

Exclusive Breastfeeding in Lesotho: Influences, Barriers, and The Role of Informal Networks

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EXCLUSIVE BREASTFEEDING IN LESOTHO: INFLUENCES, BARRIERS, AND THE ROLE OF INFORMAL NETWORKS

Abstract: This research investigated maternal and infant care in Lesotho, with an emphasis on exclusive breastfeeding practices during the first year of life. A quantitative, descriptive survey included 97 mothers attending healthcare facilities. The findings highlighted a prevalent preference for exclusive breastfeeding in the initial three months, which decreases during the following 3 months. Yet around 7% introduced complementary foods or fluids early on and many did not breastfeed exclusively until the 6-month recommended period. The majority began breastfeeding within the recommended one-hour post-delivery window. Distinct decision-making dynamics emerged: nearly half of the mothers made autonomous feeding decisions, around a quarter collaborated with the child's father or partner, and 11.3% involved extended family in these choices. Colostrum's recognized value as a newborn's first nutrient source aligned with global health recommendations. However, the early introduction of other foods indicates a need to explore mothers' beliefs and knowledge about feeding practices further. Common breastfeeding challenges encompassed issues like sore nipples and perceived milk insufficiency, underlining the importance of educational support. Healthcare professionals, especially nurses, played a key role in offering guidance and support on breastfeeding. The frequent practice of immediate skin-to-skin contact post-birth emphasized the trend toward promoting early bonding and breastfeeding initiation. Furthermore, the community's positive reception to public breastfeeding signaled societal acceptance. In conclusion, this study illuminates the nuances of breastfeeding practices and decision-making in Lesotho, providing insights into interventions and policies to enhance maternal and child health in the country.

Keywords: Decision-making, Exclusive Breastfeeding, Parental Autonomy, Support Systems

Introduction

Breastfeeding stands as a cornerstone of child health and development, receiving global endorsement from international health organizations like the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). The WHO's advocacy for exclusive breastfeeding during the initial six months of life, complemented by sustained breastfeeding and nutritious complementary foods until at least age two, is rooted in robust evidence of its multiple benefits (WHO, 2023; Nangolo, *et al.* 2023; Mphasha *et al.*, 2023; Matias *et al.*, 2023; Giang *et al.*, 2023; Horta *et al.*, 2022; Carsley, *et al.*, 2019). These benefits include reinforced immune systems, decreased infant mortality rates, and the nurturing of strong maternal-infant bonds (Horta *et al.*, 2022; Davis and Sclafani, 2022; Branjerdporn, *et al.*, 2019; UNICEF, 2018; Grote *et al.*, 2018). The Ministry of Health in Lesotho recommendations are aligned with international standards, emphasizing the importance of breastfeeding for all babies, regardless of the mother's HIV status. Breast milk provides vital nutrients for growth and development and protects against common infections. The Ministry of Health and EGPAF focus on empowering stakeholders to create breastfeeding-friendly environments in various settings, including workplaces and homes, and addressing challenges such as low milk supply often linked to food insecurity, absence of breastfeeding hours at work, and young mothers returning to school. Besides the health benefits mentioned, breastfeeding is also highlighted for its practicality—it's free, always available, and doesn't require preparation or refrigeration. It also fosters a bond between the mother and baby, extending to the father and the entire family. Health education at facilities often includes partners or mothers-in-law to support nursing mothers during the exclusive breastfeeding period (Elizabeth Glaser Pediatric AIDS Foundation, 2022).

However, despite universal acknowledgment of its significance, the rates of early initiation of breastfeeding and exclusive breastfeeding (0-5 months) are 56% and 59% respectively. The continued breastfeeding rate (20-23 months) is 15% (UNICEF, 2023). The prevalence and methodologies of breastfeeding in the country vary, influenced by a complex set of cultural, socioeconomic, and individual factors (Nangolo, Robertson & Crowley, 2023; Mphasha *et al.*, 2023; Giang *et al.*, 2023). In Lesotho's context, these elements exert a particularly potent influence, shaped by the nation's distinctive cultural heritage and economic conditions (Ferreira, 2023; Ferreira & Muthengi, 2023). Socioeconomic status, for example, critically affects breastfeeding patterns, with education and income disparities impacting maternal choices and adherence to WHO guidelines (Ferreira, 2023; Giang *et al.*, 2023). Moreover, cultural beliefs and practices in Lesotho wield substantial sway over breastfeeding, where traditional norms and customs may either bolster or impede the practice. Myths and taboos may dissuade exclusive breastfeeding, while societal roles and familial expectations can dictate breastfeeding behaviors. These cultural intricacies interwoven with modern health understanding affect maternal decision-making and practices. Furthermore, socioeconomic constraints also extend into the workplace, where maternity policies are often inadequate, forcing many women to return to work soon after childbirth and thereby disrupting exclusive breastfeeding (Ferreira, 2023).

