Pharmacists as an Underutilized Resource for Improving Community-Level Support of Breastfeeding

Roger A. Edwards, ScD

Abstract
With their highly visible roles in the community, frequent interactions with soon-to-be and new parents, and knowledge of medication safety, pharmacists can be a key component in breastfeeding promotion and support. A review of the literature showed that pharmacists have poor knowledge but positive attitudes toward breastfeeding and that pharmacy practices are variable and mostly guided by personal experience. A review of 58 health professional organizations’ English-language infant feeding/breastfeeding policy statements showed that no US pharmacists’ association has a position statement, as exists for professional pharmacist organizations in Canada and Australia. We explored pharmacists’ interactions with mothers before and after birth and possible opportunities to expand pharmacists’ roles in the promotion and support of breastfeeding. Barriers to meeting unmet needs of breastfeeding mothers were identified in order to plan strategies for implementing programs to address these barriers. Through input obtained from pharmacy and breastfeeding experts and from information available in the published literature, good matches between unmet needs and capabilities were identified in (a) provision of health promotion resources and public awareness campaigns, (b) assistance with purchase of breastfeeding products and pumps, and (c) provision of information, support, and referral related to commonly encountered difficulties as well as medication use during lactation. Absence of adequate breastfeeding knowledge was identified as a crucial barrier. Leveraging pharmacists to address unmet preventive health needs is especially important as we strive to align resources to support healthy behaviors in our current health care delivery environment.

Keywords
breastfeeding, breastfeeding promotion, breastfeeding support, medication, pharmacist

Background
The 2011 US Surgeon General’s Call to Action to Support Breastfeeding asked families, communities, health care professionals, and employers to make breastfeeding easier for mothers.1 With their highly visible roles in the community, frequent interactions with soon-to-be and new parents, and knowledge of medication safety, US pharmacists can be a key component in breastfeeding promotion and support; however, they have generally not promoted and supported breastfeeding. Pharmacists have opportunities to engage parents and the general public on the benefits and active promotion of breastfeeding. In the United States, 90% to 99% of women will receive at least 1 medication in the week following giving birth, giving pharmacists an important opportunity to interact with new breastfeeding mothers and their families.2 In a survey of 47 pharmacists in Rhode Island, almost 50% of pharmacists reported getting inquiries from breastfeeding mothers on a weekly or daily basis.3 The roles of pharmacists have been changing during the past decade and will continue to change beyond dispensing of medications. Pharmaceutical care was recognized in 2003 by the Medicare Prescription Drug Improvement & Modernization Act; its cornerstone is medication therapy management (see note 1).4 Pharmacists will be playing greater roles in patient-centered medical homes and accountable care organizations as the Affordable Care Act is implemented in the years ahead.5 Furthermore, public health is an explicit expectation for many practicing pharmacists, as reflected in the American Society of Health-System Pharmacists public health position statement, which calls for pharmacists “to promote public health and to integrate the goals of those initiatives into their practices.”6 Public health literacy is an expectation of graduating

1Northeastern University, Boston, MA, USA
Date submitted: April 7, 2013; Date accepted: May 6, 2013.
Corresponding Author:
Roger A. Edwards, ScD, Assistant Professor, Department of Pharmacy Practice, School of Pharmacy, and Department of Health Sciences, Bouvé College of Health Sciences, Northeastern University, 360 Huntington Avenue, 140 The Fenway Building, R218, Boston, MA 02115, USA.
Email: ro.edwards@neu.edu
pharmacists as it represents 11% of the topic content of the National Association of Boards of Pharmacy Licensure Exam. Recent changes in pharmacy program standards call for pharmacy educators to better prepare pharmacists to provide services to underserved populations.

An emphasis in improving health at both the individual and population level is consistent with the expectations of the profession of pharmacy and the mission of pharmaceutical education. There are currently approximately 275,000 pharmacists in the United States and a 25% employment growth expected between 2010 and 2020. In 2009, US pharmacists devoted 55% of their time to medication dispensing, 16% to patient care services, 14% to business/organization management, 5% to education, 4% to research, and 5% to other activities.

