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INTERNATIONAL

The World’s First Cord Blood Bank
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The International Childbirth Education Association, founded in 1960, unites individuals and groups who support family-centered maternity care (FCMC) and believe in freedom to make decisions based on knowledge of alternatives in family-centered maternity and newborn care. ICEA is a nonprofit, primarily volunteer organization that has no ties to the health care delivery system. ICEA memberships fees are $595 for individual members (IM). Information available at www.icea.org, or write ICEA, 1500 Sunday Drive, Suite 102, Raleigh, NC 27607 USA.

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Breastfeeding is the gold standard. The health of the infant, the mother, and the community are improved with breastfeeding. The World Health Organization and UNICEF recommend that babies be put to breast within an hour of delivery, exclusive breastfeeding for six months, and breastfeeding for two years and beyond. Globally, if all babies under 2 years of age were breastfed, we could potentially prevent 1.4 million deaths in children under five (Labbok, Wardlaw, Blanc, Clark, & Terreri, 2006).

I have seen the slow movement towards breastfeeding as the norm in North America. Years ago I had a young mom who I had helped with initiating breastfeeding call me in tears. She and her husband had gone out to a nice restaurant with the 3 week old baby to celebrate their anniversary. Like babies often do, as the food arrived he woke up and decided it was time to eat (do breastfeeding mothers EVER get to eat a hot meal?). The baby was quietly and discreetly breastfeeding at the table, and the manager came up and asked her to stop doing “that” and take “it” to the bathroom. This incident took place in a state where we had just got the law changed the previous year to ALLOW breastfeeding in public without harassment (who knew you needed a law for that). In response to this, I called every breastfeeding mother I knew, and every lactation consultant I knew (who in turn called every breastfeeding mother they knew) and we booked the restaurant on a Tuesday afternoon at 2:00 when they wouldn’t normally be busy. At lunch that day we had 37 breastfeeding mothers and 42 infants and children. The waiters were clearly rattled. After a lovely lunch I gave the manager a carefully worded letter informing them that breastfeeding mothers have a right to breastfeed in public and that we would pursue legal charges if another complaint came in about their practices of discrimination. I am delighted to share that the restaurant has, to this day, a discreet little sign on the door stating breastfeeding mothers are welcome. Who says promoting a breastfeeding culture can’t be fun.

Globally the rates differ by country, but we still have a ways to go. It starts in your own practices. Want to really make a difference on the breastfeeding rates in your community? Get out there and teach the public. Offer to do presentations on breastfeeding for health classes in both elementary and high schools. Present at the PTA meeting or draft a letter to the editor of your local paper about the importance of breastfeeding. Instead of asking a pregnant woman if she is going to breast or bottle feed, change the normal expectations and ask “How long are you hoping to breastfeed?” or “Do you have any questions about breastfeeding your baby?” Offer to be a guest speaker at a mother’s group, church group, local baby store, or peer support group. Reach out to immigrant groups, low socio-economic support programs, and other cultures than your own to provide information and support. Use your website and social marketing to get the message out that Breast is Best for mother and baby. Women who are exposed to marketing about the benefits of breastfeeding are more likely to initiate breastfeeding. With your support, mothers can have successful breastfeeding experiences and improve their baby’s, their own, and their community’s health.

Peace,
Debra, editor@icea.org

Reference
Because *Breastfeeding Matters.*

*by Connie Livingston, RN BS FACCE LCCE ICCE*

Former U.S. Surgeon General Dr. C. Everett Koop once said, “It is the lucky child who still breastfeeds past two years old.” After World Breastfeeding Month, and seeing all of the robust discussion surrounding breastfeeding in public, extended breastfeeding and breastmilk sharing, one of the most exciting items I can report to you is the part that ICEA is playing in the breastfeeding community.

On an international scale, ICEA is now proudly represented by four of our members (Donna Walls, Myra Lowrie, Katrina Pinkerton and Barbara Crotty) on several committees and constellations of the United Breastfeeding Committee. Through their hard work, they will be the bridge between the two entities and share information. ICEA will also be working with ILCA (International Lactation Consultants Association) on a safe infant sleep position paper. And on our advisory board sits Linda J. Smith and Kathy Kendall Tackett, two of the world’s leading authorities on breastfeeding.

ICEA has been busy also providing more member benefits on the website in terms of breastfeeding. On the ICEA website, monthly blog postings on breastfeeding topics can be found. There is also a new breastfeeding tab on the homepage for current information and resources for both parents and professionals. In the very near future, we will be introducing the Early Lactation Care workshop. This workshop will be offered to any maternity professional, with a focus on the care and education necessary to get mothers and babies breastfeeding successfully. This workshop will be available for 10.5 CEUs and be a 1.5 day workshop.

Accompanying this workshop, and free to all ICEA members, is a new PowerPoint Breastfeeding Presentation, complete with evidence-based information, great photos and complete references.

It is important for an organization such as ICEA to play a significant role in breastfeeding education. Everything that happens during the labor and birth process influences breastfeeding success. Noted author of the book Impact of Birthing Experiences on Breastfeeding, Linda Smith cites seven practices that influence breastfeeding success: the mechanical forces of labor (positioning), chemicals (drugs) used during labor, injuries to the mother or the baby, treatment of the mother during labor and after the birth, separation of the baby from the mother after birth, and procedures that alter behavior. Clearly, how women are treated physically and emotionally during the labor and birth process can either positively or negatively impact breastfeeding.

As educators and doulas, we must continue to take this message to our clients and our peers. The ICEA website is a tremendous and growing resource for educator/doula specific information.

Why? Because breastfeeding matters!

In your service,
Connie Livingston, ICEA President
President@icea.org

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Educating and Supporting Breastfeeding

by Holly Currie, ICEA Executive Director

Breastfeeding is best. ICEA agrees with the World health organization that states, “WHO and UNICEF recommend:

• early initiation of breastfeeding within 1 hour of birth;
• exclusive breastfeeding for the first 6 months of life; and
• the introduction of nutritionally-adequate and safe complementary (solid) foods at 6 months together with continued breastfeeding up to 2 years of age or beyond.”

ICEA understands that breastfeeding is not always an option for every mother and child, but the organization does agree that it is best, if possible.

That said, ICEA has many resources for new mothers and for educators, those new and those needing a refresher. ICEA’s Board of Directors has a position dedicated to Lactation, and Donna Walls is our current Lactation Director. Donna is a huge advocate, and if she cannot help you, she knows the correct direction in which to point you. Donna has also been instrumental in starting ICEA’s Early Lactation Care Workshop. This is a one-and-a-half day workshop with didactic and interactive information and videos and offers 10.5 nursing and ICEA contact hours. Topics discussed include benefits of breastfeeding, correct latch, feeding frequency and duration, the role of skin to skin care, breastfeeding in special circumstances, maternal and newborn concerns, maintaining lactation when mother and infant are separated, The Baby-Friendly Ten Steps to Successful Breastfeeding, and breastfeeding teaching strategies. All information, including upcoming workshops, can be found on our website under the Lactation tab. We also have an entire page dedicated to breastfeeding links under the Lactation tab. The ICEA Lactation Advisory Committee recommended to the ICEA Board of Directors that a resource page for breastfeeding information be added to the ICEA website. The Board enthusiastically embraced this idea, and the committee has assembled the resources listed below for use by all ICEA members, including certified childbirth educators, birth doulas, postpartum doulas, postnatal educators, and prenatal fitness educators. The listings include the appropriate links to the primary information. The committee hopes you will find this information helpful in your practice. These resources will be helpful for mothers, partners, support staff, and educators. (Please feel free to bookmark!)

ICEA is passionate about helping everyone in the birthing community. We hope you take the time to check out our website and Early Lactation Care workshop, and if you are in Vegas, please stop in and say hello to me and Donna Walls!

VBAC Education Project

ICEA is proud to announce the joint collaboration between VBAC.com and ICAN for the VBAC Education Project. The VBAC Education Project is a FREE evidence-based educational project with modules for both parents & professionals.

For more info, please visit: http://www.icea.org/index.php?q=content/vbac-education-project

Holly Currie
I want to thank Dr. Wilson for the invitation to serve as guest editor. The opportunity has been exciting and challenging as well. Let me explain by first asking a few questions.

How would you respond to systematic, organizational, or institutional pressure forcing conformity on issues that potentially compromise your “position?” Would you stand on personal beliefs and values that serve as a moral compass, turn to colleagues for advice, seek answers from the literature, or turn to a professional organization for their “position statement?”

Although breastfeeding dates back as far as mankind, the field of lactation is a fairly young field of study with a growing body of knowledge. Breastfeeding has been designated as a critical public health concern, and efforts to increase research funding continue to have an impact on the growth of knowledge, which in turn better equips lactation professionals such as International Board Certified Lactation Consultants (IBCLCs) to improve practice.

Increasing efforts to address breastfeeding barriers such as systematic, organizational, and institutional barriers related to lactation care, inequities, and diversity within the profession notably began with the U.S. Surgeon General’s “Call to Action.” From that, the USBC developed strategies addressing issues throughout the U.S. Last year, the International Lactation Consultant Association (ILCA), International Board Certified Lactation Examiners (IBLCE), and Lactation Education Accreditation and Approval Review Committee (LEAARC) held the first collaborative summit. Addressing inequities to entering the lactation field and the lack of diversity in the field was the targeted discussion.

As I listened to each one of the guests share their personal struggle, I couldn’t help but to feel angry, guilty, sad, defensive, slighted, insulted, oppressed, and silenced. Just as many of those invited to speak during the summit, I was reminded of how it felt to be silenced and marginalized.

So then why write an editorial on the topic? Because I believe the approach was wrong. Martin Luther King once said, “you cannot drive out evil with darkness, only light can do that.” The evil of discrimination and inequity silenced the “white privileged” to hear “missing minority voices.” Isn’t that the very thing this event set out to prevent? Was there any one person attending the event oblivious to the barriers these women face?

Prior to attending, participants were given reading assignments and live webinars to view in preparation for the event. Words like “racism,” “bigotry,” “white privilege,” and “cognitive incongruences,” hit me like a ton of bricks.

It was disheartening to hear and see my own professional organization (of which I supported for 17+ years) condone such offensive language. Not that I didn’t agree there was tremendous work to be done, but the manner in which the atrocity was approached felt disingenuous and politically motivated.

After caring for underserved women and their infants for almost 25 years, overcoming barriers to practice need not come at the expense of those willing to provide care in these areas. Just like most professional organizations such as ICEA, AWHONN, ACNM, AAP, AND, and ACOG publish Position Statements, my “position statement” stipulates that our professional responsibility is to focus on improving health outcomes, reducing health disparities, and supporting evidence-based practice.

Anything else at this point in time of health care reform is simply a distraction.

Dr. Genae Strong is an Associate Professor at the University of Memphis and USLCA’s, Director of Professional Development. She is a board Certified Nurse-Midwife and International Board Certified Lactation Consultant.
Effects of an Educational Intervention on Baccalaureate Nursing Students’ Knowledge and Attitude in Providing Breastfeeding Support to Mothers

by Anjanetta Davis, EdD MSN RN CNL, and Roy Ann Sherrod, PhD CNE CNL

Abstract: Breastfeeding provides many health benefits for both mother and baby, and mothers need support and encouragement in order to have breastfeeding success. Nurses are key in supporting initiation and continuing breastfeeding. The purpose of this article is to discuss a research study conducted to determine the effect of an evidence-based educational intervention on baccalaureate nursing students’ knowledge and attitude in regard to breastfeeding support provided for mothers. A randomized pretest-posttest with comparison group design was used and statistical analysis results revealed a significant difference in pretest and posttest scores in regard to the students’ breastfeeding knowledge and attitudes toward breastfeeding.

Keywords: breastfeeding, standardized patient, educational intervention, baccalaureate nursing students

Breastfeeding has been identified as and recommended to be the preferred feeding method for infants, and it has been shown to be one of the most important contributors to infant and maternal health (American Academy of Pediatrics [AAP], 2012). Breastfeeding provides positive health outcomes and offers many benefits for both mother and baby, and breastfeeding support to mothers is imperative. Support should come from communities, healthcare providers, and nursing students. Nursing students may not be receiving the educational preparation to provide the breastfeeding support that mothers need. Research has found that students are graduating from their programs with limited or no breastfeeding knowledge, which can have a profound effect on their ability to provide breastfeeding support (Ahmed, Bantz, & Richardson, 2011; Bozette & Posner, 2012; Spatz & Pugh, 2007).

Giving students information to increase their breastfeeding knowledge, experience, and skill, and promote positive attitudes toward breastfeeding is essential. Brodribb et al. (2008) state that positive attitudes toward breastfeeding must be accompanied by an appropriate knowledge base and a positive attitude from the healthcare provider. The purpose of this article is to discuss the effect an evidence-based educational intervention had on baccalaureate nursing students’ knowledge and attitude in regard to breastfeeding support provided for mothers. The educational intervention included an evidence-based breastfeeding lecture followed by a simulation role-play scenario with a standardized patient (SP) for the experimental group and an evidence-based breastfeeding lecture followed by an educational breastfeeding video for the control group.

Research Questions
1. Will an evidence-based educational intervention improve baccalaureate nursing students’ breastfeeding knowledge?
2. Will an evidence-based educational intervention improve baccalaureate nursing students’ breastfeeding attitude?

Methods
A randomized pretest-posttest design survey with a comparison group was used for this study. The design was selected to evaluate the effect an educational intervention would have on nursing students’ knowledge and attitude in regard to providing breastfeeding support to mothers. The research participants were traditional Bachelor of Science continued on next page
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in Nursing (BSN) students who were enrolled in a Maternal Child Nursing course, and the study took place in a public university located in the southeastern part of the US. IRB approval was obtained, students were randomly assigned to experimental and control groups, and participant identity was protected.

Students accessed the survey tool via Qualtrics®, and were asked to complete the survey prior to the breastfeeding lecture, and access the survey again after the intervention was complete. The Australian Breastfeeding Knowledge and Attitude Questionnaire (ABKAQ), developed by Brodribb et al. (2008) was utilized. The ABKAQ was utilized to determine the students’ breastfeeding knowledge and attitude. The original questionnaire was composed of 40 knowledge items and 20 attitude items, and is scored on a 5-point Likert scale (1 = strongly disagree, to 5 = strongly agree). The ABKAQ took approximately 10 minutes to complete. The researcher used the 36 items for knowledge and 18 items for attitude that were used in the Brodribb et al. (2008) study. The reliability of this tool assessing for breastfeeding knowledge and attitude by Cronbach’s alpha was 0.83 and 0.84, respectively.

For the purposes of this research study, the reliability of this tool assessing for breastfeeding knowledge and attitudes toward breastfeeding was determined by Cronbach’s alpha. Results revealed that the Cronbach’s alpha for pretest and posttest knowledge scores were 0.68 and 0.82. Cronbach’s alpha for pretest and posttest attitude scores were 0.67 and 0.70.

The researcher developed a demographic survey comprised of nine items. The students were prompted to respond to this survey prior to accessing the pretest. The demographic survey took about one minute to complete, and the responses to the survey were used to describe the sample of students who participated in the study.

Intervention

The researcher presented the evidence-based breastfeeding lecture to all students as a group. The content that was presented in the lecture came from reputable agencies, such as the American Academy of Pediatrics (AAP), Academy of Breastfeeding Medicine (ABM), and the Centers for Disease Control (CDC). The evidenced-based breastfeeding content was presented in lecture format via PowerPoint and took approximately one hour. Students were taught evidence-based breastfeeding content that included the nurse’s role in breastfeeding, health benefits for mother and baby, social, nutritional, and emotional aspects of breastfeeding, breast anatomy and physiology, positioning, identifying hunger cues, waking a sleepy baby, how to determine adequate feedings, barriers to breastfeeding, and how to assist in overcoming barriers, supplementation (maternal and infant indications), and patient education as recommended by the World Health Organization ([WHO], 2013) and AAP (2012).

Experimental Group

Students in the experimental group participated in a simulation role-play with a standardized patient (SP). Students were given 10-20 minutes for the encounter followed by a 15-20 minute post intervention debrief. The students were expected to perform a postpartum assessment, demonstrate breastfeeding positions with the SP, as well as practice communication skills regarding breastfeeding. All students had the same SP encounter to ensure consistent outcome measures. The role-play scenario included content to help prepare students to provide breastfeeding support. For example, an SP played the role of a new mother who is having trouble getting her baby to latch. The student assisted the mother in solving her breastfeeding issue utilizing information learned in the lecture, as well as prior knowledge, if applicable. After the SP encounter, a group post intervention debrief facilitated by the researcher was conducted, which allowed the students to reflect on the SP experience and ask questions. The debrief was used only as a reflective exercise for the SP encounter and was not used as part of data collection for this study. After completion of the SP encounter and debrief, students were asked to access the ABKAQ within seven days.

