



THE RELATIONSHIP BETWEEN KNOWLEDGE, ANXIETY LEVEL, AND FAMILY SUPPORT WITH EXCLUSIVE BREASTFEEDING IN THE COMMUNITY HEALTH CENTER PAUH WORK AREA

HUBUNGAN PENGETAHUAN, TINGKAT KECEMASAN, DAN DUKUNGAN KELUARGA DENGAN PEMBERIAN ASI EKSKLUSIF DI WILAYAH KERJA PUSKESMAS PAUH

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Abstract

Exclusive breastfeeding coverage in West Sumatra is 74.16%, still below the Indonesian Ministry of Health target of 80%. This study aimed to analyze the relationship between family support, knowledge, and maternal anxiety with exclusive breastfeeding practices in the Pauh Health Center Work Area in 2024. This analytical survey used a cross-sectional design with total sampling, involving 40 mothers of infants aged 6–12 months. Data were collected via questionnaires and analyzed using the Chi-Square test. Exclusive breastfeeding was practiced by 29 respondents (72.5%). Good knowledge was found in 16 respondents (40.0%), while 21 respondents (52.5%) experienced no anxiety, and 22 respondents (55.0%) reported good family support. Knowledge was significantly associated with exclusive breastfeeding ($p = 0.009$), while anxiety ($p = 0.288$) and family support ($p = 0.377$) showed no significant relationship. It is recommended that health workers intensify counseling on exclusive breastfeeding for mothers and families at Posyandu in the Pisang sub-district.

Keywords: Exclusive Breastfeeding, Knowledge, Anxiety Level, Family Support

Abstrak

Cakupan ASI eksklusif di Sumatera Barat sebesar 74,16%, masih di bawah target Kementerian Kesehatan RI sebesar 80%. Penelitian ini bertujuan untuk menganalisis hubungan antara dukungan keluarga, pengetahuan, dan kecemasan ibu dengan praktik pemberian ASI eksklusif di Wilayah Kerja Puskesmas Pauh tahun 2024. Survei analitik ini menggunakan rancangan potong lintang dengan total sampling, melibatkan 40 ibu bayi usia 6–12 bulan. Data dikumpulkan melalui kuesioner dan dianalisis menggunakan uji Chi-Square. Pemberian ASI eksklusif dilakukan oleh 29 responden (72,5%). Pengetahuan baik ditemukan pada 16



responden (40,0%), sementara 21 responden (52,5%) tidak mengalami kecemasan, dan 22 responden (55,0%) melaporkan dukungan keluarga yang baik. Pengetahuan berhubungan signifikan dengan pemberian ASI eksklusif ($p = 0,009$), sedangkan kecemasan ($p = 0,288$) dan dukungan keluarga ($p = 0,377$) tidak menunjukkan hubungan yang signifikan. Disarankan kepada tenaga kesehatan untuk mengintensifkan penyuluhan tentang pemberian ASI eksklusif bagi ibu dan keluarga di Posyandu Kecamatan Pisang.

Kata kunci : ASI Eksklusif, Pengetahuan, Tingkat Kecemasan, Dukungan Keluarga

1. INTRODUCTION

Breast milk is widely recognized as the most optimal source of nutrition for infants due to its complete composition and protective benefits against infections and diseases. Exclusive breastfeeding, defined as the provision of breast milk alone from birth until six months of age, plays a crucial role in supporting infant growth and immune development (Timporok et al., 2021). However, despite strong global advocacy, coverage rates remain below expected targets. The World Health Organization (2020) reported that only around 44% of infants aged 0–6 months worldwide were exclusively breastfed during the 2015–2020 period, falling short of the global target of 50%. Similarly, the United Nations Children's Fund (2020) noted that out of 154 million babies born globally in 2020, only 36.2% received exclusive breastfeeding. At the national level, the Ministry of Health (2022) recorded that Indonesia achieved an exclusive breastfeeding rate of 69.7% in 2021, still below the national target of 80%.

The regional situation reflects a similar trend. In West Sumatra, exclusive breastfeeding coverage increased from 70.36% in 2020 to 74.16% in 2021 (Badan Pusat Statistik, 2021). Meanwhile, Dinas Kesehatan Kota Padang (2022) documented a coverage rate of 67.7% in 2022. Although gradual progress has been reported, the figures remain below the Ministry of Health benchmark. An initial survey conducted in March 2024 in the Pauh Community Health Center area showed that only 6 out of 10 mothers practiced exclusive breastfeeding, with reasons for discontinuation including perceived insufficient breast milk, employment demands, low milk production, and lack of awareness.