A review of the international literature related to pharmacists and breastfeeding showed that pharmacists have poor knowledge but positive attitudes toward breastfeeding and that practices were variable and mostly guided by personal experience. The scarcity of published information on pharmacists and breastfeeding suggests that this topic may not be adequately addressed. As a professor with dual appointments teaching public health graduate students and pharmacy students, I conducted exploratory work to (a) better understand pharmacist professional organizations’ policy statements on breastfeeding, (b) better understand what existing contact pharmacists have related to breastfeeding, (c) identify possible opportunities for expanding pharmacists’ roles in the promotion and support of breastfeeding, and (d) identify gaps that subsequent research could address.

**Exploring Potential Roles for Pharmacists in Supporting Breastfeeding**

We initially analyzed English-language infant feeding/breastfeeding policy statements to better understand how pharmacist professional organizations compared with other health professional organizations. We found breastfeeding policy statements for 58 health professional organizations in English-speaking countries including 11 medical, 10 nursing, 2 midwife, 3 dietetic, 16 department of health, 4 child-related, 9 breastfeeding/birthing support, and 1 other organization. However, not 1 US pharmacists’ association has a position statement, as exists for professional pharmacist organizations in Canada and Australia. This finding was remarkable.

In order to better understand potential roles for pharmacists in supporting breastfeeding, we separated the points of intervention at which pharmacists can influence breastfeeding into 4 periods: prepregnancy, pregnancy, delivery, and postpartum. We used flowcharts illustrating all identified possible contact opportunities to summarize the findings for each of the 4 periods. Through structured interviews and discussion with 7 pharmacy educators, we used the flowcharts to establish a common understanding of what pharmacists do and to identify areas for influencing them to be more supportive of breastfeeding.

The interviews with the pharmacy educators showed that pharmacists have many opportunities in which to engage parents and the general public on optimal infant feeding throughout the prepregnancy, pregnancy, delivery, and postpartum periods. Table 1 presents a summary of the possible interventions that pharmacists might be involved in at each stage as identified through survey of the breastfeeding experts and review of the literature. Figure 1 shows the flowchart from the postpartum period (flowcharts from the prepregnancy, pregnancy, and delivery periods are available from the author). Some of the points of potential intervention during the prepregnancy and pregnancy periods include (a) community health education opportunities prior to wanting to get pregnant or getting pregnant, (b) questions about birth control and purchasing of ovulation or pregnancy tests, (c) fertility treatment (for families having infertility issues), (d) prenatal vitamins and questions about other medication use during pregnancy, (e) advice for alleviating physical discomforts associated with pregnancy, and (f) advice on pain control and other medications during labor and delivery. Potential points of intervention during the postpartum period include (a) advice on medications and alleviating physical discomforts post-pregnancy, (b) advice with breastfeeding concerns, discomforts, and supplies, (c) questions about medication use during breastfeeding, (d) advice on breast milk pumping concerns/discomforts and supplies, (e) help with infant formula concerns, use, and supplies, (f) concerns about infant and child care and health problems (eg, umbilical cord care, diapers, bathing, skin care, safety, etc), and (g) advice about introducing solids.

We also explored lactation and nursing professionals’ attitudes toward pharmacists, possible new roles for pharmacists in supporting breastfeeding, and ways to further educate pharmacists about breastfeeding. We utilized an online survey of 15 Registered Nurse/International Board Certified Lactation Consultants (RN/IBCLCs) participating in a statewide Baby-Friendly Hospital Initiative Collaborative working to improve hospital infant feeding practices for gaining these insights. We obtained ethics approval from the Northeastern University Institutional Review Board.

In this survey, we found that 67% of the RN/IBCLCs agreed with the statement, “Pharmacists can be barriers to successful breastfeeding.” They identified the following reasons from a provided checklist: their knowledge of lactation and medication is not adequate (93%); they are overly cautious in terms of perceived risks relative to the benefits of breastfeeding (71%); their lack of education about breastfeeding and its benefits (64%); their lack of time to counsel patients about breastfeeding-related topics (36%); their lack of interaction with patients who are pregnant or breastfeeding (36%); they don’t use LactMed (36%); and their main priority is drug dispensing (36%).

