# Breastfeeding Concerns and Their Management: One-Year Experience in a Physician-Run Lactation Clinic

Global Pediatric Health Volume 5: 1–4 © The Author(s) 2018 Reprints and permissions: sagepub.com/journalsPermissions.nav DOI: 10.1177/2333794X18775890 journals.sagepub.com/home/gph

(\$)SAGE

Emily K. Nease, MD<sup>1</sup>, Janani Narumanchi, MD<sup>1</sup>, Olivia E. Nield, AA<sup>1</sup>, and Linda S. Nield, MD<sup>1</sup>

Received April 4, 2018. Accepted for publication April 9, 2018.

# Introduction

Less than one third of infants nationally are still being breastfed at 1 year of age<sup>1</sup> despite the recommendation by the American Academy of Pediatrics (AAP) for mothers to continue breastfeeding for 1 year or longer.<sup>2</sup> The health benefits of breastfeeding for the infant and mother are well known, and the immediate postpartum period is the ideal time for establishing and supporting breastfeeding. Although pediatric clinicians are generally strong advocates for breastfeeding, the national rates of breastfeeding drop from an initiation rate of 81.1% to a 6-month rate of 51.8%, and then to a 1-year rate of 30.7%. Among many factors, lack of support for breastfeeding mothers from family, coworkers, employers, and even health care providers contribute to this decline in breastfeeding rates. Even though health care professionals are aware of their role in promoting breastfeeding, time constraints and limited knowledge and confidence in their abilities to counsel breastfeeding mothers contribute to the gap in optimal care. Walton and Edwards reported that surveyed pediatric residency graduates feel poorly prepared to manage "breastfeeding issues." Despite the availability of educational resources, like the World Health Organization's "Ten Steps to Successful Breastfeeding" and the Baby Friendly Hospital Initiative (at www.babyfriendlyusa.org), Feldman-Winter et al found that there has been no change over the past 2 decades in pediatricians feeling confident in their abilities to manage breastfeeding-related health concerns.<sup>5</sup>

In order to promote the AAP's breastfeeding recommendations, the only physician-run lactation clinic in West Virginia was established in 2013. The goals of this work are to identify the reasons for which the breastfeeding maternal-infant dyad sought medical care at this clinic and to provide pediatric clinicians with a stepwise diagnostic approach and recommend resources to manage the most commonly encountered breastfeeding-related health concerns.

# **Methods**

This retrospective chart review of patients presenting to the lactation clinic from May 2016 through April 2017 was approved by the Institutional Review Board at West Virginia University School of Medicine. Information about the mother and infant was compiled in an Excel spreadsheet and included the following factors: whether the patient kept the appointment, infant's gestational and chronologic age, mother's age, type of delivery at birth, pacifier and/or bottle use, nipple shield use, past medical issues in infant and mother, and reason for visit. Percentages were established for the presence of each of the factors in each chart reviewed, with specific attention to the reason for the visit.

# Results

A total of 162 charts were reviewed from appointments in May of 2016 through April 2017. More than one fourth (25.3%) of all scheduled appointments were "noshows," indicating that these patients did not show up for their visits. The mean age of the mothers who kept their appointments was 30 years (range of 19-50 years), and the mean of the age of the infants was 27 days (range of 2-274 days) with a mean gestational age of 39 weeks (range of 33-41 weeks). Eighty-five percent of the infants were Caucasian, 3% were Asian, 2% were African American, and 10% were of unknown race.

The most common reason for an appointment was the infant's inability to latch (44.6%). Other concerns as listed in Table 1 included the following: painful latch/

<sup>1</sup>West Virginia University, Morgantown, WV, USA

### **Corresponding Author:**

Janani Narumanchi, Department of Pediatrics, West Virginia University School of Medicine, PO Box 9214, I Medical Center Drive, Morgantown, WV 26506, USA. Email: jknarumanchi@hsc.wvu.edu 2 Global Pediatric Health

Table I. Health Concerns at Lactation Clinic Visit.