Factors influencing exclusive breastfeeding can be broadly categorized into internal and external determinants. Internal factors include maternal education, knowledge, attitudes, and psychological states such as stress or anxiety (Yunita, 2017). Anxiety, in particular, may disrupt hormonal responses related to milk production, leading to early supplementation with formula. External factors involve family and social support systems. Mahyuni (2020) found that while many mothers had limited knowledge of exclusive breastfeeding, support from husbands was relatively high. However, such support was not always aligned with exclusive breastfeeding practices, as some family members encouraged formula feeding in cases of perceived breastfeeding challenges.

While previous studies have explored the influence of knowledge or family support individually, few have simultaneously examined the combined role of knowledge, psychological conditions such as anxiety, and family support within the same population. Moreover, localized studies in the Pauh Community Health Center area remain limited. Therefore, this study aims to analyze the relationship between maternal knowledge, family support, and anxiety levels with exclusive breastfeeding practices in the Pauh Community Health Center area. A better understanding of these factors is expected to support the



development of targeted interventions through counseling and community-based programs such as Posyandu.

2. RESEARCH METHOD

This study employed an analytical survey with a cross-sectional design, in which measurements of variables were conducted simultaneously at a single point in time (Notoatmodjo, 2018). The primary objective of this research was to determine the relationship between maternal knowledge, anxiety levels, and family support with exclusive breastfeeding practices.

The population consisted of all mothers with infants aged 6–12 months residing within the working area of the Pauh Community Health Center (Puskesmas), totaling 40 individuals (Sugiyono, 2022). The sample size was determined using a total sampling technique, in which all members of the population who met the inclusion criteria were included as respondents. Although a minimum sample size could be calculated using a proportion-based formula with a 95% confidence level and 5% margin of error, the relatively small accessible population justified the use of total sampling to maximize statistical power and avoid selection bias. Thus, all 40 eligible mothers were selected as research subjects.

The study was conducted at the Integrated Health Service Post (Posyandu) in Pisang Village within the Pauh Community Health Center working area. This location was selected based on accessibility, high concentration of target respondents, and documented suboptimal exclusive breastfeeding coverage from preliminary observations, making it relevant for investigating underlying behavioral determinants. The research period spanned February to July 2024, with data collection carried out from June 5 to 24, 2024.

Data were obtained using a structured questionnaire consisting of sections on demographic characteristics, knowledge of exclusive breastfeeding, anxiety levels, and family support. The knowledge section consisted of multiple-choice and true/false items, while anxiety was assessed using a standardized scale adapted from validated maternal mental health instruments. Family support was measured using a Likert-scale questionnaire. Prior to data collection, content validity was assessed through expert judgment by two maternal health professionals, while construct validity was tested through a pilot trial involving 10 respondents outside the research site. Reliability testing using Cronbach's alpha yielded acceptable coefficients (>0.70), indicating that the instruments were suitable for use.

Data analysis consisted of univariate analysis to describe the frequency distribution of each variable and bivariate analysis using the Chi-Square test. A $p\text{-value} \leq 0.05$ was considered statistically significant, indicating a relationship between the independent and dependent variables. In addition, it is recommended that further analysis using a multivariate logistic regression model be conducted to control for potential confounding variables such as maternal age, education, and employment status. This would provide stronger evidence regarding the independent contribution of knowledge, anxiety, and family support to exclusive breastfeeding behavior.

3. RESULTS AND DISCUSSION

The analysis showed that 29 out of 40 respondents (72.5%) practiced exclusive breastfeeding. Maternal knowledge emerged as the only factor significantly associated with exclusive breastfeeding ($p = 0.009$). Mothers with good knowledge were more likely to practice exclusive breastfeeding compared to those with fair or poor knowledge. In contrast, maternal anxiety ($p = 0.288$) and family support ($p = 0.377$) did not show statistically significant associations with



exclusive breastfeeding. These findings suggest that knowledge plays a more dominant role in determining breastfeeding practices than psychological or social support factors within the studied population. To ensure consistency, all p-values were interpreted using the same significance threshold ($\alpha = 0.05$). Only the knowledge variable met the criteria for statistical significance, while anxiety and family support did not.

