Screening for Mothers at Risk to Wean Early and Referral to a Lactation Support Person for Prolonging Breastfeeding

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ABSTRACT

This project trialed the breastfeeding control (BFC) scale of the Breastfeeding Attrition Prediction Tool (BAPT) to identify mothers at high risk to wean early and to determine the effectiveness of a prenatal consult with a lactation support person on breastfeeding duration and intensity. Results indicated that mothers with lower scores on the BAPT-BFC scale showed a trend for decreased breastfeeding intensity at 8 weeks postpartum. Experimental and control groups had similar BAPT-BFC scores and breastfeeding intensity at 8 weeks. Overall, women who had low BAPT-BFC scores tended to be breastfeeding less at 8 weeks compared with mothers who scored very high. This finding would suggest the BAPT-BFC is a helpful tool for predicting breastfeeding success.

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According to the Centers for Disease Control and Prevention (CDC, 2016), the percentage of infants who start out breastfeeding is at an all-time high of 81.1%, and 51.8% continue breastfeeding at least part-time through 6 months. Despite this encouraging trend, the 2005–2007 Infant Feeding Practices Study II conducted by the CDC found that 85% of women intend to breastfeed exclusively for at least 3 months, but 15% stop breastfeeding by the time they are discharged from the hospital. Only 32.4% of women who intend to breastfeed reach their duration goal (Perrine, Scanlon, Li, Odom, & Grummer-Strawn, 2012). This is unfortunate because it means that many mothers and

their babies are not benefiting from the numerous advantages that breastfeeding provides for infants, mothers, and society.

There are longstanding recommendations that support breastfeeding as an excellent, cost-effective,

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and safe method for mothers to feed their babies. The American Academy of Pediatrics (Meek & Hatcher, 2017) recommends that infants be exclusively breastfed for the first 6 months of life and continue to be breastfed along with other foods for a year or longer, if desired. Health-care professionals have a pivotal role in helping mothers who wish to breastfeed reach their goals, and they can be better equipped to provide appropriate guidance by identifying common barriers to breastfeeding success and implementing evidence-based education techniques.

Project Goals

The main goal of this project was to help mothers reach their breastfeeding goals by giving prenatal clinics tools and guidance with regards to breastfeeding education. It sought to answer two key questions with the aim to fulfill this goal. First, how can prenatal care providers identify women at high risk to not meet their breastfeeding goals? Second, does prenatal breastfeeding education provided by a lactation support person prolong breastfeeding duration and increase breastfeeding intensity? This project utilized the Breastfeeding Attrition Prediction Tool–Breastfeeding Control (BAPT-BFC) as a screening tool to identify mothers at high risk to not meet their breastfeeding goal, and it trialed a referral procedure to a lactation expert for a one-to-one breastfeeding education session.

The project goal reflects an understanding that increased emphasis is being placed on prenatal care providers to incorporate breastfeeding education into their routine care, but this expectation can present a difficult challenge in practice. Prenatal providers are in need of practical methods that can help them realistically implement evidence-based practice into busy clinics that will have meaningful results, and part of this process can involve adopting an interdisciplinary approach to education by referring high-risk patients to a lactation specialist for individualized education sessions. This project can be seen as an attempt to help focus resources and transition lactation counseling into a primary prevention service while supporting prenatal care providers in their goal to increase prenatal breastfeeding education.

Operational Definition of Terms

Exclusive breastfeeding was defined as infants receiving only breastmilk, either from the breast or expressed, and no artificial milk or solids (Bonuck et al., 2014). Partial breastfeeding includes infants who receive breastmilk along with other forms of milk or solids (Cadwell, 2002). The use of vitamin drops and water intake was not assessed (Bonuck, Trombley, Freeman, & McKee, 2005). Weaning was defined as not having breastfed for 48 hours and not intending to breastfeed again (Cronenwett et al., 1992). The initiation rate of breastfeeding was defined as having tried breastfeeding or expressing milk at least once during the postpartum period (Bonuck et al., 2014). Mothers were considered “high risk” for early cessation of breastfeeding if their BAPT-BFC was less than or equal to 40.

