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Educational Objectives and Skills for the Physician with Respect to Breastfeeding

The Academy of Breastfeeding Medicine

The Academy of Breastfeeding Medicine is a worldwide organization of physicians dedicated to the promotion, protection and support of breastfeeding and human lactation. Our mission is to unite into one association members of the various medical specialties with this common purpose.

Introduction

The science of breastfeeding and human lactation requires that physicians from many different specialties have a collaborative forum to promote progress in physician education. To optimize breastfeeding practices globally, physicians must incorporate the attitudes and skills needed to practice evidence-based breastfeeding medicine. The study of breastfeeding and human lactation is not currently recognized as a medical subspecialty, so that the maintenance of a multispecialty, physician-only organization dedicated to physician education and expansion of knowledge in this field has been vital.

Background

The benefits of breastfeeding have been well documented. Medical doctors worldwide play a key role in advocating for breastfeeding, and they interact with women and children throughout the lifespan. To advocate for breastfeeding, educate families about breastfeeding, and provide optimal clinical management of breastfeeding, these medical doctors must also be educated about and skilled in breastfeeding preventive maintenance, diagnosis, and treatment. Lack of sufficient education and preparation for breastfeeding support and guidance by physicians has been well documented in the medical literature. ^{6,7}

The 1989 World Health Organization (WHO)/UNICEF "Ten Steps to Successful Breastfeeding" calls for all healthcare staff to be trained in skills necessary to support breastfeeding; this call has been reiterated in multiple subsequent WHO/UNICEF statements.⁸

The Innocenti Declaration of 1990⁹ sets four tenets: national committees for oversight, the Ten Steps mentioned above (which include education for health professionals), the Code of Marketing of Breastmilk Substitutes, and maternity protection. Where these national committees exist, many have as an objective to educate all healthcare providers regarding appropriate breastfeeding and lactation support (e.g., the Australian National Breastfeeding Strategy, the German Breastfeeding Committee, 11 Breastfeeding Promotion Net-

work of India, 12 Kenya's National Infant and Young Child Feeding Committee, the United States Breastfeeding Committee, 13,14 etc.). The Academy of Breastfeeding Medicine (ABM) was founded in 1995 to promote physician education and has as its central goal to develop and disseminate the standard for physician education about breastfeeding and human lactation.¹⁵ Guidance for the integration of breastfeeding medicine throughout the undergraduate, graduate, and postgraduate medical education of physicians is provided in this statement. (ABM recognizes that terminology used to describe levels of medical education in various medical education systems around the globe differs. In this statement, the term "undergraduate medical education" is used to describe education received prior to obtaining a medical doctor degree, "graduate medical education" refers to clinical education received after the medical degree has been conferred and prior to the independent practice of medicine [i.e., doctors in training, typically during internship and/or residency], and "postgraduate education" refers to continuing medical education received, for continued professional development and/or as a requirement to maintain licensure/registration.

Guidelines

Undergraduate medical education

a. All physicians, regardless of discipline, should have basic knowledge and skills in breastfeeding preventive maintenance, diagnosis, and treatment.¹⁶ Therefore, the theory and practice of breastfeeding should be incorporated routinely into medical school curricula.

Medical students should learn basic anatomy of the breast, the physiology of lactation (including milk production), hormonal impact on mother and child, fertility changes, and the biochemical and immunological properties of human milk. Students should be able to explain the biological, sociological, and cultural aspects of supporting breastfeeding. They should have opportunities to take a maternal history, obtain a feeding history of a newborn or child, and observe breastfeeding mothers and children in a variety of clinical settings. Students need to recognize the value of breastfeeding and human milk

feeding, as well as the risks of less than optimal breastfeeding. Ideally, this education should be incorporated into block rotations, systems-based curriculum, or case-based learning in the preclinical education and be reinforced during maternal–child health clinical rotations, including obstetrics and gynecology, pediatrics, and family medicine. ¹⁷ All students, regardless of specialty choice, should receive this basic education.