Table 1. Distribution of Respondents and Association Between Maternal Factors and Exclusive Breastfeeding in the Working Area of Pauh Public Health Center, 2024 (n = 40)

Variable	Category	f	%
Exclusive Breastfeeding	Given	29	72.5
	Not given	11	27.5
Maternal Knowledge	Good	16	40.0
	Fair	12	30.0
	Poor	12	30.0
Maternal Anxiety	No anxiety	21	52.5
	Mild–moderate	13	32.5
	Severe–very severe	6	15.0
Family Support	Good	22	55.0
	Poor	18	45.0
Knowledge → Breastfeeding	p = 0.009		
Anxiety → Breastfeeding	p = 0.288		
Support → Breastfeeding	p = 0.377		
Total Respondents		40	100

The findings indicate that while most respondents (72.5%) successfully practiced exclusive breastfeeding, disparities were observed across the independent variables. Mothers with good knowledge demonstrated the highest proportion of exclusive breastfeeding, reinforcing the importance of informational preparedness in maternal decision-making. Conversely, respondents with fair or poor knowledge showed noticeably lower adherence, suggesting that insufficient understanding of breastfeeding benefits or techniques may hinder optimal feeding practices.

Interestingly, although more than half of the respondents reported no anxiety (52.5%) and good family support (55.0%), these factors did not translate into statistically significant differences in breastfeeding outcomes. This suggests that emotional and social support alone may not be sufficient to influence breastfeeding behavior without a solid foundation of knowledge. In other words, empowerment through education appears to be a stronger determinant than external encouragement or emotional state in this setting.

Discussion

Relationship Between Maternal Knowledge and Exclusive Breastfeeding

The study revealed a significant association between maternal knowledge and exclusive breastfeeding ($p=0.009$). Mothers with good knowledge were substantially more likely to



practice exclusive breastfeeding than those with fair or poor knowledge. These findings align with prior research by Rangkuti (2022), which demonstrated that maternal understanding of breastfeeding benefits strongly predicts adherence to exclusive breastfeeding.

Knowledge plays a central role in health behavior change, as outlined in Lawrence Green's PRECEDE-PROCEED model, where it acts as a predisposing factor influencing intention and action (Notoatmodjo, 2007). Mothers who comprehend the long-term benefits of breast milk—such as immune protection, developmental advantages, and maternal health benefits—are more likely to internalize exclusive breastfeeding as a non-negotiable parenting responsibility rather than an optional choice.

However, while knowledge was significantly associated with breastfeeding in this study, it is important to recognize that knowledge alone does not guarantee behavior. Some mothers with poor knowledge still practiced exclusive breastfeeding, possibly due to cultural norms or health worker influence. Conversely, a minority of knowledgeable mothers did not breastfeed exclusively, suggesting that knowledge must be reinforced with practical support and enabling environments.

Relationship Between Maternal Anxiety and Exclusive Breastfeeding

Contrary to expectations, maternal anxiety was not significantly associated with exclusive breastfeeding ($p=0.288$). This contradicts findings by Wulansari et al. (2020), who reported that anxiety negatively affects milk production. Several factors may explain this discrepancy. First, most respondents in this study were multiparous mothers, as revealed during qualitative probing. Prior breastfeeding experience likely reduced anxiety, making emotional distress less impactful on breastfeeding behavior. Second, anxiety was self-reported, potentially leading to underreporting due to social desirability bias. Some mothers may have minimized their anxiety to appear resilient. Third, mild anxiety may not necessarily impede breastfeeding; in some cases, it may even stimulate greater commitment to child care, acting as a motivator rather than a barrier.

This finding highlights the need to differentiate between functional and dysfunctional anxiety in future research. Physiological anxiety may impair oxytocin release, while cognitive worry about infant health may instead reinforce maternal responsibility. This nuance was not captured by the current measurement approach.

Relationship Between Family Support and Exclusive Breastfeeding

Family support also showed no significant association with exclusive breastfeeding ($p=0.377$), consistent with Fatmawati (2020) but contrasting with Kinasih (2017). The apparent lack of effect warrants critical reflection.

Although respondents reported receiving emotional and instrumental family support, qualitative insights revealed that such support lacked informational accuracy. Some relatives encouraged early complementary feeding, reflecting misconceptions rooted in cultural beliefs rather than evidence-based guidance. As a result, family support may have inadvertently reinforced suboptimal feeding practices instead of enabling exclusive breastfeeding.

Moreover, most mothers in this study were non-working, reducing their reliance on family assistance for childcare or milk expression. Thus, unlike working mothers who depend heavily on family support to continue breastfeeding, stay-at-home mothers may not perceive family support as a decisive factor.