LITERATURE REVIEW

It is the belief of the authors that key components of providing quality breastfeeding education include understanding the benefits of breastfeeding, the different factors that can impact breastfeeding duration, and knowing evidence-based methods of education delivery. A thorough search of the following databases was completed for an up-to-date review of the literature between 2005 and 2015: CINAHL, PsychINFO, MEDLINE, and PubMed. The following search terms and phrases were used individually and in combination: prenatal, education, lactation consultant, certified lactation counselor, breastfeeding, benefits, peer counselor, and duration. Only articles that were in English and peer reviewed were included.

Benefits of Breastfeeding

Breastfeeding has long been established as the optimal feeding method for infants due to the many benefits it can provide for both a mother and her child. Breastfed infants experience less diarrhea and fewer infections, and they also may have a reduced risk of developing allergies, obesity, high blood pressure, and high cholesterol (Stahl, 2013). Several studies and a meta-analysis have also found a link between breastfeeding and a significant reduction in sudden infant death syndrome (SIDS; Hauck, Thompson, Tanabe, Moon, & Vennemann, 2011; Vennemann et al., 2009).

Mothers also receive benefits from breastfeeding, including a reduced risk of breast and ovarian cancer and diabetes (Godfrey & Meyer, 2009). Breastfeeding may help mothers return to their prepregnancy weight (McClure, Catov, Ness, & Schwarz, 2012) and

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reduce their risk of hypertension (Groer, Jevitt, Sahebzamani, Beckstead, & Keefe, 2013) and heart disease (Godfrey & Lawrence, 2010). In addition to physiological benefits, breastfeeding has been found to be associated with a decreased risk of postpartum depression (Godfrey & Lawrence, 2010; Hamdan & Tamim, 2012), lower stress levels (Groer et al., 2013), and enhanced infant–maternal bonding (Kim et al., 2011). Some women may perceive breastfeeding to be more beneficial because it is natural, convenient, cheap, and suppresses ovulation (Li & Qiu, 2007).

Factors That Impact Duration of Breastfeeding

There are many variables that can impact whether or not a mother is able to fulfill her breastfeeding goals, and it is important for health-care providers to be aware of the barriers breastfeeding mothers may face. Also, it is important to identify barriers that may be surmountable versus those that are not.

Breastfeeding Education

Health-care providers can play an important role in providing breastfeeding mothers with education to help them meet their breastfeeding goals. Many studies have been conducted to explore various education techniques and their effectiveness on increasing breastfeeding duration. The Affordable Care Act (ACA), passed in 2010, also recognizes the importance of breastfeeding education and support. The ACA requires that insurance companies cover “comprehensive lactation support and counseling, by a trained provider during pregnancy and/or in the postpartum period” (U.S. Department of Health and Human Services, 2014, para 5).

Numerous methods and their efficacy have been explored for providing breastfeeding education, but this project focused on prenatal breastfeeding education. A systematic review of the topic revealed that there is no clear consensus about how and when prenatal breastfeeding education should be provided (Lumbiganon et al., 2012). Possibilities include prenatal interactive computer programs (Edwards, Bickmore, Jenkins, Foley, & Manjourides, 2013; Huang et al., 2007; Pate, 2009), group classes (Artieta-Pinedo et al., 2013), consults with lactation experts (Bass, Rogers, & Baker, 2014; Bonuck et al., 2014), provider education (Bonuck et al., 2014), and peer support (Campbell, Wan, Speck, & Hartig, 2014; Kaunonen, Hannula, & Tarkka, 2012). Some studies show that there should be an increased emphasis placed on prenatal breastfeeding education for mothers who have nonmodifiable risk factors for

shorter breastfeeding durations (Lin, Kuo, Lin, & Chang, 2008).

