

Maternal Decisions on Prelacteal Feeding Practices for Newborns using the Theory of Planned Behavior Approach in Grogol, Sukoharjo, Central Java, Indonesia

Arjuna Pratama Waruwu¹⁾, Haryani Saptaningtyas²⁾, Revi Gama Hatta Novika^{1,4)},
Eti Poncorini Pamungkasari^{1,3)}, Ika Sumiyarsi Sukamto^{1,4)}

¹⁾Master's Program in Public Health, Universitas Sebelas Maret, Indonesia

²⁾Study Program of Community Empowerment, Universitas Sebelas Maret, Indonesia

³⁾Medical and Health Professions Education, Faculty of Medicine, Universitas Sebelas Maret, Indonesia

⁴⁾Bachelor of Midwifery, Faculty of Medicine, Universitas Sebelas Maret, Indonesia

Received: March 27, 2026; Accepted: April 12, 2026; Available online: April 16, 2026

ABSTRACT

Background: Exclusive breastfeeding is essential for optimal infant health, yet its coverage in Indonesia remains suboptimal, partly due to prelacteal feeding practices that interfere with breastfeeding initiation and increase health risks for newborns. The purpose of this study was to examine how maternal intention and prelacteal feeding habits are impacted by attitude, subjective standards, and perceived behavioral control among postpartum mothers.

Subjects and Method: This was a quantitative observational study employing a cross-sectional design, conducted in Grogol District, Sukoharjo, Central Java, Indonesia, from February to March 2026. A total of 82 postpartum mothers ≤ 42 days after delivery were chosen using total sampling. The independent factors were attitude, subjective norms, perceived behavioral control, and intention, and the dependent variable was prelacteal feeding practice. A structured questionnaire was used to collect the data, and logistic regression was used for analysis.

Results: Subjective norms (OR= 3.12; 95% CI= 1.15 to 8.64; $p = 0.012$) and perceived behavioral control (OR= 5.16; 95% CI= 1.83 to 14.79; $p < 0.001$) were significantly associated with maternal intention. Intention (OR= 2.68; 95% CI= 0.99 to 7.27; $p = 0.029$) and perceived behavioral control (OR= 4.69; 95% CI= 1.67 to 13.45; $p < 0.001$) were significantly associated with prelacteal feeding practices. In multivariate analysis, perceived behavioral control remained the strongest determinant of intention (OR= 6.88; 95% CI= 1.63 to 28.92; $p = 0.008$) and prelacteal feeding practice (OR= 4.26; 95% CI= 1.62 to 11.17; $p = 0.003$).

Conclusion: The most significant factor influencing mother intention and prelacteal feeding practices was perceived behavioral control. Health promotion strategies should focus on reducing breastfeeding barriers and strengthening family and healthcare support.

Keywords: breastfeeding, prelacteal feeding, postpartum mothers, Theory of Planned Behavior

Correspondence:

Haryani Saptaningtyas. Study Program of Community Empowerment, Postgraduate School, Universitas Sebelas Maret. Jl. Ir. Sutami 36A, Surakarta, Central Java 57126, Indonesia. Email: h.saptaningtyas@staff.uns.ac.id.

Cite this as:

Waruwu AP, Saptaningtyas H, Novika RGH, Pamungkasari EP, Sukamto IS (2026). Maternal Decisions on Prelacteal Feeding Practices for Newborns using the Theory of Planned Behavior Approach in Grogol, Sukoharjo, Central Java, Indonesia. *J Health Promot Behav*. 11(02): 222-233. <https://doi.org/10.26911-thejhp.2026.11.02.08>.



Arjuna Pratama Waruwu. Published by Master's Program of Public Health, Universitas Sebelas Maret, Surakarta. This open-access article is distributed under the terms of the [Creative Commons Attribution 4.0 International \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/). Re-use is permitted for any purpose, provided attribution is given to the author and the source is cited.

