

Resource Book
Breastfeeding Competency

Item	Responses from Literature
I.1 Lists 5 benefits of breastfeeding to mother and/or newborn	<p>BENEFITS TO NEWBORN</p> <p>Nutrition</p> <ul style="list-style-type: none"> • Breast milk has the perfect balance of proteins, carbohydrates, fats, vitamins & minerals for human infants. It is lower in protein and less stressful on the kidney. • Long chain polyunsaturated fatty acids found in breast milk are important for brain development. The lipids and enzymes in breast milk promote efficient digestion and nutrient absorption. • The composition of breast milk varies according to gestational age and stage of lactation, thereby meeting the changing nutritional needs of individual infants as they grow. • Breast milk is correlated with leaner growth patterns which may result in less overweight later. <p>Disease protection</p> <ul style="list-style-type: none"> • Human milk contains anti inflammatory factors and other factors that regulate the response of the immune system against disease thereby decreasing the incidence of infectious diseases including, diarrhea, lower respiratory tract infections, otitis media, UTI's, pneumonia, necrotizing enterocolitis and invasive bacterial infections. • Decreased incidence of allergy and asthma • Decreased risk of Diabetes (Type 1) • Decreased risk of childhood cancer • Some studies report that breast fed infants have higher cognitive functioning. • Provided protection against chronic digestive diseases. <p>American Academy of Pediatrics Workgroup on Breastfeeding. Breastfeeding the use of Human Milk <i>Pediatrics</i>.1997.100, 6, p.1035.</p> <p>Department of Health and Human Services Office on Women's Health. <i>HHS Blueprint for Action on Breastfeeding</i>. Washington: 2000, pp. 9-12.</p>

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	<p>Psychological aspects</p> <ul style="list-style-type: none"> • Skin to skin contact enhances closeness/attachment <p>BENEFITS TO MOTHER</p> <p>Health benefits</p> <ul style="list-style-type: none"> • Breastfeeding stimulates uterine contractions & lessens the chance of hemorrhage. Mothers have less blood loss and more rapid uterine involution. • Breastfeeding is associated with an earlier return to pre-pregnant weight. • Improved bone remineralization post partum and later postmenopausal hip fracture have been reported. • Breastfeeding is correlated with reduced risk of ovarian cancer and pre-menopausal breast cancer. <p>American Academy of Pediatrics Workgroup on Breastfeeding. Breastfeeding the use of Human Milk <i>Pediatrics</i>.1997.100,6,p.1035.</p> <p>Department of Health and Human Services Office on Women's Health. <i>HHS Blueprint for Action on Breastfeeding</i>. Washington: 2000, pp. 9-12.</p> <p>Financial Benefits and Convenience</p> <ul style="list-style-type: none"> • Breastfeeding is inexpensive. (Costs include nursing pads, nursing bras and possibly a breast pump) • Milk is always the perfect temperature • No preparation time needed • Breast milk has bacteriostatic properties which permit storage at room temperature up to 6 hours; in the refrigerator for 5-7 days; in a separate deep freezer for 6 months and refrigerator freezer for 3 months. <p>Psychological Aspects</p> <ul style="list-style-type: none"> • Hormones of lactation promote maternal feelings and a sense of well-being. • Skin to skin contact enhances closeness/attachment.

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I.2 Identifies at least 2 community breastfeeding support sources and identifies need for referral	Referrals needed for: <ul style="list-style-type: none"> • Increased jaundice • Infant tongue-tied • Mom on medication • S/ S mastitis • Decreased urine or stool • Inverted nipples • Infant weight loss >IQ% • Evidence of ineffective latch, no audible swallowing • Nipple trauma • Yeast infection
I.3 Describes impact of breastfeeding on family relationships	Respecting differences among mothers and families is essential to effective breastfeeding counseling; <ul style="list-style-type: none"> • Marital status • Economic status • Family cultural practices • Parenting styles Mohrbacker & Stock, pp. 1-10.
II.1 Describes signs and symptoms of plugged duct/mastitis and/or yeast infection of the breast.	Signs and Symptoms: .Plugged Duct/Mastitis Any inflammation of the breast which covers both the possibility of the inflammation due to an infection or a plugged duct. <ul style="list-style-type: none"> • A tender spot, or lump, accompanied by redness of the breast, warm to touch , without a fever is most likely caused by a plugged duct • A soreness or lump accompanied by a fever and/or flu-like symptoms (feeling tired and achy or run-down), is most likely a breast infection