METHODS

Design

This project was a cohort study that utilized a randomized controlled trial design. Participants were randomly assigned to either the control group or the experimental group. Neither the primary investigator (PI) nor the lactation support persons were blinded with regard to which treatment group participants were in. Only the PI had access to the completed questionnaires or postpartum feeding data.

Setting and Sample Population

Participants were recruited from two large OB/GYN clinics in the northwest United States. Both clinics served primarily middle-class Caucasian women. To be included in the study, participants must speak English, be 18 years or older, have expressed a desire to breastfeed, and have an uncomplicated pregnancy as determined by their provider. Other factors that excluded participation or prompted removal from the data analysis included the chronic use of medications classified as L5 (hazardous for breastfeeding infants) by Hale and Rowe (2014), multiple gestation, HIV-positive status, birth prior to 37 weeks' gestation, prolonged hospitalization following birth of greater than 6 days, and maternal or infant factors that would preclude breastfeeding.

Institutional Review Board Approval

This study was approved by Montana State University's Institutional Review Board.

Measures and Instruments

The BAPT is comprised of four subscales: positive breastfeeding sentiment (PBS), negative breastfeeding sentiment (NBS), social and professional support (SPS), and BFC. This study only used the BAPT-BFC scale, which measured how likely a mother was to

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need additional support in order to meet her breastfeeding goals by quantifying a mother's perceived ability to be successful at breastfeeding; a low score indicated that she was at a higher risk to not reach her breastfeeding goal. There are 10 items in the BAPT-BFC scale. The reliability of the BFC section was reported by Janke (1994) to have a Cronbach's alpha of 0.81, and the predictive validity was reported to be statistically significant for infant feeding at 8 weeks with $p = .017$. Other studies have used modified versions of the BAPT as well with good reliability and validity and have reported reliabilities for the BAPT-BFC scale ranging from 0.82 to 0.868 (Dick et al., 2002; Evans, Dick, Lewallen, & Jeffrey, 2004; Gill, Reifsnider, Lucke, & Mann, 2007). Evans et al. (2004) reported a Cronbach's alpha of 0.868 for the BFC section when the BAPT was administered prenatally, and similarly Dick et al. (2002) reported a Cronbach's alpha of 0.864 for in hospital administration of the BFC. Gill et al. (2007) reduced the BFC section to seven questions and reported that the Cronbach's alpha was 0.82 when administered in the third trimester. Some research has found the BAPT tool is less effective when used to measure attrition in mothers who independently plan to take prenatal courses, but it was determined that eliminating all mothers who had attended or planned to attend a prenatal class would make the sample size too small in this study (Evans et al., 2004).

The full BAPT tool is 94 questions and time consuming to score, but the BFC section of the BAPT was a short and efficient means to quickly assess if a mother may need further interventions to help her meet her breastfeeding goals. Each question uses a 6-point Likert-type scale, and the BFC section was scored by summing all of the responses. The higher the score, the greater the sense of control a woman has about her ability to be successful at breastfeeding.

The Index of Breastfeeding Status (IBS) was used to measure breastfeeding intensity in the hospital and at 8 weeks postpartum. The IBS is a 7-point ordinal scale that was developed by the Interagency Group for Breastfeeding to help standardize how breastfeeding intensity is measured in research. Mothers were asked to recall how their infant was fed in the last week, and give an IBS rating using the following scale: (a) 100% breastmilk, (b) >80% breastmilk, with <20% artificial milk or solids, (c) 50% to 80% breastmilk, (d) 50% breastmilk, (e) 20% to 50% breastmilk, (f) <20% breastmilk, and (g) 100% artificial milk and/or solids (Cadwell, 2002). Chart reviews were used to gather data on hospital IBS rates, birth

mode, and birth weight. The IBS was again used during follow-up interviews at 8 weeks.