BACKGROUND

Child health is a key indicator in assessing the quality of life of a population, particularly within particularly within considering the idea of health-related quality of life (HRQoL), which includes aspects relating to the physical, psychological, social, and environmental domains. The early period of life is a critical phase that strongly determines long-term health outcomes (Hays et al., 2016). During this period, appropriate infant feeding practices, especially breastfeeding, play an essential role in supporting growth, development, and immune function. Therefore, exclusive breastfeeding for the first six months of life is globally recommended as a primary intervention to improve child health (World Health Organization, 2024).

Despite the well-established benefits of exclusive breastfeeding, its coverage remains suboptimal. In Indonesia, the coverage of exclusive breastfeeding in 2023 was reported at 55.5%, indicating a gap between recommendations and actual practices (Ministry of Health of the Republic of Indonesia, 2024). One of the contributing factors to this issue is the practice of prelacteal feeding, defined as the provision of food or liquids other than breast milk to newborns before breastfeeding is properly established. This practice remains prevalent in many countries, including Indonesia, with common types including formula milk, water, honey, and semi-solid foods (Rahmartani et al., 2020).

Nopriyarti and Handiawati (2023) explain prelacteal feeding has significant adverse effects on infant health. It increases the risk of infections such as diarrhea, sepsis, and gastrointestinal disorders, and interferes with early initiation of breastfeeding and exclusive breastfeeding practices. Furthermore, prelacteal feeding reduces the immunological benefits of colos-

trum and may disrupt mother–infant bonding. Globally, suboptimal infant feeding practices, including prelacteal feeding, contribute substantially to neonatal mortality and morbidity (Victora et al., 2016).

In Indonesia, the prevalence of prelacteal feeding remains relatively high at around 21% (Rahmartani et al., 2020), with regional variations. In Central Java, the prevalence is reported at 13.4%, while in Sukoharjo District there has been a decline in exclusive breastfeeding coverage in recent years (Dinkes Sukoharjo, 2024). A preliminary study conducted in the Grogol Primary Health Center area revealed that nearly half of mothers provided prelacteal feeding to their newborns, predominantly formula milk, mainly due to delayed breast milk production and concerns about insufficient infant intake. These findings indicate that prelacteal feeding practices are influenced not only by knowledge but also by perceptions, beliefs, and social pressures.

This phenomenon reflects the complexity of factors influencing maternal decision-making regarding prelacteal feeding practices. A psychosocial approach such as the Theory of Planned Behavior can be used to explain this behavior, where individual actions are driven by intention shaped by attitudes, subjective norms, and perceived behavioral control. Based on this theoretical framework, it is important to understand how these factors influence maternal decisions (Ajzen, 1991; Bosnjak et al., 2020). Therefore, this study aims to analyze the effects of attitudes, subjective norms, and perceived behavioral control on the intention and practice of prelacteal feeding among mothers with newborns.

SUBJECTS AND METHOD

1. Study Design

This study used a cross-sectional design, an observational method, and a quantitative methodology. The study was carried out in February and March of 2026 in the Grogol District of Sukoharjo Regency in Central Java, Indonesia.

2. Population and Sample

The target population of this study consisted of all postpartum mothers ≤ 42 days after delivery residing in the working area of Grogol Primary Health Center, Sukoharjo Regency. The accessible population included all postpartum mothers identified during the data collection period from February to March 2026 who met the inclusion and exclusion criteria. During this period, a total of 82 eligible postpartum mothers were identified across 14 villages within the Grogol Primary Health Center area. Since the number of eligible participants was relatively small and accessible, all eligible mothers were included in the study using a total sampling technique. This approach was intended to maximize representativeness and minimize selection bias.

3. Study Variables

The independent variables in this study are intentions, perceived behavioral control, attitudes, and subjective norms. The dependent variable was the maternal decision regarding prelacteal feeding practices in newborns.

4. Operational Definition of Variables

Attitude refers to the positive or negative assessment of a person (cognitive and affective) toward prelacteal feeding practices, including aspects of nutritional intake, emotional, moral, socio-cultural, and spiritual considerations. It reflects how mothers perceive the benefits or risks of providing prelacteal food to newborns.

Subjective Norm is defined as the imagined expectations or social pressure from important people, including family, health workers, and socio-cultural environment, regarding prelacteal feeding practices. It indicates the extent to which mothers feel encouraged or discouraged by their social environment to perform the behavior.

