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Bridging Gaps in Breastfeeding Education Among Frontline Healthcare Providers: An Expert Clinical Perspective

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Abstract

Breastfeeding is a foundational component of maternal and infant health, providing well-established nutritional, immunological, developmental, and long-term health benefits.

International health organizations recommend exclusive breastfeeding for approximately the first six months of life; however, breastfeeding outcomes worldwide remain below recommended targets.

One contributing factor may be variability in breastfeeding education and clinical exposure among frontline healthcare providers who support families during the perinatal period. Inconsistent understanding of breastfeeding physiology can contribute to variations in counseling practices, interpretation of normal newborn behaviors, supplementation decisions, and management of common early breastfeeding challenges.

This expert clinical perspective highlights observed gaps in foundational breastfeeding knowledge among multidisciplinary perinatal care teams. Drawing upon clinical experience in obstetric care and lactation consultation, this article discusses common challenges encountered in practice and reviews key evidence-based breastfeeding principles that support physiologic understanding and consistent clinical decision-making.

Strengthening interdisciplinary breastfeeding education may enhance provider confidence, improve maternal counseling, reduce unnecessary disruptions to breastfeeding, and support families in achieving their breastfeeding goals.

Keywords: Breastfeeding education; Lactation support; Healthcare providers; Newborn feeding; Breastfeeding physiology; Clinical perspective.



Introduction

Breastfeeding is recognized as the biologically normative method of infant feeding and is strongly supported by international and national health organizations, including the World Health Organization (WHO) and the American Academy of Pediatrics (AAP). Current recommendations support exclusive breastfeeding for approximately the first six months of life, followed by continued breastfeeding with appropriate complementary foods.^{1,2}

Despite extensive evidence demonstrating the benefits of human milk for infants and mothers, breastfeeding outcomes remain below global public health targets. Factors influencing breastfeeding continuation are complex and include social support, healthcare system practices, maternal circumstances, and access to skilled breastfeeding assistance.^{3,4}

Frontline healthcare providers—including physicians, nurses, residents, midwives, and allied perinatal professionals—play a critical role in shaping early breastfeeding experiences. The immediate postpartum period represents a particularly important window in which accurate information, skilled assessment, and supportive counseling can influence maternal confidence, feeding decisions, and breastfeeding continuation.

Although many healthcare professionals are committed to supporting breastfeeding families, variations in breastfeeding education and clinical exposure may contribute to inconsistent counseling practices. A shared understanding of breastfeeding physiology, normal newborn adaptation, and evidence-based management strategies is essential to provide consistent, patient-centered care.

This article presents an expert clinical perspective on observed gaps in breastfeeding education among frontline healthcare providers and highlights key evidence-based principles that may strengthen clinical practice.

Clinical Perspective and Observations

Through clinical experience in obstetric care and lactation consultation, variability in breastfeeding knowledge and counseling approaches among frontline healthcare providers has been observed. These observations highlight the potential challenges that may arise when breastfeeding physiology, newborn feeding behavior, and evidence-based management strategies are not consistently integrated into healthcare education.

Frontline providers frequently support families during the early postpartum period, when parents commonly seek guidance regarding milk production, infant feeding patterns, newborn weight changes, and supplementation decisions. Without adequate understanding of normal breastfeeding physiology, expected newborn behaviors may be misinterpreted as indicators of feeding difficulty or insufficient milk intake.

Common clinical challenges observed include:

- Misinterpretation of normal newborn feeding frequency, cluster feeding, and feeding cues
- Early concern regarding perceived insufficient milk supply without comprehensive assessment of milk transfer and infant status
- Supplementation recommendations without clear evaluation of medical indication
- Inconsistent counseling regarding physiologic newborn weight loss and expected recovery
- Variable approaches to latch assessment, positioning, and management of maternal discomfort

These variations in counseling may contribute to increased parental anxiety, reduced breastfeeding confidence, and premature discontinuation of breastfeeding.

Importantly, these challenges should not be viewed as shortcomings of individual healthcare providers. Rather, they highlight the need for consistent, evidence-based breastfeeding education across healthcare disciplines. Standardized education that combines breastfeeding physiology with practical clinical skills may better equip healthcare teams to support families during this critical period.

Evidence-Based Breastfeeding Principles Supporting Clinical Practice

A consistent understanding of breastfeeding physiology is essential for accurate clinical assessment, effective counseling, and appropriate decision-making. The following principles represent key evidence-based concepts that may help healthcare providers distinguish normal breastfeeding adaptation from situations requiring further assessment or intervention.

