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Determinants of Exclusive Breastfeeding Among Mothers with Infants Aged 6-24 Months

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ABSTRACT

Exclusive breastfeeding during the first six mounths of life is essential for optimal infant growth, development, and disease prevention. However, the coverage of exclusive beastfeeding remains below national and regional targets in many areas if Indonesia. This study aimed to analyze the determinants of exclusive breastfeeding among mothers with indants aged 6-24 months in the working area of Puskesmas Waru, Penajam Paser Utara Regency, East Kalimantan Province. An observational analytic study with a cross-sectional design was conducted among 122 mothers selected using simple random sampling from a population of 345 mothers. Data were collected using structured questionnaires measuring maternal knowledge, maternal attitude, early initation of breastfeeding (IMD), maternal occupation, family support, health worker support, and exclusive breastfeeding practices. Data were analyzed using Chi-square test with a significance level of $\alpha = 0.05$. The results showed that 44.3% of mothers practiced exclusive breastfeeding, while 55.7% did not. Maternal knowledge ($p = 0.000$), maternal attitude ($p = 0.000$), and family support ($p = 0.000$) were significantly associated with exclusive breastfeeding. In contrast, maternal occupation ($p = 0.875$) and health worker support ($p = 0.083$) were not significantly associated with exclusive breastfeeding. These findings indicate that behavioral and social factors play important roles in influencing exclusive breastfeeding practices. Strengthening health promotion programs that improve maternal knowledge, foster positive breastfeeding attitudes, and enhance family involvement is essential to increase exclusive breastfeeding coverage
Keywords: Exclusive breastfeeding; maternal knowledge; maternal attitude; family support; breastfeeding determinants; public health

PENDAHULUAN

Breast milk is widely recognized as the most complete, practical, economical, and hygienic source of nutrition for infants during the first six months of life because it provides the nutrients, fluids, and bioactive components required for optimal growth and early immune protection (1,2). In regulatory and public health terms, exclusive breastfeeding refers to feeding infants only breast milk from birth to six months, without any additional food or drink except medicines, vitamins, and minerals, as stipulated in Government Regulation of the Republic of Indonesia No. 33/2012. This recommendation is consistent with international guidance from the World Health Organization and UNICEF, which advises early initiation of breastfeeding within the first hour after birth, exclusive breastfeeding for the first six months, and continued breastfeeding up to two years or beyond (3). Because breastfeeding is both a biological and a behavioral practice, its implementation is shaped not only by maternal intention and infant needs but also by social support, health service quality, and wider structural conditions.

The public health relevance of exclusive breastfeeding remains substantial because it is closely linked to infant survival and the prevention of common childhood illnesses. Exclusive breastfeeding protects infants against infectious diseases, particularly diarrhea and pneumonia, which remain major

contributors to infant morbidity and mortality worldwide (4). Previous evidence has shown that exclusive breastfeeding can prevent approximately 13% of infant deaths globally, while optimal breastfeeding practices may reduce infection-related mortality by as much as 88% (5). Breast milk has therefore been described not merely as food, but as a critical early-life intervention that contributes to survival, immunity, and healthy development. More recent international literature from low- and middle-income countries also confirms that infants who are not exclusively breastfed are more vulnerable to diarrhea, acute respiratory infections, malnutrition, and stunting, indicating that the consequences of suboptimal breastfeeding extend beyond infancy and may affect long-term growth trajectories (6–9).

Despite these well-established benefits, exclusive breastfeeding coverage remains below recommended targets in many settings. Globally, exclusive breastfeeding coverage increased from 36% in the period 2007–2014 to 44% in 2015–2020, yet this level is still below the WHO target and indicates that a large proportion of infants do not receive optimal feeding during the first six months of life (3). Regional disparities are also evident. In the Asia-Pacific region, exclusive breastfeeding coverage was reported at 41% (3,5), and studies from low- and middle-income countries continue to document marked heterogeneity in prevalence due to differences in social norms, health system capacity, maternal employment, and family support. Research from China, Myanmar, Ghana, and Ethiopia has consistently shown that exclusive breastfeeding prevalence remains suboptimal and highly context-dependent, with structural barriers such as formula marketing, inadequate maternity protection, and insufficient professional support continuing to impede progress (10–14).

