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Education and Enhanced Support to Improve Breastfeeding Success: A Quality Improvement Project in a Rural Community

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Education and Enhanced Support to Improve Breastfeeding Success: A Quality Improvement Project in a Rural Community

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By

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Abstract

Problem Description: Breastfeeding continuation rates fall below the Healthy People 2020 goal of 60.6% for any breastfeeding at six months postpartum. In Navajo County, Arizona the breastfeeding rate for WIC participants was 36.9%. Breastfeeding provides health benefits to babies and women and decreased health care costs. A quality improvement project was developed and implemented with a pilot group of participants in a rural Northeastern Arizona community.

Interventions: After a thorough literature review, four interventions were selected. These included: development of a community health coalition, prenatal breastfeeding education, administration of a new baby tea event, and extended support provided by a certified lactation consultant for 12 weeks postpartum.

Results: Approximately 62% of support persons showed an increase in breastfeeding support. 100% of the pilot group of mothers reported an increase in breastfeeding knowledge and 75% continued breastfeeding beyond 12 weeks postpartum. A New Baby Tea event was implemented as planned; however, the content was delivered in a revised format.

Interpretation: Due to small sample size, results are not generalizable. It is recommended to increase the sample size in the next implementation cycle of the program. It is also recommended to offer the prenatal breastfeeding education to all mothers, as it is not known if a mother would change her mind about feeding methods with access to accurate breastfeeding information. The New Baby Tea was not implemented as originally designed; it was delivered in a revised format. The New Baby Tea has been removed from the plan for successive implementations of the project design. However, this component may be re-introduced at a later date.

Conclusion: The pilot was successful in improving breastfeeding knowledge and outcomes for the participant group. The coalition plans to widen their reach to the entire White Mountain Community. It is believed that continued efforts will lead to a healthier community.

Key Words: breastfeeding support, lactation support, breastfeeding coalition, prenatal education.

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Problem Description

Women in the United States have less than desirable rates of breastfeeding initiation, continuation, and exclusivity. Some benefits of breastfeeding include: improved bonding and attachment, reduced risk of diabetes in children, less illness and ear infections in children, improved postpartum weight loss in women, decreased reproductive cancers in women, increased inter-pregnancy intervals related to lactational amenorrhea, and financial savings (Sipsma et al., 2013). Infant feeding choices and behaviors represent a modifiable risk factor for disease in both mothers and infants (Stuebe, 2009).

Healthy People 2020 has set the goals of 89.1% of mothers initiating breastfeeding, and 60.6% breastfeeding at six months postpartum (Healthy People, 2012). The World Health Organization (World Health Organization [WHO], 2016) recommends exclusive breastfeeding for infants up to the age of six months after which solid foods may be introduced. The initiation rate in the United States is 79.2%, with 49.4% still breastfeeding at six months (Centers for Disease Control and Prevention [CDC], 2014). In Arizona, breastfeeding initiation rates are close to the Healthy People 2020 target, with 81.6% of mothers initiating breastfeeding. However, the six-month breastfeeding rate in Arizona is only 47.8% (CDC, 2014). It has also been noted that 95% of young mothers begin using some form of artificial milk feeding before the end of the second week postpartum (Grassley & Sauls, 2012). Supplementation can threaten milk production and supply. For this reason, it is prudent to extend the interventions from the prenatal period and continuing beyond the early postpartum period.

It has been found that not breastfeeding has been associated with short and long-term health risks for both mothers and their infants as well as increased healthcare costs (Wong, Tarrant, & Lok, 2015; Perrine et al., 2015). In a pediatric cost analysis, Bartrick and Reinhold

(2010) stated that if 90% of families in the United States committed to breastfeed exclusively for six months, it would result in an annual health savings of \$13 billion and prevent 911 deaths, most of which would be infant deaths. The local hospital reported 939 births in 2015. 844 infants were noted to have initiated breastfeeding prior to hospital discharge, a staggering 89.9% (Newborn Register, 2015). However, the WIC program of Navajo County, which had a total of 1172 infants enrolled in the 2014 fiscal year, reported only 36.9% were breastfed in any manner, including exclusive and partial breastfeeding (USDA, 2014). The following PICO question was developed: Will providing antenatal education and enhanced healthcare provider and lay person support through the postnatal period (I) improve duration and exclusivity of breastfeeding (O) among breastfeeding mothers (P)? This project has used existing research to address the issue.

Available Knowledge

There is no consensus among the research indicating a single best intervention for addressing the issue of low breastfeeding rates among American mothers. A multi-faceted approach is necessary. The evidence indicates several sound interventions for addressing the problem, including: supporting breastfeeding mothers, education, use of the internet, and community health coalitions.