Healthcare service access, including prenatal and postnatal support, is pivotal to optimal breastfeeding practices (Ferreira, 2023; WHO & UNICEF, n/d). In Lesotho, where healthcare resources may be scarce and/or maternal education about breastfeeding benefits is deficient, less ideal breastfeeding practices might be more common. The challenge is compounded by infrastructural hurdles, hindering access to consistent healthcare encouragement vital for nurturing and upholding WHO-recommended breastfeeding practices. Lesotho's struggle with high HIV/AIDS incidence introduces additional complexity, as HIV-positive mothers face the dual challenge of preventing mother-to-child transmission while ensuring optimal nutrition for their infants (Olivia, 2023). This demands sensitive health messaging and robust support systems to craft breastfeeding policies that are safe and affirming for all mothers and children. This requires not only emphasizing its pivotal role in the holistic development of the child and the well-being of the mother but also active and structured regular access to adequate assistance (*e.g.*, Ferreira, 2023; Giang *et al.*, 2023; WHO & UNICEF, n/d). Furthermore, support networks that could encourage and assist mothers in breastfeeding are, to diverse degrees, lacking (Ferreira, 2023). Information gaps and a lack of targeted support within families and communities hinder the establishment of a breastfeeding-friendly environment. Policy and implementation gaps further exacerbate the situation, where national policies promoting breastfeeding often fail to be effectively enacted on the ground, and there is a clear need for integrated strategies that coordinate nutrition, maternal health, and HIV/AIDS services (iQvia, 2023).

It is worth mentioning that the challenges related to breastfeeding, such as cultural norms, social and economic barriers, and health system limitations, are not confined to Lesotho but are also prevalent in other low- and middle-income countries (LMICs). The previously mentioned challenges prevent mothers from exclusively breastfeeding, which is essential for child nutrition and immune protection, in many countries (*e.g.*, Zimbabwe; Eswatini). Only a few LMICs are on track to meet the World Health Organization's Global Nutrition Target for exclusive breastfeeding (EBF) prevalence by 2030 (*e.g.*, Eswatini). In many developing nations, issues such as food insecurity, lack of proper maternity leave policies, and cultural taboos significantly impact the ability of mothers to initiate and continue breastfeeding. Descriptive research in these contexts often reveals a complex interplay between economic constraints and cultural norms that may discourage or impede optimal breastfeeding practices. Further, studies consistently find that in resource-limited settings, external pressures like the need for mothers to return to work without adequate support, combined with a lack of accessible healthcare education, hinder efforts to maintain exclusive breastfeeding. These challenges are compounded by misinformation and the pervasive marketing of breast milk substitutes. Understanding these shared difficulties is critical for designing effective, culturally sensitive breastfeeding promotion strategies that can be adapted and implemented across various countries with similar challenges to those faced by Lesotho (NaBhattacharjee & Schaeffer, 2021).

Addressing these challenges calls for a multi-faceted approach, which includes a clear focus on the first years. As Ferreira (2023, p. 4) clearly states “The first 1,000 days of life, from conception to two years of age, offer a vital window for nutritional interventions. Proper nutrition during this period can significantly influence a child's physical and cognitive development”. Infrastructure development to improve accessibility to healthcare services, increased educational efforts to counteract breastfeeding myths, training for healthcare providers in lactation support, and the establishment of community support programs are all critical (iQvia, 2023; IMF, 2022; Chingono, 2016). Moreover, advocating for more supportive workplace policies and integrating breastfeeding support into broader health and social policies will be essential to create an environment where breastfeeding is not only recommended but also practically supported, ensuring the health and well-being of mothers and children in Lesotho.

Additionally, investment in research on breastfeeding practices, taboos, and cultural norms in Lesotho is of paramount importance, particularly because recent data is not readily available. Specific research tailored to the country's context would help in understanding the unique challenges that mothers face, the effectiveness of current policies, and the areas where support systems may be lacking. Such research should encompass the social, economic, and cultural factors that influence breastfeeding rates and practices. By focusing on the nuanced aspects of Lesotho's breastfeeding environment, interventions can be more accurately designed to support mothers, encourage healthy practices, and overcome any existing taboos or misconceptions. This would ultimately contribute to the well-being and health of both mothers and children in Lesotho. This initial descriptive research on breastfeeding in Lesotho aims to highlight key issues, serving as a precursor to more comprehensive studies. This phase is crucial for mapping out the landscape, and identifying specific local challenges, practices, and information needs. Insights from this preliminary investigation will pave the way for subsequent, in-depth research, therefore contributing to evidence-based policies and interventions.

