Staffing for Hospital Lactation Programs: Recommendations From a Tertiary Care Teaching Hospital

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Abstract
A retrospective review of data from a lactation program’s productivity reports at a large tertiary care teaching hospital (4200 births per year) measured actual hours worked by international board certified lactation consultants (IBCLCs) over a 2-year period, allocated the hours to their respective activities, and developed ratios for optimal IBCLC staffing for each component of service delivered. Optimal IBCLC staffing was calculated as follows: mother/baby inpatient requires 1 full-time equivalent (FTE) per 783 breastfeeding couplets; neonatal intensive care unit (NICU) inpatient requires 1 FTE per 235 infant admits; mother/baby outpatient requires 1 FTE per 1292 breastfeeding couplets discharged; NICU outpatient requires 1 FTE per 818 breastfeeding infants discharged; telephone follow-up requires 1 FTE per 3915 breastfeeding couplets or infants discharged; education requires 0.1 FTE per 1000 deliveries; program development/administration requires 0.1 FTE per 1000 deliveries; and research requires 0.1 to 0.2 FTE total. Using the formulas provided, IBCLC staffing can be calculated for desired services based on patient numbers. *J Hum Lact.* 22(4):409-417.

Keywords: lactation program(s), staffing, IBCLC staffing

In *Breastfeeding and the Use of Human Milk*, the American Academy of Pediatrics recommends that hospitals “have lactation experts available at all times.” The World Health Organization (WHO) has also identified the need for skilled lactation professionals. In its 2003 *Global Strategy for Infant and Young Child Feeding*, the WHO states that breastfeeding mothers should have access to “certified lactation consultants, who can help to build mothers’ confidence, improve feeding technique, and prevent or resolve breastfeeding problems.” In the 2004 European Union publication, *Protection, Promotion and Support of Breastfeeding in Europe: A Blueprint for Action*, objective 3.2.3 calls for “relevant health care workers to attend advanced lactation management courses and to acquire the IBCLC [International Board Certified Lactation Consultant]” with the goal of increasing the number of lactation consultants available per infant. The IBCLC is the only standardized, board-certified lactation credential available.

Determining Staffing Needs

When determining staffing needs, it is important that the goals of the lactation program be considered. With breastfeeding initiation and duration rates in most US states well below Healthy People 2010 goals, not only primiparous patients but many multiparous patients often present with histories of no previous breastfeeding experience or breastfeeding difficulty/premature weaning. Even motivated, educated mothers will encounter early breastfeeding challenges requiring skilled lactation support. Hence the Oklahoma University Medical Center Women’s/Newborn Services (OUMC) leadership goal is at least 1 IBCLC visit to every breastfeeding patient.
An effective lactation program should offer the following:\(^6-9\):

1. **Clinical Services**: inpatient consults, outpatient consults, and telephone consults
2. **Education Services**: staff/physician education (including IBCLCs), student education (nursing, medical), and preceptorships
3. **Research**: process improvement, product/equipment trials, and clinical research
4. **Program Development/Administration**: policies, procedures, documentation, staffing, personnel management, patient information, statistics/productivity, quality assurance, and hospital leadership

The objectives of this article are to provide data from an IBCLC-staffed lactation program at a busy, tertiary care teaching hospital in the United States and to use these data to make recommendations for staffing a comprehensive lactation program.

**Setting**

OUMC is a tertiary care teaching hospital in Oklahoma City, Oklahoma, which supports medical school, medical resident, and fellowship programs and several nursing schools. It provides obstetric and neonatal services including a 72-bed level III neonatal intensive care unit (NICU) servicing both inborn neonates and newborn transfers from other hospitals. All normal newborns are admitted with their mothers to the Women’s/Newborn Service. OUMC is a statewide and regional referral center for high-risk deliveries and sick infants and children.