Eight weeks was chosen as the point to do the postpartum interviews because Kronborg and Væth (2009) found that over half of the mothers who weaned before 4 months did so by 5 weeks postpartum, and other studies have also reported that the majority of mothers who wean do so within 8 weeks (Cooke, Sheehan, & Schmied, 2003; Lowe, 1988). Therefore, 8 weeks was chosen under the assumption that breastfeeding would be well-established by then, and the majority of mothers who were going to wean early would have already done so.

Procedures

All participation was voluntary, and participants could request to leave the project at any time. Participants were recruited by their provider's registered nurse (RN) or licensed practical nurse (LPN), who had all been trained on the project goals, methods, and recruitment criteria by the PI. If a woman met all of the inclusion criteria as determined by the provider's nurse and she agreed to participate, she signed an informed consent provided by the nurse and was given a questionnaire to complete before or after a scheduled prenatal appointment between 27 and 40 weeks' gestation. The questionnaire included the BAPT-BFC scale, demographic data, and breastfeeding duration goal. Participants were recruited over a 4-month period, and all of the completed questionnaires were kept in a secure area in each of the respective clinics. The questionnaires were collected by the PI each week during the recruitment phase, and collected questionnaires were randomly assigned by block randomization to either the control group or the experimental group. The app Randomizer for Clinical Trial developed by MEDSHARING was used to randomly select one of the six possible combinations of assignment for each block. This was done as a continuous process in order to increase the likelihood that recruited mothers in the experimental group would receive the intervention before birth.

Women in the experimental group had their name and phone number given to one of the four lactation supporters involved with the study. A lactation support person contacted each of the participants to schedule one free prenatal appointment at the hospital. The PI also contacted mothers in the experimental group via text messaging or phone to give them the lactation supporter's contact information. The hospital was located within two blocks of each

clinic. Each lactation support person had completed the 45-hour Certified Lactation Consultant breastfeeding course or was an International Board Certified Lactation Consultant. Each lactation support person was educated regarding the project aims, and they utilized a prenatal lactation assessment tool to guide each prenatal consult. The tool was compliant with the guidelines for written materials set by Baby-Friendly USA (2016).

Both the experimental and control group participants received routine care, as determined by the participant and their provider. Participants were not limited in their choice of a prenatal care provider, seeking breastfeeding support or education before or after birth, or any aspect of their prenatal care. The lactation supporter intervention in the experimental group was in addition to routine care.

Breastfeeding initiation rates, breastfeeding intensity according to the IBS, birth weight, and birth mode were gathered by hospital chart reviews from all participants. IBS rate was collected via phone and e-mail interviews at 8 weeks postpartum. The follow-up interview also included asking mothers whether they had met their breastfeeding goal or were on track to meet it, reasons they did or did not attend a consult if assigned to the experimental group, whether or not their insurance covered prenatal lactation services, and whether or not they would use such a benefit. All phone interviews and e-mail correspondence were conducted by the PI.

Data Analysis

All data were entered into Microsoft Excel, and descriptive statistics were used to represent the demographic data on the participants. Data were analyzed by observing plots and trends. The responses to open-ended questions that were asked on the questionnaire and in the follow-up interviews were analyzed by using Giorgi's method. This method involves reading all of the responses to get a sense of the whole data set, rereading the set to develop "meaning units or themes," looking for recurrent themes, reflecting on the themes, and developing a consistent description of the themes and what they say about the participants as a group (Fain, 1999, p. 230).

RESULTS

A total of 56 participants were recruited for the study, and 44 participants completed the study, with one participant requesting to withdraw. Among those 44

participants, 19 finished the complete study protocol by answering all of the questions on the questionnaire that were used to compare the experimental group and the control group, receiving their assigned intervention, and being successfully contacted for the 8-week follow-up interview; 14 participants were in the control group and five participants were in the experimental group. Only those who met the complete study protocol were used to compare the experimental group and the control group. The variables measured were BAPT-BFC score, IBS rate, age, education, initial breastfeeding goal, previous breastfeeding experience, WIC status, relationship status, race, birth mode, gender of the baby, birth weight, and gestational age. These variables were chosen due to their potential to impact a woman's breastfeeding success.