1. Human Milk as a Dynamic Biological System

Human milk is a biologically active substance that changes in composition according to the infant's developmental needs, stage of lactation, maternal physiology, and feeding patterns. Beyond providing nutrition, human milk contains immunoglobulins, immune cells, enzymes, hormones, growth factors, and other bioactive components that contribute to immune protection, gastrointestinal maturation, and infant development.^{5,6}

Early milk (colostrum) is produced in small quantities but is highly concentrated in protective factors. Understanding the unique role and composition of colostrum is essential to prevent misinterpretation of physiologically appropriate early milk volumes as inadequate intake.⁵

2. Colostrum and Early Milk Production

During the first days following birth, colostrum production occurs in small volumes appropriate for the newborn's physiologic needs and gastric capacity. Colostrum provides concentrated nutrition and immune protection, including high levels of secretory immunoglobulin A and other protective components.^{5,7}

Healthcare providers should recognize that small volumes of colostrum are expected during the early postpartum period and do not, by themselves, indicate insufficient milk production. Frequent and effective milk removal supports progression toward lactogenesis II and establishment of ongoing milk production.^{7,8}

3. Feeding Frequency and Cue-Based Feeding

Healthy term newborns typically breastfeed frequently, often approximately 8–12 times within a 24-hour period, although individual feeding patterns may vary. Feeding based on early hunger cues rather than rigid schedules supports effective milk removal, establishment of milk supply, and responsive breastfeeding practices.^{2,7}

Normal newborn behaviors, including frequent feeding and cluster feeding, should be recognized as physiologic patterns rather than automatically interpreted as evidence of inadequate milk supply.

4. Physiologic Weight Loss and Weight Recovery

Early neonatal weight loss represents a normal physiologic transition following birth. Assessment should include multiple clinical factors, including percentage of weight loss, feeding effectiveness, hydration status, elimination patterns, and overall infant condition.^{9,10}

For healthy term infants receiving effective breastfeeding support, birth weight is commonly regained within approximately 10–14 days, although individual variation occurs. Decisions regarding supplementation should be based on comprehensive clinical assessment rather than weight change alone.^{8,9}

5. Diaper Output as a Functional Indicator of Intake

Urine and stool patterns provide practical clinical information regarding hydration and feeding progression during the early postpartum period. Elimination patterns increase gradually during the first days of life and should be interpreted together with feeding effectiveness, infant behavior, and weight trends.⁸

Adequate diaper output serves as one component of a broader clinical assessment of breastfeeding effectiveness.

6. S. Latch Quality and Maternal Comfort

Effective breastfeeding depends on appropriate positioning, attachment, and milk transfer. While some initial nipple sensitivity may occur during early breastfeeding, persistent pain, nipple trauma, or ineffective milk transfer warrants skilled assessment and intervention.^{7,8}

Early recognition and management of latch difficulties can improve maternal comfort, milk removal, and breastfeeding confidence.

7. Milk Production and Supply–Demand Regulation

Breast milk production is regulated primarily through effective and frequent milk removal. Early stimulation and ongoing drainage of the breast support continued milk synthesis, whereas ineffective milk removal may contribute to reduced production.^{7,11}

When supplementation is medically indicated, strategies to protect milk production should be incorporated whenever possible.

8. Maternal Nutrition and Hydration During Lactation

Lactation requires additional maternal energy expenditure, and nutritional needs vary according to individual factors. Adequate nutrition and hydration support maternal health and well-being; however, excessive fluid intake alone does not independently increase milk production.⁷

Counseling should focus on balanced nutrition, responding to thirst, and supporting maternal recovery.

9. U. Pacifier Use and Breastfeeding Establishment

Evidence regarding pacifier use and breastfeeding outcomes remains mixed. Clinical recommendations should consider breastfeeding effectiveness, feeding frequency, and individual family circumstances.¹²

During the early establishment phase, attention should be given to ensuring adequate breast stimulation and effective milk transfer.

10. Gastrointestinal Adaptation and Infant Spit-Up

Small amounts of regurgitation are common during infancy due to gastrointestinal maturation. In the absence of concerning symptoms, poor growth, or inadequate hydration, uncomplicated spit-up is generally considered a normal developmental process.¹³

11. Normal Newborn Behavior and Feeding Variability

Newborn feeding patterns are influenced by developmental adaptation, neurologic maturation, and regulation of milk supply. Cluster feeding, frequent waking, and variable feeding intervals are common in early life.

