

**Development of Breastfeeding Education Modules for Prenatal Education**

by © Janie Kean

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## **ABSTRACT**

Breastfeeding provides optimal nutrition for infants in order to support their healthy growth and development. Unfortunately, breastfeeding initiation and duration rates in Newfoundland and Labrador are among the lowest in Canada. In an effort to increase breastfeeding initiation and duration, public health nurses provide prenatal breastfeeding education to pregnant women and their partners. Prenatal breastfeeding education that is consistent, informative, and up-to-date allows pregnant women and their partners to make informed decisions about infant feeding. This education provides them with an opportunity to build breastfeeding self-efficacy, thus learning how to breastfeed and to cope with breastfeeding challenges. Bandura's social cognitive theory was used to develop prenatal breastfeeding education modules for use by public health nurses in provision of prenatal education.

**Keywords:** Breastfeeding, prenatal care, prenatal education

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### Development of Breastfeeding Education Modules for Prenatal Education

Many women and their partners make the decision to breastfeed their infant very early, some even before pregnancy or during pregnancy (Atchan, Foureur, & Davis, 2011). Others decide to use infant formula because of personal reasons or societal factors not supportive of breastfeeding (Atchan et al., 2011; Ogbuanu et al., 2009). Some even delay decision-making about method of feeding until after the birth of the infant because they are unsure how they want to feed their infant. A number of factors have been found to positively influence a woman's decision to breastfeed and knowledge about breastfeeding is one of these factors (Kjelland, Corley, Slusher, Moe, & Brockopp, 2014). Knowledge about breast feeding given during pregnancy might help women consider breastfeed as an infant feeding option earlier or even influence those who look at infant formula as their choice to change their decision. Pregnant women and their partners would benefit from prenatal breastfeeding education to allow them to make informed decisions about infant feeding (Tully & Ball, 2013).

Prenatal breastfeeding education could help to give pregnant women the tools they will need to breastfeed in the early days and beyond. This education could also give the women's partners the information they require for the much needed support for the women to breastfeed successfully (Mitchell-Box & Braun, 2012). Unfortunately, the information provided by health care professionals can sometimes be detrimental to pregnant women if it is inconsistent, inaccurate, or inadequate (Dennis, 2002). Pregnant women require consistent, up to date, breastfeeding education to help support them to initiate and continue breastfeeding (Cross-Barnet, Augustyn, Gross, Resnik, & Paige,

2012; Hauk, Hall, & Jones, 2007). The purpose of this practicum is to develop two prenatal breastfeeding education modules for use by public health nurses in the provision of prenatal education to pregnant women and their support persons. It is hoped that through this education, that pregnant women will choose to initiate and continue to breastfeed.

### **Background**

Breastfeeding provides optimal nutrition for infants and toddlers to support healthy growth and development (Public Health Agency of Canada, 2009). Breastfeeding provides immunologic protection, emotional benefits for babies as well as protective health benefits for mothers (Health Canada, 2014a). Breastfeeding is economically beneficial for women and their families and good for the environment in that there is no packaging and transportation costs associated with this feeding method. Health Canada (2014b) and the World Health Organization (WHO) (2003) recommend breastfeeding exclusively for the first 6 months of life followed by continued breastfeeding and complementary foods for up to age two years and longer.

While the benefits of breastfeeding are numerous and well documented, the breastfeeding initiation rates in the province of Newfoundland and Labrador (NL) are low. In 2011 the breastfeeding initiation rates at 66.7% fell well below Canada's average of 88%. In 2009-2010 only 13.9% of NL mothers exclusively breastfed to age 6 months compared to the national average of 25.9% (Eastern Health, 2012). While even limited duration breastfeeding can offer some benefits, particularly short-term benefits, babies should be breastfed exclusively for up to 6 months to receive optimal health benefits from

breastfeeding. Extended breastfeeding beyond 6 months also provides additional health benefits (Horta & Victoria, 2013).

### **Recommendations for prenatal breastfeeding education**

The World Health Organization (WHO) began the Baby Friendly Hospital Initiative (BFHI) to ensure that maternity centers throughout the world would meet minimal standards to promote, protect, and support breastfeeding (WHO & UNICEF, 2009). The Breastfeeding Coalition of Canada (BCC) has developed a Canadian Interpretation of the BFHI and the WHO/UNICEF *Global Criteria* or the *10 steps to successful breastfeeding*. In Canada, for health care and community health centers to receive the gold standard of Baby Friendly Initiative (BFI) designation, they must meet outcomes set forth by the BCC, the BFI Integrated 10 Steps Practice Outcomes Indicators for Hospital and Community Health Services (BCC, 2012). Step 3 of the BCC BFI Integrated 10 Steps Practice Outcomes Indicators for Hospital and Community Health Services is to “inform pregnant women and their families about the importance and process of breastfeeding,” (BCC, 2012, p. 5). Although Central Health where this work was conducted has not achieved BFI designation, the indicators serve as goals and a means to measure progress towards improving care we provide to pregnant and breastfeeding women and their families. The development of standard prenatal breastfeeding education modules for use by public health nurses during prenatal education will help to achieve this outcome.

### **Rationale**

Public health nurses in Central Newfoundland and Labrador have the opportunity to provide women and their families breastfeeding education through group prenatal

education sessions and one-on-one counseling for prenatal clients. Currently each public health nurse has been using a different method of teaching and different resources because of the absence of standard breastfeeding presentations or modules for their use. Prenatal breastfeeding education modules based on good research evidence for use by all public health nurses will allow for a consistent approach to prenatal breastfeeding education throughout the region. Consistent messaging provided from the prenatal period, through the perinatal period, and into the postpartum period will allow for less confusion and greater knowledge for parents, and in turn, better outcomes for all.

As a public health nurse, when I was pregnant I thought that I was prepared to begin my breastfeeding journey with the knowledge I had. In reality though when it came to breastfeeding my first infant I had personal struggles with breastfeeding that left me with low confidence and little hope of success. What I really needed was for someone to let me know what it would be like in the early days at home, how to deal with problems, and where to find the support I required. I believe pregnant women, like myself, could benefit greatly from the type of educational program that is represented in this project. Prenatal breastfeeding education modules will supplement the breastfeeding and parenting information provided to expectant parents during prenatal education provided by public health nurses. This education could help to empower women and their families to initiate breastfeeding and succeed in reaching their breastfeeding goal.

