Journal of Multidisciplinary Healthcare Dovepress

Open Access Full Text Article

ORIGINAL RESEARCH

Cultural Influences of Early Food Introduction on Exclusive Breastfeeding Rates in the Nias Islands, Indonesia

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Background & Aims: Despite the WHO and UNICEF recommending exclusive breastfeeding for the first six months of a child's life, global coverage remains low, with only about 44% of infants receiving exclusive breastfeeding during this period. In Indonesia, particularly in the Nias Islands, which have high stunting rates, social and cultural dimensions significantly influence this practice. This study aims to explore in depth the social dimensions behind early infant feeding practices. By understanding these social issues, effective interventions can be developed in the future.

Methods: This study was conducted in three remote villages in the Nias Islands using a qualitative approach. The research locations were selected based on District Health Office data about areas with low exclusive breastfeeding coverage or high stunting rates. In each location, the village midwife assisted in identifying and selecting suitable informants for the study. Data were collected through in-depth interviews with 15 mothers, Focus Group Discussions (FGD) with three groups of mothers, and interviews with village midwives and community leaders to understand the influence of social norms and cultural factors. The data were analyzed using thematic analysis.

Results: The findings indicate that the low knowledge about the benefits of exclusive breastfeeding, along with socio-cultural perceptions supporting early food introduction, significantly influence this practice. This study also reveals that social pressure and entrenched cultural norms, including the roles and expectations of women, play a significant role in the early introduction of food before six months of age.

Conclusion: This study identifies that the combination of inadequate knowledge and a strong socio-cultural landscape contributes to the low prevalence of exclusive breastfeeding in the Nias Islands. This situation necessitates more targeted educational strategies and the inclusion of social and cultural elements in promoting exclusive breastfeeding.

Keywords: early foods, infants, breastfeeding, culture, norm, qualitative research, breastfeeding substitution

Introduction

Exclusive breastfeeding for the first six months of a child's life is every child's right and has been globally recommended by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) due to its proven health benefits for infants, both now and in future stages of life. [1] According to WHO data (2023), only about 44% of infants worldwide receive exclusive breastfeeding during their first six months. [2] The low coverage of exclusive breastfeeding is a serious concern, as it can increase the risk of stunting and various other health issues in children.

One factor contributing to the low coverage of exclusive breastfeeding is the early introduction of solid foods for infants under six months old. This early food introduction has become a significant concern as globally, more than one-third of infants aged 4–5 months are given solid food, with the problem concentrated in Asia and Latin America. [3] Introducing food before six months of age can lead to various negative consequences later in life.[4,5]

Received: 10 September 2024
Accepted: 30 October 2024
Published: 29 November 2024

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Studies have shown that low maternal knowledge and perceptions about the importance of exclusive breastfeeding are often the primary reasons for early food introduction. Research reveals that mothers who do not fully understand the benefits of exclusive breastfeeding tend to introduce complementary foods prematurely, thereby disrupting the optimal nutrition process for their infants.[6,7] Victora et al also highlight that low knowledge about exclusive breastfeeding is closely related to the early introduction of foods, which can negatively impact infant health.[8] However, this behavior is part of a broader dimension. Every mother within a social context that significantly influences her decision to introduce food early to her baby.

Thus, understanding the local context is crucial in addressing the low coverage of exclusive breastfeeding and its relationship with early food introduction, as each region has different issues and challenges. Varying social, cultural, and economic factors in different areas can influence this practice. Therefore, region-specific research is essential to identify and address the factors contributing to the low coverage of exclusive breastfeeding.