Recognizing these normal behaviors allows healthcare providers to provide appropriate reassurance and avoid unnecessary interventions.

Discussion

Breastfeeding support requires more than awareness of its benefits; it requires a shared understanding of basic lactation physiology, normal newborn feeding adaptation, and evidence-based breastfeeding principles among healthcare professionals who support families during the perinatal period. Frontline healthcare providers—including physicians, nurses, midwives, residents, and allied health professionals—often serve as the first source of information and reassurance for mothers and families during the early postpartum period. Therefore, the accuracy and consistency of breastfeeding information provided by healthcare teams can significantly influence maternal confidence, feeding decisions, and breastfeeding continuation.

Although many healthcare providers are committed to supporting breastfeeding families, variations in breastfeeding education, clinical exposure, and opportunities for lactation-focused training may contribute to differences in counseling practices. The challenge is not a lack of commitment among providers, but variability in foundational breastfeeding knowledge. Without a shared understanding of breastfeeding physiology and normal newborn behaviors, families may receive inconsistent messages regarding milk production, feeding frequency, supplementation, and management of common early breastfeeding concerns.

A common clinical challenge is the misinterpretation of normal newborn feeding patterns. Frequent feeding, cluster feeding, and variations in feeding intervals are normal physiologic behaviors that support establishment of milk production. Similarly, colostrum is produced in small but appropriate quantities during the early postpartum period and provides important nutritional and immunological benefits. Understanding these normal processes allows healthcare providers to provide appropriate reassurance and avoid unnecessary concerns regarding milk supply or breastfeeding effectiveness.

Assessment of breastfeeding progress also requires a comprehensive understanding of multiple clinical factors. Breastfeeding effectiveness should be evaluated by considering feeding behavior, milk transfer, hydration status, elimination patterns, weight trends, and overall infant condition rather than relying on a single indicator. A shared understanding of these basic principles can support appropriate clinical decision-making, reduce unnecessary interventions, and help identify situations requiring additional lactation support.

Strengthening breastfeeding education across healthcare disciplines should focus on establishing a common foundation of knowledge that enables providers to deliver accurate, consistent, and evidence-based information to families. Education should include essential concepts such as breastfeeding physiology, normal newborn feeding behaviors, recognition of common concerns, appropriate counseling approaches, and referral pathways when additional lactation support is needed. Interdisciplinary education, collaboration with lactation professionals, and integration of breastfeeding education into healthcare training and continuing professional development may help bridge existing knowledge gaps.

Healthcare institutions and professional organizations have an important role in developing standardized breastfeeding education frameworks for disciplines involved in maternal and newborn care. By promoting a shared evidence-based foundation among healthcare providers, healthcare systems can reduce variations in breastfeeding guidance and support more coordinated care for families.

Ultimately, improving breastfeeding outcomes requires knowledgeable frontline healthcare providers who can provide consistent support and timely access to specialized lactation care when needed. Bridging the gap between breastfeeding science and clinical practice through shared foundational education can strengthen interdisciplinary care and better support mothers and infants during the critical early postpartum period.

Conclusion

Breastfeeding remains one of the most effective interventions for promoting maternal and infant health, yet successful breastfeeding often depends on the quality of support provided during the perinatal period. Frontline healthcare providers occupy a pivotal position in guiding families through early breastfeeding experiences, making consistent, evidence-based education essential.

This expert clinical perspective highlights common areas in which gaps in breastfeeding knowledge and clinical confidence may contribute to inconsistent counseling and management practices. Strengthening foundational understanding of lactation physiology, newborn feeding behavior, breastfeeding assessment, and evidence-based interventions can improve provider confidence and enhance the quality of breastfeeding support delivered to families.

Healthcare organizations, educational institutions, and professional bodies should prioritize standardized breastfeeding education and competency-based training across disciplines. Investment in interdisciplinary learning, ongoing professional development, and evidence-based maternity care practices may help reduce unnecessary breastfeeding disruptions, improve breastfeeding continuation rates, and ultimately contribute to better maternal and child health outcomes worldwide.

Ethical Approval

Not required. This article is an expert clinical perspective and literature-based review and did not involve human participants, patient data collection, or experimental interventions.

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