### **Goals and Objectives**

The overall goal of this practicum is to encourage expectant parents to initiate and to continue breastfeeding through provision of prenatal breastfeeding education. By preparing expectant parents, it is believed that they will be better equipped to deal with

the challenges that parenting and breastfeeding will present to them in the early days at home and throughout their breastfeeding journey. This goal can be achieved by developing modules for public health nurses to use in the provision of prenatal breastfeeding education. The goal is to provide public health nurses with a consistent, up-to-date resource that they could use in providing prenatal education to pregnant women and their supporters.

**Practicum Objectives:**

1. To conduct a review of recent literature to help with the development of the modules;
2. To develop PowerPoint© presentations and speaker's notes on breastfeeding in the early days and breastfeeding support for use by public health nurses providing prenatal education to pregnant women and their support person(s);
3. To develop/adapt group activities to be used in breastfeeding prenatal education based on adult learning principles; and
4. To demonstrate advanced nursing practice competencies in the development of this project.

**Literature Review**

Literature for this review was obtained from CINAHL, MEDLINE, and the Cochrane Library. In an effort to obtain the most up-to-date literature, limits were set to include articles from 2000-present. The search was also limited to articles in the English language and articles that had an abstract available. Keywords used in the search strategy were “breastfeeding ” AND “prenatal” OR “antenatal” OR “prenatal care”, and “patient

education” OR “patient teaching” OR “prenatal education” OR “childbirth education”. I found 124 articles using these search terms and of these articles 46 were found to be appropriate for my review purpose. Another 12 articles were found after a secondary search for applicable articles mentioned by authors in the articles previously reviewed after the primary search.

### **Effectiveness of Prenatal Breastfeeding Education**

Successful breastfeeding is dependant on many factors including maternal knowledge and confidence (Laanterä, Pietilä, Ekström, & Pölkki, 2012). Furthermore, the positive effects of breastfeeding must offset some of the perceived negative effects (Tully & Ball, 2013). Prenatal breastfeeding education could provide pregnant women and their partners with the knowledge and tools they need to have a successful breastfeeding experience (Kjelland et al., 2014). Prenatal breastfeeding education has the potential to increase breastfeeding initiation and duration rates, boost maternal breastfeeding self-efficacy, and decrease incidence of breastfeeding problems.

### **Breastfeeding Initiation.**

Dyson, McCormick, and Renfrew (2005) conducted a systematic review to assess the effect of interventions to support the initiation of breastfeeding. They included 11 studies in the review. Of these 11 studies, 5 were clinical trials that involved a prenatal health education intervention on breastfeeding. The remaining trials assessed peer support interventions, postnatal interventions, and breastfeeding promotion packages. Most of the studies were completed with low-income participants in areas where breastfeeding rates were relatively low. The meta-analysis of the studies showed that the prenatal health education interventions demonstrated statistical significance in increasing breastfeeding

initiation rates. It is of importance to note, however, that there were significant differences among the groups studied. Subgroup analysis of two other studies of prenatal breastfeeding education tailored to women's learning needs also found significant increases in breastfeeding initiation rates where heterogeneity between the two groups was small. Results from this review support the belief that prenatal breastfeeding interventions can increase breastfeeding initiation rates. Given that women in lower-income groups are at a greater risk of not initiating or stopping breastfeeding (Dennis, 2002a; Lu et al., 2003), it is hoped that planning effective interventions to serve this population will help to increase their breastfeeding initiation and duration rates.

Artieta-Pinedo et al. (2012) completed a prospective cohort study to assess the effects of prenatal breastfeeding education sessions on breastfeeding during the baby's first year. Participants who attended prenatal education were more likely to be breastfeeding their babies at age one month. The greater number of prenatal education classes the participant attended, the more likely they were to continue breastfeeding. There were no significant differences in breastfeeding initiation among those that attended and those that did not attend prenatal education classes. The lack of difference may be attributed to the fact that participants in this study were mostly older, educated women. These characteristics make them more likely to breastfeed than younger and less educated women. The type of education sessions studied was general prenatal education sessions, not prenatal breastfeeding education sessions specifically. The content or format of the education provided is unknown. The authors suggested that further research is needed to assess the factors that influence breastfeeding behavior and to tailor prenatal breastfeeding education to modify these factors.

In contrast to the findings of the study cited above by Artieta-Pinedo et al. (2012), Lu et al. (2003) found in a much earlier cross sectional study of disadvantaged women, that those who attended prenatal education were significantly more likely to breastfeed than those that did not attend. Additionally, the study findings also indicated that socially disadvantaged women were less likely to attend prenatal education classes. The study was conducted in the United States and the authors suggested that the fact that many women did not have insurance coverage for prenatal education might have affected attendance rates. In Central NL, prenatal education is available to pregnant women and generally for those socially and financially disadvantaged at no cost. The Canadian Prenatal Nutrition Program is one example of a program that provides incentives for socially disadvantaged women to attend prenatal education (Public Health Agency of Canada, 2007). This program is available in many rural communities in Central NL.

Prenatal breastfeeding education provided in areas where rates of breastfeeding initiation were already high has shown little effect on improving breastfeeding initiation and duration rates. Forster et al. (2004) used a randomized controlled trial to assess the effectiveness of two mid-pregnancy interventions on initiation rates and breastfeeding rates at 6 months postpartum in a sample of 981 primiparous women who were scheduled to deliver at a Baby-Friendly hospital in Australia. Study results revealed no significant increases in breastfeeding initiation rates or breastfeeding rates at 6 months. Duration rates at earlier time periods were not assessed. It could be argued that high breastfeeding initiation rates that already existed could be because of a number of factors including the availability of prenatal breastfeeding education. The intervention may have resulted in a significant difference in breastfeeding rates at earlier time periods. A single breastfeeding

intervention such as prenatal breastfeeding education alone may not increase long-term exclusive breastfeeding duration. Other breastfeeding support interventions in the postnatal period may be needed to encourage breastfeeding exclusivity to 6 months and beyond.

### **Breastfeeding Duration.**

Exclusive breastfeeding for at least 6 months is required for mother and baby to achieve optimal health benefits from breastfeeding (Kramer & Kakuma, 2001). Therefore, interventions are needed that will not only encourage new mothers to begin breastfeeding, but to continue for the recommended time. Lumbiganon et al. (2012) conducted a systematic review to assess the effect of prenatal breastfeeding education on the duration of breastfeeding. A variety of mediums for prenatal breastfeeding education including formal classes, videos, literature, and counseling by peers or a lactation consultant were included in the 19 studies reviewed. Because of such a variation among interventions, a meta-analysis could not be conducted. Effects of each type of intervention were assessed separately. The reviewers found that most studies that included formal breastfeeding prenatal education did not have any significant effect on breastfeeding initiation and duration. Some studies did reveal positive results to support prenatal breastfeeding education. One study (Duffy, Percival, & Kershaw, 1997) found there were significantly fewer reports of nipple pain in a control group that received prenatal breastfeeding education and counseling from a lactation consultant versus a group that received routine care. There were significant differences found in another study (Mattar, 2007) in a group that received a booklet and lactation consultant counseling versus a group that received no prenatal breastfeeding education. The studies used for this review

had significant methodological flaws such as low sample size, selection bias, and attrition bias. The authors of the review recognized that because of the lack of rigor and the wide variety of intervention types included, study results are limited in generalizability. More rigorous research would provide stronger evidence than currently exists to guide the development and implementation of breastfeeding prenatal education.