In Indonesia, 96% of children under 24 months are breastfed, but only 42% of children under six months receive exclusive breastfeeding as recommended by the WHO.[9] In 2021, the coverage of exclusive breastfeeding slightly increased to 52.5%. The impact of this gap is seen in nutritional problems, particularly stunting, which in 2023 still stands at 21.6%.[10]

This research was conducted in rural areas of Indonesia, specifically in the Nias Islands. The Nias Islands, consisting of five regencies/cities, have alarmingly low coverage of exclusive breastfeeding coverage. The Nias ethnic group is distinctive compared to other ethnic groups in western Indonesia. Due to its relatively isolated location, this group continues to practice traditional cultural patterns believed to have persisted for hundreds of years.[11,12] During a preliminary study in the central region of the Nias Islands, we were informed by the local Health Office that the exclusive breastfeeding rate was less than 10%. In this region, our initial observations indicated that the practice of substituting exclusive breastfeeding was very common. As a result, stunting rates in the Nias Islands are quite high. In 2018, Nias Regency reported stunting rates exceeding 60%.[13] Meanwhile, in 2022, three out of the five regencies/cities had stunting rates above the provincial average.

The Nias Islands have long faced unique challenges that can influence breastfeeding and complementary feeding.[14,15] However, these studies are quite limited in providing a comprehensive understanding of the issue, as exclusive breastfeeding is intertwined with various social factors.

By conducting a qualitative, in-depth exploration of the context surrounding early infant feeding practices—along with mothers' perceptions, knowledge, life pressures, and social influences in the Nias Islands—this research aims to provide new insights relevant to developing more effective interventions to improve exclusive breastfeeding coverage and reduce stunting rates in Indonesia.

Methods

Location

This study was conducted in three villages located in three different sub-districts in the Nias Islands, specifically in the central, western, and southern regions. These areas are generally far from the city center (Gunungsitoli). One area is accessible within an hour, while the others within two hours. Although all areas can be reached by car, the roads are in poor condition. Most of the population in these villages is involved in farming or gardening activities. These remote locations provide a unique context for feeding practices among infants in rural areas. We conducted this research from August 2023 to May 2024. However, we had already established rapport at the location by conducting preliminary studies beforehand. Additionally, we frequently visited the research area for health education and promotion activities. Consequently, we had a preliminary understanding of the issues being studied before officially commencing this research.

Research Approach

This study uses a qualitative approach. Qualitative research is beneficial for accurately describing phenomena and providing detailed, specific information, even though the findings may not generalizable.[16–18] One important aspect we want to highlight is that this issue should be given attention because it addresses the interests of women, which may have been neglected.[19] Therefore, qualitative research is essential, as demonstrated in previous studies we have conducted.[20–22]

Data Collection and Data Analysis

Data collection includes:

- In-depth Interviews: These were conducted to gather detailed information about experiences, perceptions, knowledge, and social factors influencing feeding practices. Fifteen mothers with children under two years old were interviewed individually. The in-depth interview informants for this study were selected from the three research locations, identified through initial discussions with health officials from each local Health Office. These health officials directed us to areas with low coverage of exclusive breastfeeding and/or relatively high rates of stunting. We then approached village midwives to identify mothers who fit the desired profile for our study.
- Focus Group Discussion (FGD): The study was conducted with three different groups of mothers, each consisting of 6–10 participants, to gather diverse perspectives on practices and challenges faced. The recruitment of participants followed the same approach as used for the in-depth interviews. In total, we conducted three FGD sessions.
- Interviews with Village Midwives and Community Leaders from each villages: These interviews were conducted to understand the practices and views from the perspective of local healthcare providers, as well as social norms and cultural factors that may influence feeding practices.

The collected data include:

- Information on Early Feeding Practices: Identifying how food is given to children under two years old. The questions include, "When did you stop providing exclusive breastfeeding?" and "What foods were given to the infant before his/ her 6 months years old ?"
- Experiences, Perceptions, and Knowledge: Analyzing mothers' experiences, knowledge, and views on feeding practices. The questions address topics such as, "To what extent does the mother understand the benefits of exclusive breastfeeding?", "What factors does the mother consider when providing complementary foods to replace exclusive breastfeeding?", and "Where did the mother learn about these complementary foods?"
- Social Factors: Assessing the influence of social factors that affect feeding practices. We inquired whether the mother experienced social pressure. We posed questions such as, "How do you feel as a daughter-in-law living in your mother-in-law's home?" To gain further insights, we also asked practical questions like, "Have you ever been scolded by your mother-in-law or husband for being perceived as disobedient?"