Health Concern	Number of Patients (%)
Inability of infant to latch	44.6
Painful latch/nipple pain	39.7
Poor infant weight gain	33.1
Low milk supply	23.1
Infant hyperbilirubinemia	22.3
Deep breast pain	9.9
Breast infection and mastitis	6.6
Breast engorgement	4.1
Infant ankyloglossia	3.3
Maternal inverted nipples	2.5
Maternal yeast infection of the breast	2.5

nipple pain (39.7%), poor infant weight gain (33.1%), low milk supply (23.1%), infant hyperbilirubinemia (22.3%), deep breast pain (9.9%), breast infection and mastitis (6.6%), breast engorgement (4.1%), infant ankyloglossia (3.3%), maternal inverted nipples (2.5%), and maternal yeast infection of the breast (2.5%). Most patients (75%) required 1 visit, while 21% required 2 visits and 4% required 3 visits to the lactation clinic.

# **Discussion**

The most common reasons that breastfeeding mothers seek care from a lactation clinic have been determined. Although general pediatric clinicians may rely on other health care specialists to provide breastfeeding care,6 they are in a prime position with multiple opportunities early in the infant's life to elicit and address breastfeeding concerns, especially since the AAP recommends evaluation of the infant at ages 2 to 5 days, 1 month, 2 months, 4 months, and 6 months. Discontinuity of breastfeeding and the subsequent loss of its benefits may occur if the mother-infant dyad experiences one or more of the common lactation concerns (Table 1), and proper health care is not provided. The pediatric clinician should be able to elicit the dyad's concerns by implementation of a basic stepwise diagnostic approach (Table 2)<sup>8</sup> and then administer appropriate treatment with reliance on available resources (Table 3).8-24 Following the 4 steps of the breastfeeding infant health supervision visit, as listed in Table 2, should help the clinician to determine the reason(s) for the breastfeeding difficulty. Ideally, all pediatric clinicians should develop confidence in obtaining the medical history, which includes a detailed surveillance of the breastfeeding experience. Tools are available to assess breastfeeding including the Infant Breastfeeding Assessment Tool,<sup>25</sup> the Mother-Baby Assessment Tool.<sup>26</sup> and the LATCH

**Table 2.** Basics Steps of the Breastfeeding Infant Health Supervision Visit.<sup>8</sup>

Step 1: Obtain infant history

- Feeding pattern (including frequency and duration of feeds, feeding on demand or not, nursing on one or both sides, sleepiness level during feeds, presence or absence of audible swallowing sounds during feeding, and level of infant contentment after feed)
- Use of bottles or not
- Use of formula supplementation or not
- Use of pacifier or not
- Urine output
- Stool output and appearance

Step 2: Obtain maternal history

- Maternal satisfaction level with breastfeeding
- Elicit breastfeeding concerns: inability to latch, painful latch/nipple pain, low milk supply, deep breast pain, breast infection, breast engorgement, inverted nipples

Step 3: Perform physical examination

- Infant weight, length, and head circumference
- Infant vital signs
- Head-to-toe infant examination
- Consider maternal breast examination

Step 4: Observe breastfeeding episode of mother-infant dyad

scoring system.<sup>27</sup> Although there is disagreement in the literature regarding the validity and reliability of these tools, Altuntas et al found that all 3 breastfeeding assessment tools were compatible and reliable, emphasizing that the tools are not time consuming and that training in the use of the tools increased correlation rates.<sup>28</sup> A headto-toe examination of the infant and direct observation of a breastfeeding episode are crucial to identify dyads who are at risk. Examination of mother's breasts to identify abnormalities can provide important clues, which will aid in determining the cause of the breastfeeding difficulty. Infant feeding interest, maternal positioning of the infant, the effectiveness of the latch-on, and effective milk transfer should be noted during direct observation of a feeding event. Once specifically identified, the inability to latch and a painful latch and the other potential lactation maladies (Table 1) must be managed on a case-by-case basis. Treatment of dehydration, hyperbilirubinemia, and hypernatremia must be treated emergently. An in-depth discussion of the etiology and management of each malady is beyond the scope of this work; therefore, the reader is recommended to peruse the resources listed in Table 3, which are organized according to the specific lactation malady.