The BAPT-BFC scores were similar for both the experimental and control group. The average BAPT-BFC score was 46 (standard deviation [SD] = 8) for the experimental group and 48.07 (SD = 6.44) for the control group, so those in the control group were slightly more likely to meet their breastfeeding goals. The mean scores for individual BAPT-BFC questions can be seen in Table 1. All of the 19 participants from both groups had an IBS rate of one in the hospital, which meant they breastfed 100% of the time in the hospital. The Healthy People 2020 goal is that 81.9% of infants will have received some breastmilk (U.S. Department of Health and Human Services, 2017). This study's participants far surpassed this goal at 100%. One key difference between the groups was that 85.7% of the mothers in the control group had breastfed before while only 20% of the mothers in the experimental group reported previous breastfeeding experience, and this may account for the slightly higher BAPT-BFC scores in the control group. Table 2 provides a complete description of participant characteristics.

BAPT and IBS Score at 8 Weeks Postpartum

BAPT-BFC scores and IBS rates at 8 weeks were compared between the completely adherent experimental and control groups, and the plot in Figure 1 reveals that the groups had similar patterns in BAPT-BFC scores and IBS rates. However, there does appear to be a slight trend, as can be seen in Figure 1, between low BAPT-BFC scores and high IBS scores, regardless of the intervention. Two of the participants were at high risk to not meet their breastfeeding goals because their BAPT-BFC score was less than 40, and neither were breastfeeding exclusively at 8 weeks.

TABLE 1

Comparison of Breastfeeding Attrition Prediction Tool Statements of Women Exclusively Breastfeeding ($n = 13$) and Partial/No Breastfeeding ($n = 6$) at 8 Weeks (Completely Adherent Participants)

<i>BAPT</i> Statements (scale 1–6, 1 = strongly disagree, 6 = strongly agree)	Exclusively BF		Partial/No BF	
	Mean	<i>SD</i>	Mean	<i>SD</i>
I have the necessary skills to breastfeed	5.46	0.78	4.83	0.75
I am physically able to breastfeed	5.77	0.60	4.67	1.37
I know how to breastfeed	4.92	0.95	4.50	1.64
I am emotionally ready to breastfeed	5.54	0.52	5.50	1.22
I am determined to breastfeed	5.54	0.78	6.00	0.00
I will not need help to breastfeed	3.85	1.34	3.17	0.98
I have total control over my breastfeeding	4.54	1.27	3.50	1.52
Breastfeeding is easy	3.23	1.48	2.67	1.75
I am confident I can breastfeed	5.38	0.87	4.83	1.47
I know I will have enough milk for the baby	4.85	0.99	4.17	1.94

Note. Statements reprinted with permission from Janke (1994).

BF = breastfeeding; *SD* = standard deviation.

TABLE 2

Description of Overall Sample

Variable/Description	Control Group, $n = 14$ (73.7%)	Experimental Group, $n = 5$ (26.3%)
Age (years)		
<20	1 (7.1%)	1 (20%)
20–35	12 (85.7%)	4 (80%)
>35	1 (7.1%)	0
Level of education		
High school graduate	3 (21.4%)	1 (20%)
Some college	4 (28.6%)	1 (20%)
College graduate	4 (28.6%)	3 (60%)
Race		
Caucasian	13 (92.9%)	4 (80%)
Asian	0	1 (20%)
Native American	1 (7.1%)	0
Relationship status		
Married	12 (85.7%)	3 (60%)
Single	1 (7.1%)	2 (40%)
In a relationship	1 (7.1%)	
Enrolled in WIC		
Yes	3 (21.4%)	1 (20%)
No	11 (78.6%)	4 (80%)
Mode of birth		
Vaginal	11 (78.6%)	4 (80%)
Cesarean surgery	3 (21.4%)	1 (20%)
Gender of baby		
Male	9 (64.3%)	4 (80%)
Female	5 (35.7%)	1 (20%)
<i>BAPT</i> score (average)	48.07	46
Hospital IBS score		
1	14 (100%)	5 (100%)
2–7	0	0
Previous breastfeeding experience		
Yes	12 (85.7%)	1 (20%)
No	2 (14.3%)	4 (80%)
Initial breastfeeding goal		
Unsure	0	1 (20%)
<3 Months	1 (7.1%)	0
3 to <15 Months	12 (85.7%)	4 (80%)
>24 Months	1 (7.1%)	0