All applicable examinations, whether standardized subject matter, specific written examinations, oral examinations, observed structured clinical examinations, or national certification board examinations, should assess knowledge base and clinical decision-making skills in breastfeeding. At a basic level, all medical students, and therefore all physicians, should understand the scientific evidence for breastfeeding as the gold standard of infant feeding, understand evidence-based clinical management of normal mothers and newborns, and understand the societal context of lactation to provide health care that supports breastfeeding initiation and maintenance and avoids creating barriers. An internet-based resource is freely available for medical student education. Additional resources may also be helpful in developing a breastfeeding curriculum. 17,18,20,21

- b. Preclinical medical school training in breastfeeding should address the following objectives:^{5,16,17,22}
 - List the health risks of not breastfeeding for children, mothers, families, and society.
 - Diagram anatomy of the mammary gland and supportive breast structures and identify normal and abnormal histology.
 - Describe the physiology of milk production and secretion
 - Describe the hormones of lactation and their multiple effects in mother and child.
 - Explain the biochemical and immunologic properties of human milk.
 - Describe the physiology of lactation-related fertility suppression.
 - Appreciate the biological, sociological, psychological, and cultural aspects of supporting breastfeeding.
 - Identify the demographic associations of ethnicity, maternal education, and socioeconomic status on breastfeeding initiation and duration.
 - Identify national and/or international goals for breastfeeding rates and goals for breastfeeding practices, as appropriate.
 - Compare latch (attachment) and suckling dynamics of breastfeeding to bottle-feeding mechanics.
 - Counsel a breastfeeding mother about basic nutritional needs for herself and her child.
 - Describe recommended evidence-based practices for maternity care providers that have been shown to result in increased initiation and duration of breastfeeding.
- Clinical training in medical school should address objectives related to clinical management of breastfeeding, as follows:^{5,16–18,22}
 - Identify factors that contribute to parental decisionmaking about breastfeeding.
 - Obtain a detailed breastfeeding history and perform a breastfeeding-related breast examination.

Recognize the effects of labor and delivery interventions on initiation of breastfeeding.

- Describe the impact of intrapartum and immediate postpartum procedures and medications on lactation.
- Be able to facilitate and assist with the first feeding immediately after delivery.
- Recognize correct attachment and effective suckling at the breast.
- Counsel mothers about establishing and maintaining milk supply during separation due to illness or return to study or employment.
- Provide anticipatory guidance for breastfeeding mothers and children.
- Recommend medications and treatment options that are compatible with lactation.
- Discuss appropriate family planning options for the lactating woman.
- Discuss causes, prevention, and management of common breastfeeding problems (e.g., sore nipples, low milk supply, poor weight gain, and jaundice).
- Describe appropriate timing, introduction, and selection of complementary foods.
- Recognize that most infants, even those with special healthcare needs, can breastfeed.
- Understand normal growth patterns for breastfed babies.
- Coordinate services with, and provide appropriate referral to, other professionals, lay persons, and community groups.
- Support policies and procedures across all specialties and practices that promote breastfeeding.

Graduate medical education

- a. Residents in obstetrics and gynecology, pediatric, family medicine, and preventive medicine residency training programs report a lack of education in breastfeeding, lack of experience in breastfeeding skills, and lack of competence or confidence in providing breastfeeding support to patients.^{23–25} Resident physicians report a need for more direct patient interaction in regard to breastfeeding and experience in counseling and problem-solving skills during residency.²⁶ Residents have demonstrated deficits in interpreting growth patterns of breastfed babies.²⁷ Residency training program directors also report that training programs do not provide adequate training or experience in breastfeeding.²⁸
- b. Several specific activities to achieve resident competency in breastfeeding management have resulted in an increase in knowledge of residents and improved breastfeeding management and behaviors. Examples include:^{29–31}
 - Didactic presentations and small group discussion about breastfeeding recommendations, benefits, resources, and maternal medication use
 - Role playing and video on breastfeeding initiation, assessing position and latch-on, and adequacy of breastfeeding
 - Management of maternal problems and maintenance of breastfeeding after return to work, as well as use of hand expression or breast pumps
 - Panel discussion with breastfeeding mothers and support services