Perceived Behavioral Control refers to a person's opinion of how simple or complex in performing prelacteal feeding practices. This perception is influenced by past experiences, available information, self-observation, and external factors that may facilitate or hinder the behavior.

Intention is defined as the individual's readiness and likelihood to perform prelacteal feeding practices, reflecting the strength of desire and planning to engage in the behavior. It indicates how strongly a mother intends to provide prelacteal food to her newborn.

Prelacteal Feeding Practice refers to the mother's decision to provide food or drink other than breast milk to a newborn before breastfeeding is properly established. This variable represents the actual behavior performed by the respondent.

5. Study Instruments

The research instrument used for data collection was a researcher developed questionnaire based on the Theory of Planned Behavior framework. The questionnaire had been tested for validity and reliability prior to data collection.

6. Data analysis

The frequency distribution and percentage of respondent characteristics, such as age, education level, occupation, kind of delivery, location of delivery, and newborn age, were described using univariate analysis. The association between attitude, subjective norms, and perceived behavioral control with intention, as well as the impact of perceived behavioral control and intention

on mother decision about prelacteal feeding practices, were all examined by bivariate analysis using chi square. To evaluate the simultaneous impacts of independent variables on the dependent variables and to determine the most important factors impacting maternal intention and prelacteal feeding practices, multivariate analysis utilizing multiple logistic regression was carried out.

7. Research Ethics

Throughout the research process, study ethics such as informed consent, anonymity, and confidentiality are carefully managed. The approval letter for the study ethics permit was obtained from the Study Ethics Committee of Kusuma Husada University of Surakarta, Surakarta city on February 11, 2026 with the number 325-9/UKH.Lo2/EC/II/2026

RESULTS

1. Sample Characteristics

The characteristics of respondents in this study included age, education, occupation, type of delivery, place of delivery, and infant age. Table 1 shows that the majority of

respondents were aged 20–35 years, accounting for 72 respondents (87.80%), while 4 respondents (4.88%) were aged <20 years and 6 respondents (7.32%) were aged >35 years. In terms of educational level, most respondents had completed senior high school, with 57 respondents (69.51%), followed by higher education with 14 respondents (17.07%) and junior high school with 11 respondents (13.41%).

Based on occupation, most respondents were housewives, accounting for 49 respondents (59.75%), while the remaining respondents worked as private employees with 21 respondents (25.61%), entrepreneurs with 10 respondents (12.20%), and civil servants with 2 respondents (2.44%). Regarding the type of delivery, most respondents delivered by caesarean section, accounting for 44 respondents (53.66%), whereas 38 respondents (46.34%) had vaginal deliveries. Most respondents delivered at hospitals, with 52 respondents (63.41%). In addition, the majority of infants were aged 8–28 days, accounting for 54 infants (65.85%).

Table 1. Characteristics of Respondents

Characteristics	Category	Frequency	Percentage
Maternal age	< 20 years	4	4.88
	20–35 years	72	87.80
	> 35 years	6	7.32
Maternal education	Junior High School	11	13.41
	Senior High School	57	69.51
	College	14	17.07
Maternal occupation	Housewife	49	59.75
	Private Employee	21	25.61
	Entrepreneur	10	12.20
	Civil Servant	2	2.44
Type of birth delivery	Vaginal Delivery	38	46.34
	Caesarean Section	44	53.66
Place of birth delivery	Hospital	52	63.41
	Independent Midwifery Practice	15	18.29
	Clinic	11	13.41
	Primary Health Center	4	4.88

Characteristics	Category	Frequency	Percentage
Infant's Age	0-7 days	6	7.31
	8-28 days	54	65.85
	28 – 42 days	22	26.83

2. Univariate Analysis

The distribution of study variables was described using univariate analysis based on mean, standard deviation, minimum, and maximum values. Table 2. shows that the mean score of attitude was 24.15 (SD= 6.79), subjective norms was 22.30 (SD=

4.13), perceived behavioral control was 23.95 (SD= 5.63), and intention was 22.91 (SD= 5.83). Meanwhile, the mean score of prelacteal feeding practice was 0.43 (SD= 0.49), indicating that some respondents engaged in prelacteal feeding practices.