Note. *BAPT* = Breastfeeding Attrition Prediction Tool; IBS = Index of Breastfeeding Status; WIC = Women, Infants, and Children.

Figure 1. Breastfeeding Attrition Prediction Tool scores and Index of Breastfeeding Status rates at 8 weeks.

*BAPT-BFC quantifies a mother's perceived ability to be successful at breastfeeding. High scores indicate increased levels of maternal confidence with breastfeeding. Low scores indicate the mother is at high risk to not meet her breastfeeding goals.

IBS Rate:

- 1 = 100% breastmilk
- 2 = >80% breastmilk
- 3 = 50%-80% breastmilk
- 4 = 50% breastmilk
- 5 = 20%-50% breastmilk
- 6 = <20% breastmilk
- 7 = 100% artificial milk

With both groups combined, the mean BAPT-BFC score of the participants exclusively breastfeeding at 8 weeks was 49.15, and the mean BAPT-BFC score of participants not exclusively breastfeeding at 8 weeks was 44. In other words, women who reported low BAPT-BFC scores tended to be breastfeeding less at 8 weeks when compared with mothers who scored very high on the BAPT-BFC, regardless of whether they were in the experimental or control group. This finding would be consistent with the expectation that the BAPT-BFC is a helpful tool for predicting breastfeeding success.

Meeting Breastfeeding Goals

Mothers were asked in the follow-up interview whether or not they had met their breastfeeding goal as they perceived it to be at the time of the interview, and it is worth noting that most of the women in both groups who completed the full study protocol reported having met their breastfeeding goal at 8 weeks, regardless of IBS score, with only one participant in the experimental group reporting that she did not meet her goal. This highlights the importance

of understanding that no intervention aimed at helping women meet their breastfeeding goals is going to have complete effectiveness for all women.

Limitations

This study had several limitations that may have impacted the results and the researcher's ability to draw conclusions. Most notably was the small sample size, which limits generalizability. This was partially impacted by the small local population, the short recruitment window of the study, and the difficulty the lactation support persons involved in the study had in reaching women in the experimental group to schedule a consult. It could also be related to some women not understanding that the intervention was to take place during the prenatal period; this misunderstanding was apparent in several 8-week follow-up interviews. There was also a significant difference in the size of the control group with 14 participants and the experimental group with five participants. Another limitation is that the PI had to rely heavily on the assistance of the clinic nurses in recruiting patients, and there was no way to completely ensure that all of the nurses were adhering to the study protocol. Participants were not randomized while they were still at the clinic, so the nurses were unable to provide further instruction to them about the study process. Finally, the area where this project took place already had breastfeeding rates well above the national average, so it may be more difficult to elicit a significant improvement. The high rates of breastfeeding may also be related to the local hospital recently becoming Baby Friendly Certified in 2016.

IMPLICATIONS FOR PRACTICE AND SUMMARY

Supporting women to help them reach their breastfeeding goals should be a priority among health-care workers because of the many benefits that breastfeeding provides for both the mother and her nursing infant.

BAPT-BFC Section as a Screening Tool

In summary, using the BAPT-BFC section as a screening tool could be an effective means to identify mothers at high risk to not meet their breastfeeding goal. The BAPT-BFC accomplishes this by quantifying a mother's perceived ability to be successful at breastfeeding. Those mothers with scores >49 were more likely to reach their goals, while those with scores <44 were less likely to meet their goals.