In Indonesia, the challenge remains equally important because breastfeeding performance has shown inconsistency across data sources and across regions. National statistics reported exclusive breastfeeding coverage of 55.96% in 2017, followed by a decline to 44.36% in 2018 (15), whereas Riskesdas 2018 reported a national coverage of 74.5%, and the national health profile in 2019 recorded 67.74% (15). Although these figures suggest progress in some datasets, they also reflect persistent measurement differences and unequal implementation across provinces and districts. At the same time, Indonesia's infant mortality rate remains 24 deaths per 1,000 live births, which is still above the Sustainable Development Goals target of 12 per 1,000 live births by 2030 (15,16). In East Kalimantan, exclusive breastfeeding coverage was 53.04% in 2016 and 58.06% in 2017, but then declined sharply to 33.24% in 2018 (15). At a more local level, coverage in Penajam Paser Utara was reported at 44.39%, while the coverage in the working area of Puskesmas Waru was only 33% in 2021, indicating a serious local gap between policy goals and actual practice (15).

This gap becomes more concerning when viewed alongside local policy commitments and preliminary field observations. Although the Regent Regulation No. 34/2019 and related health promotion efforts were intended to strengthen exclusive breastfeeding implementation, the coverage achieved in Puskesmas Waru still remained below the local target of 50%. A preliminary study involving 21 mothers found that 80.9% did not provide exclusive breastfeeding, primarily because of insufficient knowledge regarding breastfeeding duration, benefits, and its importance for infants aged 0–6 months. These findings suggest that poor coverage in the study setting cannot be understood solely as a problem of policy absence; rather, it appears to reflect weaknesses in the translation of policy into maternal understanding, supportive household practices, and frontline health service reinforcement. In practical terms, mothers may be exposed to the message of exclusive breastfeeding, yet still face uncertainty, negative attitudes, inconsistent initiation practices, work-related constraints, or inadequate support from family members and health professionals.

The existing literature provides several explanations for why exclusive breastfeeding remains difficult to sustain. Maternal knowledge, attitude, employment status, access to services and practical opportunities to breastfeed, and support from family members and health workers are frequently identified as important influences (8,10,11). Earlier studies have shown that maternal knowledge is significantly associated with exclusive breastfeeding, and that favorable maternal attitudes are similarly linked to successful breastfeeding practice (17). This is consistent with broader international literature showing that knowledge may increase the likelihood of exclusive breastfeeding, but that a knowledge–

practice gap often persists when mothers encounter psychosocial, occupational, or household constraints (14,18).

Among the more specific determinants identified in previous studies, early initiation of breastfeeding, maternal occupation, family support, and professional health support have emerged repeatedly as influential variables. Early initiation of breastfeeding has been shown to improve breastfeeding continuity and increase the likelihood of exclusive breastfeeding success, because immediate postpartum contact supports milk production, infant latching, and maternal confidence (18–20). Maternal occupation is another important factor, with evidence indicating that non-working mothers may be up to three times more likely to practice exclusive breastfeeding than working mothers, particularly in settings where maternity leave and workplace breastfeeding support are limited (21). Family support also plays a decisive role because breastfeeding decisions are rarely made by mothers in isolation; encouragement, practical assistance, and positive feeding norms within the household can strengthen maternal persistence (22). Likewise, mothers who receive counseling from health workers during antenatal care are more likely to practice exclusive breastfeeding, highlighting the importance of primary health care contact in shaping maternal behavior before and after delivery (23).