The patient population is multiethnic, with 22% African American, 42% Caucasian, 31% Hispanic, and 4% Native American. Approximately 4200 births per year occur at this institution, which represents almost 9% of the babies born in the state. About 80% of the patients are Medicaid-eligible, 10% of births are to teenage mothers, 20% of infants are born prematurely (<37 weeks), and 1.6% of deliveries include multiple births. Vaginal deliveries represent 72% of births, whereas 28% are cesarean sections, 46% involve induction or augmentation, and 69% involve anesthesia.

At the time of this study, the lactation service provided in-house coverage 6 days per week on day shift (8-hour shifts). Staff members were always available by pager and monitored calls to the lactation center warm-line 7 days per week. Breastfeeding patients were seen by an IBCLC on a referral basis. Referrals could be generated by a physician, nurse, IBCLC, or patient. Although operating on a referral basis at the time, the goal was to expand the lactation service to provide at least 1 consult to every breastfeeding patient.

The lactation team collaborated with pediatric, obstetric, and family medicine residents and faculty as well as midwives and nurse practitioners. The Women’s/Newborn Service was financially responsible for the lactation program with the exception of that portion dealing with NICU infants, which was covered by the NICU cost center. No patient charges were generated for any services.

**Methods**

**Data Collection**

Data were collected over a 2-year period (2003-2004). Reports were based on documentation of activities and time use by the lactation service as part of a hospital-wide electronic medical record. Variables documented include:

1. Intent to breastfeed on admission
2. Breastfeeding rate at discharge, including exclusive and supplemented
3. Direct consult time (initial, follow-up, outpatient, telephone)
4. Primary reason for inpatient consults
5. Time for educational activities
6. Time for program development/administration

Outpatient and telephone consult data were taken from hard copy records kept by the lactation service. Total IBCLC work hours were determined from the hospital’s computerized payroll system.

**Calculation of Clinical Activity Hours**

Clinical services included inpatient consults, outpatient consults, and telephone consults via the lactation center’s warm-line. Inpatient consults were divided according to the service on which they occurred: mother/baby, NICU, and other (all other hospital units). These populations included mother/baby couples in which the baby was low-risk and could be admitted to the mother/baby unit with the mother; NICU patients in which the baby was admitted to the
neonatal intensive care unit or special care nurseries; and other hospital units in which a high-risk breastfeeding mother or baby were admitted such as adult intensive care, pediatric intensive care, infant unit, and surgical unit. Since 2004, there has been a standing policy to consult at least once on every infant admitted to the NICU, so all of these patients received at least 1 visit from an IBCLC. Patients in the mother/baby units and other hospital units received lactation consults on a referral basis.

For each consult, the amount of time of face-to-face patient interaction was documented in computerized medical records (IBCLC must note time spent in lactation note). Direct consult time was then calculated by documented time at the bedside multiplied by 1.5. This time factor was based on a time study involving the institution’s IBCLCs. For every hour spent on actual patient contact, an additional 30 minutes was spent on additional work related to the specific consult such as documentation, researching questions, and collaboration with other health care providers. Time per telephone consult was multiplied by a factor of 1.25. For every hour spent on actual patient contact via telephone, another 15 minutes was spent on additional work related to the specific telephone consult such as documentation, researching questions, and other follow-up.

Direct consult time as measured above did not account for all clinical time. Total clinical hours included direct consult time and indirect clinical time. Direct consult time was determined from the time spent on all consult types (inpatient, outpatient, and telephone). Indirect clinical time is different from the factors used in determining direct consult time. It represents the balance of clinical activity for the service and included preparing daily lactation census, reviewing orders and assignments, undocumented telephone calls, drop-in visits to the office, questions on the run from staff and physicians, and travel time between various units and 3 hospital buildings. Indirect clinical time was calculated as the difference between total clinical hours registered on the payroll system and direct consult time documented by the electronic medical records system.

Calculation of Educational Activity Hours

Education hours received by IBCLCs included orientation, continuing education, and mandatory hospital education. IBCLCs also provided education to other health care professionals including physicians and nursing staff and clinical preceptorships for nursing students and resident physicians.