- · Observation of breastfeeding consults
- Attendance at peer counselor meetings (e.g., La Leche League International) or at peer support provided at other volunteer or government-sponsored programs (e.g., Australian Breastfeeding Association, National Childbirth Trust [United Kingdom], or Special Supplemental Nutrition Program for Women, Infants, and Children [WIC] [United States], hospital-based groups, etc.)
- Participation on postpartum rounds with a physician with expertise in breastfeeding support and/or with a board-certified lactation consultant/specialist
- Supervised assessment of latch and breastfeeding technique with mother-infant dyads
- Participation in outpatient breastfeeding or lactation consultant/specialist clinics
- c. For primary care disciplines, resident competencies in breastfeeding build upon those established for medical students. The residency competencies are classified below according to the competency domains of the Accreditation Council for Graduate Medical Education (ACGME).^{5,7,16–18,22,24,32,33} The ACGME is the organization responsible for the accreditation of post–medical degree medical training programs within the United States, although the competencies are relevant worldwide.

Medical Knowledge

- Identify risks of not breastfeeding for infants, mothers, and society.
- Identify anatomic structures of the breast.
- Describe physiology of milk production and removal.
- Describe the physiology of lactational infertility.
- Describe the hormones of lactation and their multiple effects in mother and child.
- Explain the biochemical and immunologic properties of human milk.
- Describe differences in the rates of breastfeeding initiation and duration based upon factors such as ethnicity, socioeconomic status, and maternal education.
- Describe suckling and compare breastfeeding and bottle-feeding mechanics.
- Recognize the impact of intrapartum and postpartum medications and procedures on lactation.
- Describe signs of adequate milk intake by the infant.
- Describe the normal growth pattern of breastfed infants.
- · List absolute contraindications to breastfeeding.
- Describe the lactational amenorrhea method of family planning.
- Identify indications for maternal milk expression.
- Recognize the need to maintain breastfeeding during separation.
- List the specific benefits of human milk for premature infants.
- Recognize the late preterm infant as being at higher risk of complications and breastfeeding failure compared with the term infant.
- Understand the interactions among jaundice, breastfeeding, and breastmilk and appropriate diagnostic and management strategies.
- Recognize the role of human milk banking and the appropriate indications and utilization of donor human milk.

Patient Care

- Obtain a relevant past medical history of breastfeeding mothers and babies.
- Perform a maternal breast assessment, including nipple configuration and assessment for scars.
- Perform infant oral assessment and general health assessment.
- Evaluate positioning, latch, and attachment for the breastfeeding mother and infant.
- Evaluate effective nutritive suckling pattern.
- Counsel mothers about maternal nutrition during lactation.
- Develop a differential diagnosis for neonatal hypoglycemia and manage newborn blood sugars in a manner that supports breastfeeding.
- Evaluate and manage infants with neonatal jaundice in a manner that supports breastfeeding.
- Develop a differential diagnosis for sore nipples or breast pain.
- Evaluate and manage sore nipples.
- · Evaluate infants with ankyloglossia.
- Recognize common causes and prevention of engorgement.
- Evaluate and manage maternal nipple or infant oral candidiasis.
- Counsel mothers about the perception of inadequate milk.
- Measure, plot, monitor, and interpret infant growth patterns.
- Evaluate and manage infants with poor weight gain.
- Be able to counsel mothers on hand expression.
- Diagnose and treat plugged/blocked ducts, mastitis, and abscess.
- Evaluate risk of transmission of infectious diseases during breastfeeding.
- Evaluate maternal infections and potential risk of transmission to the breastfed infant.
- Counsel families about vaccination practices during breastfeeding.
- Counsel mothers about family planning and the potential impact on breastfeeding.
- Counsel mothers about maintaining breastfeeding during separation from the infant.
- Counsel mothers specifically about milk storage and use and continuing breastfeeding when returning to work or school.
- Evaluate medication risk during lactation.
- Support breastfeeding in special circumstances, such as prematurity, infant congenital anomalies, cleft lip/palate, congenital heart disease, trisomy 21, maternal diabetes, and delayed lactogenesis II.
- Provide gestational age appropriate introduction and progression of breastfeedings for premature infants.
- Counsel mothers about introduction of complementary feedings.
- · Counsel mothers about weaning.