Although these determinants have been widely discussed, there is still a need for more localized evidence that explains how they operate simultaneously in primary health care settings with low breastfeeding coverage. Studies from Indonesia and Southeast Asia consistently show that exclusive breastfeeding is influenced by a multi-level interaction between psychosocial factors, family dynamics, employment conditions, and health service support. However, the relative contribution of these factors varies across populations and settings, and findings from one province or district cannot be assumed to apply directly to another. In particular, evidence from Puskesmas-based contexts in East Kalimantan remains limited, even though primary health care facilities are the frontline institutions responsible for counseling, maternal class activities, postpartum support, and community-level promotion. This creates a research gap in understanding whether maternal knowledge, maternal attitude, early initiation of breastfeeding, occupation, family support, and health worker support are all significantly associated with exclusive breastfeeding behavior in the specific context of Puskesmas Waru.

Based on that background, the present study aims to analyze the association between maternal knowledge, attitude, early initiation of breastfeeding, occupation, family support, and health worker support with exclusive breastfeeding practice in the working area of Puskesmas Waru in 2021. The study is grounded in the assumption that breastfeeding behavior is not determined by a single factor, but by the interaction of predisposing, enabling, and reinforcing influences. Its scientific contribution lies in providing empirical evidence from a primary health care setting in Penajam Paser Utara, applying Lawrence Green's behavioral framework to a local public health problem, and generating findings that may support more targeted interventions to improve exclusive breastfeeding coverage. In line with this objective, the study tests the hypotheses that maternal knowledge, maternal attitude, early initiation of breastfeeding, maternal occupation, family support, and health worker support are each associated with exclusive breastfeeding. By clarifying these relationships in a local setting with persistently low coverage, the study is expected to contribute to evidence-based strategies for strengthening breastfeeding promotion and improving maternal and infant health outcomes.

METODE

Study Design and Setting

This study employed an observational analytic design using a cross-sectional approach. In cross-sectional studies, independent and dependent variables are measured simultaneously at a single point in time to examine associations between variables (Sugiyono, 2013). The purpose of this design was to analyze the association between maternal knowledge, maternal attitude, early initiation of breastfeeding (IMD), maternal occupation, family support, health worker support, and exclusive breastfeeding practice.

The research was conducted in August–September 2021 in the working area of Puskesmas Waru, Penajam Paser Utara Regency, East Kalimantan Province, Indonesia. The study subjects were mothers with infants aged 6–24 months who resided in the working area of Puskesmas Waru.

Population and Sampling

The population is defined as a generalization area consisting of objects or subjects with specific characteristics determined by the researcher for study and conclusion (Jaya, 2019). The target population of this study included all mothers with infants aged 6–24 months registered at Puskesmas Waru, totaling 345 individuals.

The minimum sample size was calculated using the Lemeshow formula for cross-sectional studies with the following parameters: total population (N) of 345 mothers, precision (d) of 0.05, confidence level (Z1-α/2) of 1.96 with $\alpha = 0.05$, and maximum estimation proportion (P) of 0.6. Based on this calculation, the minimum required sample size was 122 respondents.

The sampling technique used in this study was probability sampling using the simple random sampling method. This approach ensures that each member of the population has an equal probability of being selected as a research sample. Sample selection was conducted using the random case selection procedure in SPSS software, resulting in 122 respondents selected from the total population of 345 mothers.

The inclusion criteria for respondents were mothers with infants aged 6–24 months registered at Puskesmas Waru, mothers who were willing to participate and sign informed consent, and mothers who were physically and mentally healthy. Meanwhile, the exclusion criteria included mothers who refused to sign informed consent and mothers who had visual, hearing, or mental impairments. These criteria were applied to ensure that the selected respondents met the eligibility requirements for participation in the study.

Variables and Operational Definitions

Independent variables are variables that influence or cause changes in other variables, whereas the dependent variable is the outcome influenced by the independent variables. In this study, the independent variables consisted of maternal knowledge, maternal attitude, early initiation of breastfeeding (IMD), maternal occupation, family support, and health worker support. The dependent variable in this study was exclusive breastfeeding practice.

