



Pediatric Resident and PHM Fellow Lactation Education - Defining Competencies and Developing Curricula

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Learning Objectives

- Identify gaps in pediatric resident breastfeeding and lactation education based on a recent study.
- Describe breastfeeding competencies for pediatric residents according to their level of training and field.
- Outline the structure and educational strategies to implement a breastfeeding and lactation medicine curriculum for pediatric residents and hospital medicine fellows.



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Resident Breastfeeding and Lactation Education: A National Study of Pediatric Residents

Assess the current state of breastfeeding and lactation related training of pediatric residents in the United States

Supported by the Association of Pediatric Program Directors Longitudinal Educational Assessment Research Network (APPD LEARN)

An online survey was distributed to residents in participating programs. The survey assessed six domains.

We received 489 responses from 21 programs. Overall response rate was 40.8%.



DOMAINS:

- DEMOGRAPHICS
- PERCEIVED IMPORTANCE
- CURRENT EXPERIENCE AND EDUCATION
- PERCEIVED CONFIDENCE
- OBJECTIVE KNOWLEDGE
- INTEREST IN ADDITIONAL TRAINING

Thank you to Katya Castillo MD for her work on this project!



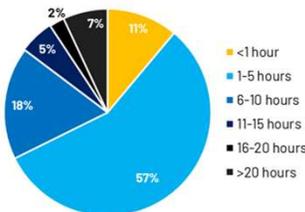
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Importance: Nearly all respondents agreed that pediatricians play an important role in supporting BF and that the topic is relevant to their current and future practice.

Current Educational Experience:

74.8%

Received BF training during residency



ONLY **49.5%** ARE SATISFIED WITH EDUCATION

ONLY **38.4%** AGREE THAT DEDICATED TIME IS SUFFICIENT

INCREASED HOURS OF TRAINING WAS ASSOCIATED WITH HIGHER SATISFACTION ($P < .0001$)

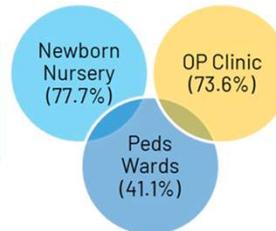
CLINICAL EXPERIENCE

85.5% AGREED THAT PATIENTS EXPECT RESIDENTS TO ADDRESS THEIR BF CONCERNS

ONLY **44.8%** AGREED THAT RESIDENCY HAS PREPARED THEM TO PROVIDE BF COUNSELING

26.0% HAVE NEVER DIRECTLY OBSERVED BF AS PART OF A CLINICAL ASSESSMENT

MOST COMMON SETTINGS TO PROVIDE BF CARE:



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Confidence: Increased overall confidence score was associated with having received training in residency ($P < .0001$) and a higher number of hours of training ($P < .0001$)

CONFIDENCE DOMAINS

1. BENEFITS OF BF
2. RECOMMENDATION TO OPTIMIZE BF SUCCESS
3. ASSESSING LATCH AND POSITIONING
4. EVALUATING MILK SUPPLY
5. EVALUATING INADEQUATE WT GAIN
6. ASSESSING WHEN SUPPLEMENTATION IS INDICATED
7. MEDICATION SAFETY
8. GENERAL CONFIDENCE PROVIDING BF CARE

Domains with lowest confidence:

32.9%

51.9%

55.0%

Knowledge: Mean score was 64.5% (SD±15.2).

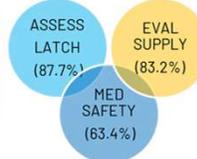
- Higher score associated with receiving training and higher perceived confidence.

Interest in additional training: Majority interested in additional training (87.9%) and felt that additional training would improve patient care (94.5%)

Preferred modality of education:



TOPICS OF MOST INTEREST



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Conclusions

- Pediatric residents understand the importance of BF knowledge and acknowledge the role pediatricians play in supporting patients
- Residents are expected to manage BF related concerns, but do not feel adequately prepared and are not satisfied with education and there are significant gaps in confidence and knowledge.
- Receiving training is associated with higher confidence and knowledge scores
- It is imperative to develop required competencies to standardize BF education across pediatric residencies.
 - Domains to prioritize: assessing latch/positioning, evaluating supply, and medication safety



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What are our limitations in implementing and improving BF education?

Time

Variable faculty expertise

Variable faculty comfort

Few BF medicine practicing physicians

Lack of awareness of need

Interprofessional education and collaboration



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Developing BF Competencies for Pediatric Residents

- Recommended educational objectives have been published
 - Meek JY; Academy of Breastfeeding Medicine. Educational Objectives and Skills for the Physician with Respect to Breastfeeding, Revised 2018. *Breastfeed Med.* 2019;14(1):5-13
- How will we implement these recommendations?
- Process:
 - Define competencies expected for all pediatric residents in BF care
 - *Starting with what's feasible in current state*
 - Define competencies for residents who will provide BF care
 - Primary Care, NICU, PHM
 - Determine educational objectives by rotation related to expected competencies
 - Where are there gaps in ability to teach these objectives?