Communication and Interpersonal Skills:

 Counsel mothers and families about optimal infant feeding decisions for health outcomes, child spacing, and nutrition.

 Demonstrate sensitivity to cultural and ethnic differences and practices related to breastfeeding and infant care.

• Demonstrate sensitivity to different family structures and the impact upon lactation.

Systems-Based Practice:

- Identify hospital policies that support breastfeeding for maternity care facilities (e.g., the Ten Steps to Successful Breastfeeding⁸).
- Identify barriers to successful breastfeeding and suggest strategies to overcome them.
- Identify cultural and psychosocial factors that impact breastfeeding rates.
- List ways in which the community can support breast-feeding.
- Identify community resources to assist breastfeeding mothers, including mother-to-mother support as well as breastfeeding-friendly practitioners.
- Refer breastfeeding mothers and babies for more expert assistance as needed.
- Understand the role of board-certified lactation consultants and other members of the healthcare team in caring for mothers and babies.
- Understand current local laws protecting breastfeeding mothers regarding maternity leave, breastfeeding, or pumping/expressing breastmilk at work, and breastfeeding in public.
- Advocate for improved legislative policies to support and protect breastfeeding.
- Facilitate follow-up visits for breastfeeding mothers and babies.

Practice-Based Learning and Improvement:

- Locate resources for continuing education.
- Perform evidence-based review of breastfeeding educational topics or clinical issues.
- Investigate local breastfeeding initiation and duration rates.
- d. Lactation education should be integrated longitudinally throughout the curriculum and should occur in a variety of clinical settings: outpatient continuity clinic and practices; inpatient setting, such as labor and delivery, newborn nursery, mother/baby units or postpartum units, neonatal intensive care units, inpatient general pediatric, and gynecology wards; and community settings, such as public health department clinics or government funded community health centers.²⁹ In addition, the breastfeeding information should be presented through a variety of teaching modalities, to include didactics, case presentations and discussions, daily teaching rounds, and journal "clubs" in which peer-reviewed journal articles are critically reviewed. Residents may attend live discussions, review CDs or DVDs, read breastfeeding textbooks or periodicals, such as Breastfeeding Medicine, the Journal of Human Lactation, or specialty-specific literature, and complete web-based training modules. In the United States, a multidisciplinary, competency-based curriculum in breastfeeding education that provides multiple activities for integration throughout the residency