Not reflected in the data provided on paid education hours was the initial development of classes (completed before 2003), preparation time for grand rounds/noon conference presentations, time spent in one-on-one teaching of nursing students and residents, and preparation time for the resident elective rotation. Although desirable, it was difficult to accurately track all time spent in educational endeavors.

Research Activities

Research activities included new product and equipment trials, process improvement, and grant applications. Time spent on research activities was not separately documented and was included in administration.

Program Development/Administration

Specific responsibilities in this area included personnel management, scheduling and staffing, productivity reports, oversight of clinical care issues, development of policies and procedures for the lactation service and nursing staff, development and oversight of patient education and information, quality assurance, preparation for various meetings, and hospital/department leadership activities.

Calculating Staffing Ratios

The process for calculating full-time equivalent (FTE) staffing ratios includes the following assumptions:

1. 1 FTE = 1900 work hours (1900 actual hours worked plus 180 hours time off for vacations, holidays, or sick days per year)
2. Total clinical hours = (0.68 direct consult time + 0.32 indirect clinical time)
3. 1 FTE of 1900 total clinical hours is composed of 1292 hours of available direct consult time and 608 hours of indirect clinical time.

All minutes are converted into hours.

This project was approved by the Institutional Review Board of the University of Oklahoma Health Sciences Center.

Results

Breastfeeding Rates

In 2004, there were 4129 deliveries with 74% intending to breastfeed and 73% breastfeeding at discharge. Of
the breastfeeding babies in 2004, 24% were exclusively breastfed, 13% were mostly breastfed (total supplemental feedings < 3), 52% were supplemented and breastfed (total breastfeeding and supplemental feedings ≥ 3 each), and 9% were mostly formula-fed (total breastfeeding < 3).

**IBCLC Activities/Hours**

Data describing IBCLC hours and staffing patterns from 2003 to 2004 are compared in Table 1. The differences reflect the growing nature of the program during these years. Total paid IBCLC hours were divided among clinical work, education, and administration. Direct consult time equaled 68% of the paid clinical hours, whereas indirect clinical time equaled 32%. The primary reasons for consults as documented by the IBCLC in the medical record are shown in Figure 1. Due to staffing, the lactation service was not able to see every mother/baby couplet admitted to Women’s/ Newborn Services with intent to breastfeed. In 2004, 82% of all nursing mothers were seen, including 100% of NICU mothers and 78% of breastfeeding mother/baby couplets.

The amount of direct consult time spent on specific consult activities varies depending on the type of consult. Table 2 shows the mean direct consult time and range for each category of consult. The need for inpatient follow-up consult is primarily at the discretion of the lactation consultant and is usually reserved for complicated cases. Outpatient consults are for complex management problems identified by various health care providers and represent about 5% of the total consult time. The number of consults and distribution of total direct consult time for the service are reported in Table 3.

![Figure 1. Reasons for consults as obtained from electronic medical records. NICU = neonatal intensive care unit; SCN = special care nursery.](image-url)

### Table 1. Paid International Board Certified Lactation Consultant (IBCLC) Hours

<table>
<thead>
<tr>
<th>Year</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid clinical hours (direct &amp; indirect)</td>
<td>4296</td>
<td>5256</td>
</tr>
<tr>
<td>Direct consult time (hours)</td>
<td>n/a</td>
<td>3564 (68%)</td>
</tr>
<tr>
<td>Indirect clinical time (hours)</td>
<td>n/a</td>
<td>1692 (32%)</td>
</tr>
<tr>
<td>Paid program development/administration hours</td>
<td>888</td>
<td>827</td>
</tr>
<tr>
<td>Paid education hours</td>
<td>388</td>
<td>550</td>
</tr>
<tr>
<td>Total paid IBCLC hours</td>
<td>5572</td>
<td>6633</td>
</tr>
<tr>
<td>IBCLC full-time equivalents</td>
<td>2.5</td>
<td>3.3</td>
</tr>
</tbody>
</table>