Pediatric clinicians should strongly consider referring the breastfeeding dyad to a lactation specialist if help is still needed for diagnosis and/or management, despite adherence to the basic stepwise approach in

Nease et al 3

**Table 3.** Breastfeeding Resources for the Primary Care Pediatric Clinician.<sup>8-24</sup>

### General information

- American Academy of Pediatrics and American College of Obstetricians and Gynecologists<sup>9</sup>
- American Academy of Pediatrics<sup>10</sup>
- Bunik<sup>11</sup>
- Bunik<sup>12</sup>
- Centers for Disease Control and Prevention<sup>13</sup>
- Lawrence et al<sup>8</sup>

# Inability to latch

- Stanford University, Newborn Nursery<sup>14</sup>
- Evans et al<sup>15</sup>
- Boies et al<sup>16</sup>

### Painful latch

- Stanford University, Newborn Nursery<sup>14</sup>
- Bunik<sup>11</sup>

### Poor weight gain

Kellams et al<sup>17</sup>

### Low milk supply

 Academy of Breastfeeding Medicine Protocol Committee<sup>18</sup>

### Hyperbilirubinemia

- American Academy of Pediatrics, Subcommittee on Hyperbilirubinemia<sup>19</sup>
- Flaherman et al<sup>20</sup>

# Engorgement

• Berens<sup>21</sup>

### Persistent pain/mastitis

- Berens et al<sup>22</sup>
- Amir<sup>23</sup>

# Ankyloglossia<sup>a</sup>

Academy of Breastfeeding Medicine<sup>24</sup>

<sup>a</sup>Feeding assessment by a breastfeeding profession is recommended if ankyloglossia is a concern. There is a lack of a universally accepted definition and diagnostic criteria of ankyloglossia in the literature and variability has been noted on the effect on function/feeding.

Table 2 and guidance from the resources in Table 3. Further research as a follow-up to the results of this study will include an investigation to determine reasons for the high "no-show" rate to the lactation clinic and interventions to overcome obstacles to attending clinic visits, especially in this Appalachian community.

# **Author Contributions**

EKN: Contributed to conception and design; contributed to acquisition, analysis, and interpretation; drafted manuscript; critically revised manuscript; gave final approval; agrees to be accountable for all aspects of work ensuring integrity and accuracy.

JN: Contributed to conception and design; contributed to acquisition, analysis, and interpretation; drafted manuscript; critically revised manuscript; gave final approval; agrees to be accountable for all aspects of work ensuring integrity and accuracy.

OEN: Contributed to conception and design; contributed to acquisition, analysis, and interpretation; drafted manuscript; critically revised manuscript; gave final approval; agrees to be accountable for all aspects of work ensuring integrity and accuracy.

LSN: Contributed to conception and design; contributed to acquisition, analysis, and interpretation; drafted manuscript; critically revised manuscript; gave final approval; agrees to be accountable for all aspects of work ensuring integrity and accuracy.

# **Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

# **Funding**

The author(s) received no financial support for the research, authorship, and/or publication of this article.

### **ORCID iD**

Janani Narumanchi https://orcid.org/0000-0003-2275-5933

# References

- Centers for Disease Control and Prevention. Breastfeeding report card. Progressing toward national breastfeeding goals. *United States* 2016. www.cdc.gov/breastfeeding/ pdf/2016breastfeedingreportcard.pdf. Accessed February 14, 2018.
- American Academy of Pediatrics, Section on Breastfeeding. Breastfeeding and the use of human milk. Pediatrics. 2012;129:e827-e841.
- Walton DM, Edwards MC. Nationwide survey of pediatric residency training in newborn medicine: preparation for primary care practice. *Pediatrics*. 2002;110:1081-1087.
- World Health Organization, Division of Child Health and Development, Family and Reproductive Health. Evidence for the Ten Steps to Successful Breastfeeding. Geneva, Switzerland: World Health Organization; 1998.
- Feldman-Winter L, Szucs K, Milano A, Gottschlich E, Sisk B, Schanler RJ. National trends in pediatricians' practices and attitudes about breastfeeding: 1995 to 2014. Pediatrics. 2017;140:e20171229.
- Garner CD, Ratcliff SL, Thornburg LL, Wethington E, Howard CR, Rasmussen KM. Discontinuity of breastfeeding care: "There's no captain of the ship." *Breastfeed Med*. 2016;11:32-39.
- American Academy of Pediatrics. AAP schedule of wellchild care visits. www.healthychildren.org/English/familylife/health-management/Pages/Well-Child-Care-A-Check-Up-for-Success.aspx. Accessed February 14, 2018.
- Lawrence RA, Lawrence RM. Breastfeeding: A Guide for the Medical Professional. 8th ed. Philadelphia, PA: Elsevier; 2016:279-280.