When RN/IBCLCs were asked if they would seek collaborative opportunities with pharmacists to improve triaging of...
mothers they encounter in the community if the pharmacists were knowledgeable about breastfeeding, all of them agreed/strongly agreed that they would. Over 85% stated that they would work with pharmacists to promote breastfeeding and to provide information during pregnancy and postpartum. RN/IBCLCs felt that pharmacists needed to be educated about the American Academy of Pediatrics (AAP) breastfeeding guidelines the most. This anecdotal information offers useful insights that can be the basis for future research and intervention.

### Recommendations

I have 4 recommendations for leveraging pharmacists to improve community-level support of breastfeeding: (1) pharmacists need to be active supporters of breastfeeding if we expect breastfeeding to be a normative behavior, (2) existing pharmacists and student pharmacists need to be educated more broadly about breastfeeding beyond the medication aspect, (3) we need to strive to motivate US pharmacist organizations to adopt position and policy statements on breastfeeding, and (4) research is needed into interventions that can improve pharmacists’ support of breastfeeding.

### Pharmacists as Active Supporters of Breastfeeding

Worldwide, efforts are under way to create and identify “Baby-Friendly Communities” based on the 7 steps of the Baby-Friendly Community Initiative. Although there is increasing knowledge of appropriate breastfeeding support, mothers are still experiencing conflicting and incorrect advice, invasive assistance, and insufficient postnatal staffing. Pharmacists are not prominent in these efforts in the United States and other countries; however, they are in some countries such as Italy. They need to be if we are to achieve the desired community-level changes toward breastfeeding as the social norm.

### Pharmacist Breastfeeding Education and Resource Availability

Breastfeeding education received by pharmacy students and continuing professional pharmacist education should be expanded. We created a 15- to 20-minute online tutorial that complements existing medication-lactation pharmacy education and have pilot-tested the tutorial with 301 pharmacy students at 3 different schools of pharmacy. Exposing student pharmacists to broader breastfeeding information would facilitate the early shaping of pharmacists’ attitudes, understanding, and behaviors around breastfeeding beyond the traditional lactation and medication education. We also created a 1-hour continuing pharmacy education (CPE) tutorial on breastfeeding that incorporates the public health aspects along with the medication-related aspects of breastfeeding to help existing pharmacists adopt a broader view of the importance of breastfeeding for lifelong health benefits to the infant and the mother. The tutorial, “Expanding the

<table>
<thead>
<tr>
<th>Table 1. Example Interventions That Pharmacists Might Be Involved in to Promote and Support Breastfeeding.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prepregnancy</strong></td>
</tr>
<tr>
<td>• Provide education about the importance of the health benefits associated with breastfeeding according to the best standard of care</td>
</tr>
<tr>
<td>• Provide patient support through advocacy of prenatal vitamins and documentation of checklists of contraindicated medications/supplements during pregnancy</td>
</tr>
<tr>
<td><strong>Prenatal</strong></td>
</tr>
<tr>
<td>• Engage parents in discussions about feeding (pharmacies are a primary supplier of a wide range of baby products including breast pads, nursing cover-ups, baby carriers or slings, breast pumps and pumping supplies, nipple shields, ointments for breastfeeding, diapers, toys, bibs, and baby bath and skin care products)</td>
</tr>
<tr>
<td>• For parents who have not yet decided on the method they would like to use to feed their infants, pharmacists can help with prenatal education around breastfeeding and formula feeding</td>
</tr>
<tr>
<td>o Parents may not fully understand the benefits of breastfeeding and may have preconceived ideas regarding breastfeeding</td>
</tr>
<tr>
<td>o Provide information about the normal course of breastfeeding, the management of common difficulties, and considerations for preparing for breastfeeding</td>
</tr>
<tr>
<td>o Direct parents to available support groups</td>
</tr>
<tr>
<td><strong>Delivery</strong></td>
</tr>
<tr>
<td>• Provide additional coverage on lactation-related questions when other nurses and lactation consultants are not available due to high inpatient census or absence of 24/7 coverage</td>
</tr>
<tr>
<td>• Provide information on appropriate use of infant formula</td>
</tr>
<tr>
<td><strong>Postnatal</strong></td>
</tr>
<tr>
<td>• Serve as an information resource for the “mother–baby dyad” (most health care during the postpartum period is directed at either the mother or the infant)</td>
</tr>
<tr>
<td>• Provide advice regarding breastfeeding concerns and difficulties (including appropriate referral to other health care professionals and referral to available support groups)</td>
</tr>
<tr>
<td>• Provide counseling and education related to pumping and pumping equipment</td>
</tr>
<tr>
<td>• Provide counseling and education related to preparation and use of infant formula</td>
</tr>
</tbody>
</table>