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	<p>Yeast Infection of the Breast(Thrush)</p> <ul style="list-style-type: none"> • Characterized by abrupt onset of extremely sore nipples, with burning or itching, and possibly shooting pain in the breast. • Persistent sore nipples • An inflammation of nipples/breast, usually striking deep pink, sometimes with tiny blisters, severe tenderness and discomfort, especially during and immediately after feedings. • The baby may also have diaper rash with raised, red pustules or red scalded-looking buttock. (buttocks.) • The mouth may have diffuse redness with white patches. <p>Riordan and Auerbach, 1997, pp.488-492</p>
<p>II.2 List 2 factors that may contribute to sore nipples for the mother.</p>	<ol style="list-style-type: none"> 1. Positioning (mother & baby) 2. Latch-on 3. Baby's suck <ul style="list-style-type: none"> • baby clenching • tongue thrusting • tongue sucking • tongue tied <p>Mohrbacker & Stock, pp. 66-72</p>
<p>II.3 Lists 3 signs and symptoms of let down</p>	<ol style="list-style-type: none"> 1. Uterine cramps & increased blood flow (during the first few days after birth) 2. A 'pins & needles" or achy feeling in breasts 3. Milk leaking from the other breast while nursing 4. A change in the baby's suck-swallow rhythm, from quick to long sucks 5. Gulping 6. Milk appearing in the corner of the baby's mouth 7. A feeling of relaxation in the mother <p>(n.b. some mothers do not experience <i>significant</i> signs of let down Mohrbacher & Stock, pp.32-33.</p>
<p>II.4 Lists 3 nursing interventions to treat: engorgement, nipple pain and plugged ducts or mastitis</p>	<p>Engorgement</p> <ul style="list-style-type: none"> • Massage and/or apply heat (warm soaks or hot shower) before breastfeeding to stimulate letdown reflex and help the milk flow. • Apply moist heat.

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	<ul style="list-style-type: none"> • Breastfeed frequently - if the baby will not breastfeed long enough to soften both breasts, encourage mother to hand-express or pump milk after nursing. • If the mother's areola is engorged, encourage her to express enough milk to soften the areola so that the baby will latch on well. Also suggest the mother try other nursing positions such as the clutch hold which may give her more control and make latching-on easier. • Apply cold compresses between feedings to reduce swelling & pain. • A well-fitting, supportive bra may make the mother feel more comfortable (a bra that does not fit well or an underwire bra may constrict her milk ducts and cause a plugged duct). • If mother is experiencing severe pain, suggest she discuss pain medication that is compatible with breastfeeding with her medical care provider. <p>Nipple Pain</p> <ul style="list-style-type: none"> • Check positioning, latch, and suck. Try making adjustments. • Treat engorgement, if present. • Avoid artificial nipples. • Use proper technique for detaching baby from the breast. • Treat inverted nipple, if present. • Check baby for short frenulum and assess effect on suck, if present. • Check mom for white nipple or vaso spasm during feeding (may indicate clenching, tongue traps nipple and gums compress nipple). • Check for other possible causes and treat if necessary: thrush, teething, improper breast pump use, chapped nipples, nipple skin problems (eczema, dermatitis, impetigo, bacterial infection), bra that is tight or has rough seams, hormonal changes of pregnancy, irritation from creams or ointments. • Encourage mother to leave a small amount of expressed milk on the nipple. • Apply pure lanolin or hydrogel. • Avoid plastic liners or synthetic fabrics in bra or breast pad. <p>Plugged Ducts and Mastitis</p> <ul style="list-style-type: none"> • Encourage rest (fatigue is major contributor to plugged ducts and mastitis). • Encourage fluids. <p>Gently massage breasts from chest wall forward to the nipple while standing in a warm shower or following the application of hot packs to the breasts.</p>