- program is available from the American Academy of Pediatrics website.³⁴ In each country, resident participation in public clinics would be an important exposure to common breastfeeding problems.
- e. The knowledge, skills, and attitudes of residents are important in supporting breastfeeding in patients and the general population. It is equally important that residents in training are supported themselves when they are breastfeeding parents. Some residents report lack of support from their supervisory staff and colleagues about breastfeeding and the need to express milk after return to work.³⁵ Residency directors and faculty need to advocate for program policies that support breastfeeding among residents, as well as medical students, faculty, and staff.
- f. The need for physician leadership in residency training to provide interest, knowledge, and skills to make the human lactation curriculum an ongoing sustainable component of medical education has been noted.¹⁷ Physician administrators (e.g., department chairs and residency program directors) need to identify and support or develop this expertise within the local institution or hospital.
- g. Lactation electives in the form of block rotations devoted to breastfeeding, occurring in a variety of clinical settings, have been described in family medicine and pediatric residency training programs.^{29,36} These electives may include more advanced topics, such as relactation, induced lactation, or Raynaud's phenomenon, and should stimulate more advanced clinical problem-solving skills and/or provide an experience in clinical research or advocacy. Faculty oversight by individuals with a high degree of knowledge and skills in breastfeeding and human lactation is essential. The ABM has a peer-reviewed process for review of the credentials and background of physicians in breastfeeding through the Fellow of the ABM (FABM) award.³⁷ Fellowship in the ABM is one, but not the only means, of identifying those individuals with a high degree of specialization in breastfeeding medicine. The emergence of breastfeeding medicine practices provides an additional opportunity for education of residents in an intensive setting and should assist in encouraging participating residents to make the practice of breastfeeding medicine an integral part of their professional practice.³
- h. Subspecialty training programs (e.g., fellowship programs in subspecialty disciplines, such as maternal-fetal medicine and neonatology) require additional structured didactic and experiential education, as well as research opportunities, to further the science and advance the understanding of the role and importance of human milk.

Postgraduate/in-service/continuing medical education

a. Practicing physicians, especially those in the disciplines of obstetrics and gynecology, pediatrics, and family medicine, require ongoing continuing medical education regarding breastfeeding to maintain and enhance their clinical skills and expertise. Key components of ongoing education should encompass the importance of breastfeeding and, especially, the risks of not

breastfeeding, lactation management, and counseling skills.³⁹ Practicing physicians acknowledge that they do not understand clearly the health outcomes related to breastfeeding. 40 Patients have reported not receiving routine prenatal or postpartum counseling about breastfeeding by their physicians. 41 Physician attitudes, while counseling mothers, have been shown to be a significant factor in the mother's infant feeding decisions. However, in other studies, physicians' lack of knowledge has led patients to seek guidance elsewhere. Some physicians are not proactive about supporting breastfeeding, are neutral, or may not provide appropriate advice. 42,43 Mothers who report receiving encouragement from their physicians are more likely to continue breastfeeding.⁴⁴ The role of the physician in encouraging breastfeeding has been shown to be especially important in those patient populations less likely to initiate breastfeeding.45 In the United States, surveys of practicing pediatricians indicate that many of them are either not aware of the American Academy of Pediatrics policy statements on breastfeeding or are not following these policies when counseling patients.3,46 Requirements to renew or maintain certification should incorporate breastfeeding-related materials into every activity required for ongoing certification.

- Practicing physicians have the following areas of need in terms of continuing medical education regarding breastfeeding:
 - Clinical management and problem-solving skills in breastfeeding⁴⁷
 - Awareness of maternal concerns, such as weight loss, birth control during lactation, and maternal medications
 - Knowledge of common maternal complications, such as mastitis and engorgement⁴⁸
 - Training in evaluating positioning, latch, and attachment⁴⁹
 - Skills in teaching breastfeeding techniques
 - Evaluating problems with nipple or breast pain
 - Dealing with maternal perception of insufficient breastmilk⁵⁰
 - Advising mothers about returning to work and continued breastfeeding
 - Availability of referral services for breastfeeding support⁵⁰
 - Need for more practical training and self-study materials⁵¹
 - Interactive training sessions^{52,53}
 - Understanding the role of family support⁵³
 - Importance of avoiding routine provision of infant formula, infant formula samples, or educational materials that bear the infant formula logos or product information⁵⁴
- c. The ABM course, "What Every Physician Needs to Know About Breastfeeding," provides continuing medical education at an introductory level for physicians and other healthcare practitioners. The ABM also has an annual international conference that provides education for physicians on current state of the art breastfeeding knowledge and research.⁵⁵ Many national organizations also offer continuing medical education in breastfeeding medicine for practicing