Control Group

As a group, students in the control group watched a breastfeeding video which included scenarios of healthcare providers providing support to new mothers, as well as other ancillary breastfeeding information. The video encounter took forty-five minutes, followed by a 10 minute post intervention debrief. The breastfeeding video, In Our Hands (Rush University Medical Center, 2012) was shown. The video is a valuable resource for healthcare professionals who are providing care to breastfeeding mothers. It included breastfeeding information, as well as clips of patients interacting with healthcare professionals. After completion of the video, a group post intervention debrief facilitated by the researcher was conducted, which allowed the students to reflect on information viewed in the video and ask questions. The debrief was used only as a reflective exercise, and was not used as part of data collection for this study. After

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completion of viewing of the video and debrief, students were asked to access the ABKAQ within seven days.

Results

Demographics

Descriptive statistics and frequencies were used to examine demographic survey data. One hundred twenty-five students enrolled over two semesters in the Maternal Child Nursing course were recruited for this research study. After eliminating the students whose data could not be analyzed, the researcher analyzed data of 113 students. The students were randomly assigned to experimental and control groups, and the groups were similar in size. The experimental group consisted of 56 students, and the control group consisted of 57 students. Table one outlines the demographics for the sample population.

Table 1. Demographic Data for Participants (N=113)

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>18</td>
<td>15.9%</td>
</tr>
<tr>
<td>Female</td>
<td>95</td>
<td>84.1%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Age</th>
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<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-21</td>
<td>57</td>
<td>50.4%</td>
</tr>
<tr>
<td>22-25</td>
<td>31</td>
<td>27.4%</td>
</tr>
<tr>
<td>26-29</td>
<td>10</td>
<td>8.8%</td>
</tr>
<tr>
<td>30-33</td>
<td>6</td>
<td>5.3%</td>
</tr>
<tr>
<td>34 or older</td>
<td>9</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaskan Native</td>
<td>1</td>
<td>0.9%</td>
</tr>
<tr>
<td>Asian</td>
<td>8</td>
<td>7.1%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>23</td>
<td>20.4%</td>
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<tr>
<td>Hispanic/Latino</td>
<td>2</td>
<td>1.8%</td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>73</td>
<td>64.6%</td>
</tr>
<tr>
<td>2 or more ethnicities</td>
<td>5</td>
<td>4.4%</td>
</tr>
<tr>
<td>No Answer</td>
<td>1</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Self, Spouse, or Significant Other Ever Breastfed</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10</td>
<td>8.8%</td>
</tr>
<tr>
<td>No</td>
<td>103</td>
<td>91.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ever Assisted with Breastfeeding</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>13</td>
<td>11.5%</td>
</tr>
<tr>
<td>No</td>
<td>100</td>
<td>88.5%</td>
</tr>
</tbody>
</table>

Breastfeeding Knowledge and Attitudes toward Breastfeeding

A paired samples t-test was conducted to compare mean pretest and mean posttest scores of all students to determine if the evidence-based educational intervention improved the nursing students’ breastfeeding knowledge and attitudes toward breastfeeding. The paired samples t-test results revealed that there was sufficient evidence to indicate that the evidence-based educational intervention improved the students’ breastfeeding knowledge and attitudes toward breastfeeding. See tables 2 and 3 for the paired samples t-test results for breastfeeding knowledge and attitudes toward breastfeeding.

Table 2. Paired Samples T-Test Results for Breastfeeding Knowledge

<table>
<thead>
<tr>
<th>Effect</th>
<th>Pre M (SD)</th>
<th>Post M (SD)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>3.33(0.47)</td>
<td>4.13(0.54)</td>
<td>.000*</td>
</tr>
</tbody>
</table>

*p < .05

Table 3. Paired Samples T-Test Results for Attitudes toward Breastfeeding

<table>
<thead>
<tr>
<th>Effect</th>
<th>Pre M (SD)</th>
<th>Post M (SD)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>3.58(0.45)</td>
<td>3.86(0.43)</td>
<td>.000*</td>
</tr>
</tbody>
</table>

*p < .05

Discussion

Three specific implications were identified based on the results of this study. The first implication is for nursing education. Because the lack of breastfeeding education has been identified as a major barrier for nursing students in providing breastfeeding support, the integration of breastfeeding educational interventions for healthcare providers is imperative because patients consider healthcare providers the source of information and guidance on breastfeeding (United States Department of Health and Human Services, 2011). However, researchers indicate that course loads, time constraints, and overburdened curricula have been reported by nurse educators as the reasons for the lack of breastfeeding education in nursing curricula (Bozette & Posner, 2012; Spatz, 2005, Spatz & Pugh, 2007). Despite these challenges, nurse educators must be creative in the curricular integration of breastfeeding educational interventions and find ways to address knowledge gaps.

The second implication identified based on the results of this study is for nursing practice. Because nurses provide the majority of care to patients, incorporating breastfeeding education in nursing education will prepare future nurses with information needed to provide support and encouragement

continued on next page
Providing Breastfeeding Support to Mothers
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to breastfeeding mothers in professional practice. Bozette and Posner (2012) report that the first six weeks postpartum can be challenging for breastfeeding mothers, therefore the influence of healthcare providers is crucial to a mother’s feeding choices. Mothers need breastfeeding support and encouragement in the immediate postpartum period, as well as other times thereafter. Widespread breastfeeding support and encouragement teaching is needed because mothers can report to any area of the hospital after delivery, and it is imperative that nurses provide support and encouragement. Additionally, the public cannot be expected to be well informed and supportive of breastfeeding if nurses are not educated and well informed (Bozette & Posner, 2012).

The third implication that was identified based on the results of this study is for the nursing profession as a whole. One of the many roles of the nurse is patient educator. However, in order for nurses to be successful in this role, nurses should have a basic understanding of what the patient educator role entails, as well as have a thorough evidence-based educational breastfeeding foundation. The patient educator role is an important one because the nurse assists patients with making healthcare decisions, thereby expanding the patients’ ability to provide effective self-care (Syx, 2008).

Limitations

The researcher evaluated the breastfeeding knowledge and attitudes of a single sample of baccalaureate nursing students. The students were from one geographical location, and represented one specific university setting. A larger sample from more than one university may provide stronger evidence of the effects of the breastfeeding educational intervention on nursing students’ knowledge and attitude. This study did provide nurse educators with important information on ways to enhance breastfeeding education in their curriculums. The second limitation was the inability to control or account for extraneous variables, such as differences in the personalities of the students and their receptiveness to the idea of breastfeeding. Further, differences in the innate personalities of the SPs could have influenced perceptions of the interventions even though the SPs were trained for consistency and content. Third, although SP training occurred to control for consistency and content of the role-play scenario, some simulation role-play encounters were slightly longer or shorter based on the interaction of the students and SPs. Fourth, because there was no prior research on the use of SPs as a strategy for breastfeeding education that was found by the researcher, there were no findings with which the researcher could compare these study findings or methodology. Fifth, the data that was evaluated for the purposes of this research study provided information to determine students’ breastfeeding knowledge and attitude. An analysis of the comments that the students shared during the post intervention debrief would have provided valuable information, such as preparedness to provide breastfeeding support and specific breastfeeding information learned.

Recommendations for Future Studies

Based on the results of this study, three recommendations for future studies were identified. First, future studies should not be limited to one sample of students from one geographic location. Therefore, replication of this study in other settings will provide data to determine the true effect that this evidence-based educational intervention has on baccalaureate nursing students’ breastfeeding knowledge and attitudes toward breastfeeding. Second, replication of this study should be conducted to include qualitative data from the students during the post intervention debrief. Students provided comments in the debrief that described specific thoughts and feelings about the interventions, and the evaluation of the comments from the students would be useful in determining which intervention was more beneficial in regard to confidence, communication skills, and preparation in providing breastfeeding support. The findings from this study did not provide such information. Third, further research is needed to determine if the educational interventions made a difference on whether students later provided breastfeeding support in regard to the OB clinical setting or in professional practice. For example, a time series research study could be conducted in which students complete a breastfeeding knowledge survey prior to and after participating in the breastfeeding educational interventions. Students could complete the survey again prior to their OB clinical rotations or upon entering professional practice. It would be beneficial to target those nurses who work in settings where breastfeeding mothers are because it is unknown as to when nurses in other settings would have contact with a breastfeeding mother. The evaluation of whether or not the educational interventions made a difference in the students’ ability to provide breastfeeding support in the OB clinical setting or professional practice will provide relevance to the importance of breastfeeding education and its impact on breastfeeding outcomes.

evidence-based breastfeeding education
improved students’ breastfeeding knowledge
and attitudes toward breastfeeding
continued on next page
Providing Breastfeeding Support to Mothers continued from previous page

Conclusion

The results of this study revealed that the evidence-based breastfeeding educational interventions had an effect on improving baccalaureate nursing students' breastfeeding knowledge and attitudes toward breastfeeding. Providing students with the evidence-based educational interventions was beneficial because increased breastfeeding knowledge and attitudes toward breastfeeding were achieved and students are better prepared to provide breastfeeding support to mothers. Additionally, research reports revealed that a thorough evidence-based breastfeeding educational foundation is important, as it provides students with the knowledge and skill needed to provide breastfeeding support. However, childbirth educators are in a position to influence breastfeeding student knowledge and attitude by offering breastfeeding education and this will help improve breastfeeding outcomes.

References


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Brief Writer’s Guidelines for the ICEA Journal

Articles should express an opinion, share evidence-based practice, disseminate original research, provide a literature review, share a teaching technique, or describe an experience.

Articles should be in APA format and include an abstract of less than 100 words. The cover page should list the name of the article, full name and credentials of the authors and a two to three sentence biography for each author, mailing addresses for each author, and 3 to 5 keywords. Accompanying photographs of people and activities involved will be considered if you have secured permission from the subjects and photographer.

In Practice Articles – These shorter articles (minimum 500 words) express an opinion, share a teaching technique, describe personal learning of readers, or describe a birth experience. Keep the content relevant to practitioners and make suggestions for best practice. Current references support evidence-based thinking or practice.

Feature Articles – Authors are asked to focus on the application of research findings to practice. Both original data-driven research and literature reviews (disseminating published research and providing suggestions for application) will be considered. Articles should be double spaced, four to twelve pages in length (not including title page, abstract, or references).

For more information for authors please see our website at www.icea.org/content/information-journal-writers
Vitamin D3 and the Lactating Client

by Katrina Pinkerton, BS RN IBCLC

Abstract: Most infants who are partially or exclusively fed human milk are deficient in vitamin D3. This is not because human milk is inherently deficient but because most American adults are deficient in vitamin D3; thus, vitamin D is low in human milk. Lactating patients should be informed that their infants need additional vitamin D3. They must also be empowered with the evidence-based alternative of ingesting high amounts of vitamin D3 themselves in order to bring the vitamin D3 level in their milk to the required level, so they can discuss this alternative with their care provider.

Keywords: vitamin D, lactation, breastfeeding, chestfeeding, breastmilk, supplement, D3

There is a great deal of rhetoric in the lactation and women’s health field that touts the idea that human milk is all a baby needs during the first six months of life, but is it really? The current health professional opinion is that infants cannot have their vitamin D (D3 is used interchangeably with vitamin D) needs met through human milk. According to the 2012 American Academy of Pediatrics’ (AAP) recommendations and the Centers for Disease Control and Prevention (CDC, 2009), human milk is often deficient in vitamin D3. In fact, both groups recommend that infants who drink less than one liter of artificial baby milk (also known as infant “formula”), or until an infant is able to consume 32 ounces of fortified cow’s milk a day, be supplemented with 400 international units (IU) of oral vitamin D daily (AAP, 2012; CDC, 2009). The AAP states that human milk typically contains less than 25 to 78 IU per liter of vitamin D, hence the recommendation to supplement, which, according to the AAP, should start within days after birth. It is important to note that the AAP, despite the recommendation, still contends that human milk is the ideal source of nutrition and that infants be exclusively breastfed for the first six months. Infants should then be introduced to solid foods while still receiving human milk (no artificial or cow’s milk) until 12 months old. At one year, infants can continue to be breastfed or given cow milk (Perrine, Sharma, Jeffers, Serdula, & Scanlon, 2010).

Vitamin D3 is extremely important for a developing child and for adult health. According to the National Institutes of Health Office of Dietary Supplements (2014), benefits of vitamin D3 supplementation include cardiac health, mental health, immunity, as well as avoidance of types of cancer, diabetes, and infections. Blood levels of 20 ng/mL or higher are recommended by the NIH for healthy adults. Vitamin D3 is synthesized endogenously from ultraviolet light (the sun) and a limited selection of foods such as certain seafood, fortified beverages, and supplemental pills or tinctures (NIH, 2014). Infants are typically orally supplemented via multivitamin drops or D3 drops, which can contain ingredients such as glycerin, water, polysorbate 80, citric acid, vitamin D3, sodium citrate, sodium hydroxide, artificial flavor, artificial caramel color, and more (Mead Johnson, 2014). Adults typically take vitamin D3 orally in gummy chews, capsule, or liquid forms.

There is a belief among health professionals and health scientists that infants cannot get their vitamin D3 needs met exclusively through human milk. The CDC (2009) stated because human milk contains low levels of vitamin D3, often less than 25 IU per liter, “a supplement of 400 IU per day of vitamin D3 is recommended for all breastfed infants” (para. 5). These recommendations are based on the AAP report mentioned above. According to Bowden, Robinson, Carr, and Mahan (2008), adequate levels of vitamin D3 in the infant are achieved at 54-94 ng/mL, while levels under 30-32 ng/mL are insufficient. Wagner, Hulsey, Fanning, Ebeling, and Hollis (2006) compared the serum of infants of lactating patients who supplemented themselves with vitamin D to infants who were both exogenously supplemented with vitamin D and also ingested human milk from supplemented

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patients. Wagner et al. found that lactating patients who exclusively fed their babies human milk and supplemented themselves with 6,400 IU of vitamin D daily had higher values (46 compared with 43 25(OH)D ng/mL) than the infants who got 300 IU of vitamin D3 exogenously and milk from patients supplementing themselves with just 400 IU a day.

There is the thought that infants can obtain enough vitamin D3 if they can get daily sun exposure, perhaps by sitting in the sun indoors next to a window, but this is not an evidence-based recommendation. The AAP (2011) advises that babies under six months be kept out of the sun, and their sun exposure should continue to be minimized after six months because of the possible increase of risk of skin cancer later in life. In North America, it is not possible for most people to obtain enough vitamin D through sunlight exposure during most of the year; most is obtained only during the summer months if exposed to the sun when it is at the highest point for 20-40 minutes uncovered (longer time for those with darker skin), at least twice a week (American College of Nurse-Midwives, 2011). In addition, Haggerty (2011) also pointed out to obtain enough vitamin D3 from sunlight, one would have to obtain enough UV rays to the point where a mild sunburn could occur. Of course, neither health care providers nor parents desire their infant’s skin to be damaged, so vitamin D3 from sunlight is just not feasible (Wagner et al., 2006).