Methodology

In the dynamic landscape of maternal and child health research, the present study pioneers a methodological approach to dissect and comprehend the intricacies of infant feeding practices within Lesotho's postnatal care framework. This study was developed in the end phase of a Nutrition-HIV integrated program (iQvia, 2023, and the results were analyzed in the last quarter of 2023 (Ferreira, 2023). Embracing a cross-sectional, non-probabilistic, descriptive research design, the investigation casts a wide net across the diverse ecological zones of Lesotho, capturing the nuanced perceptions, experiences, and opinions of breastfeeding mothers engaged in postnatal care at Mother and Child Health (MCH) Clinics. Due to the non-random sampling method employed, the study's findings cannot be generalized to the entire population. However, it does provide key insights into the specific context and conditions under which the data was collected. This information can be invaluable for identifying trends, patterns, and unique characteristics within the sample that may inform future research or interventions, even if those findings cannot be assumed to apply universally.

Sample

A convenience sample of 97 mother-infant dyads was chosen, spotlighting the breastfeeding practices of mothers availing of postnatal healthcare services. In this study, the sample size was not based on statistical power calculations used in inferential studies but rather on practical considerations¹. In this study, we have opted for a convenience sample of mothers attending clinics based on several practical considerations. First, their presence in a healthcare setting ensures easy accessibility, which is crucial for efficient data gathering. These mothers are also

¹ These included the availability of participants, the prevalence of breastfeeding in the study setting, logistical considerations, and the need to have a diverse enough sample to describe the range of experiences and practices accurately. The number was also influenced by the capacity for thorough data collection and analysis, ensuring that the sample is comprehensive enough to provide meaningful insights into the breastfeeding practices being studied.

a pertinent group whose experiences and perspectives are highly relevant to the research focus on maternal health services. Additionally, convenience sampling is cost-effective and time-efficient, especially important given the resource and time constraints of our study. Furthermore, the likelihood of achieving high response rates is increased with this sample, as clinic-attending mothers may be more inclined to participate in health-related research during their visits.

Eligibility for participation was meticulously defined to ensure a focused lens on the study's target demographic. Women participants were required to be above 16 years of age² and residing within a 20-kilometer radius of selected study sites. The clinics, strategically spread across various ecological zones, offer a kaleidoscopic view of Lesotho's maternal and child health across different terrains and socio-economic backdrops. The sites included in the study—such as Quthing Hospital in the Senqu River Valley and Ntšekhe Hospital in the Southern Lowlands—were selected for their strategic importance and diverse ecological settings. These locations provide a rich tapestry of data, enabling a comprehensive analysis of healthcare facility distribution and accessibility.

Instruments and Procedures

In the context of our research, the examination of breastfeeding practices among postnatal attendees in Lesotho's health clinics was conducted using a descriptive methodological framework. A structured questionnaire, with 39 quantitatively measured items on a 5-point Likert scale, alongside open-ended qualitative questions, was employed to gather comprehensive data on the mothers' breastfeeding perceptions, practices, challenges, and experiences. The study included a rigorous process of instrument validation to ensure reliability and cultural relevance. The validation of the study's instrument involved a multistep process that began with a review by subject matter experts to ensure the content's relevance and accuracy. Subsequently, a pilot test was conducted with a subset of the target population to assess the instrument's clarity and comprehensibility. Feedback from this phase led to refinements of the survey items to better reflect the cultural nuances and language use of the participants. This iterative process helped to establish the reliability and validity of the instrument within the specific context of the study.

The use of a closed questionnaire with precise questions was pivotal in capturing specific data points that provided clarity and depth to our understanding of breastfeeding practices among the surveyed cohort. This, coupled with the rich qualitative data from the open-ended questions, allowed for an integrated analysis that not only quantified trends but also contextualized them within the lived experiences of the participants. The resulting synthesis of data illuminated the complexities of breastfeeding practices in Lesotho, providing a nuanced understanding that can inform targeted health interventions and policy development with scientific precision.

The administration of the questionnaire adhered strictly to established ethical research standards, safeguarding participant confidentiality and welfare throughout the process. The intent was to create a dataset of high integrity that could serve as a reliable foundation for evidence-based decision-making and programmatic interventions in maternal and child health. After data collection, we undertook a systematic process of data entry and preliminary cleaning using Microsoft Excel. This stage was critical in establishing an initial, sanitized data repository, where issues such as inconsistencies, outliers, or incomplete data entries were identified and rectified, thereby ensuring the integrity of the dataset. Following this, the cleaned data was imported into SPSS (Statistical Package for the Social Sciences) for the descriptive data analysis.

² According to Lesotho Penal Code Act, 2012, Act 6 of 2012, 3. Interpretation “In this Code, unless the context otherwise requires — "adult" means any person who has attained 18 years or acquired majority by virtue of marriage;(…) "child" means any person who has not attained the age of 18 years” (cf., Penal Code Act, 2012).