Data collection was primarily conducted in the Nias language. The second author is a native Nias speaker, ensuring smooth communication with informants throughout the research process.

Data Processing

The data were processed with the following procedures: 1) Transcription of Interviews and FGDs: All facilitated interviews and group discussions were transcribed and systematically analyzed. Given that the interviews were conducted in the Nias language, the second author first translated the transcripts into Indonesian. 2) Categorization and Thematic Coding: Data were organized into categories and thematic codes to identify patterns and key themes. To achieve this, both authors conducted initial coding on the verbatim data. This initial coding was then jointly discussed to develop the final coding scheme. Once both authors agreed upon the codes, they were organized into sub-themes, as presented in the following sections. NVivo software was utilized by both authors to facilitate the coding process. 3) Data Triangulation: Data from various sources (interviews, FGDs, midwives, and community leaders) were compared and aligned to enhance the reliability and validity of findings. Data from these different groups is essential to obtain valid findings. Diverse perspectives provide complementary arguments, which may even strengthen the research findings, as presented in the results section of this study.

The objective of this research is indeed critical to explore in depth using the techniques outlined above. As a cultural norm, it is essential to apply a problem-focused approach rather than merely gathering superficial information. Therefore,

the qualitative techniques employed are highly beneficial in providing a more comprehensive narrative of the phenomenon under investigation—namely, the substitution of exclusive breastfeeding.

Ethical Approval and Research Ethics

Given the context of the research location and the background of the informants, and considering that we have conducted several activities on Nias Island over the past few years, we anticipated the possibility of implementing verbal consent. The majority of the informants residing in the research area lack adequate educational support, with many not having completed their basic education. Therefore, when preparing the proposal, we included the option to use verbal consent in our research. This approach was documented in the ethics protocol, which is the form provided by The Health Research Ethics Committee of the Faculty of Medicine, HKBP Nommensen University. The procedures we outlined were carefully considered by the Ethics Committee, which ultimately approved our proposal. This ethical approval is registered under permit number 487A/KEPK/FK/VII/2023, affirming that our study complies with all required ethical standards and can proceed in accordance with applicable regulations. The Health Research Ethics Committee of the Faculty of Medicine, HKBP Nommensen University develops ethical principles for health research in accordance with the norms of the Declaration of Helsinki.

During the research process, we read the prepared information sheets to each informant we encountered. These sheets contained details about our research, including who we are, the confidentiality of the data they provided, and, importantly, an explanation that the informants have the right to withdraw from the study at any stage of the interview process. To obtain consent, we verbally asked each informant for their willingness to participate. Communication with the informants generally took place in the local language, Nias.

Similarly, when we sought permission to record discussions and interviews with the informants, we provided verbal explanations and asked for their verbal consent. We informed them that we would use a recording device, transcribe the interviews verbatim, and assign unique codes to each informant in the research findings to maintain their anonymity. This consent indicates that the participants agree to take part in the study with full understanding of its objectives and processes, including consent for the publication of information related to their demographic profiles and interview quotations.

In this research, the informants gave their verbal consent. The recording device (a mobile phone) was placed in an open and visible location. The recorded interview data were then transcribed verbatim, with each transcript coded to ensure confidentiality. The recorded data are stored on our personal laptop and are not shared through online data storage platforms.

Results

The primary informants in this study consist of 15 mothers with children under the age of two. As shown in Table 1, the majority of informants the majority of informants have no formal schooling, while a smaller group has completed either elementary or high school.