Table 2. Univariate Analysis Result of Attitude, Subjective Norms, Perceived Behavioral Control, Intention, and Prelacteal Feeding Practice

Variabels	N	Mean	SD	Min.	Max.
Attitude	82	24.15	6.79	10	42
Subjective Norms	82	22.30	4.13	12	36
Perceived Behavioral Control	82	23.95	5.63	13	40
Intention	82	22.91	5.83	10	49
Prelacteal Feeding Practice	82	0.43	0.49	0	1

3. Bivariate Analysis

Bivariate analysis was conducted to examine the association between independent and dependent variables in this study. The analysis assessed the relationships between attitude and intention, subjective norms

and intention, perceived behavioral control and intention, as well as perceived behavioral control and intention with maternal decision regarding prelacteal feeding practices. The Chi-square test was used for statistical analysis.

Tabel 3. Bivariate Analysis Results of Attitude, Subjective Norms, and Perceived Behavioral Control, Intention, and Prelacteal Feeding Practice

Variables	OR	95% CI		p
		Lower Limmit	Upper Limmit	
Outcome: intention	1.94	0.73	5.17	0.138
Attitude				
Subjective Norms	3.12	1.15	8.64	0.012
Perceived Behavioral Control	5.16	1.83	14.79	<0.001
Outcome: prelacteal feeding practice				
Perceived Behavioral Control	4.69	1.67	13.45	<0.001
Intention	2.68	0.99	7.27	0.029

Table 3 shows that subjective norms and perceived behavioral control were significantly associated with intention toward prelacteal feeding practices. Subjective norms increased the likelihood of intention by 3.12 times (OR= 3.12; 95% CI= 1.15 to

8.64; p= 0.012), while perceived behavioral control increased the likelihood by 5.16 times (OR= 5.16; 95% CI= 1.83 to 14.79; p <0.001). However, attitude was not significantly associated with intention (OR= 1.94; 95% CI= 0.73 to 5.17; p= 0.138).

Perceived behavioral control and intention were significantly associated with prelacteal feeding practices. Perceived behavioral control increased the likelihood of prelacteal feeding practices by 4.69 times (OR= 4.69; 95% CI= 1.67 to 13.45; $p < 0.001$), while intention increased the likelihood by 2.68 times (OR= 2.68; 95% CI= 0.99 to 7.27; $p = 0.029$).

4. Multivariate Analysis

Table 5 shows that only perceived behavioral control had a statistically significant effect on maternal intention to engage in prelacteal feeding practices. Mothers with higher perceived behavioral control were 6.88 times more likely to have the intention to perform prelacteal feeding compared to those with lower perceived behavioral con-

trol (OR= 6.88; 95% CI= 1.63 to 28.92; $p = 0.008$). Meanwhile, attitude and subjective norms were not significantly associated with intention, with p -values of 0.235 and 0.394, respectively.

Perceived behavioral control was significantly associated with prelacteal feeding practices. Mothers with higher perceived behavioral control were 4.26 times more likely to engage in prelacteal feeding practices compared to those with lower perceived behavioral control (OR= 4.26; 95% CI= 1.62 to 11.17; $p = 0.003$). However, intention did not show a statistically significant association with prelacteal feeding practices (OR= 1.50; 95% CI= 0.57 to 3.97; $p = 0.405$).

Tabel 5. Multiple Logistic Regression of Attitude, Subjective Norms, Perceived Behavioral Control, Intention, and Prelacteal Feeding Practice

Variables	OR	95% CI		p
		Lower Limit	Upper Limit	
Outcome: intention				
Attitude	0.41	0.10	1.75	0.235
Subjective Norms	1.68	0.50	5.60	0.394
Perceived Behavioral Control	6.88	1.63	28,92	0.008
Outcome: prelacteal feeding practice				
Perceived Behavioral Control	4.26	1.62	11.17	0.003
Intention	1.50	0.57	3.97	0.405

DISCUSSION

Association between Attitude with Intention

The results showed that attitude was not significantly associated with maternal intention toward prelacteal feeding practices. Attitude reflects an individual's evaluation of a behavior, which theoretically contributes to intention formation. The absence of a significant association between attitude and intention may indicate that maternal decisions regarding prelacteal feeding are not solely based on personal evaluations of the behavior. Although many mothers may recognize the benefits of exclusive breast-

feeding and perceive prelacteal feeding as less desirable, their intentions can be overridden by situational and contextual factors experienced during the early postpartum period.