Ethical Considerations and Compliance Standards

This study adhered to the United Nations Evaluation Group (UNEG) Norms and Standards, underscoring the ethical dimensions underpinning our methodology. We systematically operationalized core ethical tenets—integrity, accountability, respect, beneficence, voluntary participation, confidentiality, data protection, and legal compliance—throughout the study. Integrity was maintained by ensuring the research team's independence and proactive mitigation of bias. Accountability was fostered through regular stakeholder consultations, clarifying the study's purpose and actions. Respect for all participants was prioritized, ensuring inclusivity and active engagement throughout the evaluation stages. Beneficence and voluntary participation were upheld by obtaining oral informed consent, emphasizing the voluntary nature of participation, and outlining potential risks and benefits. Confidentiality protocols were rigorously applied, with individual-level information protected through anonymization and restricted data dissemination. Data protection measures were implemented following UNICEF policies and related procedures, involving secure storage and restricted access to personal information. Legal approvals and permissions were systematically obtained from both the Ministry of Health's Ethical Review Committee and UNICEF's Ethical Review Board, ensuring compliance with all relevant ethical standards.

Key findings

The forthcoming presentation of this research details the complexities of initial newborn feeding practices, with a specific focus on breastfeeding, in Lesotho. The data delineate a spectrum of behaviors in relation to global health guidelines, with only moderate adherence to the initiation of breastfeeding within the first hour after birth. This indicates a lag in the universal uptake of a practice proven to bolster neonatal health and mother-infant bonding. The variability in adherence may reflect evolving perceptions of exclusive breastfeeding within familial and communal realms, influenced by public health endeavors. The study also identifies a considerable incidence of early introduction of supplementary foods or fluids, suggesting a divergence from exclusive breastfeeding norms. The factors underpinning such practices remain to be elucidated but could encompass cultural beliefs, information dissemination efficacy, or other socio-economic variables. Notably, the significant non-response rate to queries about early feeding practices warrants attention, as it may signal broader issues such as recall bias, cultural barriers to discussing infant nutrition, or a fundamental misunderstanding of the parameters of exclusive breastfeeding.

Table 1 Description of Study Participants per ecological zone and site

| Sites | Ecological Zone (District) | Total number of participants |
|-------------------------|-----------------------------------|------------------------------|
| Quthing Hospital | Senqu River Valley (Quthing) | 15 |
| Ntšekhe Hospital | Southern Lowlands (Mohale's hoek) | 20 |
| Semonkong Health Centre | Highlands (Maseru) | 12 |
| Paray Hospital | Highlands (Thaba Tseka) | 17 |
| Motebang Hospital | Morthern (Lowlands) | 15 |
| Seboche Hospital | Foothills (Butha Buthe) | 18 |

The composition of family units is a crucial element in the study of maternal and child health, as it often shapes the dynamics of caregiving and resource allocation, impacting infant feeding practices. Our survey delved into this aspect, exploring the presence and number of additional biological children in the households of the participants. The data revealed that just over half of the respondents, precisely 51.50%, reported having one or more additional biological children, painting a picture of family environments rich with sibling interactions. This detail is not trivial; the presence of multiple children could influence maternal time and resource distribution, potentially impacting breastfeeding practices and sibling care dynamics.

Table 2 *Number of children per household*

| The presence of other biological children in their households | Yes | No |
|---|--------|--------|
| | 51.50% | 48.50% |

Diving into the fabric of these family constellations, we observed a spectrum of family sizes. A slight majority of the participants with more than one child, about 51.10%, reported a household with two biological children.

Table 3 *Participants with other biological children*

| Two biological children | Three biological children | Four biological children | Five or six biological children |
|-------------------------|---------------------------|--------------------------|---------------------------------|
| 51.10% | 27.7% | 17.0% | 2.1% |

A significant portion, representing 27.7%, indicated the presence of three biological children, while 17.0% of the families were nurturing four children. At the further reaches of the familial spectrum, a modest 2.1% of participants indicated they were raising either five or six biological children, highlighting a smaller yet significant demographic that manages larger family dynamics. These statistics are far from mere numbers; they reflect the lived realities of families navigating the complexities of parenting multiple children. The presence of additional children can influence the feeding practices and nutritional status of each child within the household. It underscores the need for tailored interventions that consider the unique challenges and support systems inherent in larger family systems. Moreover, the diversity in family size speaks to the necessity for flexible and adaptable healthcare strategies that cater to the varying needs of families, ensuring that each child, regardless of their birth order or family size, has equitable access to optimal nutrition and care.