The age range of the informants falls within the productive age group, while the ages of their children vary. Similarly, the number of children the informants currently have ranges from one to four.

This study conducted a thematic analysis through the coding process. The research themes were then reconstructed and summarized, as presented in Table 2. Detailed explanations of the emerging themes are provided.

Theme 1. Infant Feeding Patterns

Early food introduction among infants has become a common practice among mothers, who generally start feeding their children at a very young age.

> I gave my child porridge. As far as I remember, she was two weeks old. (M1)

> Three days after birth, I saw my child was strong enough to eat. I gave her mashed bananas. People here say bananas are good because babies can’t chew yet. (M2)

Table 1 Main Informant's Characteristics

No	Informant Code	Highest Education Completed	Current Informant's age	Age of Children (months)	Current Number of Children
1	M1	No schooling	21	16	1
2	M2	No schooling	19	14	2
3	M3	Elementary school	35	13	3
4	M4	No schooling	32	13	4
5	M5	No schooling	35	10	2
6	M6	No schooling	32	18	4
7	M7	Elementary school	28	12	4
8	M8	High school	23	13	2
9	M9	High school	27	12	1
10	M10	No schooling	32	17	4
11	M11	High school	32	13	4
12	M12	No schooling	23	15	2
13	M13	High school	22	9	1
14	M14	Elementary school	23	20	2
15	M15	Elementary school	26	13	2

Table 2 Research Themes

	Theme	Sub-Theme	Theme Description
Theme 1	Infant Feeding patterns	Perception, Age, Types of food	Perceptions regarding feeding patterns
Theme 2	Feeding motivation	Work, In-laws, Ignorance	Social situations motivating mothers to feed early or choose specific foods
Theme 3	Social pressure	Sources of pressure (in-laws, husband)	Consequences behind pressure | Social disciplining in the form of sanctions for those who comply

Perceptions about the appropriate age for feeding a baby vary based on personal beliefs rather than the baby's actual age.

> Around a month. I had already fed her. At that age, she was old enough to be given porridge. I bought the porridge at a shop near my house. There were many flavor options. (M3)

This behavior is also related to local traditions and unique perceptions about babies. A midwife we interviewed explained:

> Here, there is a belief that during the nine months in the womb, the baby grows and becomes bigger. When they come out, they are ready to eat. So, according to the community here, pregnancy is when babies are formed, so that when they are born, they can immediately eat and drink. Like other humans, eating and drinking are essential for maintaining health. The same applies to babies. That's the community's view in this area. (Mid-1)

The perceptions and unique views above clearly originate from long-held traditions. These practices also influence choices about which foods are considered beneficial. For some respondents, food selection is governed by specific

"regulations. For instance, egg yolk is deemed undesirable; some informants believe that consuming egg yolk will negatively impact a baby's teeth, causing them to rot quickly when they grow.

On the other hand, finely ground rice is recommended because it provides "energy" to the baby, similar to the rice consumed by adults. Hence, porridge made from rice that they process by themselves or porridge available from local shops is commonly used. Bananas are given to teach babies how to chew food.

Theme 2: Feeding Motivation

The mothers' perceptions are closely related to the context they face. The motivation to feed babies at a very early age varies; however, it is generally considered normal because mothers have to go to work.

> How should I say it. here, women have to work immediately. We have fields that are quite far away. While I can't breastfeed my child because it's impossible to come home, I usually return home in the afternoon. So, I feed him. (M4)

In the rural areas in the Nias Islands, fields are often very far away. Therefore, there is no opportunity for a mother, as the family's breadwinner, to go back and forth home. Thus, in their minds, the choice to feed the baby early is the most rational one. Based on information from midwives and parents, this early feeding initiation usually comes from family members who care for the baby while the mother is away. They feel "sorry" for the baby and choose to feed them. Ironically, due to a lack of other options, they sometimes feed the baby sweet tea, as we witnessed in one of the research locations. When we observed this, the baby's sibling simply replied, "my brother is thirsty".