### Table 2. Mean Direct Consult Time/Consult

<table>
<thead>
<tr>
<th>Consult Type</th>
<th>Mean Direct Consult Time per Consult (minutes)</th>
<th>Direct Consult Time Range (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial (mother/baby)</td>
<td>35</td>
<td>15-180</td>
</tr>
<tr>
<td>Follow-up (mother/baby)</td>
<td>32</td>
<td>15-180</td>
</tr>
<tr>
<td>NICU</td>
<td>35</td>
<td>15-180</td>
</tr>
<tr>
<td>Other</td>
<td>35</td>
<td>15-180</td>
</tr>
<tr>
<td>Outpatient</td>
<td>95</td>
<td>25-180</td>
</tr>
<tr>
<td>Telephone</td>
<td>20</td>
<td>6-75</td>
</tr>
</tbody>
</table>

NICU = neonatal intensive care unit.

### Table 3. Total Direct Consult Time by Service/Type – 2004

<table>
<thead>
<tr>
<th>Consult Type</th>
<th>Number of Consults</th>
<th>Mean Direct Consult Time (minutes)</th>
<th>Total Direct Consult Time Hours %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother/baby initial</td>
<td>1941</td>
<td>35</td>
<td>1133</td>
</tr>
<tr>
<td>Mother/baby follow-up</td>
<td>1342</td>
<td>32</td>
<td>716</td>
</tr>
<tr>
<td>NICU</td>
<td>2143</td>
<td>35</td>
<td>1250</td>
</tr>
<tr>
<td>Other</td>
<td>164</td>
<td>35</td>
<td>96</td>
</tr>
<tr>
<td>Outpatient</td>
<td>123</td>
<td>95</td>
<td>195</td>
</tr>
<tr>
<td>Telephone</td>
<td>522</td>
<td>20</td>
<td>174</td>
</tr>
<tr>
<td>Total</td>
<td>6235</td>
<td>n/a</td>
<td>3564</td>
</tr>
</tbody>
</table>

NICU = neonatal intensive care unit.

**Number and Duration of Consults**

In the current study, the amount of time for an individual initial and follow-up consult is fairly equal. Due to staffing constraints, this institution has not adopted
a policy of seeing every breastfeeding dyad with follow-up visits. Table 3 reveals an average of 1.7 consults per mother/baby couplet seen. Initial direct consult time averages 35 minutes, and follow-up consults average 32 minutes (Table 2). Very few couplets had more than 2 consults.

**Estimated FTEs for Clinical Services**

**Mother/Baby Coverage**

To provide 1 initial (35 minutes) and 2 follow-up visits (2×32 minutes) would total 99 minutes of direct consult time per couplet. Converting the 99 minutes to 1.65 hours per couplet and dividing this figure into the total of 1292 available direct consult work hours for 1 clinical FTE yields a ratio of 783 couplets seen per 1 IBCLC FTE (99 minutes = 1.65 hours/couplet; 1292 hours/FTE ÷ 1.65 hours = 783 couplets/FTE). To provide this level of service to every breastfeeding couplet on the mother/baby units per hospital stay would require a ratio of 1 IBCLC FTE per 783 breastfeeding mother/baby couplets (Table 4).

**NICU Coverage**

The lactation team saw 1021 NICU infants for a total of 2143 consults providing 2.1 visits per infant. This average includes the initial visit to the mothers who delivered at our institution (75% of neonatal admits). This article does not provide a breakdown of the difference in time spent on NICU consults versus mother/baby consultations.

After 1 year of staffing 1 IBCLC 5 days per week in the NICU, the lactation team calculated a minimum desirable number of consults per infant admit to the neonatal service. The suggested direct consult times include direct patient interaction, documentation, and staff interaction, as previously described. This desired level of service has been approved by the neonatal service leadership (neonatologists and nursing management):

- First visit after delivery: 60 minutes (promote milk expression, review milk expression, facilitate acquisition of breast pump)
- Follow-up visit at 4 to 5 days postpartum: 60 minutes (assess milk production, pumping efficacy, infant status, kangaroo care)
- Follow-up visit at 10 to 14 days: 30 minutes (assess milk production, infant status, kangaroo care)

Providing the services described above would require a total of 330 minutes or 5.5 hours of direct consult time. Assuming 1292 available consult hours per clinical FTE, providing this level of service would require a ratio of 1 IBCLC FTE per 235 NICU infants (see Table 4) (1292 hours/FTE ÷ 5.5 hours/infant = 235 infants/FTE).