Table 1: Serum 25-Hydroxyvitamin D [25(OH)D] Concentrations and Health* [1]

<table>
<thead>
<tr>
<th>nmol/L**</th>
<th>ng/mL*</th>
<th>Health status</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30</td>
<td>&lt;12</td>
<td>Associated with vitamin D deficiency, leading to rickets in infants and children and osteomalacia in adults</td>
</tr>
<tr>
<td>30–50</td>
<td>12–20</td>
<td>Generally considered inadequate for bone and overall health in healthy individuals</td>
</tr>
<tr>
<td>≥50</td>
<td>≥20</td>
<td>Generally considered adequate for bone and overall health in healthy individuals</td>
</tr>
<tr>
<td>&gt;125</td>
<td>&gt;50</td>
<td>Emerging evidence links potential adverse effects to such high levels, particularly &gt;50 nmol/L (&gt;60 ng/mL)</td>
</tr>
</tbody>
</table>

* Serum concentrations of 25(OH)D are reported in both nanomoles per liter (nmol/L) and nanograms per milliliter (ng/mL).
** 1 nmol/L = 0.4 ng/mL.
Table from http://ods.od.nih.gov/factsheets/VitaminD-HealthProfessional/

It is unclear just how much D3 is required for optimal health in children and adults. There is a lack of consensus largely based on the lack of reliable studies that investigate how much D3 is needed to correct deficiency. The dearth of large, randomized, controlled studies further contributes to the lack of knowledge around timing and dosing of D3. There are different types of D3, and it is unclear which type is best (Thiele, Senti, & Anderson, 2013). There are two types of vitamin D typically used for supplementation: plant-made vitamin D2 (also known as ergocalciferol) and the animal-made vitamin D3 (also known as cholecalciferol), which is a more bioavailable form that can convert in the liver to 25(OH)D. This cholecalciferol (D3) value is what practitioners use to check serum values of vitamin D3 in patients. The physiology of how vitamin D3 is passed through human milk is complex and its pathways often unclear. Thiele et al. (2013) explained

… very little 25(OH)D passes from the maternal circulation to breast milk. Instead, the neonate receives vitamin D in its parent form of cholecalciferol in breast milk. Therefore, it is critical that maternal serum cholecalciferol levels remain adequate, as this is the primary form passed to the neonate. However, cholecalciferol is quickly converted to 25(OH)D by the mother, thereby disabling it from transfer to the neonate and thus suggesting the need for daily dosing of vitamin D to achieve breast milk transfer. (p. 164)

Thiele et al. (2013) recommended that lactating patients supplement themselves daily with vitamin D3 to ensure the infant receives adequate amount of the parent form of vitamin D3 (known as cholecalciferol) through the milk. Thiele et al. (2013) emphasized in their summary of recommendations that, “... breast milk is considered the gold standard for infant nutrition, offering a complement of antibodies, macronutrients, and nutritional balance unsurpassed by any substitute. Therefore, maternal nutrition should be optimized to impart the best nutrition to exclusively breastfed infants” (p. 163). If human milk is the optimal food and source of nutrition for infants, it makes sense that human milk would make a perfect delivery system for vitamin D3 as well. Thus, if it were safe and healthy for both patients, would it not make sense to supplement the lactating patient instead of supplementing just the infant, in order to treat the deficiencies in both patients at once?

There are multiple benefits to an infant getting their vitamin D3 needs met through human milk versus exogenous supplementation. One benefit of supplementing the lactating patient instead of the baby is that patients are less likely to switch to formula (some studies show that physicians are reluctant to prescribe vitamin D3 supplements to breastfed infants out of fear the mother will view her milk as deficient or lacking and thus switch to formula) (Perrine et al., 2010). Manufacturers have already capitalized on this fear. For example, one artificial baby milk manufacturer advertises its vitamin D3 drops as “essential for all breastfed infants,” while failing to mention that newborns who are not yet consuming 1000 mL per 24 hours also need additional supplementation.

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This marketing, along with messages from the AAP and CDC, can lead parents to view human milk as deficient and cause them to view artificial milk as superior, which would be incorrect. Secondly, supplementing parents can help avoid exposing infants to the additional substances vitamin D3 is packaged with. Some patients prefer to give only milk to their infants, and healthcare providers would best serve their patients by having a conversation about the benefits and risks of supplementing the infant with D3 via human milk.

To further explore the idea of supplementing the lactating patient to treat vitamin D3 deficiency in the infant, we will examine the conflicting standpoints of the most relied-upon lactation and women’s health resources. Dr. Thomas Hale (2012) is an internationally renowned expert in the field of pharmacology and lactation and author of the foundational lactation reference book *Medications and Mother’s Milk*, used in most hospitals and clinics nationwide. Hale stated that lactating patients should take 4,000 IU of vitamin D daily so infants can achieve adequate vitamin D3 levels. Vitamin D3 gets an “L2” rating in Hale’s book, meaning it is “safer,” which indicates that there have been limited studies on D3 supplementation in lactation in patients and their infants or that there is a remote risk of any adverse health events occurring (p. 1142). Hale’s recommendation that high levels of vitamin D supplementation under 10,000 IU are safe and even recommended is in direct conflict with several leading organizations in the field of infant, maternal, and adult health. The American College of Obstetricians and Gynecologists (2011) contended that pregnant and lactating patients should take 600 IU vitamin D3 a day, in line with the Institute of Medicine (IOM) recommendation that lactating patients consume at least 400-600 IU daily, with a maximum of 4000 IU daily. Specifically recommends that lactating patients take at least 400-600 IU of vitamin D daily (p. 197). The Endocrine Society also promotes a low 600 IU recommendation, adding that the patient should consider taking up to 2,000 IU daily (Holick et al., 2011). The American College of Nurse-Midwives (2011) recommends that lactating patients take at least 600 IU, but no more than 4,000 IU daily, and that infants be supplemented exogenously as well, citing the AAP recommendations. Despite the conflicting opinions of so many reputable health care organizations, Dr. Hale is not a lone voice in the academic sea of vitamin D3 supplementing guidelines.

Wagner et al. (2006) of the Academy of Breastfeeding Medicine (ABM) also supported the stance that infants can receive adequate amounts of vitamin D3 exclusively through human milk. Wagner et al. proposed that infants are at risk for vitamin D3 deficiency because most people in the United States are deficient in vitamin D3 and that this is the reason for why there is ultimately not enough vitamin D3 in human milk. Wagner et al. recommended that lactating patients consume 4,000 IU per day or higher as the result of a study that found that this amount directly correlated with a significant rise in infant vitamin D serum levels in infants who were exclusively fed human milk. Wagner et al. pointed out that there is no evidence that shows that lactating patients’ intake of the recommended upper intake level or higher had adverse effects for parent or baby. A few randomized controlled (albeit very small sample size) studies showed that infants of lactating patients taking 6,000 IU of vitamin D3 supplement per day had serum levels comparable to the levels of D3 in infants of lactating patients who were not taking vitamin D3 supplements, but supplemented their infants with oral vitamin D3 instead (Wagner et al., 2006). Wagner et al.’s overall recommendation to lactating patients is to take 6,400 IU vitamin D3 daily as an evidence-based alternative to supplementing the infant directly. This is good news for parents who do not like the idea of giving anything but human milk to their infants. There is, however, a controversy as to how much vitamin D3 is safe for one to consume.

There are conflicting viewpoints as to how much vitamin D3 patients should take in order to have enough vitamin D3 in their bodies to support homeostasis and avoid health problems. There is also conflict in the field of medicine about how much vitamin D3 is too much. The Institute of Medicine (IOM, 2011) reported that (in a non-lactating adult) the risk of taking too much vitamin D occurs after 4,000 IU. After 10,000 IU which is referred to as the “Tolerable Upper Level of Intake,” there can even be damage to the kidney and other tissues (IOM, 2011). The IOM specifically recommends that lactating patients consume at least 400-600 IU daily, with a maximum of 4000 IU daily. However, these tolerable upper limit levels are debated. Dr. John Cannell (2013), executive director of the Vitamin D Council, argued that daily vitamin D3 intake above 4,000 IUs are perfectly safe, since there are no studies showing any adverse health effects in persons taking under 10,000 IU of vitamin D3 daily. Cannell recommended that “. . . anyone who exceeds 5,000 IU/day have a 25(OH)D test three months after taking such a dose to be sure that it achieves the desired effect, which is normal blood levels” (para. 12). In addition to examining risks of over-supplementation to the lactating patient, we must also consider the risks of over-supplementation to the infant. If a lactating patient takes more than, 10,000 IU of D3 daily, there is evidence that this can pose risks to the infant by causing elevated serum calcium levels (Goldberg, 1972). Cannell’s recommendation is in line with the aforementioned ABM recommendation that
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daily supplementation of the lactating adult with vitamin D amounts above 4,000 IU is safe and even recommended. So, should health care professionals recommend that all lactating patients supplement with high amounts of daily D3? Not yet, according to Thiele et al. (2013). Thiele et al. (2013) recommended that only once additional clinical trials can further demonstrate the safety of vitamin D3 supplementation for mothers and infants, should the practice change. Thiele et al. pointed out that “while the effect of vitamin D3 supplementation on maternal and infant status is significant, the small sample sizes and large variation in supplementation protocols in these three randomized controlled trials limit ability to suggest specific practice changes” (p. 168). Based on the evidence, we can best serve our patients by recommending that they speak with their individual care providers, such as nutritionists, OB/GYN physicians, or Certified Nurse Midwives, about safely supplementing themselves with D3 to adequately meet their infant’s needs. Patients and providers alike will benefit greatly from an analysis of the varied information currently available regarding supplementing with D3.

Something that the AAP, CDC, and ABM all agree on is that it is healthier for infants (and mothers) to avoid artificial milk altogether and supplement with vitamin D3. Whether lactating patients give exogenous supplements to the baby or ingest large doses of vitamin D3 themselves, is a discussion we can empower our patients to have with their individual nutritionists, Certified Nurse Midwives, or physicians. It is our responsibility as perinatal educators and providers to encourage parents to have this discussion with their care providers, since most patients are unaware of the recommendation to supplement with vitamin D3 at all, and thus most infants (and parents) are at risk adverse health outcomes because they are vitamin D deficient. As Chandy, Wagner, and Shepard Rubinger (2008) of the ABM so eloquently wrote in a letter in response to a New York Times article describing human milk as deficient, “We must prescribe a safe intervention that will achieve sufficiency in both mother and infant and not blame human milk as the culprit, but rather, see the problem as the larger public health issue that it is” (para. 1).

References


Katrina is a Nurse-Midwife/Women’s Health Nurse Practitioner student at Yale University. She is employed with various hospitals around Connecticut as a Lactation Nurse Specialist, and serves as a Director at Large on the ICEA Board. When not at work or school, she is engaged in clinical volunteer work and community building with underserved populations, with a specific interest in the LGBTQ community.
Hi-Tech Breastfeeding Tools: Meeting the Needs of Today’s Parents

by Nancy Mohrbacher, IBCLC FILCA

Abstract: Our understanding of breastfeeding has changed in the last 30 years. Alternatives to traditional breastfeeding instruction are emerging. Most nursing mothers today turn to breastfeeding smartphone applications for help. Tracking apps can be helpful during the first week or two of breastfeeding. The digital breastfeeding world allows mothers to connect with others who have been there done that. To stay relevant to today’s parents, we must move forward.

Keywords: breastfeeding, smartphones, mobile apps, millennials, patient education

Our understanding of breastfeeding has undergone radical changes in the last 30 years. During that time, some of our basic assumptions about breastfeeding have been proven wrong. Major shifts have also taken place in how parents in both developed and developing countries access breastfeeding information. Only a small percentage of expectant mothers attend breastfeeding classes or mother-support groups and fewer parents are reading books. Many families begin breastfeeding with very little basic information. This is no doubt one reason a U.S. study found that more than two thirds of American mothers who planned to exclusively breastfeed for three months did not reach their goal (Perrine, Scanlon, Li, Odom, & Grummer-Strawn, 2012). Even in countries like Australia, where more than 95% of mothers initiate breastfeeding, many women stop much sooner than planned, often during the early weeks (Meedya, Fahy, Yoxall, & Parratt, 2014).

New Options in Prenatal Breastfeeding Education

Thankfully, modern alternatives to traditional breastfeeding instruction are emerging. What if instead of going to a class, meeting, or reading a book, expectant parents could get quality prenatal breastfeeding education on a tablet at their health care provider’s office? What if they could download it onto their own tablet, phone, or home computer?

A 2015 U.S. study examined the effects on breastfeeding rates of a tablet-based prenatal breastfeeding education program provided in an obstetrical practice’s office (Pitts, Faucher, & Spencer, 2015). After the mothers completed the program, which involved three modules delivered at their 32-, 34-, and 36-week prenatal visits, the researchers tested their breastfeeding knowledge and found that the women learned new things and retained this information. After birth, 95% of the women who completed the course initiated breastfeeding. The state average where this study took place was 88%. These mothers also breastfed longer and more exclusively than state averages and spoke highly of their experience. An amazing 95% said they preferred it to group-based education, which is consistent with other research on educational options (Hannula, Kaumonen, & Tarkka, 2008). Clearly, we need to carefully consider not just what we teach but how we deliver information to Millennial parents.

The tablet-based program used in this study is not available for general use, but another one is. The author developed (with Chicago-area obstetrician Dr. Theresa Nesbitt) a tablet-based prenatal education program called Natural Breastfeeding: For an Easier Start, which can be downloaded at www.NaturalBreastfeeding.com. This home-study course features six modules and more than 60 short videos and can be viewed on a tablet, computer, or smartphone. Expectant parents can complete the program at home at their own pace. Some of the basic videos from the Natural Breastfeeding program are freely available to view and share on my YouTube channel at www.YouTube.com/NancyMohrbacher and childbirth educators are encouraged by the author to access and use them.

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Phone-Based Breastfeeding Support

There are now more than one billion smartphone users worldwide (Bicheno, 2012). And because today’s smartphones do so much more than old-fashioned phones, mothers spend much more time on them than in the past. The Listening to Mothers III study (2013) found that as many as 64% of pregnant women use their smartphones to gain access to pregnancy and birth information (as cited by Fleming, Vandermouse, & Shaw, 2014).

The U.S. Text4baby program uses a high-tech breastfeeding support strategy and sends health and breastfeeding messages via text to postpartum mothers with low health literacy (www.text4baby.org). The basic telephone function of smartphones can also serve as an effective breastfeeding support tool. One study found that more low-income adolescent mothers in New York state breastfed exclusively when breastfeeding peer counselors from their public health department called them on their phones on Day 2, 3, 4, and 7 and in Week 2, 3, 4, and 5 (Di Meglio, McDermott, & Klein, 2010).

Even in the developing world, mobile phones are being used successfully to improve breastfeeding outcomes. In Nigeria, where less-than-optimal breastfeeding practices are linked to higher infant mortality rates, researchers provided one mobile phone to groups of mothers who met weekly for other reasons (Flax, Negeric, Ibrahim, Leatherman, Daza, & Bentley, 2014). The mothers randomized to the phone groups received messages reinforcing best breastfeeding practices via text and (for low-literacy mothers) pre-recorded voice-mails, which they discussed at their weekly meetings. At three and six months after birth, more mothers in the phone groups were exclusively breastfeeding compared with the mothers in the control groups who also met weekly, but did not get the breastfeeding messages.

A program in Cameroon used cell phones to give mothers (who traditionally do not leave their homes for the first six weeks after birth) access to breastfeeding counselors, which also improved breastfeeding outcomes (Achanyi-Fontiern, 2013).

Breastfeeding Tracking Apps

Most nursing mothers today – including low-income mothers – turn to help for breastfeeding smartphone applications known as “apps” (Bensley, Hovis, Horton, Loyo, Bensley, Phillips, & Desmangles, 2014). In early 2013, before developing the Breastfeeding Solutions app, I searched “breastfeeding” in Apple’s App Store to see what kinds of breastfeeding apps were available. At that time, the purpose of nearly every breastfeeding app I found was to track feeding and diaper data. They were all about the numbers: number of breastfeeds, number of minutes babies spent nursing at each breast, number of wet and poopy diapers, number of ounces of milk pumped, number of bottles and ounces fed.

As of August 1, 2015, little had changed. The App Store’s top ten breastfeeding apps were tracking apps, which the lone exception of the LatchMe app, whose purpose is to help families find local breastfeeding assistance.

Tracking apps can be helpful during the first week or two of breastfeeding. They are a high-tech alternative to paper and pen for recording essential information, such as the number of breastfeeds per day (ideally at least eight) and baby’s diaper output. They can be a useful reference when feeding problems occur or when health care providers ask for this information at appointments. But tracking apps also have downsides:

Collect data but do not explain what the data mean.
• They may overwhelm and confuse new parents, many of whom are unaware that much of the data they’re compiling is nonessential.
• If used too long, they waste precious time on useless data entry.

The numbers parents collect with breastfeeding tracking apps are meaningless without context. Most apps don’t explain what the numbers mean or guide parents on what to do if the numbers are outside the desired range. This is also true of pregnancy apps. A study on smartphone apps that tracked pregnancy weight gain found that when women gained more weight than recommended, no specific advice was provided to achieve ideal weight (Kraschnewski, Chuang, Poole, Payton, Blubaugh, Feher, & Reddy, 2014). Many first-time parents, may not know when to stop tracking feedings and diapers and spend significant time on data entry that would be much better spent enjoying their baby.

The American Academy of Pediatrics recommends that parents breastfeed their babies on cue (American Academy of Pediatrics, 2012). This means following baby’s lead on when and how long to breastfeed using early feeding cues.
(like rooting and hand-to-mouth) as a guide, rather than going by the clock. At baby’s two-week checkup, if baby is at birthweight or above, this is a sign of effective feeding. Once baby’s health and feeding efficiency are confirmed, there’s no benefit to continuing to track feedings and diapers. In some cases, continuing to track meaningless feeding details (such as number of minutes per breast) may confuse and overwhelm parents and lead to an unhealthy focus on the clock. Newborns have no sense of time and intervals between feeds and feeding lengths normally vary tremendously, especially during the first six weeks. If parents try to read too much into these details or expect their newborns to follow a regular feeding pattern too early, their concerns may convince them to start supplementing with formula or pumping and feeding expressed milk by bottle.