Maternal knowledge was defined as the mother's understanding of exclusive breastfeeding, including the definition of exclusive breastfeeding, its benefits, the importance of colostrum, and the nutritional content of breast milk. Knowledge was measured using a questionnaire consisting of nine items. The results were categorized as good when respondents answered correctly 77–100% of the questions (7–9 correct answers), moderate when respondents answered correctly 44–66% of the questions (4–6 correct answers), and poor when respondents answered correctly only 0–33% of the questions (0–3 correct answers). This variable was measured using an ordinal scale.

Maternal attitude referred to the mother's response or perception toward exclusive breastfeeding practices. This variable was measured using a questionnaire based on the Iowa Infant Feeding Attitude Scale (IIFAS) consisting of 17 items. Attitude scores were categorized as positive if the total score was equal to or greater than the mean score ($T \geq Tmean$) and negative if the score was lower than the mean score ($T < Tmean$). This variable was measured using an ordinal scale.

Early initiation of breastfeeding (IMD) was defined as the practice of placing the newborn in skin-to-skin contact with the mother and allowing the baby to initiate breastfeeding within the first hour after birth. This variable was measured using a questionnaire consisting of four questions and

categorized as "performed IMD" coded as 1 and "did not perform IMD" coded as 0. This variable was measured using a nominal scale.

Maternal occupation referred to whether the mother was engaged in formal or informal work that generated income during the infant's age of 0–6 months. This variable was measured using two questionnaire items and categorized into working mothers coded as 0 and non-working mothers coded as 1. This variable was measured using a nominal scale.

Health worker support referred to the information, guidance, and assistance provided by health professionals regarding exclusive breastfeeding. This variable was measured using a questionnaire consisting of six Likert-scale items. The results were categorized as supportive when the total score reached at least 60% of the maximum score and not supportive when the score was less than 60%. This variable was measured using an ordinal scale.

Family support referred to informational and instrumental support provided by family members to assist mothers in practicing exclusive breastfeeding. This variable was measured using a questionnaire consisting of seven Likert-scale items. The results were categorized as supportive when the score reached at least 60% of the maximum score and not supportive when the score was less than 60%. This variable was measured using an ordinal scale.

Exclusive breastfeeding was defined as the practice of providing breast milk only to infants without additional food or drinks during the first six months of life. This variable was measured using a questionnaire consisting of eight items and categorized into exclusive breastfeeding coded as 1 and non-exclusive breastfeeding coded as 0. This variable was measured using a nominal scale.

Instruments and Data Collection

Data collection in this study used a structured questionnaire, which is a written instrument designed to obtain information from respondents. Primary data were collected using online questionnaires distributed through Google Forms and through direct face-to-face interviews with respondents.

The demographic questionnaire consisted of eight questions covering the mother's name, mother's age, education level, infant's name, place of delivery, number of children, age of the youngest child, and residential address.

Maternal knowledge regarding exclusive breastfeeding was measured using nine questions. Each correct answer was given a score of 1 and each incorrect answer was scored 0.

Maternal attitude toward breastfeeding was measured using 17 items adapted from the Iowa Infant Feeding Attitude Scale (IIFAS). Responses were measured using a Likert scale with four options: strongly agree, agree, disagree, and strongly disagree. For positive statements, strongly agree was scored 4, agree 3, disagree 2, and strongly disagree 1. For negative statements, the scoring was reversed, where strongly agree was scored 1 and strongly disagree was scored 4.

Early initiation of breastfeeding (IMD) was assessed using four questions derived from the Riskesdas 2018 instrument and coded as 1 for "Yes" and 0 for "No" responses.

Maternal occupation was measured using two questions and categorized into working mothers coded as 0 and non-working mothers coded as 1.

Health worker support was measured using six Likert-scale items, while family support was measured using seven positive Likert-scale statements. Responses were scored using a four-point Likert scale consisting of "very often" scored 4, "often" scored 3, "sometimes" scored 2, and "never" scored 1. Exclusive breastfeeding practice was measured using eight questions.