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	<ul style="list-style-type: none"> • Encourage mother to contact her medical care provider for possible medical treatment of mastitis. • Apply wet or dry heat to the affected area. • Gently massage the area while it is warm & remove any dried milk secretions on the nipple by soaking it with plain water. • Breastfeed the baby frequently on the affected side - this will keep the breast from becoming overly full and keep the milk flowing freely. • Loosen constrictive clothing, especially mother's bra. • Make sure the baby is well positioned & has a good latch. • Vary nursing positions. • Position baby so jaw and tongue are closest to plugged duct. • If antibiotics are ordered, reinforce taking full course despite symptom improvement. <p>Mohrbacher and Stock, 1997, pp. 388-396, 418-426.</p>
<p>II.5 Describes adequate nutrition and fluids for breastfeeding (refer to postpartum maternal and newborn nursing care for validation)</p>	<ul style="list-style-type: none"> • Suggest the mother "eat to hunger." It is recommended that lactating women consume 2700 calories per day (about 250-500 calories day more than a non-pregnant, non- nursing woman); however, many nursing mothers take in closer to 2200 calories per day or less. • Encourage mother to trust her appetite and choose nutritious foods that are well balanced. • Routine vitamin-mineral supplements are not necessary for the nursing mother if she eats a healthy, balanced, and varied diet. • The nursing mother should be encouraged to drink to thirst. Drinking more than that is not beneficial and will not increase her milk supply. • If the mother is not drinking enough fluids, her urine will be concentrated darker in color and with a stronger smell) and she may become constipated. • Vegetarians and Vegans can successfully breastfeed. (Mahan, K. and Arlin, M., pg.66-67, and 290). • Provide information about foods to avoid due to pesticide and other environmental toxins including mercury in fish and pesticides. • Fresh water fish • Peel and wash non-organic fruits and vegetables • Eat low fat meats and fish • Avoid wood exposed to pentachlorophenol (pressure-treated wood) • Avoid treating homes for termites with Deildrin <p>Mohrbacher & Stock, p.372-373, 379 Riordan and Auerbach, 1997, pp.182-184.</p>

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III.1 Lists 3 signs of effective latch	<ol style="list-style-type: none"> 1. The baby's body is facing the mother so that he doesn't have to turn his head. 2. The baby's mouth should be directly in front of or slightly below the nipple. 3. Stimulate baby's lips and wait for infant to open mouth wide; The baby is pulled in close so that his chin is pressed into the breast; his nose may rest on the breast (baby will pull off if he can't breathe). 4. Once the baby is latched - on, the baby's lips are flanged out & relaxed. 5. The baby's tongue is cupped beneath the mother's nipple. 6. Breastfeeding is comfortable for the mother. <p>Mohrbacher & Stock, pp.52-57</p>
III.2 Lists 3 characteristics of effective suck/swallow pattern	<ol style="list-style-type: none"> 1. Breastfeeding is comfortable for the mother. 2. After the initial letdown occurs, the mother should be able to hear him swallow after every one to two sucks-hearing 10-15 consecutive swallows in a row followed by a pause and then the same pattern repeats. 3. The suck-swallow pattern should last on average about ten to twenty minutes. 4. The mother or partner may see a wiggle" at the junction of the baby's temples and ears. 5. The infant nurses with eyes open initially. <p>Mohrbacher & Stock, pp.57-59</p>
III.3 Lists 4 feeding readiness cues (early hunger cues)	<p>Feeding is most successful if initiated while the neonate is in a quiet, alert state. Crying is a late hunger cue, and it is often necessary to console the newborn before she/he will settle and feed well.</p> <p>Signs of readiness:</p> <ul style="list-style-type: none"> • rapid eye movement under closed lids • arm or leg movements lip movements • changes in facial expressions • rooting • smacking of lips • sucking on fingers or hands • flexed arms, clenched fists • placing hands to mouth • mouth opening in response to tactile stimulation <p>Mohrbacher and Stock, 1997, pp. 20</p>