The most common reason mothers give for weaning sooner than planned is worries about milk production (Odom, Li, Scanlon, Perrine, & Grummer-Strawn, 2014). These worries are often rooted in misunderstandings about normal infant breastfeeding patterns. Rather than following the wise advice to “watch the baby, not the clock,” for some parents, tracking apps can lead to an over-focus on the wrong things.

Other breastfeeding apps parents should consider with caution are those distributed by infant-formula companies. In 2013 there was a post in the International Lactation Consultant Association’s blog, Lactation Matters (Escobar, 2013). This post described how formula companies use social media to market their brand, paying “mommy bloggers” to promote their products and developing free apps that send mothers with breastfeeding questions to the companies’ own “lactation consultants” at their toll-free phone numbers. A 2015 story in Bloomberg Business online reported that Similac acquired the contact information of more than 250,000 mothers in New York City alone from its Strong Moms app, which promoted its product by offering app users formula coupons and free home delivery of Similac infant formula (Smythe, 2015).

Breastfeeding Apps That Inform

The huge prevalence of breastfeeding tracking apps and the realization that countless mothers were downloading Similac’s free Strong Moms app (“Add a little predictability to your life”) motivated the development of an industry-free alternative, the Breastfeeding Solutions app.

Available since late 2013 for Android and iPhone, Breastfeeding Solutions is not a tracking app. It explains basic breastfeeding dynamics and provides the context parents need to help them reach their breastfeeding goals.

Breastfeeding Solutions’ home page offers three pathways a mother can use to access its 100+ topics.

- If she is confused or unsure of her issue’s cause, she can touch the Solutions button and answer a few simple questions, which take her to a screen that identifies her issue and provides the most up-to-date recommendations.
- If she already knows what she’s looking for, she can touch the Index button on the home page and then the first letter of her topic.
- To learn about areas of interest, she can touch Browse and decide where to go next.

To see Breastfeeding Solutions in action, view its two-minute video demo on YouTube. This app can also be used by breastfeeding supporters as a reference when responding to mothers’ questions away from home or office. Other breastfeeding apps also provide much more than tracking. Mentioned previously the LatchMe app helps parents find local breastfeeding help. Another valuable breastfeeding app for both parents and professionals is LactMed, a free, reliable resource on drugs and breastfeeding. Endorsed by the American Academy of Pediatrics, LactMed provides its users with the most current information on a wide variety of drugs, including the drugs’ effects on the breastfeeding baby and on milk production.

Breastfeeding Management 2 is another helpful app developed by the Massachusetts Breastfeeding Coalition. Created primarily for professionals, its main focus is on the first two weeks of life and it provides a weight loss calculator, preemie calorie calculator, metric conversions, and much more.

Most mothers today rely on online breastfeeding support.

Modern Mothers Meet Online

Where does face-to-face breastfeeding support fit in today? Mother-to-mother groups like La Leche League International are still active. Breastfeeding USA is another up-and-coming national breastfeeding organization for parents. However, one thing has remained unchanged during the last 30 plus years: relatively few mothers attend in-person support-group meetings.
Hi-Tech Breastfeeding Tools
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Most mothers today rely instead on online breastfeeding support. In 2011, Chicago-area mother Katrina Pavlik saw a need and started the website and Facebook group Breastfeed Chicago (https://breastfeedchicago.wordpress.com). It quickly grew to include more than 15,000 participants. On its Facebook page, mothers post messages at 3 am and receive immediate responses from other mothers, providing the instant gratification Millennial mothers crave. It has grown so fast that it is currently closed to the public and its moderators struggle to keep up with the demand.

What draws mothers to online breastfeeding support? Author Lara Audelo interviewed mothers about their online experiences for her 2013 book The Virtual Breastfeeding Culture and many reported feeling closer to their online friends than the local mothers in their community. As Jennifer Gray described in her survey of mothers:

“They may participate in hyperpersonal communication online, building relationships and finding support that they could not receive face to face, particularly those who are isolated in the early period after a birth, feeding an infant at home every two or three hours” (Gray, 2013).

The digital breastfeeding world also allows mothers in unusual situations to connect with others who have been there and done that. In Audelo’s book, she describes a variety of specialized virtual support communities consisting of mothers:

• with a history of breast reduction surgery,
• who have physical issues that prevent them from producing a full milk supply,
• who have suffered a neonatal loss,
• who are exclusively pumping,
• whose babies are highly allergic,
• whose babies are hospitalized in a special-care nursery,
• and many, many more.

Summary

The breastfeeding landscape has undergone radical changes, and there is no turning back. To stay relevant to today’s parents, we must move forward into our brave new high-tech world. Modern parents don’t just want reliable sources of information. They want sources that incorporate the platforms they are most comfortable using. As always, we need to meet new parents where they are. And today, where new parents are is on their tablets and smartphones.

References


Nancy Mohrbacher, IBCLC, FILCA is an international board certified lactation consultant who has worked one-on-one with thousands of breastfeeding families in the Chicago area, where she lives with her family. She has written breastfeeding books for professionals and parents and speaks at events around the world. Her smartphone app, Breastfeeding Solutions, is available for Android and iPhone in the App Store, Amazon, and Google Play. Follow her on her website at www.NancyMohrbacher.com.
Breastfeeding:  
What’s Law Got to Do with It?

by Abbie Goldbas, MSEd JD

Abstract: Ambivalent attitudes towards breastfeeding, even though it is well-understood that it is highly beneficial to mothers and babies, have led to the enactment of laws to protect women from discrimination and criminal charges. The Patient Protection and Affordable Care Act has made it mandatory for employers with more than 50 employees to provide a private space for hourly wage women to express milk and also allow mothers to have break times to do so. Mothers not only should be educated to learn about the advantages of breastfeeding but also should know breastfeeding laws where they live. While the laws afford women rights, for instance to breastfeed in public, negative attitudes may still exist.

Keywords: breastfeeding, expressing, laws, APA and WHO recommendations, private space, break time

Breastfeeding is feeding a baby milk from a mother’s breasts to sustain and nourish the child. While breastfeeding is known as optimal nutrition for babies, federal and state laws vary with regard to the level of acceptance and protection. Ambivalent attitudes towards breastfeeding are part of the problem and have made laws necessary. Historically, breastfeeding was largely unquestioned, except by royalty in Egyptian, Greek, and Roman empires who considered the practice beneath them. In the early 1900s, people in Western countries, notably the United States and Canada, began to consider breastfeeding low class (Nathoo & Ostry, 2009). This negative mindset was bolstered by the new, and supposedly equally nutritious, infant formulas that came on the market and became widely used after World War II (Hausman, 2007; Nathoo & Ostry, 2009). Another issue was the fact that many in our society objected to breastfeeding because breasts were considered sexual (Forbes, Adams-Curtis, Hamm, & White, 2003). These sexual undertones have in the past made breastfeeding in public not just humiliating but illegal (Battersby, 2010). Thus, women have not only been thwarted and inconvenienced for breastfeeding in public but arrested for crimes. Our culture has often made breastfeeding women feel shame (Battersby, 2010).

There is no question that breastfeeding is beneficial to mothers and their babies, far more beneficial than formula feeding (Karin & Runge, 2014). It behooves governments to foster breastfeeding not only for the health benefits to both groups but also because the health care savings are remarkable. Babies are healthier, which means fewer medical interventions paid for by families and fewer monetary subsidies by the government (Karin & Runge, 2014). According to U.S. Breastfeeding Commission, Workplace Accommodations published in 2010, $13 billion annually would be saved if 90% of mothers breastfed. Further, the Special Supplemental Nutrition Program for Women, Infants and Children spends $850 million on free formula each year for low-income women, an amount that would be lessened if more mothers breastfeed their babies (Karin & Runge, 2014).

Now, laws are being used to protect mothers from cultural attitudes that hinder public breastfeeding.

laws are being used to protect mothers from cultural attitudes that hinder public breastfeeding

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Breastfeeding: What’s Law Got to Do with It?

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women start breastfeeding; however, only 16% continue to the AAP minimum recommended age of six months (Haight & Ortiz, 2014).

Federal Laws in the United States

The Patient Protection and Affordable Care Act, also known as Obamacare, was enacted in March 2013 (Karin & Runge, 2014). Section 4207 states that women are to be provided with (a) a job-protected break time to express breast milk (to express milk for the baby’s future consumption, women use a pump), and (b) a private space within which to do this. There are limits to this law – it is only for women who are wage-earners, the women will not get paid for the break time, the baby must be less than one year old, and employers with fewer than 50 employees can claim a hardship and not be forced to comply (Karin & Runge, 2014). The intention of the law is to encourage low-income working women to breastfeed (Karin & Runge, 2014). The underlying rationale for this legislation is the assumption that the workplace facilities have heretofore discouraged women from breastfeeding. Though the rights are limited, the impact of this law should be substantial because the number one reason for women not breastfeeding is work (Galson, 2008).

State Laws in the United States

According to the 2015 National Conference of Legislatures (NCSL):

• Laws sanctioning breastfeeding in any public or private location exist in 49 states, the District of Columbia and the Virgin Islands.

• Breastfeeding exemptions from public indecency laws exist in 29 states, the District of Columbia and the Virgin Islands.

• Exemptions from jury duty are in place in 17 states and Puerto Rico.

• Public awareness campaigns are present or encouraged in 5 states and Puerto Rico.

Specific laws give insight to some specific cultural attitudes and barriers to breastfeeding that the laws are designed to overcome. The large majority of these laws were enacted in the 1990s and early 2000s (NCSL, 2015). The NCSL (2015) reported, for example, that in California, it is unlawful to discriminate against a breastfeeding woman in employment or housing accommodations. In Kentucky, a statute prohibits a breastfeeding mother from being arrested for an act of public indecency, indecent exposure, sexual conduct, lewd touching or obscenity (NCSL, 2015). Illinois, noting its intent to ensure mothers’ right to breastfeed, requires employers to provide a workspace that is not a toilet stall for the expressing of breast milk (NCSL, 2015). Finally, Minnesota allows breastfeeding in any location, “irrespective of whether the nipple of the mother’s breast is uncovered during or incidental to the breastfeeding” (NCSL, 2015).

Enforcement

Are these laws enforceable? Do mothers have recourse when these laws are violated? That is: what happens when breastfeeding is thwarted and women harassed? This is crucial because as determined in Marbury v. Madison, 5 US 137 [1803] (as cited by Marcus, 2015) “a right without a remedy is no right at all” (para. 3). Many, but not all, state laws include enforcement provisions (Marcus, 2015). This is because our legal system is complex and evolving: innovative, politically correct laws enacted for society’s benefit often leave out enforcement provisions. In this case, because many government legislators have no idea what reasonable penalties should be for the violation of breastfeeding protection laws. One consideration is that legislators do not want to appear too heavy-handed and arouse a breastfeeding backlash. Because of this, legislators leave enforcement to the courts (University of Kansas Work Group for Community Health and Development, 2015). Vermont, however, is one of the states with enforcement provisions, and the law specifies that if a woman is prevented from breastfeeding, she “may file a charge of discrimination with the human rights commission…or may bring an action for injunctive relief and compensatory and punitive damages and any other appropriate relief.” The woman may request that her attorney’s fees be paid as well. Additionally, New Jersey allows for an offending entity to be fined, while other states, such as Hawaii, have created a private right of action by which a mother can seek money damages (Marcus, 2015).

Regardless of the existing laws, few cases go to trial. Self-help should generally be the first response, especially for those who are leery of possible public notoriety and the courts. Worth noting is that if one intends to litigate, self-help is a necessary first step to establish that mediation failed. Often, the harasser is without authority, so that in a restaurant or other public place, a request to speak to someone in charge who may be more likely to know the law can rectify the situation (Marcus, 2015).

Another method employed is to shame those who disregard the law and attempt to inhibit breastfeeding. In 2007, a family in Houston, Texas whose little boy was severely ill and undergoing medical treatment was staying at
Breastfeeding: What’s Law Got to Do with It?
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a Ronald McDonald House (Blumenthal, 2007). The mother was told to stop breastfeeding her son in a common area in the House because a man had complained and was allegedly told to breastfeed in her room or she and her family would be evicted (Blumenthal, 2007). The House denied that the mother was mistreated but rather just asked to nurse “more privately” (Blumenthal, 2007, para. 5). The family retaliated by using the internet, posting the House’s e-mail address and telephone number, and protesting the House’s violation of Texas law that protected women’s right to breastfeed “… in any location in which the mother is authorized to be” (Blumenthal, 2007, para. 11). It became a national cause. The overwhelming response, which crashed the House’s website, publicly shamed the administration into allowing the woman to breastfeed in the facility’s public areas (Blumenthal, 2007). A day later, a meeting with the mother, Ronald McDonald House administrators, and a board member of the local La Leche League was convened, and it was concluded that the mother could breastfeed in public areas if she were sensitive to others around her (Blumenthal, 2007). Ronald McDonald House stated it favored breastfeeding and would work on developing guidelines for the House (Blumenthal, 2007).

The situation in Texas in 2007 is still relevant because similar incidents frequently occur today. For instance, in June of 2014 in Hawaii, where breastfeeding is allowed in public, a young resident of a homeless shelter was told by a male worker to “cover up” or he would refuse her services (Bologna, 2014). The mother did not want to cover her baby because it was hot (Bologna, 2014). She was offered several other places to go and a room with an air conditioner, which she said was broken, and she was eventually told to “be sensitive to other guests” though no guests complained (Bologna, 2014).

Laws Promote Breastfeeding

Based upon the limited research that has been conducted, it appears that the laws do promote breastfeeding. Taking data from the 2003 National Survey of Children’s Health, children in states that do not have breastfeeding promotion statutes were found to have a 63% higher chance of not being breastfed after birth and 45% higher chance of not being breastfed at six months (Kogan, Singh, Dee, Belanoff, & Grummer-Strawn, 2008). More recently, Hawkins, Stern, and Gillman (2013) found that the state laws are effective in the promotion of breastfeeding, however not equally for all women. Hawkins et al. analyzed the responses of 319,431 mothers regarding the initiation and duration of their breastfeeding and the laws regarding break time and private space at their workplaces and being permitted to breastfeed in any public or private location. Hawkins et al. found increases in breastfeeding of Hispanic and African American mothers, as well as those of lower educational attainment, in areas with pro-breastfeeding laws.

Conclusion

Breastfeeding is advantageous for mothers, babies, and society in general. The United Nations and WHO, among others, have declared breastfeeding a human right: a right for the woman to breastfeed and the right of the child to be breastfed as part of his or her right to optimal nutrition (Haight & Ortiz, 2014). Cultural biases in the United States have made it incumbent to enact laws to protect mothers who want to breastfeed in public. These laws appear to work. They are certainly a step in the right direction.

In the meantime, based upon the above, education regarding breastfeeding should not just be about the benefits, but also raise consciousness about the cultural attitudes where the women live to guide and protect them from feelings of shame and accusations of criminal acts. Although professional recommendations and the laws, which promote awareness of the issue despite difficulties in enforcement, are in place to protect women, negative feelings and ignorance of the laws remain. It may be wise to be mindful of this (legal behaviors can still be offensive to some). Using decorum in no way requires giving up one’s rights; it just sometimes makes life easier.

References


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Abbie Goldbas, MSEd, JD has been an attorney at law for 30 years. She used to specialize in Family Court Law and child advocacy. For the past ten years she has limited her practice to appellate law. Her interest in this topic stems from her experiences with children and families in Family Court. She also as a passion for helping women and children lead healthy lives.
Increasing Breastfeeding Rates: Evidence-Based Strategies

by Vanessa Flannery, MSN RN PHCNS-BC CNE

Abstract: The purpose of the article is to analyze evidence about postpartum women in low income rural areas and their perceived breastfeeding support. A literature review was conducted to identify current evidence-based practices to increase breastfeeding rates. Strategies found to be effective were telephone support, peer counseling, and using cognitive and behavioral strategies.

Keywords: breastfeeding, peer, support, telephone

Introduction

Despite the known benefits of breastfeeding, rates are low in the United States. The national breastfeeding data reveals that 77% of infants begin to breastfeed at birth, 47% still are breastfeeding at six months with formula supplementation, 26% are breastfeeding at 12 months with supplementation, 40% are exclusively breastfeeding at three months and 16% are exclusively breastfeeding at 6 months (Centers for Disease Control, 2012). Strategies known to increase breastfeeding rates need to be identified and promoted by childbirth educators and other health care professionals. There are many health benefits to infants who are breastfed including (but are not limited to) special illness fighting antibodies, decreased risk of allergies, fewer dental caries, prevention from several childhood diseases including cancers, and a reduction of Sudden Infant Death Syndrome (Centers for Disease Control, 2012). The purpose of this article is to conduct a review of the evidence on the perception of breastfeeding support by postpartum women in low income, rural areas.