Validity, Reliability, and Data Analysis

Validity and reliability testing of the research instruments were conducted on 30 respondents in the working area of Puskesmas Petung, which has similar characteristics to the research location. Instrument validity was assessed using the product-moment correlation test. The validity criteria required that the calculated correlation coefficient (r-count) be greater than the r-table value of 0.361 at a significance level of $\alpha = 5\%$. The results of the validity test indicated that all items in the knowledge, attitude, family support, and health worker support questionnaires met the validity criteria.

Reliability testing was performed using the Cronbach's Alpha coefficient to determine the consistency of the measurement instruments. The reliability results showed that the knowledge questionnaire had a Cronbach's Alpha value of 0.725, the attitude questionnaire had a value of 0.809, the family support questionnaire had a value of 0.788, and the health worker support questionnaire had a value of 0.745. Since all values were greater than 0.60, the instruments were considered reliable and capable of producing consistent measurements.

The data processing procedure consisted of several stages including editing, coding, data entry, data cleaning, and tabulation. After data processing was completed, statistical analysis was conducted using two levels of analysis.

Univariate analysis was performed to describe the distribution and characteristics of each research variable in the form of frequency distributions. Bivariate analysis was then conducted using the Chi-square test to determine the association between each independent variable and exclusive breastfeeding practice. The significance level used in the analysis was $\alpha = 0.05$ with a 95% confidence interval. A p-value less than or equal to 0.05 indicated that there was a statistically significant association between the variables.

HASIL

Study Area and Respondent Characteristics

The study was conducted at UPT Puskesmas Waru located in Waru Subdistrict, Penajam Paser Utara Regency, East Kalimantan Province, Indonesia. The working area of Puskesmas Waru covers approximately 553.88 km² with a total population of 18,629 people consisting of 9,268 males and 9,361 females, with a population density of 29.73 persons per km². Administratively, the area consists of one urban village, three rural villages, and 51 neighborhood units (RT). Health services in this area are supported by four auxiliary health centers and fourteen Posyandu, consisting of twelve Posyandu Madya and two Posyandu Mandiri.

The respondents in this study were 122 mothers with infants aged 6–24 months who resided in the working area of Puskesmas Waru.

Table 1
Distribution of Respondent Characteristics (n = 122)

No	Characteristic	Category	Frequency	Percentage (%)
1	Maternal Age	< 20 years	4	3.3

No	Characteristic	Category	Frequency	Percentage (%)
		20–35 years	107	87.7
		> 35 years	11	9.0
2	Education	Elementary School	13	10.7
		Junior High School	24	19.7
		Senior High School	67	54.9
		Diploma/Bachelor	18	14.8
3	Place of Delivery	Hospital	31	25.4
		Public Health Center	36	29.5
		Midwife Clinic	47	38.5
		Home	8	6.6
4	Number of Children	≤ 2	84	68.9
		≥ 2	38	31.1
5	Youngest Child Age	6–12 months	62	50.8
		13–24 months	60	49.2

Most respondents were mothers aged 20–35 years (87.7%). In terms of education level, the majority had completed senior high school (54.9%). The most common place of delivery was midwife clinics (38.5%), followed by public health centers (29.5%) and hospitals (25.4%). Most respondents had two or fewer children (68.9%). Regarding the age of the youngest child, slightly more than half of the respondents had infants aged 6–12 months (50.8%).

Distribution of Dependent Variable

Table 2
Exclusive Breastfeeding Distribution (n = 122)

Variable	Category	Frequency	Percentage (%)
Exclusive Breastfeeding	Exclusive	54	44.3
	Not Exclusive	68	55.7

The results showed that 54 mothers (44.3%) practiced exclusive breastfeeding, while 68 mothers (55.7%) did not practice exclusive breastfeeding.