**Follow-up Postdischarge**

Although some lactation programs provide a follow-up “breastfeeding clinic,” this service is not possible with the existing level of staffing. Outpatient consults are scheduled on an as-needed basis and require reassigning an IBCLC from the floor to see the patient. As indicated in the data (Table 2), total direct consult time spent per outpatient is 95 minutes confirming the complexity of the problems that generated the consult.

In 2004, 123 outpatient visits were completed, which was <5% of the breastfeeding couplets discharged from the mother/baby units. If 100% of the breastfeeding couplets were to return for a weight check and breastfeeding assessment, the average time per outpatient consult would decrease, as many would be routine visits. A routine visit typically requires 60 minutes of direct consult time to fully assess a breastfeeding session, provide education to the mother, and document. Assuming 60 minutes per consult, providing lactation outpatient services to every breastfeeding mother/baby couplet would require a ratio of 1 IBCLC FTE per 1292 breastfeeding mother/baby couplets discharged (1.0 hours/outpatient consult; 1292 hours/FTE ÷ 1.0 hours = 1292 couplets/FTE).

### Table 4. Staffing Ratios

<table>
<thead>
<tr>
<th>Service</th>
<th>FTE Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother/baby coverage (inpatient)</td>
<td>1:783 breastfeeding couplets</td>
</tr>
<tr>
<td>NICU coverage (inpatient)</td>
<td>1:235 infant admits</td>
</tr>
<tr>
<td>Postdischarge coverage</td>
<td></td>
</tr>
<tr>
<td>Mother/baby outpatients</td>
<td>1:1292 breastfeeding couplets</td>
</tr>
<tr>
<td>Mother/baby telephone follow-up</td>
<td>1:3915 breastfeeding couplets</td>
</tr>
<tr>
<td>NICU outpatients</td>
<td>1:818 breastfeeding infants</td>
</tr>
<tr>
<td>NICU telephone follow-up</td>
<td>1:3915 breastfeeding infants</td>
</tr>
<tr>
<td>Education</td>
<td>0.1:1000 deliveries</td>
</tr>
<tr>
<td>Program development/administration</td>
<td>0.1:1000 deliveries</td>
</tr>
<tr>
<td>Research</td>
<td>0.1-0.2 FTE total</td>
</tr>
</tbody>
</table>

FTE = full-time equivalent; NICU = neonatal intensive care unit.
Babies discharged from neonatal intensive care units in the United States most often are not fully breastfeeding due to the gestational age at which they are commonly discharged (~34 weeks). Follow-up outpatient visits in this population are not routine and are more likely to average 95 minutes similar to total direct consult time for complex outpatient visits. If 100% of the infants discharged from the NICU were to return for just 1 weight check and breastfeeding assessment, a ratio of 1 IBCLC FTE per 818 neonatal service discharges would be required (95 minutes = 1.58 hours/consult; 1292 hours/FTE + 1.58 hours = 818 infant discharges).

As indicated in the data, the average total clinical time spent per telephone consult is 20 minutes. If every breastfeeding mother were called after discharge and assuming every mother were reached on the first attempt, the number of telephone consults would require at least 1.0 IBCLC FTE per 3915 breastfeeding mother/baby couplets discharged. To provide 1 telephone call to every NICU baby after discharge would require a similar ratio (20 minutes = 0.33 hours; 1292 hours/FTE + 0.33 hours = 3915 couplets).