Effectiveness of Telephone Support

Two studies focusing on telephone support confirmed that structured support such as regular telephone calls on a schedule increased rates of women exclusively breastfeeding up to 6 months. Structured telephone support provided by lactation consultants included anticipatory guidance, education, and empowerment through weekly phone calls for 3 months, then monthly until the mother weaned or reached 6 months. The study included 27 first-time mothers who were not eligible for other support and at the conclusion of this program, 73% were still breastfeeding at 6 months compared to 38% for the group who did not receive the support (Agostino, 2012).

In the second randomized clinical trial 114 Italian primiparous women who had explicitly declared their intention to breastfeed were enrolled. Participants were randomly assigned into two groups – 55 receiving additional structured telephone counseling and 59 receiving the usual postpartum care. Participants in the structured telephone counseling group received weekly phone calls during the first six weeks by a licensed midwife and participants in the control group were seen by the physician at 1, 3, and 5 months after delivery. Both groups were invited to call the licensed midwife in case of breastfeeding problems. The exclusive breastfeeding rates were higher for the group in the structured telephone counseling group compared to conventional counseling. After the first month, 76% of mothers were exclusively breastfeeding in the telephone support group and 42% in the control group. After the third month the observed rate was 55% vs. 29%, and 26% vs. 12% on the fifth month respectively (Simonetti, Palma, Giglio, Mohn, & Cicolini, 2012).

Women enrolled in peer support groups breastfeed approximately two weeks longer than participants without support.

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Effectiveness of Peer Counseling

Women enrolled in peer support groups breastfeed approximately two weeks longer than participants without support (Olson, Haider, Vangjel, Bolton, & Gold, 2010). Participants were identified and recruited through Michigan’s Women, Infants and Children (WIC) program and the Breastfeeding Initiative. There were 336 participants in the treatment group and 654 in the control group (Olson et al., 2010). Comparison of the two groups revealed that the treatment group was more likely to initiate breastfeeding, increased approximately 27%, and then continue with a breastfeeding program for up to 6 months. A limitation to the study is there was no random assignment made between the control versus treatment group. In this particular study, there was substantially more demand for the services of the program than could be provided. Participants were grouped based on those who requested service and were contacted (the treatment group) to those who requested service and were not contacted (the control group) to obtain the causal effect of the breastfeeding initiative.

women who breastfed for longer durations used various coping strategies to help manage challenges

Effectiveness of Cognitive and Behavioral Strategies

Qualitative studies use a retrospective, case-controlled design to identify cognitive and behavioral strategies to improve breastfeeding. These strategies included increasing breastfeeding knowledge, staying relaxed and looking after yourself (getting plenty of rest, avoiding stress, practicing relaxation techniques), the use of positive self-talk, challenging unhelpful beliefs, problem-solving, goal setting, and the practice of mindfulness. Mindfulness is a way of paying conscious attention to the internal and external experiences in the present moment (Baer, 2003).

The Against All Odds study participants (n=40) undertook a one- to two-hour interview to explore the experiences and characteristics of women who continue to breastfeed in the face of extraordinary difficulties. The I Think I Can study (n=21) aimed to identify the psychological attributes of women which may influence duration of breastfeeding. Data from the study supported that women who breastfed for longer durations used various coping strategies to help manage challenges (O’Brien, Buikstra, Fallon, & Hegney, 2009). Many barriers to breastfeeding have been identified through data-based investigations such as lack of knowledge, social norms, poor family and social support, embarrassment, lactation problems, employment and child care, and barriers related to health services.

Many studies have documented how breastfeeding rates among low income mothers, a population whose children are at relatively high risk for poor health outcomes. The literature is quite extensive on hospital-based, health care provider focused interventions to educate and promote breastfeeding among women. Studies have indicated a positive correlation for higher rates of initiating breastfeeding at facilities that support the Baby-Friendly Hospital Initiative (BFHI).

The International Board Certified Lactation Consultant (IBCLC) is the professional with the greatest knowledge and skills regarding breastfeeding. Primary care providers, nurses, and physicians have regular contact with breastfeeding mothers, but they do not have this same level of knowledge or skill and are limited in providing support by the competing demands and time constraints of primary care. An IBCLC can be utilized in primary care to spend the additional time needed with parents who desire more information about breastfeeding or require more trouble-shooting with breastfeeding problems or difficulties. More research regarding IBCLC use in primary care settings is needed (Thurman & Allen, 2008).

Increased use of technology and health information websites provide pregnant women with many resources at their fingertips to make an informed decision about breastfeeding. The charges to put forth to healthcare providers are to use and update these resources in an attempt to support breastfeeding initiatives. For instance, the use of smartphone applications, website blogs, and community support sites could be used to support breastfeeding women. These resources identify an additional research gap to determine if the above examples could be effective in increasing breastfeeding rates.

Telephone Breastfeeding Support Strategy

The strategy identified to solve the problem of maintaining breastfeeding in low income postpartum women is the initiative of identifying women who make the choice to breastfeed and providing support with follow-up telephone calls. Women have the right to choose whether they breastfeed or not. Strategies that have been shown to be effective include creating an authentic relationship between the peer support person and the breastfeeding mother and educating the breastfeeding mother on ways to overcome
barriers women may experience during the first few months of breastfeeding. An authentic relationship requires the supporter to actively listen, offer advice specific to the situation, and empower the breastfeeding mother to feel confident in her feeding techniques. This can be accomplished with follow-up telephone calls with personnel that have already established a trusting relationship with the breastfeeding mother such as office nurses, primary care nurses in the postpartum units and lactation specialists. The literature review of the follow-up telephone call supports the use of this strategy as being effective.

Conclusion

The health benefits found with breastfeeding infants for 6 months are well documented. Urban areas have more breastfeeding support services available to mothers such as an increase number of lactation consultants, private areas for mothers to express breast milk at work sites, and support groups for breastfeeding mothers close to their homes. A challenge for rural areas is to provide much needed support for breastfeeding mothers. A cost effective strategy found through the literature review is telephone follow-up calls to postpartum women to help overcome barriers experienced by these women. This is something that is within the realm of practice of doulas, childbirth educators, and midwives. The evidence warrants providing support for mothers who choose to feed their children naturally with breast milk.

References


Vanessa Flannery has 20 years of obstetrical nursing experience. She is a nurse educator in the Bachelor of Science in nursing (BSN) program at Morehead State University located in Morehead, KY. Ms. Flannery is responsible for the didactic and clinical portion of the family health nursing course. She is currently in the Doctor of Nurse Practice program at the University of Kentucky in Lexington, KY.

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Creating Tipping Points to Eliminate Breastfeeding Barriers

by Anika C. Thrower, PhD MPH CLC, and Marie Peoples, PhD MPH

Abstract: While most childbirth educators’ favor breastfeeding over offering formula, women continue to experience barriers to breastfeeding. Healthy People 2020 breastfeeding-based objectives have become more ambitious than the previous Health People 2010 goals. These new objectives encourage higher rates of breastfeeding outcomes among infants. Such robust objectives drive childbirth educators to consider their respective personal lactation perceptions, enhance advocacy skills, cultivate self-efficacy and develop ways to assist women with widening their circles of breastfeeding support. Developed by maternal health experts and researchers, this article provides ways to create tipping points or opportunities to increase breastfeeding outcomes among mothers and their infants.

Keywords: advocacy, breastfeeding, barriers

Breastfeeding across the Nation

It’s a mother’s choice to breastfeed. However, childbirth educators have a golden opportunity to become an integral part of the decision making process. The American Academy of Pediatrics identifies breastfeeding as the “normative standard for infant feeding” and recommends that women exclusively breastfeed infants for 6 months, and as foods are introduced to the infant diet, parents should supplement with breast milk for a minimum of 12 months (American Academy of Pediatrics, 2012). Breastfeeding-based Healthy People 2020 outcome-based objectives are more ambitious when compared to goals set for Healthy people 2010. Updated Healthy 2020 breastfeeding-based objective advocate for 25.5% of women to exclusively breastfeeding their infant at 6 months whereas previously, the Healthy People 2010 outcome-based objective was set at 17% of women breastfeeding their baby at 6 months (United States Breastfeeding Committee, 2015). While the benefits of breastfeeding are well documented, many women continue to choose to formula feed rather than breastfeed or stop breastfeeding prior to the recommended 6-month breastfeeding-based objective. Additionally, the Centers for Disease Control and Prevention (CDC, 2013) data retrieved from the 2008 National Immunization Survey (NIS) indicated there is clear divide between racial and ethnic lines in terms of breastfeeding initiation. It is important to note that the NIS is an ongoing, random-digit dialed telephone survey conducted in all 50 states (CDC, 2013). Children are ages 19-35 months at the time of the NOS interview resulting in a cross sectional survey that includes children born in early calendar years (CDC, 2013). This approach allows for trending of the data. The below data was collected in 2009, 2010, and 2011 and represents infants born in 2008 (CDC, 2013).

Table 1. CDC 2008 National Immunization Survey Breastfeeding Initiation and Duration Rates by Race

<table>
<thead>
<tr>
<th></th>
<th>% Ever Breastfed</th>
<th>% Breastfed at 6 months</th>
<th>% Breastfed at 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>75.2</td>
<td>46.6</td>
<td>24.3</td>
</tr>
<tr>
<td>Black</td>
<td>58.9</td>
<td>30.1</td>
<td>12.5</td>
</tr>
<tr>
<td>Hispanic</td>
<td>80.0</td>
<td>45.2</td>
<td>26.3</td>
</tr>
</tbody>
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The 2008 CDC National Immunization Survey assessed the categories of breastfeeding initiation, breastfeeding at 6 months, and full duration to the recommended 12 months for White, Black, and Hispanic women. The survey found that Hispanic women have the highest national rate of initiating breastfeeding; breastfeeding decreased at the 6 month mark, but retained the highest breastfeeding duration rate through the recommended 12 month period (CDC, 2013).

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White women experienced the second highest initiation rate and maintained the highest rate when compared to Blacks and Hispanics at 6 months, but then decreased at the 12 month mark and lagged behind Hispanic women (CDC, 2013). Hispanic women had the highest overall rates of breastfeeding for the full 12 month recommended timeframe with White women being second (CDC, 2013). Black women, on the other hand, demonstrated significantly lower rates in all three categories highlighting the racial gap (CDC, 2013). Research overwhelmingly found that Black expectant women entered prenatal care later than their White counterparts (CDC, 2013). Some women, regardless of race or ethnicity, will choose not to breastfeed. However, there are measures that can be undertaken to increase the likelihood of lactation initiation and reduce barriers. Childbirth educators are presented with several opportunities to create tipping points to not only increase self-efficacy among women and their families but address breastfeeding barriers experienced by mothers and while strengthening their respective advocacy skills.

**Barriers to Breastfeeding**

Recent studies that investigated how childbirth educators related to prenatal mothers and the impact the interactions had on a mother’s infant feeding choices uncovered unfavorable practices. Childbirth educator attitudes, along with personal familiarity and confidence with personal breastfeeding experiences had a direct influence on the feeding outcome (Colaizy, Saftlas, & Morriss, 2012). The study surmised that less than optimal childbirth educator interactions resulted in poor breastfeeding initiation rates and duration of breastfeeding successes among women (Colaizy, et al., 2012). In a longitudinal study among a sample of 1,602 women, researchers asserted that participants reported being positively influenced to breastfeed exclusively for at least 3 months when their obstetric and pediatric providers showed positive personal preferences (Ramakrishnan, Oberg, & Kirby 2014). A 2011 study exploring breastfeeding barriers for Black women conducted focus groups with Black mothers, Black fathers, and Black grandmothers (Ringel-Kulka et al., 2011). The results indicated that Blacks experienced insufficient support and encouragement to breastfeed.

The findings that childbirth educators are not perceived by women of all races and ethnicities as providing sufficient support is disheartening, yet it provides an excellent opportunity to provide a safety net for these women by sharing best breastfeeding practices and engaging the expectant mothers in general dialogue to build a rapport. Childbirth educators can begin this process by self-assessing their individual viewpoints about breastfeeding. Proactively advocating for improved breastfeeding outcomes paves the way and creates tipping points to improve a mother and her child’s health.

**Advocacy among the Advocates**

Unfortunately, there are several variables that influence a woman’s choice to breastfeed. These barriers include her race/ethnicity, family support, beliefs, parity, work obligations, and educational attainment. To sufficiently serve the diverse needs of today’s women, childbirth educators share the responsibility and opportunity to advocate for improved breastfeeding outcomes. A recent study investigated a group of women between the ages of 24-41 to ascertain their intention to breastfeed and to determine the resources utilized to make lactation decisions (Gurka et al., 2014). Within the same study the majority of positive breastfeeding influence was gained from consultations from the Women, Infants and Children (WIC) nutrition program, health professionals and reviewing written materials (Gurka et al., 2014). While research has indicated that lactation based professionals are heavily relied upon to deliver health education to moms and families, many studies indicate health professionals miss opportunities during the most pivotal time—fetal development.

**Inadequate maternal health education is a primary reason that breastfeeding is not initiated and/or continued**

**Showing Up at the Conversation**

During each trimester, prenatal visits afford health care providers and child birth educators with multiple opportunities to incorporate discussions on breastfeeding across the pregnancy span. Sadly, lack of breastfeeding conversations among health care providers are well documented, with studies demonstrating inconsistent accounts reported by prenatal women compared to their respective providers regarding breastfeeding-based conversations (Sable & Patton, 1998). This is an important finding, as it indicates that health care providers may operate under the assumption that sharing health education occasionally meets the needs of the pregnant women, when in reality expectant mothers benefit from more frequent dissemination of health information.
Creating Tipping Points to Eliminate Breastfeeding Barriers continued from previous page

Inadequate maternal health education is a primary reason, especially among Black mothers, that breastfeeding is not initiated and/or continued (Center for Disease Control and Prevention, 2013; DiGirolamo, Grummer-Strawn, & Fein, 2008). It is during these prenatal visits that childbirth educators have an opportunity to provide women with culturally appropriate health education literature regarding expressing breastfeeding and feeding trends, tandem nurses and/or can offer basic encouragement to build self-efficacy skills. In instances where a woman is undecided about breastfeeding, simply assisting an expectant mother with sorting through her feelings can be a method of planting seeds.

Expectant mothers may have personal reasons for avoiding lactation-based discussions. Such instances should be seen as opportunities to assist a mother with understanding the importance of breastfeeding along with various breastfeeding options to include expressing breastmilk. Considering that breastfeeding initiation and duration is racially disparate between Whites and Blacks, it is essential that Black women are offered a wide range of opportunities to understand the value of lactation. Childbirth educators adequately showing up to conversations and understanding some of the barriers that at-risk mother’s face, may be instrumental in helping families make informed decisions. As one could surmise, in addition to receiving support from childbirth educators, it is within these populations that prenatal women benefit the most from involvement from a circle of support to include family, respective friends, and her partner.

Holistically Speaking

Mothers-to-be have the hope of bringing a healthy infant into the world. Women have a wide range of thoughts about breastfeeding which inadvertent determine lactation initiation and duration. Though breastfeeding is a personal choice, tipping the scales for successful breastfeeding outcomes can be accomplished in a few key ways. Primarily, it is important for childbirth educators themselves to be well versed in breastfeeding basics, but to also regularly refresh their knowledge base by reviewing up-to-date literature for current best practices. Continued professional development fosters confidence to perform the advocacy-based work of building self-efficacy skills within women. Childbirth educators should consider each interaction as an opportunity to make a connection with a mother. It is through such morale building interactions that mothers may feel a ‘partnership’ with their childbirth educator which promotes open dialogue. To conclude, childbirth educators should feel empowered that each interaction with a woman is not only an intervention, but, an opportunity to tip breastfeeding initiation and duration towards improved quality of life for each mother and her child.

References


A Pittsburgh Pennsylvania native, Dr. Anika Thrower obtained her undergraduate degree in nutrition from Norfolk State University and was awarded both a master’s and PhD in public health from Walden University. As a certified lactation consultant and nutrition expert, she has collaborated with Women Infants & Children (WIC) nutrition programs around the United States.