One of the most rigorous studies reviewed was by Su et al. (2007). The study was completed with 450 healthy, pregnant women in Singapore. Prenatal breastfeeding education had a significantly positive effect on exclusive breastfeeding rates. The purpose of the randomized controlled trial was to assess the effectiveness of prenatal education versus postnatal lactation support versus routine care for exclusive breastfeeding. The antenatal education provided to participants included a video discussing the benefits of breastfeeding and demonstrating breastfeeding techniques, the receipt of a booklet, and 15-minute discussion with a lactation consultant. Women in the group who received prenatal education were significantly more likely to be exclusively breastfeeding at 6 weeks, 3 months, and 6 months postpartum. A prospective study of a convenience sample of 189 Canadian primiparous women also revealed that attendance in prenatal education was associated with exclusive breastfeeding until at least 2 months postpartum (Seminic, Loiselle, & Gottlieb, 2008).

### **Breastfeeding Self-Efficacy**

For women to increase their success in breastfeeding initiation and duration they must believe that they can breastfeed or have self-efficacy regarding this behaviour. Self-efficacy is derived from Bandura's Social Learning Theory. It is defined as, "a cognitive process of individuals' confidence in their perceived ability to regulate their motivation,

thought processes, emotional states, and social environment through a specific behavior” (Dennis, 1999, p. 196). An individual’s self-efficacy will have an effect on his/her behavior because it reflects one’s beliefs and confidence in his/her ability to perform a certain behavior. In relation to breastfeeding, a woman’s self-efficacy can affect her choice to initiate and continue to breastfeed. Breastfeeding self-efficacy is defined as a woman’s confidence in her ability to breastfeed (Noel-Weiss, Bassett, & Craig, 2006). Women with higher self-efficacy are more likely to initiate breastfeeding and be successful even in the event of challenges (Nichols, Schutte, Brown, Dennis, & Price, 2009).

A person’s achievement of self-efficacy is influenced by performance accomplishments, vicarious experiences, verbal persuasion, and physiological and affective states. Women who have previous successful breastfeeding experiences will be more likely to have greater breastfeeding self-efficacy (Dennis, 1999). However, for first time mothers or those who have not previously breastfed, it is important for health professionals to assist women to develop self-efficacy with breastfeeding. In providing prenatal breastfeeding education, health care professionals and laypersons have an opportunity to improve women’s breastfeeding self-efficacy. Each woman has a unique life experience and her breastfeeding self-efficacy can be dependant on many factors. It is important for health care professionals to assess each woman’s breastfeeding self-efficacy to and tailor prenatal breastfeeding education to meet her needs.

In a prospective, descriptive study Moore and Coty (2006) interviewed a sample of married, upper-middle class, American women to explore their attitudes and beliefs towards breastfeeding during the prenatal period and how their attitudes and beliefs

changed overtime. One of the themes identified from the prenatal focus group interviews was “uncertainty associated with breastfeeding.” The participants felt that they received a lack of information from health care providers and stories of negative experiences threatened their confidence to successfully breastfeed. Some mothers still expressed a lack of confidence in their ability to breastfeed in the postpartum period. Themes that emerged from the postpartum interviews included, “breastfeeding is both easy and difficult”, “importance and role of others who are supportive”, “receiving conflicting advice”, and “having validating experiences.” The authors concluded that health care professionals should provide pregnant women with information and experiences to build self-efficacy. Pregnant women need to be informed of potential breastfeeding problems and how to cope with these problems. They also need to be provided reassurance that they are supported and informed of available support services. By informing mothers of the availability of both peer and professional supports, mothers can find information and positive role models who can help them to gain the skills and confidence they need to breastfeed.

Other researchers have conducted research on self-efficacy and breastfeeding. Nichols et al. (2009) studied a small convenience sample of 90 pregnant women in Australia to assess the effect of a self-efficacy intervention on short-term breastfeeding outcomes. The women were randomly assigned to one of two groups. The intervention group was given a nine-page breastfeeding self-efficacy workbook to complete and the control group was given a five-page workbook on general parenting issues without the inclusion of breastfeeding content. Women in the intervention group had significantly higher breastfeeding self-efficacy scores than those in the control group. A positive

correlation was found between breastfeeding self-efficacy scores and the number of days the mother-infant dyad was breastfeeding. This would support that breastfeeding self-efficacy had a positive relationship to breastfeeding behavior. The results show promise for the use of breastfeeding self-efficacy interventions through prenatal education.

Prenatal breastfeeding education can provide opportunities to enhance breastfeeding self-efficacy. Noel-Weiss, Rupp, Cragg, Bassett, and Woodend (2006) assessed the outcomes of a 2.5-hour prenatal breastfeeding education workshop that was developed using Bandura's theory of self-efficacy and adult learning principles. There were 92 volunteer participants who were randomly assigned to the control or experimental group. Breastfeeding self-efficacy scores were significantly higher at 4 and 8 weeks postpartum in the experimental group. Though the sample size was too small to infer significance, breastfeeding duration rates were higher for the group that attended the workshop. The small sample used for this study included mostly well educated, middle to high income women who most likely were highly motivated to breastfeed. Further research is needed to assess the ideal timing of this workshop as well as its effectiveness in other populations.

### **Breastfeeding Problems**

Many women discontinue breastfeeding early in the postpartum period. There are numerous reasons both why women continue or might discontinue breastfeeding (Thulier, 2009). These reasons might relate to the woman, infant, or the mother-infant dyad and can be of a physical, psychological, or social nature. The reasons may also be because of a lack of partner or family support or even a lack of support in the community (Vari et al., 2013). As evidenced by the research presented, the effects of prenatal education on

breastfeeding behavior are mainly influential in the early weeks. In order to provide pregnant women with the tools necessary to successfully breastfeed they need to be informed of the potential difficulties they may encounter.