### Education Services

In 2003 and 2004, the lactation service offered an 8-hour class several times per year for hospital and community health care providers, grand rounds presentations for physicians, and regular lectures for residents. Nursing students were provided clinical and didactic education. Beginning in July 2004, pediatric residents were scheduled on an individual basis to spend 2 hours accompanying an IBCLC on consults. Pediatric residents may now also take a 1-month elective rotation with the lactation service. For 2004, there were 550 total documented education hours.

An 8-hour class took approximately 16 hours of IBCLC instructor time. To provide each 8-hour class, an additional 8 hours was typically spent on the following: recruiting/scheduling for each class, preparation of class materials, classroom set up and clean up, grading/collating of pretests and posttests, review of evaluations, and periodic review/updating of class materials. In general, preparation time for most classes equals actual class teaching time.

As mentioned above, each class taught typically requires an equal amount of preparation time and teaching time. Total time for additional needed classes to meet Baby-Friendly educational requirements would be 240 hours annually with documented paid education hours equaling 550 hours. Total minimum time for education is 0.42 IBCLC FTEs, which can be generalized to a ratio of 0.1 FTE per 1000 deliveries (790 hours + 1900 hours/FTE = 0.42; 0.42:4200 = 0.1:1000).

### Research

Time spent on research was not separately documented and would be accounted for in time spent on PDA or was undocumented.

### Program Development/Administration

As the lactation service has expanded, the percentage of time spent on administration has decreased in comparison to percentage of time spent on clinical services (see Table 1). Averaging the total time from 2003 and 2004 yields a total of 858 hours. Total time for PDA is 0.45 IBCLC FTEs, which can be generalized to a ratio of 0.1 FTE per 1000 deliveries (858 ÷ 1900 = 0.45; 0.45:4200 = 0.1:1000).

### Total FTE Estimates

Calculating IBCLC staffing needs based only on direct patient contact time is unrealistic. As shown above, almost one third of all available clinical time is spent in indirect clinical activities, and this time must be accounted for in any attempt to calculate staffing patterns. An estimate of the number of IBCLC FTEs required to support a lactation program is provided in Table 4. Rather than utilizing 1 “global” ratio for calculating staffing, the ratios in Table 4 allow hospital administrators to calculate IBCLC staffing based on the number of deliveries, breastfeeding rate, and extent of services desired. The following examples illustrate how these FTE ratios can be used to estimate total FTEs needed for a specific service.

#### Example 1

Table 5 provides a total FTE estimate for a hospital with 1000 deliveries/year with an 85% breastfeeding rate and no neonatal services. All high-risk pregnant women are transferred before delivery to another hospital. The Women’s/Newborn Service desires to provide mother/baby inpatient service, outpatient service to 100% of the breastfeeding couplets discharged, and a follow-up telephone call at 3 days and 7 days after discharge. Education, administration, and minimal research will be provided.

Staffing calculation proceeds by multiplying the total number of deliveries (1000) by the anticipated breastfeeding rate (85%) to arrive at 850 breastfeeding mother/baby couplets. Using this number and the previously calculated ratio for staffing for each desired service, a total FTE requirement can be determined.
For this example, the total IBCLC FTEs needed would be 2.6 (Table 5).

**Example 2**

Table 6 provides FTE calculations for a hospital with 6000 deliveries/year with a 70% breastfeeding rate and 1200 admits/year to neonatal services (20% preterm delivery rate). The lactation service intends to provide mother/baby and NICU inpatient services, outpatient service to 50% of the breastfeeding mother/baby couples discharged, and at least 1 follow-up call to 100% of the breastfeeding mother/baby couples and NICU infants discharged. Education, administration, and minimal research will also be provided.

Compared to the previous example, this scenario has a number of additional variables that must be factored into staffing calculations. To arrive at the number of normal newborn breastfeeding couples, one must subtract the 1200 NICU patients from the 6000 total deliveries. This leaves 4800 mother/baby couples with a breastfeeding rate of 70%, resulting in a baseline number of breastfeeding couples of 3360. In addition, for the 1200 NICU infants, one should assume lactation support (intervention) for 100%. Once these numbers are calculated, the rest of the staffing needs can be determined using the standard ratios. This example would require 13.6 IBCLC FTEs to achieve the desired services (Table 6).