Dr. Marie Peoples is a health practitioner who has worked in correctional and public health systems Dr. Peoples passion is empowering people of all demographics to live equitable, healthy, and fulfilling lives. Dr. Peoples also is a Certified Advanced Facilitator for the University of Phoenix and adjunct faculty for Northern Arizona University.
Abstract: Pregnant and postpartum teens have specific needs and concerns regarding breastfeeding. Primary adolescent concerns about breastfeeding relate to the need for body privacy, the belief that breastfeeding hurts, and the concern that breastfed babies are too dependent. Teens typically want to do what is best for their babies, but lack specific knowledge about breastfeeding and childcare, therefore, active methods of educating them are needed to help them make the best decisions for themselves and their infants. Specific practical suggestions in dealing with the issues of concern may be helpful, as well as having open discussions about possible pain in breastfeeding, and helping the teen to solve problems related to caring for their child. Ongoing professional support needs to be sensitive to the adolescent’s unique perspective and life context.

Keywords: adolescent mothers, teen mothers, breastfeeding

In 2013, 273,105 babies were born to women 15-19 years old (Martin, Hamilton, Osterman, Curtin, & Mathews, 2015). Approximately 50.7% of these infants were breastfed at birth (Centers for Disease Control [CDC], 2013). The World Health Organization (2003) recommends breastfeeding for the first two years; however, CDC research (2013) finds that only 26.6% of teen mothers continue breastfeeding at least three months (compared to 50% of women over 20 years of age), with 15% of teen mothers continuing to breastfeed for 6 months and 5% for one year (Feldman-Winter & Shaikh, 2007). This article will examine the issues for teen mothers concerning breastfeeding and ways in which childbirth professionals can support them.

Breastfeeding in Teen Mothers

Breastfeeding is of great benefit to premature infants and infants small for gestational age, many of whom are born to adolescent mothers (Agostoni, 2005). In addition, breastfeeding promotes a feeling of maternal-infant closeness, which is particularly important for adolescent mothers who are at risk for less than optimal maternal-infant attachment (Lounds, Borkowski, Whitman, Maxwell, & Weed, 2005).

Research suggests that adolescents produce less milk than older mothers (Motil et al., 1997), but it is not clear if this finding is related to a pattern of less frequent feeding among teen mothers, rather than a true insufficiency (Riordan, 2005). Adolescent breastmilk is generally nutritionally adequate to promote infant growth and development, although micronutrients have been found to be low (Azeredo & Trugo, 2008), and sodium high (Motil, Kertz, & Thotathuchery, 1997) in the milk of lactating adolescents. This may be due to common dietary deficiencies among adolescents (King, 2003). King reports that during pregnancy, young adolescents’ bodies must utilize protein and other nutrients both for their developing infant and for their own body’s growth. This leads to a reduction in maternal nutritional status at conception and inadequate nutrition for term infants. Teens also tend to have poor iron and folic acid reserves, requiring supplements during pregnancy. Pregnancy and lactation have been found to reduce bone density to a greater extent in adolescents than in older women (Sowers, Scholl, Harris, & Jannausch, 2000), this bone loss is recovered post-weaning, and breastfeeding may even offer protection against future bone mineral loss (Chantry, Auinger, & Byrd, 2004). However, research by Bezerra, Mendonça, Lobato, O’Brien, and Donangelo (2004) suggests that lactating adolescents with a habitually low calcium intake may not be able to attain peak bone mass at maturity.

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Views of Breastfeeding by Teens

Teen mothers in many studies have expressed concerns about breast exposure during feeding and embarrassment about breastfeeding in public. A commonly reported comment is that breastfeeding should be private (Berg & Jaramillo, 2000; Goulet et al., 2003; Hannon et al., 2000; Landry, 2001; Leffler, 2000; Nelson, 2001; Nelson, 2009; Wambach & Koehn, 2004). Other teens expressed concerns that breastfeeding would tie them down (Landry, 2001; Nelson, 2001; Nelson, 2009; Wambach & Koehn, 2004), or hurt (Nelson, 2009; Wambach & Koehn, 2004). Social influences such as approval from the baby’s father or the teen’s own mother have also been found to have an impact on infant feeding decision-making (Hannon et al., 2000; Nelson, 2001; Ratananugool, 2001; Wambach & Koehn, 2004). The reported experiences of other breastfeeding mothers often appear to influence teens’ beliefs and behaviors more than what they were taught by health professionals. For example, many teens have reported hearing from other women that breastfeeding hurt (Nelson, 2009). Some teen mothers express concerns related to the need to watch their diet and not smoke while breastfeeding (Nelson, 2009).

It is critical that childbirth professionals provide sufficient support to the teen mother as she evolves into being a new mother

Supporting the Teen Mother

The process of successfully breastfeeding seems to facilitate the teen’s ability to reconcile her developmental role as an adolescent and her adult role as a mother. Clearly, teenage mothers possess the capacity to initiate and continue breastfeeding; however, they require sensitive and specific guidance from all involved to help them embrace their new role and grow as mothers of their infants and mature responsible adults (Nelson & Sethi, 2005). On the other hand, the failure to successfully breastfeed can be as injurious to the teen psyche as their previous perceived failures (e.g., unplanned pregnancy). Therefore, it is critical that childbirth professionals provide sufficient support to the teen mother as she evolves into being a new mother, to both promote breastfeeding initiation and to help her persevere with the commitment to continue breastfeeding. The literature indicates that teenage mothers value the formal encouragement they receive from health professionals (Nelson & Sethi, 2005), although other social influences are equally important (Nicoletti, 2006).

Education about the health benefits of breastfeeding, its role in increasing mother-infant bonding, and connection with other breastfeeding mothers may help teens make a commitment to breastfeed (Feldman-Winter & Shaikh, 2009). Breastfeeding support programs that enhance teen mothers’ sense of being cared for, such as home visitations aimed at improving parenting skills, have been found to be successful (Barlow, Variapati-Baker, Speakman, 2006). Unsuccessful breastfeeding in teens has been found to be influenced by inadequate breastfeeding skill, physically unpleasant and painful early experiences they were unprepared to manage, and inadequate health care response to problems (Smith, Coley, Labbok, Cupito, & Nwokah, 2012).

Childbirth professionals need to understand the specific concerns of pregnant and postpartum teens regarding breastfeeding. Since teens typically want to do what is best for their babies, but lack specific knowledge about breastfeeding and childcare, active methods of educating them should be found to help them make the best decisions for them.

Resources for Childbirth Professionals

- Scarcely more than a third of teen mothers in the United States breastfeed their babies. The film aims at providing its target audience, 13- to 21-year-olds, with persuasive arguments to consider breastfeeding. It is divided into six short segments, using music, graphics, and animation to capture viewers’ attention long enough to show them how milk is produced and maintained, how baby and mother work together to breastfeed effectively, how to know the baby is getting enough, and how breastfeeding fits into a young mother’s life.
- Best for Babes, http://www.bestforbabes.org/
- US Department of Health and Human Services, WomensHealth.gov

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Supporting Breastfeeding in Teen Mothers
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... and their infants. It is important to question the teen mothers as to specifics of their current level of knowledge, not accepting a “yes, I know about that” response (Moran, Dykes, Burt, & Shuck, 2006). The widespread adolescent concerns about the need for body privacy, the belief that breastfeeding hurts, and the concern that breastfed babies are too dependent need to be addressed directly with them. Specific practical suggestions in dealing with the issues of concern may be helpful, for example demonstrating using a baby blanket or nursing cover/apron over the shoulder to create a tent, provides body privacy when needed. Showing teen mothers the use of baby slings and carriers may ease the feelings of dependency and make caring for the baby easier. Open discussions about possible pain in breastfeeding and helping the teen to solve problems related to caring for her child will have long-term benefits for both the mother and infant. Ongoing professional support needs to be sensitive to the adolescent’s unique perspective and life context.

References


Lee Stadlander is a researcher, professor, and the coordinator of the Health Psychology program at Walden University. As a clinical health psychologist, she brings together pregnancy and psychological issues.
Emerging Literacy: Why Start at Birth?

by Laura Owens, PhD RN CNE, and Genae D. Strong, PhD CNM RNC-OB IBCLC RLC CLC CNE

Abstract: Awareness of emergent literacy and infant brain development have been identified as essential elements of comprehensive health care. A pilot project was designed to: (a) collaborate with a community-based literacy program; (b) coach students into translating evidence based research into practice; and (c) enable student learning with instructor guidance and on-going feedback provided encouraging results. The purpose of this manuscript is to provide a working definition of emerging literacy, identify the importance of early book reading for infant brain development, describe the emerging literacy project, and discuss ways to incorporate this information in ongoing childbirth education programs.

Keywords: Health Literacy, Infant Brain Development, Education, Nursing, Comprehensive Health Care

Emerging Literacy

Emerging literacy is a term used in the literature to describe skills and knowledge that children develop before they begin to read and write. The earlier and better these skills develop, the more prepared the child is for school (Dickinson, Griffith, Golinkoff & Hirsh-Pasek, 2012; Duursma, Augustyn, & Zuckerman, 2008; Dunst, Simkus, & Hamby, 2012). Daily book reading from birth to three years old has been clearly identified as a critical factor in a child’s language development and thus to their emerging literacy (Raikes et al., 2006). Dickinson et al. (2012) emphasizes that literacy development (conceptually equivalent to emerging literacy) also has a significant impact on a child’s conceptual, interpersonal, and self-regulatory abilities. Shonkoff and Phillips (2000, p. 4-5) concur and contend that the first months and years of a child’s life set “either a sturdy or a fragile stage for what follows.” Therefore, promoting emergent literacy skills beginning at birth and continuing through the first five years of life is integral to a child’s normal development.

The many benefits of shared book reading between a caregiver and young child include promoting attachment between child and caregiver, increased attention and self-esteem in the child, and fostering of a love of reading that could continue through childhood and life (Dickinson et al., 2012; Duursma et al., 2008; van Kleek & Schuele, 2010). Children with greater emerging literacy skills tend to be more prepared when entering school and subsequently experience greater school success (Lee and Burkham, 2009; Nord, Lennon, Liu, & Chandler, 1999; Raikes et al., 2006; Roberts, Jurgens, & Burchinal, 2005; Shonkoff and Phillips, 2000; The Urban Child Institute [TUCI], 2013). Daily reading with a child can better support children in assisting them to meet long-term academic goals. Despite the increased awareness of its significance, to date no standardized methods of educating new mothers and their families on early literacy exist.

In many areas across the country, children are unprepared to start school. This is particularly true for the county where the authors’ school of nursing is located because of several risk factors. Common risk factors include poverty, low social support, single parent home, and a teenage mother with less than a high school education. Community efforts such as preschool and pre-kindergarten programs are in place as are efforts to promote literacy activities with infants and young children (TUCI, 2013). Nevertheless, many families never receive benefits from these programs because they fail to register, refuse to participate because they do not completely understand the program, or do not have access to their services early enough to prepare children for school. Nurses and other educators, as trusted health professionals, are in the unique position to alleviate many of the challenges literacy programs face. By using the birth setting as well as

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the childbirth education classes as an entry point for new mothers into literacy programs, the community outreach of these programs can be dramatically improved.

Emerging Literacy Project

This emerging literacy project involves students in the third semester of a five semester BSN program during their maternal newborn didactic and clinical courses. The project was developed utilizing principles of andragogy, or the education of adults, as an educational framework. This theory asserts that adult students prefer to be actively involved in their learning, to learn useful information that can readily be adopted and used, and build on previous knowledge (Knowles, Holton, & Swanson, 2011; Taylor & Kroth, 2009). As a requirement within the obstetrics clinical course, students are asked to develop a teaching project focused on educating new mothers and their families about emerging literacy. Students begin preparing for this project during clinical orientation with instructor guidance and students’ progress is monitored with the help of structured deadlines and intermittent feedback from clinical instructors throughout the semester. The introduction of the project requires approximately 60-90 minutes which includes a question and answer session at the end. During this time, information is presented on emerging literacy, including the connection between emerging literacy skills in the preschool period and future academic success leading to the promotion of lifetime health. Relevant statistical information comparing national, state, and local literacy and school performance where the school of nursing resides is also presented to students. Post conferences are utilized for discussion and on-going feedback, evaluating individual student progress, and to clarify any confusion for students.

For the project, students are instructed to search the literature and retrieve two peer-reviewed quantitative research articles to be used in developing their own teaching outline feasible for a five to ten minute presentation. Every new mother for whom students are assigned will receive the educational instruction after approval has been granted by their instructor. The students strive to engage not only the new mothers, but also fathers, grandparents, and other caregivers who are responsible for providing newborn care. In addition to the educational presentation, the student will help the new mother enroll in a local book distribution program which provides a new, age appropriate book each month for the child from birth to age five. Prior to piloting this program, nursing faculty suspected a number of challenges such as low maternal literacy rates, language barriers, and fear of being “tracked” that might lead to enrollment refusals. However, these challenges were found to be minimal and, in fact, most families were eager to enroll their newborn and especially appreciated the students’ assistance.

Community Partner

Book distribution programs are available throughout many communities and are often funded by local grants or foundations. The community partner’s strong commitment to increasing outreach to the target population of new mothers through innovative collaborations offered an effective entry point into the book distribution program for new mothers. In the same way, the faculty’s commitment at the school of nursing to improve, update, and adapt nursing education, inspired them to explore new approaches of acquiring resources, innovative teaching and learning strategies that simultaneously work toward multiple outcomes, and collaborating with like-minded community organizations. Although literacy promotion was incorporated in the curriculum, it was on a much smaller scale. Because of this, a lack of enthusiasm was noted from students and faculty because of limited resources (books). The maternal newborn faculty evaluated the school of nursing’s assets to be a numerous workforce, student-centered philosophy focused on improving health outcomes, and a wide community access for outreach across six local delivering hospitals. Establishing a collaborative partnership would eventually prove mutually beneficial for all.

Results

Book distribution programs exist in many cities and states across the country, providing new, age-appropriate books at no cost to children. As an example, the Dolly Parton Imagination Library distributes books to about 700,000 children across the country each month (Dolly Parton’s Imagination Library, 2014). The local affiliate organization enrolled over 16,000 new children in 2013 and recently celebrated a 10 year anniversary with its two millionth book (Significant program growth in the last year, 2014; Ten years, 20 million books and counting, 2014). However, not all schools of nursing, hospitals, or birth centers will have access to literacy book distribution programs willing to supply books and may face similar challenges in the beginning to those experienced by the authors. If collaborative book distribution programs are not available, local philanthropic or service organizations, businesses or interested citizens could

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donate books. Simple books could even be written and then copied or printed for a minimal cost. Although the book is designated for the newborn, in reality the teaching is geared to the mothers and families.

Project Benefits

The benefits of this project extend to students, patients, children, families, community partners, and the community. The students who participate in this project acknowledge that despite media attention to the importance of brain development in early childhood, they were lacking in knowledge of how important this topic really is; with a student commenting, “I wasn’t aware that reading to newborns as early as birth had the ability to develop reading skills later in life.” While brain development and brain health information can be found in the newspaper, television news shows, print media distributed in medical clinics, libraries and other public places, students still reported only a superficial understanding.

After receiving an introduction to the topic, information about the collaborative partnership and their program mission, and how students should search the literature, many students became highly aware of the topic’s relevance to nursing. One student stated “I can’t believe that something as simple as educating new moms on how to read to their newborns could help children be more successful in school and promote lifelong health.” In fact, many students report that they use this information with their own family, in their church, and other places where they come in contact with families of young children. Many have become “cheerleaders” and “champions” for early brain development activities, primarily early shared book reading, as a result of this experience.

Undoubtedly, the greatest outcome of this project is the long term benefit to the infant, their family, and the community. Research clearly demonstrates the link between literacy activities instituted from birth to age three and preparation for school with subsequent school success (Lee & Burkham, 2009; Nord, Lennon, Liu, & Chandler, 1999; Raikes et al., 2006; Roberts, Jurgens, & Burchinal, 2005; Shonkoff & Phillips, 2000). Academic success is logically linked to greater literacy skills and subsequently to greater health literacy as adults. Greater health literacy skills are in turn proposed as links to greater health equity (Cheng, Dreyer, & Jenkins, 2009; National Institutes of Health, 2013; US Department of Health and Human Services, 2010). Therefore, interventions that support literacy efforts in childhood should ultimately lead to improved health equities.

Students involved in this project were able to see the potential long term community impact of a simple intervention. During the classroom education related to this project, students were also able to identify multiple community agencies with similar long term goals to which health professionals ascribe. The goals of these agencies often include improving health and well-being of individuals and communities with simple patient-centered education. When nursing students provide emerging literacy education for new moms and their families, benefits to the community include promoting academic success which ultimately leads to a healthier community, lower healthcare costs, and a more productive workforce.