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III.4 Lists 3 signs & symptoms newborn satiety	<p>In the presence of adequate latch-on, audible swallow and sufficient time at breast, the following behavioral signs indicate fullness & satisfaction:</p> <ul style="list-style-type: none"> • gradual decrease in number of sucks over course of feeding • purses lips followed by pulling away from the breast & releasing the nipple • relaxed body • legs extended • absence of hunger cues • sleep • small amount of milk drools from the mouth • contented state <p>Simpson and Creehan, chapter 15, p.342</p>
III.5 Describes normal newborn feeding frequency during the first few weeks of breastfeeding	<p>Feeding patterns</p> <ul style="list-style-type: none"> • Daily nursing patterns will vary from baby to baby, and an individual baby's nursing pattern may change from day to day and vary as he grows. • Most newborns nurse an average of 8 to 12 times in 24 hours. • Due to individual differences, some babies may nurse as often as every hour and some may have an occasional four-hour stretch. • During the early months, many babies "cluster feed", i.e. they space feedings closer together at certain times of the day (typically during the evening) and go longer between feedings at other times. <p>Signs of sufficient milk intake</p> <ul style="list-style-type: none"> • 5-10 mostly yellow milk stools by the end of the first week • wets 6-8 cloth or 3-5 paper diapers • alert, active and hungry at times, fussy at times, satisfied after feedings • mucous membranes wet and skin does not tent when pinched <p>Riordan and Auerbach, 1997, p.p.31-3 Mohrbacher & Stock p 24-26</p>
III.6 Identifies when the first growth spurt usually occurs and describes how it affects the baby's feeding pattern. Lists 3 signs & symptoms of dehydration in newborn	<p>During a growth spurt, the baby wants to nurse more often (10 days, 2-3 weeks, 6 weeks, and 3 months) Twenty minutes of vigorous nursing every hour or two is more effective in building up the mother's milk supply than less frequent or longer breastfeeding sessions.</p> <p>Signs & symptoms of dehydration or insufficient feeding.</p> <ul style="list-style-type: none"> • Concentrated urine color in disposable diaper • Stool color has not changed from black to green/yellow by day 5 • minimum of four stools per day not established

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	<p>Signs & symptoms of dehydration or insufficient feeding- cont'd...</p> <ul style="list-style-type: none"> • dry mouth, dry eyes • skin losing its resiliency (when pinched it stays pinched looking, tenting) • listlessness • lethargy • weak cry • minimal urine output • fever • depressed fontanel <p>Mohrbacher & Stock, pages 23-24, 26 and pp. 115</p>
III.7 Identifies adequate weight gain for newborn	<ol style="list-style-type: none"> 1. Weight loss of up to 7-10% of the baby's birth weight is normal over the first 3-4 days of life. 2. Most babies regain their birth weight within two to three weeks of age 3. Typical weight gain for the first 3 to 4 months is 4L8 ounces a week, doubling birth weight by 5-6 months (weight gain should be determined from the lowest point). <p>Mohrbacher & Stock, p. 114-116</p>
III.8 Describes at least 2 possible effects of formula supplementation on newborn health and maternal milk supply	<ol style="list-style-type: none"> 1. Supplements decrease breastfeeding frequency and increase intervals between breastfeeding thereby interfering with the establishment of the mothers milk supply 2. When given an artificial nipple, supplements can cause breastfeeding problems, such as weakening a baby's suck or causing baby to refuse the breast. 3. Supplements fill up the baby, making him less interested in breastfeeding. 4. Water supplements are not recommended and may contribute to newborn jaundice. 5. Formula supplements in the newborn period can sensitize some babies to milk allergy or intolerance. 6. Supplements contribute to engorgement because they decrease the amount of time baby spends breastfeeding. <p>Mohrbacher & Stock pp. 22-24</p>
III.9 Lists signs and symptoms of increased bill Rubin in the newborn - jaundice	<p>Symptoms of elevated bilirubin:</p> <ul style="list-style-type: none"> • Yellowish cast of skin(jaundice) • Yellowish cast of sclera