One of the most common reasons women discontinue breastfeeding is perceived insufficient milk supply (Ahluwalia, Morrow, & Hsia, 2005; Tenfelde, Zielinski, & Heldarisafa, 2013). It is also cited as a common reason why mothers supplement their infant's feeding with formula, thus losing the benefits of exclusive breastfeeding. Gatti (2008) reviewed the literature on maternal perceptions of insufficient milk supply in breastfeeding. She found that many women perceived that they had insufficient milk supply in the early days before milk supply is well established. Women most often based their perceptions on their baby's behavior; often interpreting that a baby who is crying, fussy, or wakes a lot is not getting enough milk. From the review the author concluded that prenatal breastfeeding education could serve to inform mothers of the factors that affect milk supply and that mothers should not make decisions on milk supply alone, but should seek help with this issue to determine the infant's nutritional status. Health care professionals could contribute to breastfeeding success by educating pregnant women and their partners about normal newborn behaviors, temperament, feeding cues, and how to know if their baby is getting enough breast milk.

Another common reason for women stopping breastfeeding is nipple pain (Ahluwalia et al., 2005). Morland-Schultz and Hill (2005) conducted a systematic review on the prevention of and therapies for nipple pain. Several studies they reviewed indicated that the education on proper positioning and latching were effective in preventing nipple pain. The authors concluded that pregnant women would benefit from comprehensive

education on breastfeeding positioning and latching in order to promote good practices and decrease risks of nipple pain. Pregnant women require information on the reality that nipple pain could occur and when nipple pain is not normal. They need to be aware of where to seek help should they experience nipple pain. Duffy et al. (1997) used an observer blind experimental design of 70 primiparous women in Australia to assess if a one hour antenatal education session on correct positioning and latching had an effect on reported nipple pain/trauma and breastfeeding rates. Although the convenience sample was small, extraneous variables were controlled, and random allocation to groups was completed. The intervention was found to be successful because women in the intervention group reported significantly less nipple pain and nipple trauma on postpartum days 1-4. Women in the experimental group were also significantly more likely to still be breastfeeding at 6 weeks postpartum. In the experimental group, 92% of participants were still breastfeeding at 6 weeks postpartum vs. 29% of participants in the control group.

### **Maternal Needs for Prenatal Breastfeeding Education**

The needs of pregnant women and their partners ought to be considered for the development of prenatal breastfeeding education. Assessment of a pregnant woman's knowledge level and breastfeeding self-efficacy is imperative. In the following section I will review research that has assessed maternal perceptions of the usefulness of information and education provided in the prenatal period.

Pregnant women have varying levels of breastfeeding knowledge and breastfeeding self-efficacy. Laanterä et al. (2012) used a descriptive study to assess breastfeeding confidence in pregnant women. Many pregnant women with low scores on

breastfeeding knowledge and those who thought breastfeeding was difficult had lower breastfeeding confidence scores. Therefore, the breastfeeding confidence scores would appear to be affected by knowledge level. The authors concluded that pregnant women require more information on the physiology of breastfeeding and how to manage breastfeeding problems.

Two qualitative studies indicated how mothers felt about the usefulness of breastfeeding prenatal education and information. Craig and Dietsch (2010) completed a small descriptive study of 10 participants who were first time mothers enrolled in a 2.5-hour prenatal breastfeeding education class in Australia. Themes from the study included scientification of breastfeeding, expectations, and stressors. Women viewed the education sessions as an opportunity to learn from someone knowledgeable on how to “do it right.” Women had fears about breastfeeding problems and milk insufficiency that led to feelings of inadequacy and a lack of self-efficacy. Though the authors concluded from the study that antenatal breastfeeding education is useful to increase knowledge for first time mothers, there was little evidence that the mothers found the education useful. Larger, more in depth qualitative studies are needed to explore how mothers feel about the usefulness of breastfeeding prenatal education.

A larger qualitative study by Cross-Barnet et al. (2012) explored mother’s breastfeeding care experience from the time their baby was born through their baby’s first year. This study used a convenience sample of 75 women enrolled in Women, Infants, and Children (WIC) Program in Maryland, USA. This program provides support for low-income women and families. Women in this study reported receiving minimal and inconsistent information around breastfeeding. Many responses provided by participants

demonstrated that they lacked knowledge of and support for breastfeeding. Consistent, up to date, breastfeeding information is required to be provided to pregnant women by health care professionals across disciplines to have the desired effect of increasing breastfeeding initiation and duration and providing the women with the necessary support.

Barnes et al. (2008) completed a study to assess the needs of first-time mothers in preparation for bringing home their new babies. Surveys were completed by telephone with 151 Australian mothers at 3 months postpartum. Focus groups were also conducted 7-9 months after clients began receiving community health services. Of the participants, 68.9% of the group received prenatal information from health professionals, and 55% received information from prenatal classes. There were 27.8% of the participants that reported that they needed more information on breastfeeding. Of the mothers surveyed, 24.5 % reported they had concerns about sleep and felt they were ill-prepared to cope with the lack of sleep they encountered related to having a new baby and breastfeeding. Some mothers (13.2%) felt that prenatal education classes focused too much on labor and delivery and not enough on the postnatal period. Mothers also identified that they wanted more information on where to get help from professionals or peers.

Fathers also require breastfeeding prenatal education to allow them to be supportive of breastfeeding and to participate in the breastfeeding experience. Mitchell-Box and Braun (2012) used qualitative methods to assess fathers' thoughts on breastfeeding and their implications for planning breastfeeding interventions. Fourteen male partners of Women, Infants, and Children (WIC) participants in Hawaii, USA were interviewed. Themes that emerged from the interviews were "making the decision", "making it work", "feeling left out", and "crossing the line". The men interviewed

indicated that they wanted to be a part of making decisions around infant feeding and that they wanted to engage in helping their partners to breastfeed. The authors concluded that the breastfeeding dyad should be made into a “triad” to encourage fathers to have more involvement in the breastfeeding process. The authors suggested that an intervention based on social cognitive theory and building self-efficacy of fathers could help to promote breastfeeding.

### **Summary of the literature**

As evidenced there is a wide variety of literature on prenatal breastfeeding education. In the systematic reviews, Lumbignon et al. (2012) and Chung et al. (2008) recognized that there were a significant number of studies that are methodologically flawed and thus might not provide practical results or results that can be generalized. More rigorously designed research around the effects of prenatal breastfeeding education and the qualities necessary for effective interventions would help provide the evidence required to improve breastfeeding experiences for women and their infants.