Downloaded from jhl.sagepub.com at UNIV CALIFORNIA SAN DIEGO on June 3, 2014
Pharmacist’s Role in Breastfeeding Support,” consists of 4 modules covering the following: Breastfeeding Background, Improving Breastfeeding—A Public Health Perspective, Breastfeeding and Medications, and The Role of the Pharmacist. The last section includes examples of supportive conversations that pharmacists could be having instead of the unsupportive ones that sometimes occur. This free online CPE tutorial for licensed pharmacists is available at https://www.neurxce.org/user/login.

**Pharmacist Association Position and Policy Statements**

All schools/colleges of pharmacy should have curricula that support evidence-based medicine in infant feeding consistent with Healthy People 2020 Objectives and the US Surgeon General’s Call to Action to Support Breastfeeding. Specific components of the policy statements should include (a) supporting breastfeeding as a public health strategy for improving infant, child, and maternal health, (b) promoting the ideal feeding pattern of exclusive breast milk feeding (which provides optimal nutrition and health promotion) for the first 6 months of life and breastfeeding with complementary foods for at least 12 months, (c) inclusion of content based on the AAP Policy Statement on “Breastfeeding and the Use of Human Milk.” Best practices for feeding of formula and information about formula for mothers choosing to formula feed should also be included. Succinct policy statements that reference the comprehensive work completed by other health professional organizations are one way to move this goal forward efficiently. Other countries’ professional organizations’ position statements offer examples of what needs to be accomplished in the US as well. Often, state chapters are an excellent vehicle for policy change since the precedent established at the state level can lead to policy change.

---

**Figure 1. Chart 4—Postpartum Flowchart from Patient’s Perspective.**
at the national level. State breastfeeding coalitions working collaboratively with schools/colleges of pharmacy in their states can enable such state-level change.

**Research into Interventions to Improve Pharmacists’ Support of Breastfeeding**

We have yet to identify the numerous variables associated with identifying what is happening now related to pharmacists’ impacts on breastfeeding and what interventions would be effective in improving pharmacists’ support of breastfeeding. That research can be accomplished more efficiently if we share resources and leverage respective strengths to explore these variables. I welcome collaboration with others who are interested in investigating pharmacists and breastfeeding; all resources (flowcharts, CPE, etc) are available.

**Conclusion**

Medication use is a frequent reason for discontinuing breastfeeding. Proactively addressing pharmacists’ roles in breastfeeding is critical to resolving this barrier. Furthermore, pharmacists have multiple opportunities in which to engage parents and the general public on optimal infant feeding and to help mothers improve their confidence in breastfeeding. Good matches between unmet needs and capabilities exist in several areas. Imagine communities in which pharmacists are helping to normalize breastfeeding behaviors. As pharmacists play greater roles in care delivered through patient-centered medical homes and accountable care organizations, they will be increasingly more visible to patients. They need to become supporters of breastfeeding if we expect breastfeeding to become the norm. Momentum is occurring in changing maternity practices and that momentum can be leveraged to improve pharmacists’ support of breastfeeding mothers.

**Acknowledgments**

I would like to acknowledge the PharmD students who participated on various aspects of the work described in this commentary: Alison Shelly, Dayton Yuen, Dianne Le, and Allison Clark. I would also like to acknowledge the interviewees and survey respondents who generously shared their ideas.

**Declaration of Conflicting Interests**

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

**Funding**

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

**Note**

1. Medication therapy management is a patient-centric and comprehensive approach to improve medication use, reduce the risk of adverse events, and improve medication adherence. Therefore, the programs include high-touch interventions to engage the beneficiary and his or her prescribers. In general, each program should include prescriber interventions to promote coordinated care, an interactive comprehensive medication review and discussion with the beneficiary to assess medication therapies and create a medication action plan, and frequent monitoring and follow-up of the beneficiary’s medication therapies.

**References**