Another mother expressed a normative and important reason for many mothers:

> My husband's job is not enough to meet our needs. I have to help him collect leaves for animal feed. I have to work soon; I only rested for about a week before I began working again. It doesn't feel right to rest for too long. (M5)

One consideration motivating mothers to feed their children early is the pressure to meet family needs. However, there exists a norm requiring them to work. In the research location, informants typically reside in their husbands' households, living with their mothers-in-law, who often wield authority in determining what aligns with social norms and what does not. As daughters-in-law, informants typically comply with their mother-in-law's wishes. Therefore, one informant expressed discomfort by saying, "It doesn't feel right to rest for too long". She felt obliged to return to work shortly after childbirth, even while breastfeeding. Thus, working becomes a necessary choice despite these circumstances.

> Two other informants further explain this:

> We live in my mother-in-law's house. My husband has to be responsible for his parents' well-being. After giving birth, my mother-in-law helped me care for my baby. Two weeks later, she explained that it is not good for women to rest for too long. So, it's better to go to work and leave the baby at home. She said she would feed him, so I followed her advice. (M6)

> My mother-in-law often said that Nias women must be diligent. Children must be independent as soon as possible. She told me that when my husband was a baby, he was only breastfed for a short time and was given porridge immediately so that he would become independent quickly. (M7)

The mother-in-law is the closest source of information about what should be given to the infants. She is considered experienced, having once taken care of her own children. One informant conveys this deep belief in the mother-in-law:

> I don't know what to do. How else. I just follow my mother-in-law's advice. How could I go against her? Who else can tell me but my mother-in-law? There are neighbors, but they also say the same thing. Sometimes I ask how to make delicious porridge for the child. They say mix this and that. I follow their advice. (M8)

The statements from the two informants above (M6 and M7) demonstrate how informants comply with their mothers-in-law. The mother-in-law provides guidance on what is considered good practice and should be followed. If a mother struggles to adhere to these norms, such as working hard, her mother-in-law offers a solution by helping feed the baby. This process is straightforward, and early feeding becomes an easy choice.

This strict view of norms was also expressed by a mother-in-law we interviewed. She insisted that a daughter-in-law's obedience is a must. In the predominantly Christian local community, obeying the mother-in-law as a parent is seen as a Biblical instruction. "Parents, including mothers-in-law, are considered God's representatives on earth", said a mother-in-law. "Following the parents' advice will bring good fortune and a long life".

Many informants hold this belief firmly. Obeying the mother-in-law is part of being a good and commendable daughter-in-law. This obedience is not only for the child's benefit but also to ensure the mother's position is secure, as it helps her avoid social scrutiny and unwanted consequences.

The difficulty in accessing knowledge is very apparent. An informant below shared her experience:

> I have never attended health education. How can we. we are busy working. We hear that health education is held during the day, but we haven't returned home yet. Besides, what we give to our child is already correct, and everyone gives the same. What else is new?. (M9)

When we confronted healthcare workers about this issue, their responses revealed a dilemma. On one hand, they stated that they had organized health education at designated locations, usually at the Health Centre. However, as the healthcare workers mentioned, mothers often do not want to attend. Given their busy schedules, it is understandable that mothers might not prioritize these sessions. On the other hand, many feel that listening to health education about nutritious food or similar topics is unnecessary. They believe the information they need about feeding their children is sufficient from their mother-in-law or, at most, their neighbors. Additionally, midwives—especially younger ones with no experience caring for children—are not regarded as credible sources.

Theme 3: Social Pressure

Ultimately, behavior is often maintained because individuals experience social pressure and threats for non-compliance. A mother with limited knowledge, incorrect perceptions, and a socially normative environment is likely to conform to these conditions.