The literature does show some promise for prenatal breastfeeding education interventions that focus on improving maternal breastfeeding self-efficacy (Nichols et al., 2009; Noel-Weiss et al., 2006). These studies involved small samples and not all participants were randomly assigned to a control or intervention groups. The studies were descriptive and evaluated a specific intervention. These factors limit the generalization of the findings. Further research is required to assess the effectiveness of various interventions on maternal self-efficacy, and breastfeeding initiation and duration rates. Further research could also help to determine what type of interventions would serve to

increase breastfeeding knowledge as well as breastfeeding confidence in pregnant women.

### **Conceptual Framework**

Pregnant women could benefit from breastfeeding education that would inform these women of the benefits of breastfeeding and the risks of formula feeding in order to make an informed decision about how they want to feed their baby. However, prenatal breastfeeding education must be more than this and prepare women for some of the challenges they might encounter when they breastfeed their infants or how to prevent some problems that might arise. Breastfeeding can be challenging and present a number of difficulties. Pregnant women and their partners need to learn how they can work together to support one another to make breastfeeding work. Through prenatal breastfeeding education pregnant women can see how to breastfeed, learn how to breastfeed, and learn ways to deal with challenges they may encounter on their breastfeeding journey. Prenatal education sessions provide opportunities for pregnant women to gain confidence in their ability to breastfeed.

As demonstrated by the literature review, a woman's breastfeeding self-efficacy can have an impact on her decision to breastfeed and her breastfeeding outcomes. Thus, self-efficacy theory was used to guide the development of a prenatal breastfeeding education resource for use by public health nurses. Self-efficacy theory can be used as part of the nursing process to guide the care provided to pregnant and breastfeeding women from the prenatal period through to the postnatal period and beyond.

### **Self-efficacy Theory**

Self-efficacy theory was derived from Bandura's Social Learning Theory, later termed Social Cognitive Theory (McKenzie, Neiger, & Thackeray, 2009). Self-efficacy is defined as, "a cognitive process of individuals' confidence in their perceived ability to regulate their motivation, thought processes, emotional states, and social environment through a specific behavior," (Dennis, 1999, p. 196). Self-efficacy and social cognitive theory is based upon a number of assumptions about human behavior and these assumptions have been supported by research in a variety of situations. One of the assumptions upon which the theory is based is that a person must believe that he/she can achieve the desired outcomes by his/her actions. A second assumption is that a person who believes in his/her abilities to master a certain behavior or cope with a certain situation will engage in that behavior. A third assumption is that a person who believes that a certain situation will exceed their coping skills will avoid that situation (Bandura, 1977).

### **Development of Self-Efficacy Expectations**

An individual will have both efficacy expectations and outcome expectations. Efficacy expectations are the belief that the individual can perform a certain behavior to achieve the desired outcome. Outcome expectations are the individual's belief that a certain behavior can achieve certain outcomes (Bandura, 1977; McKenzie et al., 2009). In relation to breastfeeding, a mother's efficacy expectation would be her belief that she is able to breastfeed. Her outcome expectation is that the breastfeeding will be successful and she will achieve the benefits she wishes to receive such as health and well being for herself and her baby.

Self-efficacy theory proposes that interventions can serve to strengthen efficacy expectations (Bandura, 1977). Prenatal breastfeeding education should affect both types of expectations. Breastfeeding education must convince mothers that the breastfeeding outcomes are worthy of the effort required to breastfeed. As postulated by the theory, “efficacy expectations will determine how much effort a person will expend and how long they will persist in the face of obstacles and aversive experiences,”(Bandura, 1977, p.194). Not all breastfeeding mothers face great obstacles on the road to breastfeeding success, but many do. Increasing breastfeeding self-efficacy will give the mother a better chance of overcoming challenges and reaching her breastfeeding goals.

It is possible to increase self-efficacy as has been evidenced in increasing individual self-efficacy scores. Development of self-efficacy expectations occurs through influence of four sources: performance accomplishments, vicarious experiences, verbal persuasion, and through emotional arousal (McKenzie et al., 2009). Each influence will be discussed in relation to how prenatal breastfeeding education can serve to promote breastfeeding self-efficacy.

### **Performance accomplishments.**

Performance accomplishments are the most significant influence on self-efficacy. Successful performances of a behavior have been found to increase a person’s self-efficacy, whereas failed attempts will decrease a person’s self-efficacy (Dennis, 1999). For primiparous women with no previous personal breastfeeding experience there is no performance accomplishments directly related to breastfeeding to draw upon. Therefore, for first-time mothers, the importance of early postnatal intervention is imperative to encouraging breastfeeding self-efficacy through a positive performance accomplishment.

Women who have had past breastfeeding experience, might have developed breastfeeding self-efficacy or may have had an experience that was detrimental to breastfeeding self-efficacy. During prenatal assessment visits, it is important that nurses explore any breastfeeding history a pregnant woman might have and to explore how her experience has affected her belief in her self-efficacy to breastfeed.

Education during the prenatal period could help to teach women how to breastfeed successfully. A simulated breastfeeding experience is one example of how to help pregnant women to learn how to breastfeeding skills. Noel-Weiss, Bassett, and Cragg (2006) used dolls to teach hands-on breastfeeding skills to pregnant women. The use of dolls and pillows for support to demonstrate a variety of breastfeeding positions could be effective in helping new mothers learn to breastfeed.

### **Vicarious experience.**

Observational learning can also have an impact on self-efficacy. Observation of another person having success with a given behavior will allow an individual to believe they too could succeed with a behavior if they are persistent and put in the effort required (Bandura, 1977). Often the early days of breastfeeding are challenging and sometimes difficulties experienced can have a negative impact on one's self-efficacy. Fortunately, what a woman has learned through observational learning couple with effective coping strategies could compensate for a difficult experience (Dennis, 1999).

Women who have positive role models such as family members, friends, or peers who have breastfed that serve as good examples could help women believe they too can succeed with breastfeeding. Not all women have positive role models for breastfeeding in their social networks. There are many avenues of peer support available today. Pregnant

women can be informed of breastfeeding peer support services during their prenatal breastfeeding education. A woman who could share her breastfeeding story with a group of pregnant women and their partners could also serve to impart a vicarious experience.

Other individual's performances that are recorded or in print can also have an impact on development of self-efficacy (Dennis, 1999). Use of breastfeeding videos can prove to be useful for observational learning (Noel-Weiss et al., 2006; Su et al., 2009). Videos can be shown to demonstrate infant feeding cues as well as positioning, latching, and drinking at the breast. When pregnant women see other women successfully latch their baby to the breast and breastfeed, they feel enabled to do the same. Dr. Jack Newman's *Visual Guide to Breastfeeding* is a resource that all public health nurses in the Central Health region have in their offices for use during prenatal education to supplement the resource that has been developed for this practicum. This video resource could be used by public health nurses as a supplement to the prenatal breastfeeding education modules that I helped to develop.