**Discussion**

Lactation programs in tertiary care teaching institutions provide more than clinical coverage for a mother/baby unit. Caring for high-acuity breastfeeding patients, educating large numbers of staff and physicians, and administering a busy, complex lactation service all require significantly more staffing than is commonly believed.

The estimated staffing ratios provided in this article were based on actual hours worked and include a wide range of lactation services that are essential for a comprehensive program. The lactation team provides clinical service on other units in addition to mother/baby units and provides education, administration, program development, and research. The data, including total number, type, and time per consult based on computerized medical record documentation, allow administrators to accurately estimate IBCLC staffing requirements based on the level of service desired. Prior reports did not provide detailed data and methodology for calculating precise staffing ratios.6,10

Jan Riordan, in her book *Breastfeeding and Human Lactation*, provided an estimate of 3 visits (one 20-minute initial and two 15-minute follow-ups) from a lactation consultant for a total of 50 minutes per mother/baby pair per day.6 Based on these figures, she calculated that an IBCLC would spend 8.3 hours per day to see 10 couplets on a mother/baby unit. She further estimated that a hospital with 3000 deliveries per year with 3 FTEs for IBCLCs would have minimum coverage “that usually results in understaffing and/or part-time coverage.” No data were provided to support this estimate.

Using Riordan’s figures of 50 minutes/day/breastfeeding couplet and OUMC’s average length of stay of 2.3 days, the estimated number of FTEs would be 1.0 for every 1000 breastfeeding couples. As stated in her book, this calculation allowed only for direct patient contact time and did not include time spent on charting, collaboration with other health care staff, indirect clinical work, education, research, or PDA.
The average of 1.7 consults total per mother/baby couplet seen at OUMC is substantially less than the 3 visits/day recommended by Riordan.

Hinson reported on a lactation program with 2.6 FTEs in a hospital with 1600 deliveries/year (or 1 FTE per 615 deliveries), where the lactation consultants saw each breastfeeding mother once unless there was a referral for a second visit. The lactation consultants were also responsible for rental and sales of breastfeeding equipment and supplies, prenatal classes, and breastfeeding support groups. No data were provided on time per consult, number of consults, or hours worked by the lactation staff. This ratio of 1 FTE per 615 deliveries is more than the 1:1000 deliveries recommended by Riordan or the 1 FTE per 783 breastfeeding couplets suggested by our data. This discrepancy appears to be secondary to inclusion of retail activities and some educational and follow-up support.

No data in the literature could be found for IBCLC staffing recommendations in a NICU setting. The lactation program described here implemented regular service in the NICU in June 2004. Mothers of all infants admitted to neonatal services units received a visit from an IBCLC. Prior to that time, coverage was provided on an as-needed basis if staffing permitted. As awareness has grown of the need for lactation service in the NICU areas, the demand has grown also. Neonatal leadership and staff at OUMC recognize the fact that the average of 2.1 consults per infant provided in 2004 was inadequate. The proposal outlined in this article is based on our evolving program evaluation. The recommended staffing ratio of 1 FTE per 235 NICU infants does not address other services that may be desirable, such as follow-up telephone calls, outpatient visits, and staff education. Nor is there research to verify that this is an adequate level of lactation service to provide in a population at high risk for feeding difficulties and poor weight gain.

Posthospital discharge lactation service is increasingly in demand. With early discharge and increasing emphasis on prevention of kernicterus and premature weaning, skilled follow-up of breastfeeding infants is critical. Substantial teaching, reinforcement of previous education, and assessment of milk production occur during an initial visit, as most mothers are sent home from the hospital well before the onset of copious milk production. As noted by Lukac et al,

During this consultation, the LC may answer questions and address any issues or concerns a mother or father has regarding breastfeeding. Mothers are praised for their efforts, given assistance with latching and positioning, and educated about milk production, . . . provided with supplies . . . and may be given referrals to community resources. “First time [mothers] or even mothers with several children can never have too much reassurance regarding breastfeeding.”