Distribution of Independent Variables

Table 3
Independent Variables Distribution (n = 122)

No	Variable	Category	Frequency	Percentage (%)
1	Knowledge	Good	63	51.6
		Moderate	45	36.9
		Poor	14	11.5
2	Attitude	Positive	54	44.3
		Negative	68	55.7
3	Occupation	Working	42	34.4
		Not Working	80	65.6
4	Early Initiation (IMD)	Performed IMD	23	18.9
		Did Not Perform IMD	99	81.1
5	Family Support	Supporting	77	63.1

No	Variable	Category	Frequency	Percentage (%)
		Not Supporting	45	36.9
6	Health Worker Support	Supporting	95	77.9
		Not Supporting	27	22.1

The distribution of independent variables showed that most mothers had good knowledge about exclusive breastfeeding (51.6%). However, more than half of the mothers demonstrated negative attitudes toward exclusive breastfeeding (55.7%). The majority of respondents were not working (65.6%). In addition, most mothers did not perform early initiation of breastfeeding (IMD) (81.1%). Regarding social support, most respondents reported receiving family support (63.1%) and health worker support (77.9%).

Bivariate Analysis (Chi-Square Test)
Association Between Knowledge and Exclusive Breastfeeding

Table 4
Association Between Knowledge and Exclusive Breastfeeding

Knowledge	Exclusive (n)	Exclusive (%)	Not Exclusive (n)	Not Exclusive (%)	Total	p-value
Good	47	38.52	16	13.11	63	0.000
Moderate	7	5.73	38	31.14	45	
Poor	0	0	14	11.47	14	
Total	54	44.26	68	55.73	122	

The Chi-square analysis showed a statistically significant association between maternal knowledge and exclusive breastfeeding ($p = 0.000$; $p < 0.05$). Mothers with good knowledge were more likely to practice exclusive breastfeeding compared with mothers who had moderate or poor knowledge.

Association Between Attitude and Exclusive Breastfeeding

Table 5
Association Between Attitude and Exclusive Breastfeeding

Attitude	Exclusive (n)	Exclusive (%)	Not Exclusive (n)	Not Exclusive (%)	Total	p-value
Positive	34	27.86	20	16.39	54	0.000
Negative	20	16.39	48	39.34	68	
Total	54	44.26	68	55.73	122	

The results indicated a statistically significant association between maternal attitude and exclusive breastfeeding practice ($p = 0.000$; $p < 0.05$). Mothers who had positive attitudes toward breastfeeding were more likely to practice exclusive breastfeeding than those with negative attitudes.

Association Between Occupation and Exclusive Breastfeeding

Table 6
Association Between Occupation and Exclusive Breastfeeding

Occupation	Exclusive (n)	Exclusive (%)	Not Exclusive (n)	Not Exclusive (%)	Total	p-value
Not Working	35	28.68	45	36.88	80	0.875
Working	19	15.57	23	18.85	42	
Total	54	44.26	68	55.73	122	

The statistical analysis showed that maternal occupation was not significantly associated with exclusive breastfeeding practice ($p = 0.875$; $p > 0.05$).

Association Between Family Support and Exclusive Breastfeeding

Table 7
Association Between Family Support and Exclusive Breastfeeding

Family Support	Exclusive (n)	Exclusive (%)	Not Exclusive (n)	Not Exclusive (%)	Total	p-value
Supporting	48	39.34	29	23.77	77	0.000
Not Supporting	6	4.91	39	31.96	45	
Total	54	44.26	68	55.73	122	

The Chi-square test results indicated a statistically significant association between family support and exclusive breastfeeding practice ($p = 0.000$; $p < 0.05$). Mothers who received family support were more likely to practice exclusive breastfeeding compared with mothers who did not receive such support.