- physicians. A growing number of sources, from local to international, are available that provide breastfeeding continuing education for physicians, including internet resources and web-based seminars.
- d. The competencies for resident physicians are equally applicable to practicing physicians. Many practicing physicians are in positions of authority and may be able to affect health policy, so additional educational objectives for continuing medical education relate to breastfeeding advocacy.^{3,5}
 - Promote hospital policies and procedures that facilitate breastfeeding.
 - Create the hospital policies indicated in the "Ten Steps to Successful Breastfeeding."
 - Collaborate with other primary care providers and with dental health professionals to ensure optimal outcomes.
 - Provide space for breastfeeding or milk expression/ private lactation areas for all breastfeeding mothers, both patients and staff, in hospital and office settings.
 - Develop office practices that promote and support breastfeeding.
 - Advocate for reimbursement for physician and lactation consultant breastfeeding services from insurance and managed care companies.
 - Promote governmental policies and legislation that support breastfeeding mothers and children and increase breastfeeding rates.
 - Increase availability of lactation consultants and other skilled breastfeeding support personnel.
 - Achieve a positive image of breastfeeding as normative behavior in the media.
 - Encourage support of breastfeeding and the use of expressed milk in child care settings.
 - Implement evidence-based protocols addressing breastfeeding policy and management, such as those available from the ABM.

Summary

Implementation of high-quality breastfeeding education throughout the continuum of medical education is critical to ensuring that practicing physicians maintain their skills and that physicians-in-training develop the knowledge, skills, and attitudes to ensure that virtually every child realizes the right to be breastfed. The medical community plays a critical role in promoting, protecting, and supporting breastfeeding for optimal health outcomes for all children and families.

References

- HHS Blueprint for Action on Breastfeeding. Office on Women's Health, Department of Health and Human Services, Washington, DC, 2000.
- Shealy KR, Li R, Benton-Davis S, et al. The CDC Guide to Breastfeeding Interventions. Centers for Disease Control and Prevention, Atlanta, 2005.
- 3. Gartner LM, Morton J, Lawrence RA, et al. Breastfeeding and the use of human milk. *Pediatrics* 2005;115:496–506.
- American College of Obstetricians and Gynecologists. ACOG Educational Bulletin, Number 258: Breastfeeding: Maternal and Infant Aspects. American College of Obstetricians and Gynecologists, Washington, DC, 2000.