This finding is consistent with Sipsma et al. (2015) who reported that individual attitude does not always predict intention in maternal and child health behaviors when strong social influences are present. Similarly, Ogundele et al. (2019) found that prelacteal feeding practices persisted despite mothers having favorable attitudes toward exclusive breastfeeding, mainly due to cultural and family influences. In the Indo-

nesian context, Titaley et al. (2023) also reported that prelacteal feeding decisions were more strongly influenced by social factors and traditional practices than by maternal personal attitudes.

These results suggest that in the present study, attitude was not the primary determinant of maternal intention to practice prelacteal feeding. This may indicate that mothers' behavioral intentions were influenced more by factors beyond personal evaluation.

Association between Subjective Norms with Intention

The results showed that subjective norms were significantly associated with maternal intention toward prelacteal feeding practices. Subjective norms refer to an individual's perception of social pressure or expectations from significant others, such as family members, health workers, and the socio-cultural environment. Mothers often do not make feeding decisions independently, but rather within a network of family members, health workers, and cultural influences. During the early postpartum period, particularly when breastfeeding challenges arise, mothers may rely on advice and expectations from individuals perceived as more experienced or knowledgeable.

This finding is consistent with Titaley et al. (2023), who reported that prelacteal feeding practices in Indonesia are strongly influenced by family roles and cultural traditions. Nguyen et al. (2013); Bayih et al. (2020) also found that social norms and cultural beliefs significantly affect infant feeding decisions in developing countries. These findings indicate that stronger perceived social pressure increases the likelihood of maternal intention to practice prelacteal feeding.

In contexts where prelacteal feeding is considered acceptable or beneficial by fa-

mily members or the surrounding community, mothers may be more likely to develop the intention to engage in the practice. This finding suggests that mothers who perceived greater social support or pressure to provide prelacteal feeding were more likely to develop the intention to engage in the behavior.

Association between Perceived Behavioral Control with Intention

This study found perceived behavioral control was significantly associated with maternal intention toward prelacteal feeding practices. Perceived behavioral control reflects an individual's belief in their ability to control a behavior. In this study, higher scores represented greater perceived barriers in preventing prelacteal feeding, which increased the likelihood of intention to engage in the practice. This suggests that when mothers perceive limitations in breastfeeding, such as delayed milk production, post-delivery conditions, or insufficient support, prelacteal feeding may be considered a feasible alternative.

When mothers experience breastfeeding difficulties, such as delayed milk production, postoperative pain following cesarean delivery, infant latching problems, or limited family and professional support, they may perceive exclusive breastfeeding as difficult to achieve. Under these circumstances, prelacteal feeding can be viewed as a practical solution to ensure that the infant receives adequate nutrition. Bai et al. (2020) explain that perceived control significantly influences breastfeeding intention, particularly when mothers experience physical or psychological barriers. Similarly, Rahman (2021) found that delayed breastfeeding initiation, cesarean delivery, and lack of health worker support increased prelacteal feeding practices.

These findings suggest that perceived behavioral control may reflect not only sub-

jective perceptions, but also actual barriers influencing maternal intention. The greater the perceived barriers to breastfeeding, the stronger the maternal intention to consider prolactal feeding as an alternative feeding strategy.

Association between Intention with Prolactal Feeding Practice

This study found that intention was significantly associated with prolactal feeding practices. This indicates that mothers with higher intention were more likely to engage in prolactal feeding practices than those with lower intention. Intention is considered the most proximal predictor of actual behavior, as it reflects an individual's readiness to perform an action. Mothers who have already formed an intention to provide prolactal feeding are more likely to translate that intention into action when confronted with breastfeeding challenges. Situations such as delayed milk production, concerns about infant hunger, infant crying, or perceived insufficiency of breast milk may strengthen the tendency to act according to pre-existing intentions.