### **Verbal persuasion.**

Individuals could be persuaded that they have the ability to succeed. The more credible the person providing the verbal persuasion, the greater their ability to affect one's self efficacy (Dennis, 1999). In regards to breastfeeding, what makes a person most credible? Is it education or experience? Dennis' work (Dennis, 2002b; Dennis, Hodnett, Gallop, & Chalmers, 2002) has demonstrated that peer support can be just as, or more effective, in improving breastfeeding rates than professional support. Both peer and professional support can be beneficial increasing breastfeeding rates.

To persuade pregnant women to breastfeed, health care professionals need to work as a team to provide consistent, up-to-date information to pregnant and breastfeeding women to encourage them to initiate breastfeeding and to meet their breastfeeding goals. Responses from health care professionals can be powerful. Positive responses can serve to increase self-efficacy, where as inappropriate or exaggerated responses can limit the credibility of the persuader and negatively affect self-efficacy (Noel-Weiss et al., 2006). The information provided by physicians, nurse practitioners, and nurses can be very powerful and their words and actions can influence women's choices and behaviors (Kjelland et al., 2014). Health care professionals should try to use language that will be empowering for women (Noel-Weiss et al., 2006).

### **Emotional arousal**

Perceived stressful situations can arouse a heightened emotional response. Such responses can produce anxiety that can have a negative effect on self-efficacy (Bandura, 1977). In any situation individuals can experience fear, fatigue, or pain that they might view as signs of inability. Prenatal breastfeeding education could help expectant parents to learn about what to expect and how to cope with possible feelings of fear, fatigue, or pain. Expectant parents can be taught about how they can plan ahead and arrange support for them in the early days (Noel-Weiss et al., 2006).

### **Methods and Activities**

The instructional design model by Morrison, Ross, and Kemp (2007) was used to guide the development of the breastfeeding education modules for this project. The Instructional design process allows program planners to identify a problem and assess

learner needs. Program planners can then proceed to design applicable instruction to address the problem by focusing on the needs of the learner (Morrison et al., 2007).

The instructional design model used is made up of four interrelated components (Morrison et al., 2007). Those components are learners, objectives, methods, and evaluation. Within the design model there are also nine elements including; instructional problems, learner and context, task analysis, instructional objectives, content sequencing, instructional strategies, designing the message, development of the instruction, and evaluation instruments.

### **Learner Characteristics**

The instructional design model identifies that it is important to focus instructional design on the needs of the learner (Morrison et al., 2007). The priority population is pregnant women and their partners and/or their support persons. Each pregnant woman and her partner are unique. A woman's life experiences as well as cultural and religious beliefs will affect her thoughts and feelings about breastfeeding. Some women have never seen another woman breastfeed and others come from strong breastfeeding families, communities, or cultures where they have lots of exposure to and support for breastfeeding (Children's Women's Health Centre of British Columbia-Provincial Health Services Authority & Vancouver Coastal Health Authority, 2003). It is important for the public health nurse to assess the characteristics of each individual client in order to effectively plan and deliver client-centered breastfeeding prenatal education.

Public health nurses working in rural NL work with clients who vary in terms of their experiences and education level. Public health nurses should engage clients in the learning process by allowing them to be active participants in planning their learning

experience. Education sessions should be adapted based on the experience and education level of the client(s) particularly for the provision of one-on-one prenatal education.

When planning and implementing group education sessions, public health nurses should incorporate the principles of adult learning. Adult learners possess unique characteristics that affect how they learn. Adults enjoy working in groups and interacting socially (Morrison et al., 2007). A variety of instructional techniques including small-group activities that allow for group interaction are used to facilitate learning. Public health nurses could facilitate group discussion and interaction by creating an environment of trust and mutual respect between the group members and the public health nurse. (Children's Women's Health Centre of British Columbia-Provincial Health Services Authority & Vancouver Coastal Health Authority, 2003)

### **Development of Objectives and Methods**

In order to begin program planning, a clear identification of the problem and priority population is necessary. This goal is often achieved through a needs assessment. A formal needs assessment was not conducted to guide this practicum. Public health nurses, lactation consultants, the parent and child healthy coordinator, and public health nursing managers had previously identified the need for a project like the current one that would provide accurate, consistent, and up-to-date information on breastfeeding to pregnant women and their partners.

For several years, public health nurses working in Central Health have used four standard PowerPoint© presentations to guide their prenatal education sessions. These presentations addressed: causes for concern during pregnancy, signs of labor, healthy birthing, and parenting. There has been no standard breastfeeding PowerPoint© presentation to date. Each public health nurse was using his/her own compilation of recommended resources to educate pregnant women and their partners about breastfeeding. Through informal discussions, inservices, and group supervision meetings, it was recognized that breastfeeding education for prenatal clients was not being provided consistently across the Central region. Public health nurses began to ask the regional lactation consultant and the parent and child health coordinator to develop a breastfeeding PowerPoint© presentation for use by all public health nurses within the Central region. Management approval for the development of the resource was given prior to the beginning of this practicum.

In January 2014 I had a timely conversation with Sandra Carpenter, Central Health's parent-child health coordinator, who informed me that she was about to begin the development of prenatal breastfeeding education modules for use by public health nurses who provide prenatal education. Ms. Carpenter as well as one of Central Health's two lactation consultants, Amy Melendy, and Provincial Breastfeeding Consultant and Chair of Baby-Friendly Council of Newfoundland and Labrador, Janet Murphy-Goodridge, had recently formed a group to begin work on the project. The working groups objective was to develop a consistent format for the delivery of current prenatal education messages to our population that will reflect the Baby-Friendly messages of the

Breastfeeding Committee of Canada. Ms. Carpenter welcomed my offer to contribute and invited me to join the working group.

Our groups first meeting was conducted via Go-to meeting on Jan. 23<sup>rd</sup>, 2014. We had received permission from the New Brunswick Baby-Friendly Advisory Committee to use their Prenatal Breastfeeding Class: The New Brunswick Curriculum (2014). During this meeting we decided that we would use this resource as a reference to guide in creating our own modules for prenatal breastfeeding education. We began to review the New Brunswick resource and brainstormed ideas on how we could adapt it for use within Central Health. After program objectives were formulated, a task analysis was completed to identify appropriate content for the modules. This was completed in consultation with the working group members who served as subject matter experts. In an effort to guide the task analysis, an overall program goal and objectives were formulated. The objectives then served as a guide to forming the instructional content. Objectives for each of the 4 PowerPoint© presentations also guided the content of each presentation. These objectives are listed in the speaker's notes on the title slide of each PowerPoint© presentation (See Appendix A).