- American Academy of Family Physicians. Family Physicians Supporting Breastfeeding. 2008. www.aafp.org/online/en/ home/policy/policies/b/breastfeedingpositionpaper.html (accessed March 6, 2011).
- Freed GL, Clark SJ, Sorenson J, et al. National assessment of physicians' breast-feeding knowledge, attitudes, training, and experiences. *JAMA* 1995;273:472–476.
- 7. Williams EL, Hammer LD. Breastfeeding attitudes and knowledge of pediatricians-in-training. *Am J Prev Med* 1995;11:26–33.
- Baby Friendly Hospital Initiative Global Criteria, revised 2009. Ten Steps to Successful Breastfeeding. www.unicef.org/ nutrition/files/BFHI_2009_s1.pdf (accessed March 6, 2011).
- 9. WHO/UNICEF policymakers' meeting on "Breastfeeding in the 1990s: A Global Initiative, co-sponsored by the United States Agency for International Development (A.I.D.) and the Swedish International Development Authority (SIDA). Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding. Spedale degli Innocenti, Florence, Italy, July 30–August 1, 1990. www.unicef.org/programme/breastfeeding/innocenti.htm (accessed March 6, 2011).
- Commonwealth of Australia on behalf of the Australian Health Ministers' Conference. Australian National Breastfeeding Strategy. 2009. www.health.gov.au/internet/main/ publishing.nsf/Content/aust-breastfeeding-strategy-2010-2015 (accessed March 6, 2011).
- 11. NSK Präambel. 1994. www.bfr.bund.de/cd/2404 (accessed March 6, 2011).
- Breastfeeding Promotion Network of India. www.bpni.org/ bpni.html (accessed March 6, 2011).
- 13. United States Breastfeeding Committee. Breastfeeding in the United States: A National Agenda. Maternal and Child Health Bureau, Health Resources and Services Administration, U.S. Department of Health and Human Services, Rockville, MD, 2001. www.usbreastfeeding.org/LinkClick .aspx?link=Publications/National-Agenda-2001-USBC.pdf &tabid=70&mid=388 (accessed March 6, 2011).
- United States Breastfeeding Committee Strategic Plan 2009– 2013. www.usbreastfeeding.org/Portals/0/USBC-Strategic-Plan-2009-2013.pdf (accessed March 6, 2011).
- Academy of Breastfeeding Medicine. www.bfmed.org/ About/Strategic_Planning.aspx (accessed March 6, 2011).
- American Academy of Pediatrics, American College of Obstetricians and Gynecologists. The scope of breastfeeding. In: Schanler R, senior ed. *Breastfeeding Handbook for Physicians*. American Academy of Pediatrics, Elk Grove Village, IL, 2006, pp. 1–17.
- 17. Lawrence R, Lawrence R. Educating and training the medical professional. In: *Breastfeeding: A Guide for the Medical Profession*, 7th ed. Mosby, Maryland Heights, MO, 2011, pp. 728–738.
- Lactation Management Curriculum: A Faculty Guide for Schools of Medicine, Nursing, and Nutrition, 4th ed. Wellstart International in collaboration with the University of California, San Diego, San Diego, 1999.
- Naylor AJ, Wester RA. Lactation Management Self-Study Modules, Level I, 3rd ed. Wellstart International, Shelburne, VT. 2009. www.wellstart.org (accessed March 6, 2011).
- Turner-Maffei C. Lactation resources for clinicians. J Midwifery Womens Health 2007;52:e57–e65.
- 21. Labbok M. Breastfeeding, Fertility, and Family Planning. Global Library of Women's Medicine, London, 2008. www.glowm.com/index.html?p=glowm.cml/section_view&articleid=396&recordset=Searchresults&value= (accessed March 23, 2011).

Ogburn T, Espey E, Leeman L, et al. A breastfeeding curriculum for residents and medical students: A multidisciplinary approach. J Hum Lact 2005;21:458–464.