These ranges proved to be predictive in the statistical analysis and may be helpful guides in future use of the tool. Providers need a way to systematically decide which of their patients may need additional support in order to reach their breastfeeding goals. The BAPT-BFC section is a short and effective tool for providers to use to help guide their referrals to lactation experts.

Effectiveness of One-to-One Prenatal Breastfeeding Education

While the results of this study were unable to report conclusively that one-to-one prenatal breastfeeding education helps promote breastfeeding duration and intensity, this intervention may still be a valuable tool to assist women in meeting their breastfeeding goals. The majority of mothers interviewed at 8 weeks postpartum reported that they would use prenatal lactation services if it was covered by insurance, so there is a general sense that prenatal breastfeeding education does have value for women. One possible method to help improve this knowledge deficit would be for nurses and providers at prenatal care clinics to specifically encourage their patients to contact their insurance companies during the prenatal period to identify what lactation benefits are covered by their insurance providers. This education could be included as part of their routine prenatal education.

Participation with the referral process was severely lacking in the experimental group, so it would be worth redesigning this process with the hope of increasing participation. Perhaps there needs to be more education about the purpose of the referral, and perhaps it would have better success if discussion about the referral was initiated by the provider.

Recommendation for Future Study

First, it would appear that even though mothers report interest in prenatal breastfeeding education, pursuing it remains a low priority for mothers, even among those who appear to be at very high risk to not meet their goal. Further studies should explore whether women are more likely to attend a prenatal breastfeeding education referral if their provider suggested it versus their provider's nurse. It could also be possible that the lack of participation in the intervention among the experimental group was related to a poor understanding of the study expectations. Future studies should ensure that their design allows for the opportunity for the clinic nurses or the providers to

give additional education about the referral and the potential advantages of attending a one-to-one prenatal consult with a lactation specialist. It would be helpful if future studies could maintain a consistent level of training among the lactation experts utilized.

Second, this project highlighted the necessity of having a sustainable protocol in place that incorporates ongoing evaluation. Such a protocol would have greater success if it could gather data over a much longer period than the 4 months allowed for this project, and it must also utilize a structure that could operate independently without the need of an outside researcher. This project would recommend three key elements in future similar projects seeking to use the BAPT-BFC section as a screening tool as part of a referral process for additional breastfeeding education. First, a clinic gathers baseline postpartum breastfeeding rates using the IBS scale at 6 week postpartum visits. Second, the clinic implements the screening process using the BAPT-BFC section and refers only those mothers indicated as high risk to not meet their breastfeeding goals. Last, the clinic continues to gather data regarding breastfeeding intensity at the 6 week postpartum visits. Breastfeeding intensity data after the referral process was initiated could be compared to the baseline data gathered in order to determine whether or not the screening and referral process is effective at helping mothers reach their breastfeeding goals. Such a protocol would be more sustainable than relying on a team of researchers.

Third, this study set 40 as the cutoff score of the BAPT-BFC section for being considered at high risk to not meet breastfeeding goals, but there has not been any research to determine what the best cutoff score should be. The average BAPT-BFC score for mothers who were not exclusively breastfeeding at 8 weeks was 44, so perhaps 45 would be a better score to use. Future research needs to verify cutoff scores indicating >49 as increased success to meet breastfeeding goals and <45 as those at highest risk of not meeting breastfeeding goals.

This study was unable to explore if there is a window in the prenatal period in which a prenatal consult with a lactation expert would be the most beneficial, so it would be helpful for future studies to further consider the question of where in the prenatal period referrals should be initiated. Overall, it will take perseverance and collaboration to shift current prenatal breastfeeding education practices to reflect the best evidence but making this a priority can have far reaching positive impacts for women and their children.

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DISCLOSURE

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