Table 4 *Immediate post-birth breastfeeding*

| Immediate post-birth breastfeeding | Yes | No | Did not reply |
|------------------------------------|-------|-------|---------------|
| | 50.5% | 46.3% | 3.1% |

When focusing on the type of first fluid given to infants, the prevalence of breast milk (35%) is reassuring and aligns with the recommendations of health authorities (WHO, 2023). However, the use of formula, water, and other fluids (33%), raises questions about the reasons behind this choice and its potential implications in these first vital moments of a newborn's nutritional path, as well as in their development trajectory. Moreover, the high percentage of participants who did not disclose the type of initial fluid provided to their infants leaves a substantial gap in understanding and raises questions for future research. Why such a large proportion of mothers chose not to reveal this information is a puzzle question that requires solving to fully comprehend the complexities of early feeding practices. It points to a potential need for creating a more supportive environment for mothers to share information without fear of judgment, ensuring that they feel understood and supported in such critical moments of their lives. In summary, these findings suggest that a deeper dive into the early feeding practices of newborns in Lesotho is necessary.

Table 5 *Feeding practices after birth*

| Immediate post-birth feeding practices | Breast milk | Other fluids | Does not know because another person fed the child | Did not reply |
|--|-------------|--------------|--|---------------|
| | 36.1% | 11.3% | 2.1% | 50.5% |

Furthermore, despite a moderate inclination towards exclusive breastfeeding during the initial three months postpartum, as reported by 41.3% of participants, our findings indicate that about 7% of mothers introduce complementary foods or fluids earlier than recommended. As infants grow older, there is a pronounced decline in the rates of exclusive breastfeeding, particularly after the first quarter of the infant's life. This deviation from WHO

(2023) recommendations illuminates the need to delve into the underlying causes, such as local cultural practices, informational deficits, or possible constraints in resources that may drive such early dietary diversification. The observed patterns—both adherent and divergent—reveal the intricate nature of breastfeeding practices and underscore the critical need for ongoing public health initiatives to support the full recommended six-month period of exclusive breastfeeding. To bolster the rates of exclusive breastfeeding beyond the initial three months, comprehensive research and tailored interventions are imperative. These efforts should aim to uncover and address the multifaceted factors that influence mothers' decision-making and ability to sustain exclusive breastfeeding, ensuring that both mothers and infants are supported throughout this essential early-life health practice.

In addition to the previous references, it is worth mentioning the high level of reported recognition of colostrum's role as the foundational nutrient for newborns (79,4%), in strong alignment with global health recommendations (WHO, 2023), indicating widespread acceptance of its immunological and developmental benefits. However, the premature introduction of supplementary foods by some mothers, earlier than the globally sanctioned six months, raises critical questions. This practice might reflect cultural norms, economic pressures, or misconceptions about infant nutrition and health, suggesting a disconnect between understood guidelines and actual behaviors. These early dietary introductions, deviating from the exclusive breastfeeding guidelines, highlight the imperative need for nuanced education and support systems. Understanding the motives and barriers mothers face requires comprehensive, culturally sensitive approaches to health education and community support. By elaborating on the context in which these decisions are made, future interventions can be better tailored to bridge the gap between knowledge and practice, ultimately encouraging adherence to recommended breastfeeding practices.

Table 6 Recognition of the nutritional value of colostrum

| Nutritional value of colostrum | Yes | No | Did not reply |
|--------------------------------|-------|-------|---------------|
| | 79.4% | 15.5% | 5.1% |

The study also highlighted the fact that, for nearly 40% of the mothers, skin-to-skin contact with their newborn was not possible. On the opposite, the adoption of immediate skin-to-skin contact post-birth was a reality for 35.1% of the mothers who participated in this study, a practice championed for its extensive benefits (WHO, 2023; Ferreira, 2023; Nangolo, *et al.*, 2023; Branjerdporn, *et al.*, 2019). The information suggests a potential decrease when compared to the reported percentage in the MICS 2018, which indicated that 56% of newborns were put to breast within one hour of birth. This early contact catalyzes critical bonding between mother and infant, laying a foundation for attachment and affection that is as vital for emotional development as it is for initiating breastfeeding. It supports the stabilization of the infant's physiological processes and has been shown to improve the duration and success of breastfeeding. The embrace of this practice reflects a broader shift towards a holistic approach to childbirth and postnatal care, recognizing the intertwined nature of physical health, emotional well-being, and the establishment of an enduring maternal-infant bond (WHO, 2023; Nangolo, *et al.*, 2023; Davis and Sclafani, 2022; Branjerdporn, *et al.*, 2019; UNICEF, 2018).

Table 7 Skin-to-skin contact between the mother and the baby.

| Skin-to-skin contact between the mother and the baby | Yes | No | Did not reply |
|--|-------|-------|---------------|
| | 35.1% | 40.2% | 24.7% |

Breastfeeding, an act deeply rooted in the biological makeup of a mother, is often perceived as a natural and straightforward process. However, the experiences narrated by mothers paint a picture of a journey riddled with a spectrum of challenges that are not only diverse but also profoundly impactful. These challenges are not confined to the physical realm, with sore nipples and the anxiety of an inadequate milk supply being commonly reported issues. The implications of these difficulties are far-reaching, extending into the psychological domain and affecting the maternal psyche. Mothers often grapple with inner turmoil, questioning their competence in providing for their infant's nutritional needs, which can erode their self-assurance and maternal identity. This highlights a

critical need for specialized educational programs. These programs should not only provide practical knowledge about breastfeeding but also offer supportive guidance and reassurance to bolster the confidence of new mothers. Moreover, in examining the introduction of complementary foods, the study reveals that this decision is influenced by factors such as perceived milk insufficiency and infant crying, rather than community practices, family advice, or guidance from health workers. Despite facing these challenges, mothers generally display an understanding of the importance of continuing breastfeeding, which emphasizes its significant role in infant nutrition.