One informant admitted to feeling pressure regarding the habit of early feeding:

> I'm afraid something will happen to my child. My husband will be angry if my child keeps crying because of hunger. Besides, if my mother-in-law has taught me, my husband would prefer that I follow that advice. (M10)

This information highlights the informant's fear of going against the advice given to her. In a patrilineal tradition, as is common in Indonesia, women typically comply with their husbands. Not infrequently, opposing or rejecting advise leads to unpleasant situations, as narrated by another informant:

> A neighbor once did not listen to her mother-in-law's advice. She insisted on breastfeeding. Over time, her child became thin, and eventually, she was beaten by her husband. (M11)

Not all informants experience physical violence like this, but the fear and worry about doing something different have made many feel they lack the capacity to act independently. They tend to follow the advice or instructions given by others. Another informant added that in a God-blessed household, a woman must submit and respect her husband. Even if he is wrong, the husband's words and actions should be met with patience by the wife. Therefore, informants feel they should avoid anything that their husbands do not approve of to prevent negative consequences.

Discussion

This study clearly shows that early food introduction cannot be separated from its social dimensions.[23] In other words, substituting exclusive breastfeeding is related to the extensive promotion of formula milk,[24] as well as the mother's health conditions[25,26] and the social configuration within the community. Every individual must be viewed as a social agent,[27] influenced by a set of social determinants that significantly affect their health status.[28]

This study indicates that early food introduction is driven by various mutually reinforcing factors. Misconceptions and low knowledge combine with the motivation to maintain family welfare and are reinforced by social pressure.

Misconceptions are closely related to early food introduction.[29,30] As conveyed by informants M1, M2, and M3 and supported by the midwife's explanation, the belief that food can be given to babies stems from long-standing traditions. They generally acquire this knowledge from their mothers-in-law when they start having children. The interaction between the mother-in-law (who holds past knowledge) and the daughter-in-law (who is just learning to care for infants or young children) is a critical stage. This habit is repeated for the second, third, and subsequent children and is considered a tradition that must be upheld and regarded as accurate even today.[31,32] In many cultures, local traditions and beliefs exert a significant influence, as they are often regarded as truths.[33]

Furthermore, communication among mothers with young infants significantly determines their knowledge, as narrated by M8. The social situation in which each mother shares experiences becomes a reflection that reinforces behavior. Mothers who have learned from their respective mothers-in-law and justify their actions feel more confident in maintaining the early feeding pattern, even if it is incorrect. As revealed in the interviews above, they feel no need to learn anything new from midwives. The phrase "What else is new?" from informant M9 illustrates a strong confidence in the understanding long held by their mother-in-law or neighbors, rather than by midwives or other healthcare workers. The social environment, serving as a reference for knowledge and information, has a significant influence on the behavior of discontinuing exclusive breastfeeding.[34,35]

Understanding the household conditions in rural communities is also necessary. The burden of meeting household needs often rests on women, although husbands also work. In the study location, family fields are generally managed by the wives. There is a belief that women's work is limited to collecting leaves and tapping rubber. These tasks are considered simple, making women the most suitable for them. However, given that the fields are usually quite far away, mothers with infants inevitably must leave their homes. They typically leave in the morning and return in the afternoon, then leave again and return in the evening. This situation increases the likelihood of early food introduction, as children will be cared for by the mother-in-law or other family members. Mothers who have to work are indeed at risk of discontinuing exclusive breastfeeding, as evidenced by other studies.[36,37] This risk is further exacerbated when mothers work under unsupportive gender norms, as is clearly demonstrated in this study.

As part of a community, every individual cannot be separated from the social norms surround them. This is especially true in rural areas, where social relations are still strong. Individuals are often expected to comply; if they do not, they may face social sanctions. Therefore, social pressure plays a significant role in maintaining maternal behavior in their health practices.[38] The negative impact of this social pressure is highly significant, as reflected in the experiences of the informants in the previous study.[38,39] In that study, the authors described various unsupportive social situations that influenced the cessation of exclusive breastfeeding among mothers. These situations included the surrounding environment as well as the healthcare setting.