Conclusion

Infant brain development and promotion of early literacy are concepts that should be included in every pre-licensure nursing curriculum and childbirth education program. Nurses, nursing students and other professional educators like childbirth educators are uniquely positioned to educate families by nature of multiple encounters but especially during pregnancy when the hunger to learn seems to be the strongest. One might also assume that if a mother is attending childbirth education classes, she might be more open to adhere to current recommendation of reading to children early, often, and with enthusiasm. Childbirth educators encounter moms during pregnancy as well as after delivery which should increase their opportunities to educate families. Additionally, nurses and nursing students are well positioned to educate new moms with face-to-face educational opportunities while providing primary care during antepartum, intrapartum, and postpartum follow-up visits. Furthermore, one in sixteen women do not return for follow-up care (Declercq, Sakala, Corry, & Applebaum, 2008), thus enrolling newborns into a literacy programs prior to leaving the hospital could not be over emphasized. Development of early literacy is a key concern for nurses and childbirth educators because of the role literacy plays in promoting health. Formal collaborative partnerships between local delivering hospitals, nursing programs, and literacy organizations can empower key educators as well as build an infrastructure necessary in providing quality care and assisting patients, families, and communities to achieve better health outcomes.
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References


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Educational Theory for Childbirth Educators: Applying Key Concepts of Educational Psychology within the Childbirth Education Classroom

by Kimberlee Bethany Bonura, PhD RYT

Abstract: In this article, core concepts of teaching theory and educational psychology are reviewed to assist in childbirth educator development. In particular, foundational aspects of educational theory will be covered, including the role of social relationships as motivation in learning, the relationship between intelligence and learning styles, key competencies for educators, and basic principles of assessment. The article ends with instructions for writing a Teaching Philosophy Statement, which is a helpful exercise that allows the educator to clarify priorities for the classroom, to outline effective teaching strategies, and to highlight ongoing professional development goals.

Keywords: childbirth education, prenatal education, educational theory, learning, motivation

As childbirth educators, you do not give a pop quiz at the start of class to check if your students did the reading, and you do not assign a project at the end of the course to confirm your students learned the material. Instead, you have the responsibility of ensuring that your students are fully prepared for the real-life exam they will face in the delivery room. As a subject matter expert in childbirth, you have important knowledge to share with your students. Just as important as the knowledge you have is how you will share it. An understanding of both educational theory and educational psychology will help you to understand your students’ motivations for learning, and the key principles of the learning process. Excellent teaching requires far more knowledge and skill than just excellent doing – master teachers must not only be subject matter experts, but also people matter experts.

In this article, several core concepts of teaching theory will be reviewed. In particular, foundational aspects of educational theory will be covered, including the role of social relationships such as motivation in learning, the relationship between intelligence and learning styles, key competencies for educators, and basic principles of assessment.

Social Relationships as Motivation in Learning

While students come to a childbirth class to learn about and prepare for their impending childbirth, they come for more than just information. Students preparing for childbirth could gather information through a variety of sources – they could browse websites, buy books, and watch videos. When students choose to come to a class, they are choosing a class because they want to learn within the context of a social relationship.

In fact, social relationships can be a primary motivation for learning. People have a need for social connection and the experience of secure connection, love, and respect with other individuals, or a need for relatedness (Deci and Ryan, 1992). Teaching strategies which support affiliation can increase student motivation for learning tasks. Group-based activities (debates, cooperative learning tasks, educational games, etc.) can all support learning and affiliation simultaneously. When students come to a childbirth education class, they are seeking relationships with an expert who can make them feel more comfortable and with peers who are going through the same experience. The relationships fostered within the classroom and the ways in which instructors nurture connections, both with students and among students, will facilitate learning outcomes.

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Understanding Intelligence and Learning Styles

Effective teaching requires instructors to know their students. Personality characteristics and learning styles will affect student performance in the classroom. As instructors, flexibility in teaching styles may facilitate mastery on the part of every student. With each method of teaching, instructors will facilitate the natural learning styles of some students and challenge other students to stretch and reach for new learning abilities. Instructors are also challenged to stretch their natural preferences and to continually learn more about teaching.

Gardner’s Theory of Multiple Intelligences. Howard Gardner (1993, 1999) proposed that there are eight different intelligences, which are relatively independent of one another: linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalist. When teachers offer material in multiple modes, they facilitate learning for students across learning styles. For instance, group work will stimulate learning for students with strong interpersonal intelligence, while self-reflection will be useful for the student with intrapersonal learning preferences. Different styles within the childbirth education classroom can be incorporated for all learners. For instance, readings, tactical experiences, and practical exercises can promote learning. It would be redundant to teach every piece of information in every style, but instructors should strive to include every type throughout the course. Using multiple modes of presentation not only facilitates learning for different types of learners, it also maintains novelty and student interest.

Jungian Personality Types. Carl Jung proposed four dimensions of personality: introversion/ extroversion, intuition/sensation, thinking/feeling, and judging/perceiving, and these are often assessed in counseling settings for career guidance, personal development, and interpersonal relationships (Briggs-Meyer, 1980). The Jungian personality types also have implications for the classroom, as different types of learners approach new information in characteristic ways. For instance, feeling individuals look at the whole and attempt to identify similarities, whereas thinking individuals look at the parts and attempt to characterize differences. Judging individuals prefer learning in a chronological and sequential manner, while perceiving individuals prefer learning in a less structured format. Shindler and Yang (2003) developed the Paragon Learning Styles Inventory, which applies understanding of Jungian personality styles within the learner context. Shindler and Yang suggested that understanding of personality type can be useful both for teachers and for learners. Teachers who know their students will be able to adapt to their unique needs, and teachers who know themselves will be more capable of identifying those areas where they must adapt. Likewise, students who are armed with self-knowledge will be more aware of their own learning strengths and weaknesses and therefore will be better able to adjust to each teacher and classroom which they encounter.

Educator Competencies

Just as it is helpful to consider learning preferences for students, it can be helpful to consider self-competency as an instructor.

Educator Competencies

Just as it is helpful to consider learning preferences for students, it can be helpful to consider self-competency as an instructor. The Professional and Organizational Development Network (POD-Network, retrieved 2013), an organization specifically focused on professional development for faculty members in higher education institutions, outlined a model of faculty development which can be helpful for educators. In particular, POD-Network (2013) identified three primary domains for educators: the faculty member as teacher (which encompasses ongoing training and development with regard to the skill of teaching itself), the faculty member as a scholar and professional (which refers to ongoing development of skills within the area of subject matter expertise, including contribution to the profession, potentially via research or service activities), and the faculty member as a person (which highlights the need for educators to live according to best practice principles such as ethics and self-care, in order to serve as good role models for their students). Childbirth educators should continue to develop teaching skills, remain current in knowledge of research and best practices within the areas of prenatal care, childbirth and delivery, and postnatal care, and also practice any practical skills taught in the classroom, such as time-management, stress management, regular exercise, and self-care.

Another model of educator competency which may be relevant for childbirth educators is the Responsibilities and Competencies for Health Educators Model, developed by the American Journal of Health Studies (n.d.). This model outlines ten responsibilities and key competencies within each area of responsibility. For example, Responsibility I (Assessing Individual and Community Needs for Health Education) includes Competency D: Determine factors that influence learning and develop sub-competencies to (1) Assess individual learning styles, (2) assess individual literacy, and (3) assess the learning environment. Other responsibilities address areas related to subject matter expertise and evaluation of program effectiveness.

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Walker (2008) proposed a research-based model of effective teacher characteristics. Walker developed his model by analyzing fifteen years of student writing about the teachers who had the greatest impact on their lives. By identifying recurring themes, he concluded that effective teachers share positive social characteristics. It is worth noting that his model primarily reflects the attitude and personality the educator brings to the classroom – the subject matter expertise is the baseline expectation, and it is the warmth and personality of the educator that helps students to truly connect within the classroom.

Assessing Student Learning: Bloom’s Taxonomy

Bloom’s Taxonomy is a theoretical framework for understanding how to effectively assess student learning (Overbaugh & Schultz, n.d.). Bloom, Engelhart, Furst, Hill, and Krathwohl, D.R. (1956) identified three primary domains of learning: specifically cognitive learning (also called mental skills or knowledge); affective learning (which addresses growth with regard to feelings and emotions, within the area of attitude and self); and psychomotor learning (which includes manual and physical abilities, often referred to as skills). Bloom et al.’s primary focus was to identify and categorize the levels of knowledge acquisition within the cognitive domain. These categories, moving from the most basic level of knowledge to the most complex, were knowledge, comprehension, application, analysis, synthesis, and evaluation. Generally speaking, learners have to master each category before they can move to the next. Assessment verbs are often associated with each category, and learning goals are often set using those learning assessment verbs. Since Bloom, several revisions have been proposed that expand on his original work, although Bloom’s Taxonomy remains the predominant model for assessing student learning (Overbaugh & Schultz, n.d.). One revision, proposed by Anderson and Krathwohl (2001), included translating the cognitive levels into cognitive actions and proposing that evaluation comes before creation of new ideas. (See Table 1 for definitions of each level and example verbs, for both Bloom’s original model and Anderson’s revised Bloom’s Taxonomy).

When preparing content for a childbirth education program, it can be helpful to think about Bloom’s Taxonomy. The model can help determine the level of importance of each item, how much time should spend on that item in class, and how to best teach the content. For instance, there may be basic information that is sufficient to teach at the knowledge level, such as quickly reviewing lists of resources in the area or providing basic information about anatomical parts. Some information that students need to use or apply during the childbirth process will require students to learn at a higher level of mastery – and so for these skills, more time and practical experience of the skills should be incorporated. For other information, students will need to be able to evaluate a variety of resources to make the decision that best fits their needs. As an example, with regard to making personal

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**Table 1.**

<table>
<thead>
<tr>
<th>Cognitive Level, Bloom</th>
<th>Cognitive Level, Revised Bloom</th>
<th>Definition</th>
<th>Sample Assessment Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge (Lowest Level)</td>
<td>Remembering</td>
<td>Remember or recall previous information.</td>
<td>Arrange, define, describe, list, label, recognize, recall</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Understanding</td>
<td>Explain ideas or concepts, fully grasp the information.</td>
<td>Classify, describe, discuss, explain, report</td>
</tr>
<tr>
<td>Application</td>
<td>Applying</td>
<td>Use the information in a new way; apply to actual situations.</td>
<td>Choose, demonstrate, illustrate, interpret</td>
</tr>
<tr>
<td>Analysis</td>
<td>Analyzing</td>
<td>Break information into components, distinguish among parts, and understand relationship among parts;</td>
<td>Appraise, compare, contrast, differentiate, distinguish</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Evaluating</td>
<td>SYNTHESIS: Rearrange components into a new whole. EVALUATING: Justify and support a decision.</td>
<td>SYNTHESIS: Arrange, compose, formulate, generate, summarize, synthesize EVALUATING: Argue, defend, judge, select, support</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Creating (Previously Synthesis)</td>
<td>EVALUATION: Make judgments based on internal evidence or external criteria. CREATING: Create a new product or point of view.</td>
<td>EVALUATION: Conclude, defend, evaluate, interpret, predict, support, value CREATING: Construct, create, design, formulate, write</td>
</tr>
</tbody>
</table>
Educational Theory for Childbirth Educators

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decisions around the birthing room environment, writing a birth plan, and making choices around health decisions such as cord blood banking, breastfeeding, and circumcision, instructors will want to ensure that students have mastered all of the levels of information so that they are able to evaluate the available materials and make choices that best fit their family. Likewise, if teaching other childbirth educators to support their continuing education, Bloom’s Taxonomy can provide support in content development through the use of appropriate assessment verbs to determine the level of mastery needed for each topic area.

Childbirth Education for Educators

It may also be helpful for childbirth educators to review the available literature about the field of childbirth education itself. Most of the research literature focused on childbirth addresses best practices within the prenatal environment, childbirth, and postnatal care, rather than the practice of childbirth education itself. Still, the literature in this area can support childbirth educators in considering a variety of philosophical perspectives about childbirth education. Reidmann (2008) reviewed the history of childbirth education, including the primary content and methods of childbirth education, and discussed how to successfully support special needs groups with adapted childbirth education. Wilkerson (2000) outlined the limitations of a behaviorist learning model, which has dominated childbirth education, and provided insight into creating a more supportive learning environment that promotes women’s ways of knowing.

A Teaching Philosophy Statement: Who Are You in Your Classroom?

Following review of basic concepts of teaching philosophy, educational psychology, and self-reflection can promote professional development. It is helpful to clarify classroom priorities and to outline effective strategies. One helpful exercise is to write a Teaching Philosophy Statement. For anyone engaged in teaching, it is helpful to deliberately consider why you teach, how you want to teach, and what you want your students to learn. This is also a good exercise to help identify knowledge gaps and to prioritize professional development as an educator.

Essentially, a Teaching Philosophy Statement is a statement which succinctly describes feelings and beliefs about the educational process, including both beliefs about teaching and beliefs about learning. Practically, the document should be between two and four pages. It should express your personal beliefs and feelings about teaching and learning by reflecting on theories and principals of education and educational psychology to support your views. Key components within a Teaching Philosophy Statement include an introduction, the purpose or aims of education, the image of the learner, the value of curriculum, the role of the teacher, the preferred pedagogy(ies), the preferred type of student-teacher relationships, the classroom climate, and a summary and conclusion. There is no right or wrong way to write a Teaching Philosophy Statement. The best Teaching Philosophy Statement is one which is a clear expression of who you are in your classroom, what you believe, and how you teach.

References


Kimberlee Bethany Bonura, PhD, is a Registered Prenatal Yoga Teacher with The Yoga Alliance, a certified personal trainer, and a group fitness instructor. She has a PhD in Educational Psychology and is a faculty member in the Walden University School of Psychology.
Recently my daughter-in-law stated, “I wish you would have told me more about birth experiences and parenting.” I was dumbfounded, thinking, “I wished you would have asked!” Childbirth educators and other care providers often contemplate if the information they give to expecting mothers/families is relevant and helpful. Is the information too much or not enough? What are mothers saying and telling us? Kathleen McCue, author of Mother to Mother, provides insight into these questions.

The book is a compilation of responses compiled from a questionnaire that McCue had sent to new mothers. The author does not indicate how the mothers were identified or how many declined the questionnaire, with 57 respondents cited in the book. The premise of the questionnaire was to address: What’s the most important advice you wish you would have known prior to giving birth? The in-depth questionnaire included: What one thing helps more moms succeed at breastfeeding? What suggestions do you have for encouraging spouse, family, and/or friends to continue doing the helpful things? The mothers’ replies were varied with a lot of insight into what women experience during birth and post-partum. For example, one mother explained how worried she was when her spouse would ask her what to do. She wanted her husband to share in some of the burden of being responsible for the wrong decision. Another mother commented on how she disliked it when people grabbed my baby out of my arms. The book is filled with comments/suggestions from the perspective of these mothers.

The chapter, “Were any books, classes, internet sites, etc. helpful in preparing you for childbirth and breastfeeding?” is especially useful information for expectant families as well as providers of maternity care. The responses give valuable resources and also demonstrated where families are finding information.

Many suggestions including honest comments admitting not doing much of any pre-birth prep, “which I regret”; stating “I would get so overwhelmed by the amount of information out there that I would get anxious.” One mother suggested hanging around friends who have babies a few months before you to watch them do everything, diapering, bathing, and especially nursing.

At the end of each chapter the author provides insights into the comments that may mislead a reader. An example would be one mother’s statement was to have the nurses take the baby to the nursery at night. “Kathy’s thoughts” give suggestions and gently guides the reader to look further and seek out more information.

A limitation of this book is the lack of diversity of the respondents. The respondents are from the eastern United States, married, and affluent, mostly from the Maryland or eastern states. All but one of the participants were married and one with a same sex partner. One could argue the responses are universal to any new mother, however, there are many issues not addressed due to lack of representation from many cultures, financial classes, relationship status, and comments from the father’s perspectives.

I do recommend this book for new mothers to read for honest advice from women who have been through the birth experience. Childbirth educators could take the wealth of comments and use as a starting point for discussions in class. It would give credibility to class participants that the comments come from “women before them” and issues women have identified as important. Anything childbirth educators and health care providers can do to role model open communication, encourage conversations between partners and families, and offer resources will help mothers navigate through their own birth experience with positive experiences.

Jeanette is Clinical Director of St. Joseph’s and Woodwinds maternity centers in St. Paul, MN. She is an ICCE and Doula as well as Past President of International Childbirth Education Association.
Current and relevant information concerning nutrition and lifestyle habits for pregnancy, birth, and breastfeeding is a massive topic. For most birth professionals, myself included, gathering information for our clients is a challenge. Nutritional issues of the childbearing year emerge in the media as waves of popular fads. They ride a swell of clicks as the most ‘Liked’ foods and supplements and then fade away until the next swell of interest. However, despite the continual rise and fall of diet and lifestyle fads, what a woman eats and the habits she cultivates during the childbearing year do make a difference in the development, birth, and growth of her child.