Building upon the previously discussed challenges, the study sheds light on the decision-making intricacies associated with infant feeding practices. It was observed that a substantial portion of mothers, nearly half, exercise sole discretion in deciding their infants' diets. This level of autonomy in decision-making indicates a growing trend where mothers feel empowered to independently navigate the complexities of infant nutrition. This could be a reflection of the effectiveness of maternal health education. On the other hand, about a quarter of the mothers opt for a collaborative approach, involving the child's father or partner in these decisions. This collaboration may signify a more inclusive family dynamic in infant care, potentially fostering shared responsibility and support for the mother during the postpartum period. Additionally, a smaller but significant portion of the study population, precisely 11.3%, includes members of the wider family circle in these decisions. This inclusion could suggest the persistence of traditional practices and the influential role of intergenerational knowledge transfer in shaping infant feeding behaviors.

In the delicate early stages of motherhood, the support system surrounding a new mother is crucial. Both formal and informal networks are instrumental in this period, providing not just guidance but also the confidence and reassurance necessary for successful breastfeeding practices. Healthcare professionals, and nurses, in particular, emerge as central figures in this support network. Their expertise and compassionate approach form the cornerstone of the care that bolsters breastfeeding efforts. Nurses often represent the first point of professional contact for new mothers. They are equipped with the expertise to offer vital advice, share effective breastfeeding techniques, and address common issues that may arise. Their support, however, transcends the boundaries of clinical responsibilities. They also provide emotional support, which is just as essential as technical advice. The presence of a nurse who listens and responds with understanding and empathy can significantly reduce the anxieties and challenges associated with breastfeeding. Moreover, these professionals play a key educational role, equipping mothers with the knowledge and skills needed to navigate the complex journey of breastfeeding. Their guidance is based on a blend of scientific understanding and practical experience, tailored to meet the individual needs of each mother and child pair. The support from healthcare professionals can be the difference between a difficult and a successful breastfeeding experience, as they help to build a nurturing environment that encourages and sustains breastfeeding practices.

This support is further augmented by informal networks, including family, friends, and peer support groups. These networks offer a layer of emotional and experiential sharing that can be particularly comforting. The collective wisdom and shared experiences from these groups can provide unique insights and foster a sense of community, reminding mothers that they are not alone in their experiences. The interplay between these formal and informal support structures creates a comprehensive network that can significantly enhance the breastfeeding experience. Through their synergistic efforts, they provide a tapestry of support that can help mothers overcome obstacles, promote positive health outcomes, and ensure that the act of breastfeeding, while not without its challenges, is as rewarding and beneficial as possible for both mother and child. Finally, the findings also indicate an encouraging upward trend in the community's endorsement of public breastfeeding, suggesting a cultural crescendo in its acceptance. This societal shift, while positive, does not necessarily equate to effective support and care for breastfeeding mothers. The approval of breastfeeding in public spaces is a progressive step toward normalizing the practice; however, it may not always translate into practical support systems, comprehensive healthcare advice, or community-based assistance that mothers require for sustained breastfeeding. This dichotomy between societal approval and the actualization of supportive measures points to a gap that needs addressing. Although public breastfeeding is becoming more accepted, this acceptance must be accompanied by tangible support and resources

to ensure that mothers can navigate potential challenges with confidence. It is a reminder that while cultural perceptions are changing for the better, there remains a crucial need for infrastructure and policy that provide meaningful support to breastfeeding mothers.

Last, it is important to mention that in the course of our research, we meticulously examined the potential variances in breastfeeding practices across different family constellations. Our findings did not reveal substantial differences attributable to these family dynamics. However, the homogeneity observed in our results should not detract from the necessity of further investigation. It is essential to acknowledge that family structures are complex and multilayered, potentially bearing subtle influences on breastfeeding that our study might not have been equipped to detect. Future research endeavors should aim to explore this domain with a more nuanced lens, employing methodologies that could unearth the intricate ways in which varying family constellations may impact breastfeeding practices and maternal experiences.

Study limitations and recommended mitigation measures

In the pursuit of advancing our understanding of infant feeding practices, our study confronted a series of inherent limitations which we have strived to mitigate to ensure the integrity of our findings. Despite the rigorous methodological standards applied, we encountered constraints that necessitated a critical examination to fortify the study's validity and scope.