Association Between Health Worker Support and Exclusive Breastfeeding

Table 8
Association Between Health Worker Support and Exclusive Breastfeeding

Health Worker Support	Exclusive (n)	Exclusive (%)	Not Exclusive (n)	Not Exclusive (%)	Total	p-value
Supporting	46	37.70	49	40.16	95	0.083
Not Supporting	8	6.55	19	15.57	27	
Total	54	44.26	68	55.73	122	

The analysis showed that health worker support was not significantly associated with exclusive breastfeeding practice ($p = 0.083$; $p > 0.05$).

Overall, the results of this study showed that maternal knowledge, maternal attitude, and family support were significantly associated with exclusive breastfeeding practice ($p < 0.05$). In contrast, maternal occupation and health worker support were not significantly associated with exclusive breastfeeding practice. In addition, the distribution analysis indicated that the implementation of early initiation of breastfeeding (IMD) among respondents was relatively low (18.9%), although the statistical association between IMD and exclusive breastfeeding was not reported in the available analysis section.

PEMBAHASAN

This study analyzed the determinants of exclusive breastfeeding among mothers with infants aged 6–24 months in the working area of Puskesmas Waru, Penajam Paser Utara Regency. The results showed that the proportion of mothers who practiced exclusive breastfeeding was 44.3%, while 55.7% of mothers did not exclusively breastfeed their infants. This level of coverage remains below the district target of 50%, indicating that exclusive breastfeeding practices in this area are still suboptimal and remain a public health concern.

The findings of this study demonstrated that maternal knowledge was significantly associated with exclusive breastfeeding practices ($p = 0.000$). Mothers with good knowledge were more likely to

practice exclusive breastfeeding compared to mothers with moderate or poor knowledge. Notably, none of the mothers with poor knowledge in this study practiced exclusive breastfeeding. These findings highlight the important role of knowledge in shaping breastfeeding behavior. Knowledge provides mothers with an understanding of the benefits of exclusive breastfeeding, appropriate feeding practices, and the health implications for infants. This finding is consistent with previous research indicating that maternal knowledge significantly influences breastfeeding practices (23,24). Furthermore, mothers who lack sufficient knowledge about exclusive breastfeeding have been reported to have a higher risk of discontinuing breastfeeding early compared to mothers who possess adequate knowledge (17). Similar findings have also been reported in various low- and middle-income country settings where higher maternal knowledge is associated with greater likelihood of exclusive breastfeeding initiation and continuation.

Maternal attitude toward breastfeeding was also found to have a statistically significant association with exclusive breastfeeding ($p = 0.0001$). Mothers with positive attitudes toward breastfeeding were more likely to exclusively breastfeed their infants compared with mothers who had negative attitudes. In contrast, mothers with negative attitudes showed a higher proportion of non-exclusive breastfeeding. These findings support behavioral theory which states that attitudes influence health-related behaviors. Positive attitudes toward breastfeeding may strengthen a mother's intention and motivation to exclusively breastfeed. This result is in line with previous studies which reported a significant relationship between maternal attitude and exclusive breastfeeding practices (25). In behavioral frameworks such as the Theory of Planned Behavior, attitudes shape behavioral intentions which subsequently influence actual health behaviors, including breastfeeding practices.

The implementation of early initiation of breastfeeding (IMD) among respondents in this study was relatively low, with only 18.9% of mothers reporting that IMD was performed. Although the statistical association between IMD and exclusive breastfeeding was not reported in the analysis table, IMD is widely recognized as an important reinforcing factor for breastfeeding continuation. Early initiation of breastfeeding facilitates early skin-to-skin contact between mother and infant, stimulates milk production, and strengthens maternal confidence in breastfeeding. Previous studies have shown that mothers who perform IMD are more likely to continue exclusive breastfeeding (26). Therefore, the low coverage of IMD in this study may represent an important barrier to achieving optimal exclusive breastfeeding practices.