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Pediatrics and Breastfeeding Medicine Continuum of Expertise

- Basic: what SHOULD all pediatricians know
 - Also...what can we feasibly teach in the confines of what we do now
 - And improve faculty knowledge!
- Intermediate: those interested in further competency, focus within the scope of their chosen specialty
 - Primary Care, NICU, PHM focus
 - What requires expert teaching (IBCLC, etc)
- Advanced: expanding to IBCLC/NABBLM level, expansive knowledge
 - Everything else



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Basic Competencies

- Understand the basic anatomy and physiology of milk production and infant breastfeeding.
- Understand how the physiology of milk production plays into recommendations and provide evidence-based counseling to families about establishment of breastfeeding.
- Understand and counsel families on the benefits of breastfeeding for both mother and infant as well as the contraindications to breastfeeding.
- Understand factors that impact a medication safety assessment in lactation.
- Evaluate infant growth and identify when closer feeding evaluation and supplementation is necessary.
- Counsel families throughout the course of an uncomplicated breastfeeding journey, including indications for milk expression, nutritional supplementation, introduction of complementary foods, and weaning.
- Evaluate appropriate latch, milk transfer, and milk supply and begin assisting a dyad in achieving a latch.
- Recognize and manage common issues that may arise in the newborn period that can impact breastfeeding and appropriately refer to expert care when indicated.
- Demonstrate effective communication with families of all backgrounds.
- Understand the spectrum of providers of lactation care and identify when to refer and coordinate care.



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Intermediate Competencies

- Obtain a relevant breastfeeding history and physical exam of mother and infant when lactation-related issues arise.*
- Facilitate appropriate positioning and latch for a well breastfeeding dyad.*
- Understand how infant health issues (both anatomic and physiologic) impact milk transfer and infant growth.*
- Understand how breastmilk is beneficial for premature infants and how to facilitate use of donor milk and maternal milk expression. Recognize appropriate timing for and facilitate the transition to direct breastfeeding when developmentally appropriate.
- Understand infant and maternal factors that increase risk of lactation failure and appropriately refer for management.
- Understand how different psychosocial factors play into breastfeeding initiation and ability to meet breastfeeding goals.
- Counsel families on milk expression and storage when appropriate.*
- Counsel families about breastfeeding in the context of substance use.

*Can become basic with faculty education and expansion of required education



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Advanced Competencies

- Understand maternal factors that influence milk production and infant feeding.
- Understand the biochemical and immunologic aspects of breastmilk and their impact on infant health.
- Perform a maternal breast assessment, understanding physical exam factors that may suggest risk of low milk production or complications of breastfeeding (mastitis, abscess, nipple trauma, etc).
- Manage maternal complications of breastfeeding (mastitis, abscess, nipple trauma, etc).*
- Manage low milk supply* and counsel families on feeding options when milk supply is low.
- Counsel families about breastfeeding in complex situations (multiples, infant and maternal medical complexity, etc).
- Counsel families on formal milk banking and informal milk sharing.
- Evaluate maternal medications for safety and appropriateness in lactation.
- Identify, implement, and advocate for policies that support breastfeeding at the institutional, local, state, and/or national level.

*May be out of scope for residency-related pediatric training



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Lactation Care in the UM Residency Curriculum

- Required Rotations to target lactation education:
 - Newborn nursery (PGY1)
 - Primary Care (all years)
 - Pediatric Advocacy and Community Health (PGY2)
 - NICU (all years)
 - PHM (all years)
- Electives (PGY2+):
 - Lactation Elective
 - PHM elective
 - NICU elective
 - Newborn elective
 - Newborn Transition elective
- Didactics - 2 hours



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Resident Lactation Elective

Elective (2 weeks)

- Educational objectives target intermediate competencies
- LC shadowing
 - Birth Center, Inpatient/NICU consults, Outpatient Clinic
- Virtual learning
 - AAP Breastfeeding Curriculum
 - ABM What Every Physicians Needs to Know videos
 - Optional
 - Stanford Nursery website
 - Institutional Lectures
- Case Discussion

Advanced Elective (2 weeks)

- Mastery of intermediate competencies and pediatric-specific advanced competencies
- Focus on their career goals
- Additional LC time
- OT/SLP
- Project of resident's choice
- Case Discussion



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PHM Fellow Lactation Elective

- Has served as a “transition from parental leave” elective
- Similar resources, but different focus and requirements
 - Infant oromotor exam
 - Readmissions
 - Infants with health problems
 - Growth faltering
 - Medication safety
 - NOWS
 - Late preterm infants
 - Transitioning preterm to BF
- Addition of ABM protocols:
 - Supporting Breastfeeding During Maternal or Child Hospitalization
 - Cleft Lip/Palate
 - Breastfeeding the Hypotonic Infant
 - Preprocedural Fasting for the Breastfeeding Infant
 - Supplementation, Jaundice, Hypoglycemia
- Stanford Website: “Subgroups at Risk for Lactation Failure”
- Project of their choice



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This is an iterative process!

Next Steps:

- Identify which objectives can be met in which core rotations.
- Identify gaps for implementing teaching of those objectives
- Create just-in-time education or other initiatives to optimize faculty practices and teaching abilities
 - Want to focus on making it easier for faculty to provide hands-on and bedside teaching
- Increase opportunities as our BF med practice grows!



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Questions?

Educational objectives from Meek et al linked to our currently defined competency levels:



Meek JY; Academy of Breastfeeding Medicine. Educational Objectives and Skills for the Physician with Respect to Breastfeeding, Revised 2018. *Breastfeed Med.* 2019;14(1):5-13