4 Global Pediatric Health

- American Academy of Pediatrics and American College of Obstetricians and Gynecologists. *Breastfeeding Handbook for Physicians*. 2nd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2013.
- American Academy of Pediatrics. Breastfeeding matters the pediatrician's role. https://shop.aap.org/breastfeedingmatters-the-pediatricians-role. Accessed February 8, 2018.
- 11. Bunik M. The pediatrician's role in encouraging exclusive breastfeeding. *Ped in Rev.* 2017;38:353-368.
- Bunik M. Breastfeeding Telephone Triage and Advice.
  2nd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2016.
- 13. Centers for Disease Control and Prevention. Strategies to Prevent Obesity and Other Chronic Diseases: The CDC Guide to Strategies to Support Breastfeeding Mothers and Babies. Atlanta, GA: US Department of Health and Human Services; 2013.
- Stanford University, Newborn Nursery. A perfect latch. https://med.stanford.edu/newborns/professional-education/breastfeeding/a-perfect-latch.html. Accessed February 8, 2018.
- Evans A, Marinelli KA, Taylor JS. ABM clinical protocol #2: guidelines for hospital discharge of the breastfeeding term newborn and mother: "The going home protocol," revised 2014. *Breastfeed Med.* 2014;9:3-8.
- Boies EG, Vaucher YE. ABM clinical protocol #10: breastfeeding the late preterm (34-36 6/7 weeks of gestation) and early term infants (37-38 6/7 weeks of gestation), second revision 2016. *Breastfeed Med.* 2016;11:494-500.
- Kellams A, Harrel C, Omage S, Gregory C, Rosen-Carole C. ABM clinical protocol #3: supplementary feedings in a healthy term breastfed neonate, revised 2017. *Breastfeed Med.* 2017;12:188-198.
- Academy of Breastfeeding Medicine Protocol Committee.
  ABM clinical protocol #9: use of galactogogues in initiating or augmenting the rate of maternal milk secretion (first revision January 2011). *Breastfeed Med.* 2011;6:41-49.

- American Academy of Pediatrics, Subcommittee on Hyperbilirubinemia. Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation. *Pediatrics*. 2004;114:297-316.
- Flaherman V, Maisels MJ; Academy of Breastfeeding Medicine. Clinical protocol #22: guidelines for the management of jaundice in a breastfeeding infant 35 weeks or more gestation—revised 2017. *Breastfeed Med.* 2017; 12:250-253.
- Berens P; Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #20: engorgement. Breastfeed Med. 2009;4:111-113.
- Berens P, Eglash A, Malloy M, Steube AM. ABM clinical protocol #26: persistent pain with breastfeeding. *Breastfeed Med.* 2016;11:46-53.
- Amir LH; Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #4: mastitis, revised March 2014. *Breastfeed Med*. 2014;9:239-243.
- 24. Academy of Breastfeeding Medicine. Protocol #11: guidelines for the evaluation and management of neonatal ankyloglossia and its complications in the breastfeeding dyad. https://abm.memberclicks.net/assets/DOCUMENTS/ PROTOCOLS/11-neonatal-ankyloglossia-protocolenglish.pdf. Accessed February 8, 2018.
- 25. Matthews MD. Developing an instrument to assess infant breastfeeding behavior in the early neonatal period. *Midwifery*. 1988;4:154-165.
- Mulford C. The Mother-baby assessment (MBA): an "Apgar score" for breastfeeding. J Hum Lact. 1992;8:79-82.
- Kumar S, Mooney R, Wieser LJ, Havstat S. The LATCH scoring system and prediction of breastfeeding duration. J Hum Lact. 2006;22:391.
- Altuntas N, Turkyilmaz C, Yildiz H, et al. Validity and reliability of the infant breastfeeding assessment tool, the mother baby assessment tool, and the LATCH scoring system. *Breastfeed Med.* 2014;9:191-195.