis. *PLOS ONE*, 18(11), e0294900. <https://doi.org/10.1371/journal.pone.0294900>
- Pakilaran, G., Rasni, H., Rosyidi Muhammad Nur, K., & Wijaya, D. (2022). Family support on exclusive breastfeeding in babies aged 0–6 months in Indonesia: Literature review. *Nursing and Health Sciences Journal (NHSJ)*, 2(2), 104–107. <https://doi.org/10.53713/nhs.v2i2.53>
- Purba, T. J., Ariani, P., Yanti, M. D., Ariescha, P. A. Y., Sitorus, F. E., & Siahaan, J. M. (2026). Family support as a predictor of breastfeeding self-efficacy among postpartum mothers. *Nursing and Health Sciences Journal (NHSJ)*, 6(1), 98–107. <https://doi.org/10.53713/nhsj.v6i1.665>
- Rodriguez-Gallego, I., Corrales-Gutierrez, I., Gomez-Baya, D., & Leon-Larios, F. (2024). Effectiveness of a postpartum breastfeeding support group intervention in promoting exclusive breastfeeding and perceived self-efficacy: A multicentre randomized clinical trial. *Nutrients*, 16(7), 988. <https://doi.org/10.3390/nu16070988>
- Safira, A. L., & Luthfiyana, N. U. (2024). Maternal factors associated with exclusive breastfeeding practices in Situbondo, Indonesia: A cross-sectional study. *Nursing and Health Sciences Journal (NHSJ)*, 4(2), 188–193. <https://doi.org/10.53713/nhsj.v4i2.361>
- Sari, N., Sunanto, & Hidayati, T. (2023). Effect of oxytocin massage on breast milk production among postpartum mothers. *Health and Technology Journal (HTechJ)*, 1(3), 335–341. <https://doi.org/10.53713/htechj.v1i3.60>
- Svensson, J., Barclay, L., & Cooke, M. (2008). Effective antenatal education: Strategies recommended by expectant and new parents. *The Journal of Perinatal Education*, 17(4), 33–42. <https://doi.org/10.1624/105812408X364152>
- Wanadi, E. D., Wahyuningsih, S., Widayati, A., & Sunanto. (2023). The relationship between mothers' knowledge level about exclusive breastfeeding and providing exclusive breastfeeding behavior. *Health and Technology Journal (HTechJ)*, 1(4), 414–419. <https://doi.org/10.53713/htechj.v1i4.72>
- World Health Organization. (2017). *Early initiation of breastfeeding to promote exclusive breastfeeding*. World Health Organization.
- World Health Organization, & United Nations Children's Fund. (2018). *Capture the moment: Early initiation of breastfeeding: The best start for every newborn*. World Health Organization.
- Zeng, J., Zheng, Q. X., Wang, Q. S., Liu, G. H., Liu, X. W., Lin, H. M., & Guo, S. B. (2024). Father support, breastfeeding self-efficacy, positively affects exclusive breastfeeding at 6 weeks postpartum and its influencing factors in Southeast China: A multicentre, cross-sectional study. *BMC Public Health*, 24, 2698. <https://doi.org/10.1186/s12889-024-20136-1>