Some lactation programs provide at least 1 telephone call to each breastfeeding mother after discharge. Follow-up telephone calls can help to identify the following:

- infants who are at risk for hospital readmission due to inadequate feeding and/or hyperbilirubinemia
- mothers who are at risk for hospital readmission due to mastitis
- breastfeeding couplets at risk for premature weaning

The staffing ratios provided in this article give guidelines for FTE commitments to establish both a telephone and outpatient follow-up program.

Staff education is an extremely important component of any lactation program and is 1 of the Baby-Friendly Hospital Initiative’s (BFHI) Ten Steps to Successful Breastfeeding. The BFHI calls for a minimum of 18 hours of lactation-specific education for staff working in maternal/child health, especially nurses working in women’s and neonatal services in the hospital. Providing adequate education to staff and physicians in a hospital that delivers > 4000 babies/year requires substantially more than the documented 550 hours spent on education by this program in 2004.

Deficiencies in our educational program were identified by nursing leadership and the lactation team, and a new approach was developed. An education program recently implemented for newly hired staff includes 16 hours of clinical time with an IBCLC and a 4-hour class. Staff will be required to attend the 8-hour class after they have been working on the units for 6 to 12 months. Within a year of hiring, Women’s/Newborn Services staff will have received a total of 28 hours of education in breastfeeding management: 16 hours of clinical preceptoring and 12 hours of didactic teaching. This figure meets the requirement for staff education for Baby-Friendly.

Research staffing can vary tremendously depending on the level of institutional commitment. A 0.1 to 0.2 FTE could cover process improvement, product and
equipment trials, and small grant applications. Larger clinical research projects or grant applications and administration would require more FTEs.

Limitations of this study include lack of data on percentage of consults not completed due to suboptimal staffing, generalization of in-house time study, and information on effectiveness of interventions or outcomes data. With the lack of service 7 days per week at the time of this study, inconsistent staffing levels on other days, low level of follow-up for inpatient mother/baby and NICU consults, and minimal outpatient service, the level of service provided was not optimal. Although 2004 data indicated a breastfeeding discharge rate (73%) above the state and national average, no data are available on breastfeeding duration.

Using the staffing ratios provided in this article, a hospital can develop a strong, effective lactation program that will have a long-term impact on breastfeeding promotion and support in the community, region, and country, leading to improved health for mothers and children.

References


Resumen

Se hizo una revisión retrospectiva de datos basada en reportes de productividad de un programa de lactancia en un hospital escuela de atención terciaria (4200 nacimientos al año) donde se calcularon las horas de trabajo de las Consultoras de Lactancia con licencia (IBLCs) en un periodo de 2 años, adjudicando las horas a actividades respectivas y la proporción optima de tiempo para desarrollo de actividades para el personal de Consultoras con Licencia de lactancia (IBLCs) por cada servicio. El personal optimo con licencia de lactancia (IBLC) se calculó de la siguiente manera: una pareja de madre/hijo hospitalizada requiere 1 persona tiempo completo por 783 lactantes; un paciente hospitalizado en la unidad de cuidados intensivos neonatales requiere 1 persona tiempo completo por 235 admisiones; una pareja madre/hijo de consulta externa requiere 1 persona tiempo completo por 1292 lactantes de alta del hospital; un paciente de unidad de cuidados intensivos externo requiere 1 persona tiempo completo por 818 niños lactando de alta del hospital; seguimiento con llamadas telefónicas requiere 1 persona tiempo completo por 3915 lactantes e infantas de alta del hospital; educación requiere 0.1 persona tiempo completo por 1000 partos; desarrollo y administración del programa requiere 0.1 de personal tiempo completo por 1000 partos; investigación requiere un total de 0.1-0.2 de personal tiempo completo. Al usar los cálculos de esta revisión se puede estimar el personal necesario de Consultoras de Lactancia Licenciadas (IBLCs) basado en los servicios que se proveen y el número de pacientes.