Nutrition & Lifestyle for Pregnancy & Breastfeeding authored by Peter Gluckman, Mark Hanson, Chong Yap Seng, and Anne Bardsley, is a practical, well-researched, and organized resource on nutritional factors and lifestyle choices that affect pregnancy and fetal development. Since today’s pregnant woman is more receptive than ever to the changing needs of pregnancy it is a fertile time for a great resource to emerge.

This exceptional go-to text is organized in four sections. Section 1, Fundamentals of Healthy Nutrition and Lifestyle, reviews nutritional concepts and the science that explains how relatively small changes in human behavior can greatly affect birth outcomes. It is preceded by a helpful list of commonly used abbreviations from nutritional science. Most interesting is the concept of critical periods and plasticity. And, not to restrict good nutrition to pregnancy and birth alone, the authors suggest a growing focus on a life-course approach to disease prevention that starts before conception and continues through the entire life span.

Section 2, Nutritional Requirements for Pregnancy and Breastfeeding, outlines current knowledge and use of 22 specific macro- and micronutrients, including a discussion of pre- and probiotics. This well-organized section allow the birth professional to quickly find a particular nutrient and read several paragraphs of current information and access the many related publications and studies referenced in support of this text.

Section 3, A Healthy Lifestyle for a Healthy Pregnancy, discusses lifestyle choices consumers make on a daily basis. Included are issues of weight gain, physical activity, exposure to toxins, and the dietary use of various cultural and traditional foods.

The final Section 4, A Management Guide – From before Conception to Weaning, provides a checklist of points to consider at each stage of the childbearing year for the educating health care professional. Included are recommendations for the pre-conception period, the season of pregnancy, and breastfeeding and weaning. This section especially empowers the interactive health care provider to confidently care for clients.

This text has already become a valuable resource in this childbirth educator’s library and receives the highest recommendation for the advising birth professional. For the discerning pregnant or breastfeeding woman, it offers practical explanations of the latest nutritional research, clear summaries of dietary components, and informative current dietary and lifestyle recommendations.

Vonda Gates is a registered nurse, a certified childbirth educator and a certified birth doula with ICEA. Vonda enjoys the talented women she meets as an ICEA Approved Trainer for the Professional Childbirth Educator and Birth Doula program workshops. As an ICEA board member, Vonda serves as the chair of the International Relations Committee and most recently facilitated the Professional Childbirth Educator program update.
Ethnographies of Breastfeeding: Cultural Contexts and Confrontations

Edited by Tanya Cassidy and Abdullahi El Tom

reviewed by Terriann Shell, IBCLC ICCE FILCA

Ethnography marries analytical research with social science and case studies to give a picture of the real lived experiences of the subjects. In Ethnographies of Breastfeeding: Cultural Contexts and Confrontations, a stream of mother’s milk snakes through each chapter in a slightly different way: through informal milk sharing, formal milk banking, and down the parenting pathway which twists and turns with cultural influence. We dive into the consumerism of surrogacy, which some low income women of India have found profitable enough to ensure enough to eat and a little leftover. Where we are used to connecting breastfeeding with bonding, we learn how sometimes the “commissioning parents” also pay the surrogate to supply colostrum and breastmilk for a period of time. Bonding is prevented as much as possible, in this delicate situation. We also hear about the struggles and rewards that milk donors experience and the care work they do to protect their contribution for the fragile premature babies in the NICU when they have a healthy, full-term baby at home or have lost a baby. These milk philanthropists must watch what they consume, what medications they take, and what illnesses the people in their household are coming down in order to produce milk pure enough for an infant they picture in their minds, but will never meet. Each chapter is from a different part of the world and each shows how the intersectionality of gender, status, and culture affects the production and feeding of human milk.

The most moving part of this ethnography is the dilemma that two mothers share with us about how they are strongly educated and encouraged by the medical professionals to limit or not breastfeeding due to their HIV status, while they are living in a culture where not breastfeeding means you are a “bad mother.” Their situation is further complicated by the culture of decisions, such as feeding, being made by their mother-in-law or mother who may not have a clue about her medical condition, and the family would be stigmatized if anyone found out. Although the medical system will supply formula for these babies, it is difficult to bottle feed and save face when bottle feeding may give away your immuno-compromised status to the village.

This statement from the book sums the entire contents up, “we turn our attention, rather, to how women’s infant feeding choices are limited, enhanced, or oriented by the circumstances in which they live,” (p. 188). Studying the breastfeeding textbooks gives only a clinical knowledge of lactation; reading this particular type of work will school you in the decision-making mindset of mothers and their families.

Terriann Shell, IBCLC, ICCE, FILCA began working with breastfeeding mothers and babies in 1981 as a volunteer counselor for Nursing Mothers’, Inc. in Delaware which led her to becoming an International Board Certified Lactation Consultant (IBCLC) in 1989. She is now an IBCLC and childbirth educator for 2 hospitals in Alaska. Over her career she has helped thousands of mothers, babies, and families reach their breastfeeding goals.
An Introduction to Biological Nurturing: New Angles on Breastfeeding  
by Colson, S.  
reviewed by Grace Moodt, DNP MSN RN

An Introduction to Biological Nurturing is a well-written discussion of Suzanne Colson’s research and conclusions about Biological Nurturing. Suzanne is a midwife and academic that has practiced for many years in Europe. She has developed observations that have led her to research and identify a change in breastfeeding methods to improve outcomes. With the current healthcare environment, moving to improving breastfeeding acceptance and abilities, Suzanne’s research is essential to all healthcare providers. Practitioners, especially obstetricians, midwives, and lactation professionals can benefit reading this book to learn this method to improve breastfeeding success.

The beginning chapter gives a brief, disturbing, and historical rendition of how the art and science of mothering and nurturing of infants was removed from the “women” to improve management of infants. Evidence of the time indicated that mothers could not be left to instinct, and interventions were necessary to prevent a “feckless” adulthood. The next few chapters discuss the theory formation and research methods. These are not chapters that would intrigue or interest the common reader, yet Suzanne offers a conversation into how biological nurturing concepts and components lead to breastfeeding success. A few chapters discusses neonatal reflex and behavior provide for improved breastfeeding success if used with the proper positioning. Several chapters examine the posture of the mother as a benefit or deterrent. The current methods of teaching mothers to sit and position the infant is a deterrent to successful breastfeeding, it leads to failure from maternal fatigue, sore nipples, or neonatal inability to latch. Biological Nurturing means the mother is in a reclined position and allows the infant time to feed and rest until satiated. The final chapters investigate forces that improve outcomes including the posture and behaviors of the mother and infant. Breastfeeding is enhanced by the posture of the mother and position of the infant. Her research demonstrates mothers were more calm and relaxed. Infants were more successful latching on and suckling when positioned properly. She discusses inclusion of other evidence-based methods to breastfeeding, including Kangaroo Care and Skin to Skin. The research team did not discourage their use but used them to improve breastfeeding.

I enjoyed reading “An Introduction to Biological Nurturing” and feel I am able to empower my students and patients to improve breastfeeding success. Reading this book is like listening to Suzanne Colson having a conversation about her research. The book is rich with pictures and drawings that supplement the text. Several tables are presented to demonstrate and enhance the research concepts and principles. I would highly recommend this book for professionals dedicated to helping new mothers breastfeed successfully.

Grace is an Associate Professor for Austin Peay State University School of Nursing program, 8 years instructing Maternal-Child nursing in the undergraduate program. Course developer and educator in Tennessee RODP MSN program Perinatal and Women’s Health Nursing course for nursing educators.

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A Doula’s Journey: Into the World of Birth

by Goldstein, S.

reviewed by Rivka Zak

Author Sarah Goldstein has been a certified doula for 16 years and doula trainer for DONA (Doulas of North America) International for 9 years. She is a natural childbirth advocate, promoting safer and more empowering birth experiences through organizing over a half dozen seminars, creating CDs (“Growth through Childbirth”), and writing articles for local and international magazines. She has opened 15 pregnancy and birth lending libraries, buying the books from her own pocket. Her first book, Special Delivery, was published by Targum Press in 2004. More Special Deliveries (2007) has chapter layouts by topics and more medical information. Sarah has 6 children and 8 grandchildren (so far) most living in the Jerusalem area, with one in New York. She has merited to attend their births and 1,500 others as well!

As an ICEA member for over 24 years, I must say that this has been a book I have been waiting for! I have also been a practicing doula for over 21 years as well. Lots of great books about midwives are out there but finally there is a book about the life of a doula! I just finished reading it. I couldn’t put it down.

This is interesting and different. She pulled me into the stories as she cared for these birthing women and dealt with hospital staff. I really resonated with her being on call and leaving her family - even on weekends and holidays. Sarah Goldstein literally takes us on a journey as she describes her former life as a social worker, advocating for the downtrodden as well as helping with various social causes.

Passion is seen throughout as this non-stop read takes you into a funny birth in a wheelchair, an empowering birth in the bathtub, and an induction that did not happen. Some chapters share the meaning of life issues as she visits a mourning postpartum mom whose dad just passed away. Her interview with her six semi-grown children is insightful as each child shares the different way they look at their mom’s profession. They speak about how it has affected them.

The challenge of being in a ‘sandwich generation’ can really be related to by many of us. She is a wife and mother, raising six children and simultaneously caring for her ever-worsening Alzheimer’s mom. Sharing some of the 1,500 plus births she has attended, we feel Sarah’s personal and familial demands put cheer her on as she attempts to find solutions for complex situations. You will see yourself in some of these chapters.

We answer the phones at inconvenient times, making ourselves available to nurturers of the next generation, who need our strength, information and encouragement. This can be very straining on a marriage and on parenting children. Obviously the balancing act Sarah has to do is challenging. She has cleverly bought presents, telling her family that this was from the birthing couple. They loved “pizza night” after a long birth and it gave Sarah a break from making dinner (at least until her teenaged-girls went on diets!).

When becoming a doula trainer she has many more phone calls as she branches her skills to become a mentor of the next generation. Thankfully, she has had support from her husband and children even at the most trying of times, experiencing both the trials and triumphs of facilitating mothers in bringing their newborns into the world.

We also “attend” conferences with her but she gets to actually meet her heroes, Ina May Gaskin, Penny Simkin, and Henci Goer, who, by the way, wrote testimonials for this book. I am crazy about reading birth stories and would have loved even more. Maybe in her next book?

A Doula’s Journey is a great read for both lay readers and birth professional alike, as it is personal with professional information woven within. As a piece of the reviews state, “It is a gripping story and a deeply moving account by a great story-teller.” You will definitely enjoy this.

Rivka has been in the childbirth field for close to 25 five years as a doula and instructor, and has struggled with the very issues that Sarah has explored. She has raised nine children during this time, living first in Miami Beach and then New Jersey. In spite of the strain, her family, children and husband are very proud of her.
The Wonder within You

by Wickersham, C.
reviewed by Kathy Martin, PhD RN CNE

The Wonder within You provides the new mother an informative journey through the life experience of pregnancy, from conception to birth chronicled one week at a time. Presented from a gentle pro-life perspective, each chapter of the book celebrates a weekly snapshot of the development of the baby including an ultrasound image and an informative summary of the physical development occurring within the mother and baby. Access to corresponding out of book ultrasound videos is provided, as well as helpful updates on promoting good health and nutrition are presented for each developmental week. Reflective and insightful comments on real-life experiences from other moms accent the journey. Opportunities for the reader to express their own thoughts and feelings through each milestone are threaded throughout which can be further enhanced by a pregnancy calendar serving as a memorable keepsake for both mom and baby. The strength of the book comes from an informed opportunity for the mother to be further engaged with the weekly development of the baby, and to capture and document the beauty and wonder of the journey.

Dr. Kathy Martin is a nurse educator and clinician, currently serving as the Executive Director, Division of Nursing, Tennessee State University in Nashville, Tennessee.

Mommy Time: 90 Devotions for New Moms

by Arthur, S.
reviewed by Connie Bach-Jeckell, RN, IAT-CE-D-PFE

I am immediately drawn into this “Christian-based” book by the author’s honest acknowledgement that the life of a new mom is exhausting, without much time for nurturing themselves...or their souls. Finding a quiet time with God every day becomes a worthy, but unachievable goal. You quickly understand why Mommy Time has ninety devotions (instead of the usual three hundred sixty-five) and why each devotion is only a few pages in length.

The devotions begin with a verse of scripture. Some devotions immediately reference the scripture, moving forward with insight and inspiration. In others, the author starts out with a story about relationships, pregnancy or new parenting that is ultimately woven with lessons about the love of our Heavenly Father. She is quick to use humor to soften the reality of how overwhelming this time can be. She is also quick to remind us to slow down and savor the moments. We will find God in these times of feeding, bathing and diapering. He is there.

The author writes with an easy flow that speaks directly from her heart to yours. She shares challenges and triumphs with a candor that immediately makes her seem like a treasured friend. She inspires personal reflection, using analogies from everyday experiences that cross all walks of life, making it easy to find relatable, common ground. Moms will find themselves laughing out loud in the midst of what seemed like chaos and desperation.

If you’re looking for an in-depth devotional, Mommy Time might not be what you’re looking for; however, if you’re looking for a devotional that takes a new mom from feelings of inadequacy and despair to a place of peace and contentment, then this is the one.

Mommy Time speaks to mothers of all ages. As a grandmother reading the book, I recalled those precious moments of motherhood that had been buried deep in my heart for years. I have also shared insights such as the “Three-Breath Prayer” (Devotion Twenty-Eight) with my four daughters, whose children are also well past the toddler stage. Mommy Time makes a great gift for new mothers, but you just might read it yourself before wrapping it up.

Connie Bach-Jeckell has been a childbirth educator and doula for thirty years. In 2005, after fifteen years as a staff nurse and CBE/Doula Program Coordinator, Connie founded BirthMatters International, providing training for childbirth educators, doulas and nurses. Connie served on the ICEA Board of Directors from 2006-2012 and on the ICEA 2012-2014 Advisory Board. As the mother of four daughters and grandmother of seven, Connie lives life to the fullest in East Tennessee.
Preparing to Breastfeed: A Pregnant Woman’s Guide

by Pitman, T.

reviewed by Stephnie Leeson Farmerie, MSN APRN FNP-C

Preparing to Breastfeed a Pregnant Woman’s Guide is a repository of valuable breastfeeding information. Teresa Pitman knows her subject well. She has been a breastfeeding educator for over 30 years and is a well-known author/co-author of several books and articles including The Womanly Art of Breastfeeding and Dr. Jack Newman’s Guide to Breastfeeding. This current book ranks right up there with these seminal works. Once again, Ms. Pitman directs the dissemination of her wisdom to women who want to breastfeed. But, she also addresses those women who may be seeking direction in making this decision.

Ms. Pitman begins the book by answering the overarching question that anyone who has worked with pregnant women is sure to have heard: why should I breastfeed? She explains the benefits and then continues with the evidence, all in lay-woman’s terminology. Queries about the basics such as discomfort, difficulty, and joy are all spoken of in the initial chapter. She continues her presentation of scientific information about the benefits of breastfeeding as well as an anatomy lesson on the lactating breast in easily digestible terms. This sets the stage for her down-to-earth delivery of chapter after chapter of advice on everything a mother-to-be could think to ask about. Topics addressed include birthing and breastfeeding plans, what the newborn knows about breastfeeding, how to encourage your body to produce more milk, life with a breastfeeding baby, and many more subjects that take the mystery out of breastfeeding.

Each chapter is divided into well thought out segments that meld information, anecdotes, and suggestions. A section called “What You Can Do Now” ends each chapter. These sections not only include action plans but also reference books, websites, and groups that might be found useful based on the texts of the chapter. Each one of these “What You Can Do Now” categories is so educative that not only can the pregnant reader learn from them but breastfeeding and childbirth educators would also be wise to incorporate them in their own instructional setting.

While there is very little that can be said about this book that is not flattering, it should be mentioned that sometimes the tone of the book can appear to be a bit condescending. However, that just may be because it is written in a conversational tone and may be more of a personal thought of the reviewer than the meaning of the author. Also, the photographs, which appear to be more like personal snapshots, are very outdated. More recent color photographs would be far more aesthetically pleasing.

Ms. Pitman has done excellent work in providing comprehensive instruction a pregnant woman would need to make a well-informed decision to breastfeed. It is a book to recommend, have available to clients, and to give as a gift. It is also one that every instructor on pregnancy and breastfeeding should have on their bookshelf.

Ms. Farmerie has been a childbirth and diabetes educator for over 30 years. She currently is a nursing educator who specializes in labor and delivery and diabetes. She is a wife, the mother of 6 grown children (all of whom she breastfed), a grandmother of 8, and an avid outdoors person. She lives outside of Nashville, TN.