These findings suggest that support quality matters more than support quantity. Future interventions should focus on educating not only mothers but also husbands, grandmothers, and other influential relatives, ensuring that support aligns with recommended breastfeeding practices.

Beyond individual-level factors, sociocultural influences may also explain the variation in exclusive breastfeeding practices. In many Indonesian households, feeding decisions are not made solely by mothers but are influenced by extended family hierarchies, particularly grandmothers or elder female relatives (Sari & Wulandari, 2021). If these figures hold misconceptions—such as beliefs that breast milk is “too thin” or that water is needed in hot weather—they may discourage exclusive breastfeeding even when mothers possess adequate knowledge. This may clarify why family support in this study did not yield significant influence: support that contradicts health guidelines can be counterproductive, suggesting that breastfeeding-friendly cultural alignment is as important as emotional encouragement.

Health system factors must also be considered. Although Indonesia has adopted the Baby-Friendly Hospital Initiative (BFHI), its implementation is inconsistent across regions (Aryastami & Shankar, 2020). Limited access to early lactation counseling and postnatal follow-up may contribute to suboptimal breastfeeding initiation or early discontinuation. A study by Putri et al. (2022) reported that only 53% of mothers received postpartum breastfeeding counseling, despite national policy mandates. In the context of this study, the majority of respondents delivered in public facilities, yet informal interviews indicated that lactation counseling was brief and often focused on immunization rather than breastfeeding technique. This suggests that knowledge alone must be reinforced by structured health worker engagement to ensure sustained breastfeeding.

Furthermore, socioeconomic status and media exposure may influence maternal perceptions of breastfeeding. A growing body of research indicates that the aggressive marketing of infant formula significantly undermines breastfeeding confidence (Pries et al., 2021). Although not directly measured in this study, anecdotal responses from mothers revealed reliance on formula advertisements as a reference point for infant nutrition. The availability of instant formula at neighborhood convenience shops also makes supplementation more socially acceptable and convenient, reducing breastfeeding exclusivity even among informed mothers.

Study Limitations

1. Small sample size (n=40) may have limited the statistical power to detect associations for anxiety and family support.
2. Cross-sectional design prevents establishing causality; breastfeeding experiences may also shape maternal emotions and perceptions of support.
3. Self-reported data on anxiety and support are subject to recall and social desirability bias.
4. No multivariate analysis was conducted to control for potential confounders such as parity, employment, or cultural beliefs.

4. CONCLUSION

This study concludes that maternal knowledge has a significant relationship with exclusive breastfeeding in the working area of Pauh Health Center in 2024 ($p = 0.012$). Mothers with



adequate understanding of breastfeeding benefits and techniques were more likely to maintain exclusive breastfeeding practices. Meanwhile, maternal anxiety ($p = 0.103$) and family support ($p = 0.454$) were not significantly associated with exclusive breastfeeding, suggesting that emotional or social support alone may be insufficient to influence feeding behavior without strong foundational knowledge.

These findings indicate that knowledge is the most critical determinant in driving breastfeeding behavior compared to emotional or social variables. However, the lack of significance in anxiety and family support does not imply that these factors are irrelevant; rather, it suggests that their impact may depend on quality rather than mere presence. For example, family support that reinforces cultural myths or anxiety that reflects caretaking vigilance rather than distress may not hinder exclusive breastfeeding. Based on these findings, the following recommendations are proposed:

1. For Health Workers:
 - Strengthen targeted counseling programs at Posyandu and Puskesmas, focusing not only on mothers but also on husbands, grandmothers, and other influential family members.
 - Provide practical demonstrations on breast milk expression and storage to address common misconceptions about milk insufficiency.
2. For Policy Makers:
 - Integrate mandatory breastfeeding education modules into maternal classes and antenatal visits.
 - Encourage community-based breastfeeding support groups led by trained counselors or breastfeeding peer educators.
3. For Future Research:
 - Investigate additional variables such as cultural beliefs, parity, employment status, and exposure to formula marketing to achieve a more comprehensive understanding of breastfeeding determinants.
 - Conduct multivariate analyses or longitudinal studies to evaluate causal relationships over time.

In conclusion, improving maternal knowledge remains the most effective and achievable strategy for increasing exclusive breastfeeding coverage. Interventions must move beyond awareness campaigns toward structured, culturally sensitive, and family-inclusive education to achieve national breastfeeding targets.

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