Thus, mothers' reluctance to change the habit of early feeding is not only due to incorrect perceptions and inadequate knowledge but is also hindered by the social pressures they experience and practice daily. It is not easy for a mother to differ from what is considered a necessity,[40] as there are usually social sanctions behind a norm.[41] Especially regarding the expectation that a woman must obey her mother-in-law and husband, the fear of the consequences for not adopting certain behaviors is clearly expressed by M11. Many women in Eastern cultures lack autonomy over their own choice.[42,43]

The social configuration behind early food introduction revealed in this study shows how the social system not only creates an atmosphere for mothers to feed their infants before the appropriate time, as seen in Themes 1 and 2, but also explains the social dimension that maintains this habit, as seen in Theme 3. In Nias Island, maternal and child health issues have long been a concern.[14,22,44–46] The remote geographical location[47] and traditional cultural practices have contributed to significantly lagging maternal and infant health status.

Furthermore, the social conditions identified in this study provide a broader perspective on understanding maternal and child health levels.[48,49] Those in areas like the study location tend to have much poorer health outcomes due to social vulnerabilities that work against them. The inequality and difficulties faced by those with more oppressive social situations lead to injustice. This represents a global challenge that must be addressed, especially in achieving SDG Target 3.3.[50] This study shows that while maternal health improvements have been notable in recent years, different social conditions rise concerns about local circumstances that are often overlooked.

On a broader scale, this study also reveals that addressing early food introduction is closely related to achieving other SDG targets,[51] such as ending family poverty (SDG Target 1), solving hunger and nutritional problems (SDG Target 2), and reducing inequalities between regions in a country (SDG Target 10). In other words, achieving the SDGs—particularly good health and well-being for mothers and children—should be equitable everywhere and comprehensive.[52]

There is optimism in witnessing the significant global progress in improving maternal and child health. However, as reported in this study, the field conditions reveal a considerable challenge that is not easy to overcome. In addition to strategic approaches, the study's findings encourage research in other locations and various social contexts to continuously uncover the difficulties mothers of infants or young children face in providing optimal exclusive breastfeeding.

Conclusion

This study reveals the important nuances behind the early initiation of food for infants. The analysis concludes that social dimensions are crucial in explaining the current situation. Low perceptions and knowledge are closely tied to the social and economic landscape of rural communities. Women in lower positions within a community find it difficult to escape prevailing conditions due to the social and physical sanctions threatening them.

This study cannot address all aspects related to the substitution of exclusive breastfeeding. As discussed earlier, only three key themes emerged from the field findings. Naturally, other social contexts, such as the role of husbands, were not explored in this research. Similarly, the role of healthcare workers and specific local barriers, which could be examined in greater detail, were not covered extensively in this study. Therefore, future local research is needed, as it may strongly connect to the issue of exclusive breastfeeding substitution.

In efforts to improve maternal health globally, local issues like those highlighted in this study cannot be overlooked and, in fact, offer important nuances that warrant our collective attention. Local problems, such as those discussed in this research, often go unnoticed, while the needs of mothers are crucial and must be voiced. This is the significance of this study: bringing forth voices that have perhaps been faint or unheard to the forefront of the global maternal and child health issues. Thus, a localized approach, as used in this study, will provide accurate insights into potential local interventions to address these issues. The Ministry of Health should design intervention models tailored to local contexts rather than applying a generalized approach for all regions of Indonesia. Similarly, normative changes should be implemented collaboratively with local communities to ensure they are well-received and effectively adopted. Local policies that encourage proper and effective exclusive breastfeeding practices should be promoted by healthcare workers using well-crafted messages, such as emphasizing the importance of the child's future. Additionally, healthcare professionals should conduct educational efforts that involve the entire family, not only mothers.

Disclosure

The authors declare that there are no conflicts of interest related to this work.

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