Findings from Bai et al. (2020) also report that intention significantly influenced breastfeeding practices, as well as Povey (2016), who identified intention as the strongest predictor of postpartum breastfeeding behavior. These findings support the TPB framework, which proposes that health behaviors are generally preceded by strong behavioral intention. In this study, maternal intention to provide prolactal feeding may have developed in response to personal beliefs, social pressures, and breastfeeding-related circumstances.

Once mothers perceive prolactal feeding as an acceptable or necessary option, they may become more likely to implement the behavior when opportunities arise. These observations imply that stronger maternal desire and planning to provide pre-

lactal feeding increase the likelihood of the behavior being carried out.

Association between Perceived Behavioral Control with Prolactal Feeding Practice

The analysis indicated that perceived behavioral control was significantly associated with prolactal feeding practices, making it the strongest factor in the bivariate analysis. Perceived behavioral control may influence behavior not only indirectly through intention, but also directly when it reflects actual conditions experienced by the individual. Infant feeding decisions often need to be made quickly when mothers perceive that their newborn's nutritional needs are not being adequately met. When mothers experience difficulties such as delayed milk production, postoperative discomfort, infant latching problems, or limited breastfeeding support, they may feel less capable of successfully initiating exclusive breastfeeding.

Support for this interpretation can be found in Rahman (2021), who reported that breastfeeding barriers increased the likelihood of prolactal feeding practices. Bai et al. (2020) similarly found a direct effect of perceived behavioral control on breastfeeding behavior. The stronger association observed in this study may reflect the local context, where cesarean delivery and delayed milk production create substantial barriers to breastfeeding initiation.

Mothers who encounter substantial obstacles during breastfeeding initiation may feel that they have limited options available, making prolactal feeding a more feasible alternative. Consequently, perceived barriers to breastfeeding can directly influence maternal behavior, even without a deliberate decision-making process.

Association between attitude, subjective norms, and perceived behavioral control with intention

Multivariate analysis demonstrated that after simultaneous adjustment, only perceived behavioral control remained significantly associated with intention toward prelacteal feeding practices, while attitude and subjective norms were no longer significant. All three constructs may influence intention, but their relative contributions can vary depending on the behavioral context. Although subjective norms were significant in the bivariate analysis, their influence may have diminished after controlling for perceived behavioral control because social pressures often operate through mothers' perceptions of their ability to successfully breastfeed. In other words, encouragement or expectations from family members and health workers may become less influential when mothers perceive substantial practical difficulties in breastfeeding.

The magnitude of the odds ratio in this study indicates that mothers who perceived greater breastfeeding barriers were substantially more likely to develop intention toward prelacteal feeding. Comparable findings have been reported by Lau et al. (2018) and Jiang et al. (2018), who identified perceived behavioral control as the strongest predictor of breastfeeding intention compared with other TPB constructs. Similar results were also reported by Permatasari et al. (2018) in Indonesia, where perceived behavioral control emerged as the most dominant factor associated with exclusive breastfeeding intention. This highlights perceived behavioral control as the most influential determinant of maternal intention in this study.

The findings indicate that mothers' intentions are driven more strongly by their perceived ability to manage breastfeeding

challenges than by personal attitudes or social expectations, highlighting the critical role of reducing breastfeeding barriers during the postpartum period.

Association between Intention and Perceived Behavioral Control with Prelacteal Feeding Practice

Multivariate analysis indicated that perceived behavioral control and intention were jointly associated with prelacteal feeding practices, but only perceived behavioral control remained significant in the partial analysis. Intention is considered the primary predictor of behavior, but perceived behavioral control may directly influence behavior when individuals face actual constraints. Although intention reflects a mother's willingness or readiness to perform a behavior, the translation of intention into actual practice often depends on whether the individual has sufficient resources, opportunities, and capacity to carry out the intended action. In the context of infant feeding, mothers may initially intend to avoid prelacteal feeding, yet practical challenges encountered during the postpartum period can alter their behavioral decisions.