After our working group was formed I completed a literature review to help to determine the needs of the priority population, i.e., pregnant women and their partners. The purpose of the review was to examine the evidence to support prenatal breastfeeding education and to discuss how breastfeeding prenatal education can serve to increase breastfeeding self-efficacy and in turn increase the chances of a successful breastfeeding experience. Evidence from the review identified the importance of self-efficacy for breastfeeding, thus self-efficacy theory was chosen as the framework to guide the project.

Evidence reviewed in the literature also helped in the development of the content for the prenatal breastfeeding education modules.

On Feb. 18<sup>th</sup>, 2014 we held our second Go-to meeting to review our discussion points from the previous meetings and review the follow-up completed by group members. Initially we felt we would need two PowerPoint© presentations to meet our objectives. The first presentation was given the title, *#breastfeedingisamazing*. I was given the lead on the second PowerPoint© presentation to complete for this practicum focusing on breastfeeding at home and breastfeeding support. On March 24<sup>th</sup>, 2014 our group met again via Go-to meeting and I presented the first draft of my work that was titled *Breastfeeding at home*. We reviewed the content of the slides and as a group chose photographs to use for each slide. We felt that the photographs we selected were very powerful as they allow pregnant women to get an opportunity to see the powerful bond created with breastfeeding as well as breastfeeding mothers in a variety of local settings. Information is presented using visuals and activities to help participants to gain essential knowledge. Pictures and graphics can facilitate learning (Morrison et al., 2007). Some pictures and graphics are used to facilitate instruction and others are used for decorative purposes. The decorative pictures depict breastfeeding families and serve to demonstrate the normalcy of breastfeeding anytime and anywhere. Some of the graphics used came from New Brunswick's PowerPoint© presentation. Other graphics used were of Newfoundland and Labrador women and families. Janet Murphy-Goodridge and Sandra Carpenter contributed these photographs. Consent for use of the photographs was obtained from the persons in the photographs and the photographers for their use.

At our next meeting on April 9<sup>th</sup>, 2014 we reviewed the content of the presentations and decided that we would need 4 separate presentations to be able to cover the content effectively. It was decided that my work on *Breastfeeding at Home* would be divided into two presentations, the second one titled, *Breastfeeding Looking After Me*. We felt that we could help pregnant women to develop breastfeeding self-efficacy through hands on demonstrations and videos of positioning and latching, therefore we created a module titled *Latching*.

We had our first all day face-to-face meeting in Gander on May 15<sup>th</sup>, 2014. During our face-to-face meeting, we reviewed and compared all four prenatal breastfeeding education modules to ensure that information was comprehensive and was organized in an efficient manner. We reviewed current resources and identified and discussed where to insert videos, activities, and demonstrations. Group activities were used to facilitate learning. Interaction with participants through public health nurse-led discussions will be used to allow participants to express their thoughts and concerns and to ask any questions. Discussions will be group-centered to allow participants to identify and express their own feelings about breastfeeding. Activities and games are used both as means of instruction and evaluation. These strategies will allow participants to recall and apply the information they have learned during the prenatal education session. These strategies will serve as an interactive learning approach that will allow participants to gain knowledge and build self-efficacy.

After this meeting each group member was to review the modules independently and offer feedback to the group at our next meeting. Appropriate content sequencing ensures that the content is presented so that the learner can most easily achieve learning

objectives (Morrison et al., 2007). During group meetings, the sequencing of the content and activities was reviewed and revised many times. Both learning related and concept related sequencing were considered in the development of the prenatal breastfeeding education modules.

Our final face-to-face meeting was held on June 24<sup>th</sup>, with Sandra Carpenter, Amy Melendy, and myself present. Janet Murphy Goodridge joined via teleconference. We reviewed the latest draft and made suggestions for revisions. We changed the title of *Breastfeeding at Home* to *Breastfeeding: Keeping it Going*, which seemed to be a better fit for the content. After feedback and suggestions were received from the group I completed the edits and revisions for each presentation. The final modules have been sent to the group for review.

### **Evaluation**

Evaluation is the process of measurement used to assess the effectiveness of a program or intervention. While it is important to evaluate at the end of an intervention, it is recognized that evaluation must begin right at the beginning of program planning and continue through to the end of program implementation (Morrison et al., 2007). Central Health has supported the development and use of the prenatal breastfeeding education modules. The organization has contributed resources to the project; therefore, it is important that health outcomes be measured. Managers responsible for health promotion will want to see that the program is serving to promote and improve breastfeeding initiation rates within the Central Health region. As program planners, our working group members are also key stakeholders with interest in the evaluation results because the results could be used to assist in revising and improving the program for

future use. Evaluation of the project is also important as other health regions in NL may use the resource.

Formative evaluation is used to inform program planners and key stakeholders of how well the program is serving to meet objectives as planning progresses (Morrison, Ross, and Kemp, 2007). This type of evaluation has been used throughout the development process to allow our working group to make changes and improvements to the prenatal breastfeeding education modules before it was finalized.

In the near future I will pilot the prenatal breastfeeding education modules at a rural site, and later a public health nurse working in a larger regional site will pilot the modules in that site. Feedback from these pilots will be used to make revisions as needed. Public health nurses will receive a session at an upcoming fall Inservice regarding the use of the new prenatal breastfeeding education modules.

### **Advanced Nursing Competencies**

Competencies are the specific knowledge, skills, judgment, and personal attributes required for a registered nurse to practice safely and ethically in a designated role and setting (CNA, 2005). Core competencies for advanced nursing practice are based on an appropriate depth, breadth and range of nursing knowledge, theory and research, enhanced by clinical experience. The CNA Advanced Practice Nursing National Framework (2008) identifies advanced nursing competencies under four categories: clinical, research, leadership, and consultation and collaboration. Each category of these competencies was employed during this practicum in the development of the prenatal breastfeeding education modules.

## **Clinical Competencies**

Evidence-informed decision-making is critical to advanced nursing care.

Advanced practice nurses use experience, theory, and research to work with clients and the healthcare team to provide holistic care to clients, groups, and communities (CNA, 2008). I have direct client interactions with prenatal clients from early pregnancy through to the postnatal period and beyond. I use the nursing process to identify the needs of the client, provide breastfeeding education, breastfeeding support, and to reevaluate and intervene as necessary. Based on these experiences I have gained a great deal of experiential knowledge about breastfeeding that has helped with the current project.