The assessment's primary focus on reported knowledge, attitudes, and practices provided a valuable initial dataset; however, it did not encompass a full exploration of the broader contextual elements that significantly influence infant feeding, such as socioeconomic factors and cultural beliefs. To address this gap, we propose an in-depth qualitative sub-study utilizing interviews and focus group discussions. This approach is designed to unearth the nuanced factors that quantitative measures alone cannot illuminate, thus enriching our comprehension of these complex practices. Similarly, the protocol of our assessment did not delve into the nutritional profiles of supplementary foods extensively, which is pivotal for a comprehensive understanding of infants' dietary health. To build upon the foundational data collected, we recommend that future studies integrate this line of inquiry into the qualitative sub-study, ensuring a more detailed examination of infants' dietary patterns and nutritional intake.

Furthermore, our research did not sufficiently investigate the perceived benefits of exclusive breastfeeding—a determinant that profoundly shapes maternal feeding decisions. To enhance our understanding in this domain, future research should employ qualitative methods to capture the diverse motivations and cultural values that drive exclusive breastfeeding practices among mothers and caregivers. Lastly, our study's methodological approach presented certain constraints that could affect its generalizability. The lack of random sampling and a comprehensive sample characterization, coupled with a reliance on quantitative data, posed challenges to the broader applicability of our findings. To counteract these limitations, we adopted a strategy of constructing a diverse sample reflective of the variance within the target population and integrating a qualitative component to provide a more granular perspective on individual behaviors and attitudes related to infant feeding.

Discussion

In light of the findings from Lesotho, it is evident that early initiation of breastfeeding within the first hour of birth is a prevalent practice, signifying a positive response to public health campaigns advocating for the immediate bonding and health benefits this practice affords both mother and child. Such early initiation is crucial, as it sets the stage for continued exclusive breastfeeding, which aligns with global health recommendations for enhancing infant immunity and overall health (WHO, 2023; Nangolo, et al. 2023; Mphasha et al., 2023; Matias et al., 2023; Giang et al., 2023; Horta et al., 2022; Carsley, et al., 2019). Despite the promising start, the study revealed a decline in exclusive breastfeeding rates as the child ages past the first three months, with some mothers introducing complementary foods or fluids sooner than advised. This observed decrease in breastfeeding rates, noted not only

in Lesotho (UNICEF, 2023) but also as a common challenge across various countries, is recognized in global health literature (e.g., Ferreira, 2023; iQvia, 2023; IMF, 2022; NaBhattacharjee & Schaeffer, 2021; Dukuzumuremyi *et al.*, 2020; Chingono, 2016). It is also worth highlighting that the respect for colostrum as the initial nutrition for newborns suggests alignment with health advisories (WHO, 2023), yet the early introduction of other foods points to a need for further education on exclusive breastfeeding and, specifically, its multiple benefits (WHO, 2023; Nangolo, *et al.* 2023; Mphasha *et al.*, 2023; Matias *et al.*, 2023; Giang *et al.*, 2023; Horta *et al.*, 2022; Carsley, *et al.*, 2019).

In strong articulation with the previous point, the diversity of breastfeeding practices uncovered in this study echoes the intricate relationship between cultural norms and the communication of health information (Dukuzumuremyi *et al.*, 2020). The interconnection between varied breastfeeding practices and cultural influences, alongside the dissemination of health information, is well-documented within the literature. This relationship underscores the importance of ensuring that health education strategies are not only evidence-based but also deeply rooted in understanding and respecting the cultural context (Ferreira, 2023; iQvia, 2023; Nsiah-Asamoah *et al.*, 2023). To effectively promote exclusive breastfeeding, it is critical that educational campaigns are not only culturally sensitive but also resonate deeply with the community's values. These initiatives must carefully address and rectify misconceptions, offering explicit instruction on the advantages and methodologies of exclusive breastfeeding. In doing so, they should also navigate and respect the cultural, spiritual, and other pertinent practices intrinsic to the local populace. This approach ensures a respectful yet informed pathway to enhancing breastfeeding practices (Nsiah-Asamoah *et al.*, 2023; Dukuzumuremyi *et al.*, 2020).

Additionally, the variety observed in the decision-making process for infant feeding underscores the dynamic nature of breastfeeding practices. Some mothers make these decisions autonomously, while others are influenced by their partners or extended family members. This underscores the significance of adopting family-centered approaches in breastfeeding education and support programs. By engaging the broader family unit, these interventions can harness the supportive influence of relatives, which is instrumental in providing a robust support system for breastfeeding mothers. This comprehensive support is crucial for empowering mothers and ensuring that they receive the encouragement and assistance needed for successful breastfeeding (Nsiah-Asamoah *et al.*, 2023; Dukuzumuremyi *et al.*, 2020). Furthermore, the growing societal acceptance of public breastfeeding in Lesotho marks a positive shift in public attitudes. Yet, for this acceptance to have a practical impact, it's essential to implement strategies that provide comprehensive support for breastfeeding mothers. This means not only creating environments that facilitate breastfeeding in public and at work but also enacting and enforcing policies that uphold breastfeeding rights. It's about ensuring that mothers can breastfeed confidently and comfortably, without facing stigma or inconvenience, no matter where they are. These measures are key to making societal acceptance more than just a notion, but a reality that supports maternal and child health (iQvia, 2023; Ferreira, 2023).