Evidence from Huang et al. (2023) also suggests that perceived breastfeeding control directly influences breastfeeding behavior, particularly when mothers encounter practical barriers during the postpartum period. Similarly, Okhovat, Janighorban and Kazemi. (2024), also indicates that mothers who perceived greater control over breastfeeding were more likely to demonstrate stronger breastfeeding intentions and behaviors. The non significant role of intention in the multivariate model may reflect the intention behavior gap, a condition in which intention does not always translate into actual behavior Sheeran and Webb (2016). Compared with the bivariate findings, the disappearance of intention's signi-

ficance after adjustment suggests that its influence was overshadowed by behavioral control factors.

Taken together, these results suggest that maternal intention alone may be insufficient to predict prelacteal feeding practices. The findings highlight the importance of perceived behavioral control in determining whether intentions are translated into behavior, indicating that breastfeeding-related barriers play a critical role in shaping maternal feeding decisions during the postpartum period.

This study has limitations in terms of generalizability, as it employed total sampling among postpartum mothers in a single primary health center catchment area, which may not fully represent populations with different. the findings indicate that perceived behavioral control was the primary determinant of both intention and prelacteal feeding practices. These findings support the application of the Theory of Planned Behavior in explaining maternal health behavior and suggest that health promotion strategies to reduce prelacteal feeding should focus not only on improving knowledge, but also on reducing breastfeeding barriers and strengthening family and healthcare support.

AUTHOR CONTRIBUTION

All authors have made significant contributions to the data analysis and preparation of the final manuscript.

FINANCIAL SUPPORT AND SPONSORSHIP

This study was supported by the Directorate General of Health Human Resources, Ministry of Health of the Republic of Indonesia, which provided funding support during the conduct of the research.

ACKNOWLEDGEMENT

The researcher expressed his deep gratitude to the study subjects for the willingness of the time that had been given and thanked all parties who played a role in the preparation of this article.

CONFLICT OF INTEREST

There are no conflicts of interest.

REFERENCES

- Ajzen I. (1991). The theory of planned behavior. *Organ Behav Hum Decis Process.* 50(2): 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T).
- Bai Y, Wunderlich SM, Fly AD. (2020). Predicting intentions to continue exclusive breastfeeding for 6 months: A comparison among racial/ethnic groups. *Matern Child Health J.* 15(8): 1257-1264. <https://doi.org/10.1007/s10995-010-0703-7>.
- Bayih WA, Kefale MD, Demis KS. (2020). Prevalence and associated factors of prelacteal feeding among neonates admitted to neonatal intensive care units, North Central Ethiopia, 2019. *BMC Public Health.* 20(1): 1457. <https://doi.org/10.1186/s12889-020-09578-5>.
- Bosnjak M, Ajzen I, Schmidt P. (2020). The theory of planned behavior: Selected recent advances and applications. *Eur J Psychol.* 16(3): 352–356. <https://doi.org/10.5964/ejop.v16i3.3107>.
- Hays NP, Mao M, Zhang L, Ge J, Northington R, et al. (2016). Infant feeding and health-related quality of life in healthy Chinese infants: Results from a prospective observational cohort study. *Health Qual Life Outcomes.* 14(1): 116. <https://doi.org/10.1186/s12955-016-0518-3>.
- Huang R, Han H, Ding L, Zhou Y, Hou Y, Yao X, et al. (2023). Using the theory