It is the role of the public health nurse to complete a thorough prenatal assessment to identify the education needs with the woman and her partner. During prenatal visits I explore factors that can affect a woman's breastfeeding self-efficacy. These factors can include past breastfeeding experiences, stories they have heard about breastfeeding, exposure to other women breastfeeding, social support, and her breastfeeding goals. I also consider the determinants of health for each individual client. By completing a detailed individual assessment I can plan and use the available resources to tailor prenatal breastfeeding education based on the client's needs. Prenatal breastfeeding education can be provided to a client(s) through one-on-one or group teaching.

The time from the prenatal period to becoming a breastfeeding mother is a time of transition for mothers and their families. Overtime, the breastfeeding relationship changes and mothers and their families will continue to require ongoing support. As a public health nurse I continue to offer support to mothers, coaching on how to successfully breastfeed, and how to deal with difficult situations in the postnatal period. During this

practicum project I considered the determinants of health and their effect on breastfeeding in developing education modules that encourage pregnant women to initiate and continue breastfeeding.

### **Research Competencies**

Generating, synthesizing and using research evidence is central to advanced nursing practice (CNA, 2008). Review of current research was instrumental in the development of the prenatal breastfeeding education modules. The literature review influenced the choice of social learning theory and breastfeeding self-efficacy as the framework to guide this practicum. This framework is not only supported by the research on the positive effects of self-efficacy on breastfeeding success but was a good fit with my personal beliefs and my experiential knowledge from my nursing practice.

The review of current research literature also greatly influenced the content of the prenatal breastfeeding education resource. Traditionally, prenatal breastfeeding education provided at Central Health focused on informing clients of the benefits of breastfeeding and very little on the mechanics of breastfeeding and potential problems. Many of the studies reviewed found that women received inconsistent messages from health care professionals about breastfeeding (Barnes et al., 2008; Cross-Barnet et al., 2012; Dennis, 2002a; Hauk et al., 2010). Health care professionals across all disciplines and sites (from hospital to community health care) need to provide accurate, up-to-date, and consistent breastfeeding information. Establishment of multidisciplinary committees for breastfeeding or the BFI can provide opportunities for health care professionals to use a team approach for breastfeeding education.

The literature supports the fact that breastfeeding behavior is dependant on a number of factors including medical interventions during labor and delivery, sociodemographic factors, and social support (Kjelland et al., 2014). Given the multiple factors that can affect breastfeeding behavior, it would be unreasonable to believe that a single intervention will increase breastfeeding initiation and duration rates. A review of evidence to support breastfeeding promotion interventions by Chung, Raman, Trikalinos, Lau, and Ip (2008) found that a combination of prenatal and postnatal interventions had a greater effect than a single intervention on breastfeeding duration. Prenatal breastfeeding education is the beginning of breastfeeding support. Support interventions are required to be available from the prenatal period through to the postnatal period and beyond in order to have the desired effect. Support and information provided by both peers and professionals should be available for pregnant women and breastfeeding mothers.

The review of the research literature found that clients need to learn how to breastfeed and be aware of potential problems and how to deal with them in order to develop confidence in their ability to breastfeeding. This confidence is central to breastfeeding self-efficacy and successful breastfeeding. Each pregnant woman can have a different level of breastfeeding knowledge and self-efficacy (Laanterä et al., 2012). Health care professionals such as public health nurses must recognize how a woman's breastfeeding self-efficacy can affect her ability to breastfeed. During prenatal visits, health care professionals should assess a pregnant woman's breastfeeding self-efficacy and learning needs so prenatal breastfeeding education can be provided to suit her needs.

**Leadership Competencies**

The baby-friendly initiative is designed to promote, protect, and support breastfeeding (WHO and UNICEF, 2009). Registered Nurses including public health nurses need to be leaders within their organization to work toward the achievement of baby-friendly status for our health care institutions and community services. By making our facilities and practices more “baby-friendly” we will be better able to provide pregnant women and their families with the surroundings, support, and services they require to be successful in achieving their breastfeeding goals. In completing this practicum, I was able to demonstrate leadership in making our organization one step closer to becoming baby-friendly. I also acted in a leadership role among my public health nurses peers by representing public health nurses in the working group to develop the prenatal breastfeeding education modules.

**Consultation and Collaboration Competencies**

Many stakeholders are involved in the promotion, protection, and support of breastfeeding. These stakeholders include public health nurses, lactation consultants, obstetrical nurses and management staff, public health nurse managers, healthy baby clubs, La Leche League Groups, physicians, and peer supporters. In order for breastfeeding support interventions to be successful, a great deal of collaboration is necessary. Referrals to public health nurses for prenatal education comes from clients, physicians, or other stakeholders such as healthy baby clubs. Ongoing consultations with the health care team are necessary to ensure the clients breastfeeding education needs are met. In my practice, I maintain a close relationship with stakeholders in my district area and offer information regularly on the services I provide that are available to their clients.

Public health nurses in Central Health have been asking for a prenatal breastfeeding presentation session plan in PowerPoint format for many years. Each public health nurse within the region has been developing and teaching aspects of health teaching somewhat differently. Therefore, the need for this resource was evident. Low breastfeeding initiation rates within Central and Newfoundland and Labrador also point to a need for better prenatal breastfeeding education.

The development of the prenatal breastfeeding education resources was part of a collaborative effort. A team was formed to work together to develop the resource. As part of this practicum, I initially developed two of four PowerPoint presentations, *Breastfeeding: Keeping it Going* and *Breastfeeding: Looking After Me*, and contributed work to the other presentations in consultation with the group. These presentations were reviewed by the group and compared with the other presentations to ensure the information flowed well. We edited the sequencing of slides and information to ensure the information was presented in a way that allowed for learning.

### **Conclusion**

Prenatal breastfeeding education can prove to increase a pregnant woman's breastfeeding knowledge and confidence in her ability to breastfeed. It can provide an opportunity to let pregnant women and their partners learn that breastfeeding is beneficial for both Mom and baby. It also allows them to learn that breastfeeding is not always easy. It can be challenging. By receiving prenatal breastfeeding education a woman could learn how to breastfeed and how to cope with the challenges she may face in her breastfeeding journey. The provision of prenatal breastfeeding education, guided by use of the prenatal breastfeeding education modules, have the potential to improve breastfeeding initiation

rates and short-term duration rates. Breastfeeding support should begin with prenatal breastfeeding education and continued through the perinatal and postnatal periods. It is this continued support provided by a variety of disciplines that will lead to further breastfeeding success for individuals, families, and communities.

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**APPENDIX A**