- Freed GL, Clark SJ, Cefalo RC, et al. Breast-feeding education of obstetrics-gynecology residents and practitioners. *Am J Obstet Gynecol* 1995;173:1607–1613.
- 24. Freed GL, Clark SJ, Curtis P, et al. Breast-feeding education and practice in family medicine. *J Fam Pract* 1995;40: 297–298.
- Goldstein AO, Freed GL. Breast-feeding counseling practices of family practice residents. Fam Med 1993;25:524–529.
- Freed GL, Clark SJ, Lohr JA, et al. Pediatrician involvement in breast-feeding promotion: A national study of residents and practitioners. *Pediatrics* 1995;96:490–494.
- Guise J-M, Freed G. Resident physicians' knowledge of breastfeeding and infant growth. Birth 2000;27:49–53.
- Eden A, Mir M. Breastfeeding education of pediatric residents: A national survey. Arch Pediatr Adolesc Med 2000;154: 1271–1272.
- Saenz RB. A lactation management rotation for family medicine residents. J Hum Lact 2000;16:342–345.
- Hillenbrand KM, Larsen PG. Effect of an educational intervention about breastfeeding on the knowledge, confidence, and behaviors of pediatric resident physicians. *Pediatrics* 2002;110:e59.
- Bunik M, Gao D, Moore L. An investigation of the field trip model as a method for teaching breastfeeding to pediatric residents. J Hum Lact 2006;22:195–202.
- Baldwin C, Kittredge D, Bar-on M, et al. Academic Pediatric Association Educational Guidelines for Pediatric Residency. MedEdPORTAL; 2009. www.academicpeds.org/egwebnew/index.cfm (accessed March 23, 2011).
- 33. Howett M, Spangler A, Cannon RB. Designing a university-based lactation course. *J Hum Lact* 2006;22:104–107.
- American Academy of Pediatrics Breastfeeding Residency Curriculum. www.aap.org/healthtopics/breastfeeding.cfm (accessed March 6, 2011).
- 35. Miller NH, Miller DJ, Chism M. Breastfeeding practices among resident physicians. *Pediatrics* 1996;98:434–437.
- Meek JY. An integrated approach to breastfeeding education in pediatric residency training. Academy Breastfeed Med News Views 1999;5(4):29, 34.
- 37. www.bfmed.org/Membership/AboutFABM.aspx (accessed March 6, 2011).
- 38. Shaikh U, Smillie CM. Physician-led outpatient breastfeeding medicine clinics in the United States. *Breastfeed Med* 2008;3:28–33.
- Naylor AJ, Creer AE, Woodward-Lopez G, et al. Lactation management education for physicians. *Semin Perinatol* 1994;18:525–531.
- McFadden A, Renfrew MJ, Dykes F, et al. Assessing learning needs for breastfeeding: Setting the scene. *Matern Child Nutr* 2006;2(196–203.
- 41. Izatt S. Breastfeeding counseling by health care providers. *J Hum Lact* 1997;13:109–113.
- 42. DiGirolamo AM, Grummer-Strawn LM, Fein SB. Do perceived attitudes of physicians and hospital staff affect breastfeeding decisions? *Birth* 2003;30:94–100.
- 43. Dillaway HE, Douma ME. Are pediatric offices "supportive" of breastfeeding? Discrepancies between mothers' and healthcare professionals' reports. *Clin Pediatr* 2004;43:417–430.
- 44. Taveras EM, Capra AM, Braveman PA, et al. Clinical support and psychosocial risk factors associated with breast-feeding discontinuation. *Pediatrics* 2003;112:108–115.

- 45. Lu MC, Lange L, Slusser W, et al. Provider encouragement of breast-feeding: Evidence from a national survey. *Obstet Gynecol* 2001;97:290–295.
- Schanler RJ, O'Connor KG, Lawrence RA. Pediatricians' practices and attitudes regarding breastfeeding promotion. Pediatrics 1999;103:e35.
- Krogstrand KS, Parr K. Physicians ask for more problemsolving information to promote and support breastfeeding. J Am Diet Assoc 2005;105:1943–1947.
- 48. Bagwell JE, Kendrick OW, Stitt KR, et al. Knowledge and attitudes toward breastfeeding: Differences among dietitians, nurses, and physicians working with WIC clients. *J Am Diet Assoc* 1993;93:801–804.
- 49. Okolo SN, Ogbonna C. Knowledge, attitude and practice of health workers in Keffi local government hospitals regarding Baby-Friendly Hospital Initiative (BFHI) practices. *Eur J Clin Nutr* 2002;56:438–441.
- Taveras EM, Ruowei L, Grummer-Strawn L, et al. Opinions and practices of clinicians associated with continuation of exclusive breastfeeding. *Pediatrics* 2004;113:283–290.
- Wallace LM, Kosmala-Anderson J. A training needs survey of doctors' breastfeeding support skills in England. *Matern Child Nutr* 2006;2:217–231.
- 52. Burt S, Whitmore M, Vearncombe D, et al. The development and delivery of a practice-based breastfeeding education

- package for general practitioners in the UK. Matern Child Nutr 2006;2:91–102.
- 53. Ingram J. Multiprofessional training for breastfeeding management in primary care in the UK. *Int Breastfeed J* 2006;1:9.
- 54. Valaitis RK, Sheeshka JD, O'Brien MF. Do consumer infant feeding publications and products available in physicians' offices protect, promote, and support breastfeeding? *J Hum Lact* 1997;13:203–208.
- 55. www.bfmed.org/Meeting/ConfDetails.aspx (accessed March 6, 2011).

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