- of planned behavior model to predict factors influencing breastfeeding behavior among preterm mothers at week 6 postpartum: The mediating effect of breastfeeding intention. *Front Psychol.* 14: 1228769. <https://doi.org/10.3389/fpsyg.2023.1228769>.
- Jiang H, Li M, Yang D, Wen LM, Hunter C. (2018). Awareness, intention, and needs regarding breastfeeding: Findings from first-time mothers in Shanghai, China. *Breastfeed Med.* 13(8): 526–534. <https://doi.org/10.1089/bfm.2018.0042>.
- Lau CYK, Lok KYW, Tarrant M. (2018). Breastfeeding duration and the theory of planned behavior and breastfeeding self-efficacy framework: A systematic review of observational studies. *Matern Child Health J.* 22(3): 327–342. <https://doi.org/10.1007/s10995-018-2453-x>.
- Ministry of Health of the Republic of Indonesia. (2024). Indonesia Health Profile 2023. [in Indonesian language]. Jakarta: Ministry of Health of the Republic of Indonesia.
- Nguyen PH, Keithly SC, Nguyen NT, Nguyen TT, Tran LM, Hajeebhoy N. (2013). Prelacteal feeding practices in Vietnam: Challenges and associated factors. *BMC Public Health.* 13(1): 932. <https://doi.org/10.1186/1471-2458-13-932>.
- Nopriyarti A, Handiawati F. (2023). Hubungan pengetahuan dengan pemberian makanan prelakteal pada bayi baru lahir. *Sehat J Kesehat Terpadu.* 2(3): 148–153. <https://doi.org/10.31004/sjkt.v2i3.18147>.
- Ogundele T, Ogundele OA, Adegoke AI. (2019). Determinants of prelacteal feeding practices among mothers of children aged less than 24 months in Ile-Ife Southwest Nigeria: A community cross-sectional study. *Pan Afr Med J.* 34: 172. <https://doi.org/10.11604/pamj.2019.34.172.17642>.
- Okhovat S, Janighorban M, Kazemi A. (2024). Impact of theory of planned behavior based intervention on breastfeeding patterns of mothers with preterm infants: A randomized trial. *BMC Public Health.* 24(1): 2643. <https://doi.org/10.1186/s12889-024-20059-x>.
- Permatasari TAE, Sartika RAD, Achadi EL, Purwono U, Irawati A, Ocviyanti D, Martha E. (2018). Exclusive breastfeeding intention among pregnant mothers. *Kesmas Natl Public Health J.* 12(3): 134–141. <https://doi.org/10.21109/kesmas.v12i3.1446>.
- Povey R, Conner M, Sparks P, James R, Shepherd R. (2000). The theory of planned behaviour and healthy eating: Examining additive and moderating effects of social influence variables. *Psychol Health.* 14(6):991–1006. <https://doi.org/10.1080/0887-0440008407363>.
- Rahman M, Rahman MM, Tareque MI, Ferdos J, Jesmin SS. (2021). Prelacteal feeding practices in Indonesia: A population-based study. *PLoS One.* 16(1): e0245571. <https://doi.org/10.1371/journal.pone.0245571>.
- Rahmartani LD, Carson C, Quigley MA. (2020). Prevalence of prelacteal feeding and associated risk factors in Indonesia: Evidence from the 2017 Indonesia Demographic Health Survey. *PLoS One.* 15(12): e0243097. <https://doi.org/10.1371/journal.pone.0243097>.
- Sheeran P, Webb TL. (2016). The intention-behavior gap. *Soc Personal Psychol Compass.* 10(9): 503–518. <https://doi.org/10.1111/spc3.12265>.

- Sipsma HL, Jones KL, Cole-Lewis H. (2015). Breastfeeding among adolescent mothers: a systematic review of interventions from high-income countries. *J Hum Lact.* 31(2):221-9. <https://doi.org/10.1177/0890334414561264>.
- Titaley CR, Wijayanti RU, Mu'asyaroh A, Ariawan I. (2023). The multiple factors of suboptimal early feeding practices among infants aged 0–5 months in Indonesia. *Front Nutr.* 10: 1080727. <https://doi.org/10.3389/fnut.2023.1080727>.
- Victora CG, Bahl R, Barros AJD, França GVA, Horton S, Krasevec J, et al. (2016). Breastfeeding in the 21st century: Epidemiology, mechanisms, and lifelong effect. *Lancet.* 387 (10017): 475–490. [https://doi.org/10.1016/s0140-6736\(15\)01024-7](https://doi.org/10.1016/s0140-6736(15)01024-7).
- World Health Organization. (2024). Social Determinants of Health. Geneva: World Health Organization. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/social-determinants-of-health>.