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<p>Describe the difference between primary newborn jaundice and elevated bilirubin related to feeding</p> <p>Describe Breastfeeding strategies for infants with elevated bilirubin.</p>	<p>Symptoms of elevated bilirubin- cont'd...</p> <ul style="list-style-type: none"> • Progressively higher bilirubin levels are associated with involvement of complete trunk, extremities, and palms/soles • lethargy, poor feeding , decreased stool output follow elevated bilirubin <p>Primary Hyperbilirubinemia appears within the first 24 hours and may be indicative of pathology or Blood Type incompatibility. It is characteristically rapidly rising (.5mg/dl to 8.5mg./dl or more per hour). Elevated bilirubin related to breastfeeding occurs between the second to fifth day and peaks between day three and four. These levels may remain elevated through the second week or longer.</p> <p>Breastfeeding strategies for elevated bilirubin:</p> <ol style="list-style-type: none"> 7. Frequent breastfeeding helps eliminate excess bilirubin due to colostrum's laxative effect. Newborn infants need to nurse often (suggested 7-11 per day) If the baby is sleepy, the mother may need to stimulate him/her to breastfeed frequently and long enough. 8. Fatty hindmilk promotes stooling which eliminates excess bilirubin. 9. Water or sugar water supplements are not recommended since they may reduce the frequency of breastfeeding and delay stooling. AAP policy statement does not recommend sugar or water supplements. 10. Formula supplementation may be recommended on a short term basis if the bilirubin level is high enough that treatment is necessary and the mother does not yet have enough milk to increase the baby's stooling (This is usually unnecessary). <p>Mohrbacher and Stock, pp.222-237 AAP Workgroup on Breast Feeding, 1997,p. 1036</p>
<p>III.10 Demonstrates cradle hold, clutch hold, side lying position.</p>	<p>See Mohrbacher and Stock, pp. 46-52.</p>
<p>III. 11 Demonstrates one or more techniques for detaching newborn from breast in order to reposition infant.</p>	<ol style="list-style-type: none"> 1. The mother presses down on her breast near the baby's mouth. 2. The mother pulls down on the baby's chin. 3. The mother inserts a finger into the corner of the baby's mouth. <p>Mohrbacher & Stock, p. 57</p>

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III.12 Demonstrates one or two techniques for burping baby	<ol style="list-style-type: none"> 1. Hold the infant upright on the shoulder. 2. Hold the infant in a sitting position on lap with chin and chest supported with one hand. 3. Gently pat or stroke the back with the other hand. 4. Burp after finishing first breast, and at the end of feeding or as needed if the infant is gulping, choking and swallowing a lot of air. <p>Mohrbacher & Stock, p.311</p>
IV. 1 Describes safe storage for expressed milk at refrigeration 32 to 39°F	<p>11. Milk storage-requires refrigeration at 32° to 39° F. May be stored for 8 days</p> <p>Mohrbacher & Stock, pp. 188-191</p>
IV.2 List at least 3 alternative methods of feeding expressed breast milk and when and why they should be used, including the need for Lactation Consultation	<p>Feeding methods for expressed milk or supplements: bottle, cup, eyedropper, feeding syringe, spoon, bowl, nursing supplementer, finger feeding and gavage</p> <p>When alternative methods may be needed:</p> <ul style="list-style-type: none"> • Infant tongue tied • No latch • Inverted nipples <p>Mohrhacher & Stock, pages 18 1-183</p>
IV.3 Demonstrates correct use of breast pumps available in area	<ol style="list-style-type: none"> 1 .The mother needs to begin by washing her hands and making sure the pump & storage container are clean (containers washed in hot, soapy water, then rinsed well). 2. The mother will get the best results if she follows the pump directions, centers her nipple in the proper nipple adapter, moistens her breasts and begins at the lowest pressure setting. 3. Stimulating a milk letdown is crucial to successful milk expression. Facilitate by the use of warm moist compresses. 4. Setting up a milk-expression routine and finding a comfortable time and place to express can help stimulate a good milk flow. 5. Avoid bicycle style pumps

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Identifies need for pumping and supplementation	<p>Situations requiring the need for pumping:</p> <ul style="list-style-type: none"> • Mother infant separation • Ineffective latch • Increase milk supply <p>Supplementation:</p> <ul style="list-style-type: none"> • Weight loss > 10% • Ideally use breast milk as the supplement • Explore use of supplemental nursing system at breast <p>Mohrbacher & Stock, p. 546-548</p>