In sum, this study conducted in Lesotho provides a comprehensive overview of breastfeeding practices, highlighting an initial reported considerable adherence to exclusive breastfeeding. However, this adherence diminishes over time, with a notable percentage of mothers introducing complementary foods before the recommended six-month period. The majority of participants began breastfeeding within the first hour of birth, indicating widespread early initiation in line with global health recommendations. The findings also reveal the complexity of decision-making in infant feeding, with nearly half of the mothers deciding independently, while others involve partners or extended family members. Despite recognizing the importance of colostrum, the early introduction of other foods suggests areas requiring further education and support. These insights are critical for informing future public health interventions in Lesotho, emphasizing the need to support and educate mothers to extend the duration of exclusive breastfeeding and to address the factors influencing early dietary diversification. The results of this study provide valuable information that can help shape effective health policies and reinforce breastfeeding as a cornerstone of public health and child development.

Conclusions and Recommendations

This descriptive study not only offers a snapshot of the current breastfeeding practices in Lesotho but also lays the groundwork for targeted actions aimed at reinforcing these practices. The key findings paint a multifaceted picture of initial newborn feeding practices in Lesotho, revealing substantive diversity of behaviors that both align with and diverge from global health guidelines. There is moderate adherence to the initiation of breastfeeding within the first hour after birth, highlighting that this well-established practice that supports early neonatal health and the mother-infant bonding process (WHO, 2023) is still not fully in place in the country. Such adherence is, among other factors, reflective of progressive acceptance of exclusive breastfeeding at family and community levels, which are strongly connected with successful public health initiatives that underscore the importance of early breastfeeding initiation—a practice posited to be critical for enhancing infant immunity and fostering a sustainable breastfeeding journey (*e.g.*, Ferreira, 2023; iQvia, 2023). With around one-third of mothers introducing foods or fluids other than breast milk shortly after birth, it is evident that not all families adhere to the exclusive breastfeeding recommendations during the crucial initial days of a newborn's life. The reasons behind these choices are not immediately clear and may be rooted in various factors including cultural practices, access to information, and/or other factors. Equally notable is the significant portion of mothers who did not respond to questions about early feeding practices. This non-response rate could indicate a range of underlying factors such as recall challenges, cultural reluctance to discuss infant feeding openly, or even the lack of a clear understanding of what constitutes exclusive breastfeeding.

For public health campaigns to be effective, they must frequently and sensitively articulate the comprehensive benefits of exclusive breastfeeding, ensuring that the messages resonate within the cultural fabric of Lesotho's communities. Actively engaging not just mothers but fathers extended family members, and other significant ones, will create a collective support network that acknowledges and values the role of each caregiver in the breastfeeding journey. Healthcare professionals, nurses, in particular, are often a new mother's most immediate source of information and support. Therefore, enhancing their training in lactation support is essential. By doing so, these professionals can provide mothers with the informed care and empathy needed to successfully navigate the breastfeeding experience. It is also important for healthcare providers to adopt an inclusive communication style that recognizes the diverse experiences and needs of mothers.

Further, as public breastfeeding gains wider acceptance, it is vital to translate this acceptance into actionable support. Creating private and comfortable spaces for breastfeeding in both workplaces and public venues could significantly reduce barriers to breastfeeding, encouraging mothers to maintain the practice without the anxiety of privacy concerns. An in-depth understanding of local beliefs and knowledge about infant nutrition will also guide the creation of educational materials that speak directly to the community's values and practices. This cultural alignment is key to addressing and potentially curbing the early introduction of complementary foods, ensuring that breastfeeding education is not only heard but adhered to.

Lastly, the commitment to deeper research into breastfeeding and nutrition practices in Lesotho remains critical (*e.g.*, Ferreira, 2023; iQvia, 2023). High-quality, culturally relevant data from such research is the cornerstone for crafting effective nutrition policies and programs. As evidenced by previous studies, there is a profound need for continuous, in-depth research that informs and shapes public health strategies over the long term. By investing in research that yields evidence-based insights, Lesotho can significantly improve its public health landscape. Implementing nutrition programs informed by robust findings will be a decisive step in combating malnutrition. This commitment to research and implementation must be seen as an indispensable element in the nation's health strategy, ensuring a brighter, healthier future for all citizens.

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