Maternal occupation was not significantly associated with exclusive breastfeeding in this study ($p = 0.875$). Both working mothers and non-working mothers were found to practice exclusive breastfeeding, although the proportion was slightly higher among non-working mothers. This finding indicates that employment status alone may not determine breastfeeding behavior. The relationship between maternal employment and exclusive breastfeeding is often influenced by contextual factors such as maternity leave policies, workplace support, and flexibility of working hours. In some settings, employment has been associated with a higher risk of early cessation of exclusive breastfeeding due to limited time and workplace constraints. However, in other contexts where supportive policies and flexible work arrangements exist, working mothers are still able to maintain exclusive breastfeeding. Previous research has reported that non-working mothers may be more likely to exclusively breastfeed compared to working mothers (27), although the strength of this association varies across different socioeconomic and policy environments.

Family support was found to have a significant association with exclusive breastfeeding ($p = 0.0001$). Mothers who received support from their families were more likely to practice exclusive breastfeeding compared with mothers who did not receive such support. Family members, particularly husbands and close relatives, play an important role in providing emotional, informational, and practical assistance to breastfeeding mothers. Emotional encouragement, assistance with household tasks, and support in infant care can help mothers maintain breastfeeding practices. These findings are consistent with previous studies showing that family support significantly influences exclusive breastfeeding behavior (22). Similarly, mothers who receive family support are more likely to successfully practice exclusive breastfeeding compared to mothers who lack such support (28).

Health worker support was not significantly associated with exclusive breastfeeding practices in this study (p = 0.083). Although most mothers reported receiving support from health workers, this support did not translate into statistically significant differences in breastfeeding behavior. This finding may indicate that the quality, frequency, or effectiveness of counseling provided by health workers may not have been sufficient to influence maternal behavior. Previous studies have suggested that counseling and guidance from health professionals can improve maternal knowledge and breastfeeding practices when delivered effectively (29,30). Moreover, mothers who receive structured breastfeeding counseling have been reported to be more likely to exclusively breastfeed their infants (31,32). Therefore, strengthening the quality of breastfeeding counseling and health promotion activities at primary health care facilities may be necessary to enhance the effectiveness of health worker support.

In this study, maternal knowledge and maternal attitude represent predisposing factors that influence breastfeeding behavior, while family support functions as a reinforcing factor that strengthens mothers' ability to practice exclusive breastfeeding. These findings highlight the importance of addressing behavioral determinants in breastfeeding promotion programs. The public health implications of exclusive breastfeeding are substantial. Infants who are not exclusively breastfed are more vulnerable to infectious diseases and nutritional problems. Previous studies have shown that infants who are not exclusively breastfed have a higher risk of infections, pneumonia, and diarrhea (33,34). In addition, lack of exclusive breastfeeding has been associated with poor nutritional status and increased infant mortality (35). Conversely, children who receive exclusive breastfeeding during the first six months of life tend to have better nutritional status compared to those who do not receive exclusive breastfeeding (36).

Overall, the findings of this study emphasize the importance of strengthening health promotion strategies that focus on improving maternal knowledge, fostering positive attitudes toward breastfeeding, and enhancing family involvement in breastfeeding support. Comprehensive interventions involving health workers, families, and community support systems are necessary to increase exclusive breastfeeding coverage in the working area of Puskesmas Waru and similar settings.

SIMPULAN DAN SARAN

This study concludes that the prevalence of exclusive breastfeeding among mothers with infants aged 6–24 months in the working area of Puskesmas Waru was 44.3%, which is still below the expected coverage target. Maternal knowledge, maternal attitude, and family support were significantly associated with exclusive breastfeeding practices. Mothers with better knowledge and positive attitudes toward breastfeeding were more likely to provide exclusive breastfeeding, and family support played an important reinforcing role in sustaining breastfeeding behavior. Meanwhile, maternal occupation and health worker support were not significantly associated with exclusive breastfeeding in this study. These findings highlight the importance of strengthening health promotion strategies that focus on improving maternal knowledge, shaping positive breastfeeding attitudes, and increasing family involvement in breastfeeding support to improve exclusive breastfeeding coverage in the community.

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