Increased support of breastfeeding mothers and their families is essential to improving breastfeeding outcomes; this support may come from professionals or lay persons (Chantry, 2011; Congden, 2016; Dyson, McCormick, & Renfrew, 2005; Grassley, Spencer, & Law, 2012; Haroon, Das, Salam, Imdad, & Bhutta, 2013; Hoddinott, Britten, & Pill, 2010; Lumbiganon, et al., 2014; Mott, Wirtz, & Nashlesky, 2015; Powell & Baic, 2011; Renfrew, McCormick, Wade, Quinn, & Dowswell, 2012; Sherriff & Hall, 2011). Prenatal and postnatal breastfeeding education also needs to be increased for mothers, fathers, and family members such as

grandmothers in order to promote and support breastfeeding behaviors (Congden, 2016; Dyson, McCormick, & Renfrew, 2005; Haroon, Das, Salam, Imdad, & Bhutta, 2013; Mott, Wirtz, & Nashelsky, 2015; Powell & Baic, 2011; Rosen, Krueger, Carney, & Graham, 2008; Wong, Tarrant, & Lok, 2015). Due to high rates of early supplementation and the tendency for women to discontinue breastfeeding before six weeks postpartum, a longer intervention period is recommended (Grassley & Sauls, 2012; Sipsma et al., 2013).

The internet is a powerful tool that can be used effectively to deliver breastfeeding education and provide breastfeeding support to mothers, including those mothers who live in remote areas (Ahmed & Ouzzani, 2013; Edwards, Bickmore, Jenkins, Foley, & Manjourides, 2013; Giglia & Binns, 2014; Giglia, Cox, Zhao, & Binns, 2015; Radtke-Demirci, Cohen, Parker, Holmes, & Bogen, 2016). Developing a community coalition is one way to bring community stakeholders together to share resources in a joint effort to improve the support and promotion of breastfeeding with the ultimate goal of improving the health of the community in which the coalition resides and operates (Hudson, Rutledge, & Ayers, 2015; Zakocs & Edwards, 2006).

Rationale

A theoretical model and project framework were identified in the planning phase of the project. The theoretical model is the Theory of Planned Behavior (TPB). The TPB model is found in Appendix A. The theory states that the individual's health choices are influenced by their views of a proposed action and based on whether they believe significant others such as peers, parents, or partners, would approve or disapprove of those choices (Butts & Rich, 2011). The central theme of TPB is that behavioral intentions are the most important determinant of the individual's behavior (Butts & Rich, 2011). The Theory of Planned Behavior can be used to design a successful breastfeeding project. Fostering positive attitudes toward breastfeeding in the

prenatal period may also influence the mother's intentions. Knowing and understanding the benefits of breastfeeding can foster the belief that breastfeeding is a healthy behavior and personal beliefs may increase the mother's perceived power over her own health choices and those she makes for her infant. Including significant others will affect the subjective norms. By providing correct information about breastfeeding and giving support persons tools that support the mother's breastfeeding journey, the subjective norm will assume a positive influence on the mother's experience. Careful project design will help address the previously mentioned limitations by ensuring that the project participants will gain necessary resources, education and support, in order to perform the desired behavior.

The project framework is the Donabedian Model. The Donabedian model flowed seamlessly into the Logic Model which was also developed in the planning phase. The Donabedian Model is found in Appendix B, and the Logic Model is found in Appendix C.

Specific Aims

The purpose of the project is to increase breastfeeding knowledge and support within the community of Show Low, Arizona, in order to promote and encourage breastfeeding continuation beyond the early postpartum period. Breastfeeding women are lacking adequate support from primary healthcare providers, family and friends, and the community to support and promote recommended breastfeeding behaviors (Chantry, 2011). Addressing low breastfeeding rates requires a multi-leveled, multi-disciplinary approach. Changes are required on many levels including local, state, and national programs and policies to provide more adequate support to breastfeeding mothers (Bartrick & Reinhold, 2010). The specific aims of this project include developing a community coalition, providing prenatal breastfeeding education for mothers and their support persons, and frequent monitoring and consultation with

certified lactation consultants after delivery until twelve weeks postpartum. The project utilized the collaboration of prenatal health care providers, community members, organizational leaders, and lactation consultants.

Context

The population consisted of pregnant mothers who were between 34 and 36 weeks' gestation at the onset of the implementation period, and who were planning to breastfeed or were undecided about breastfeeding their infants. Mothers who were planning to exclusively formula feed their infants were not invited to participate. The participants completed a series of prenatal education modules, had their support persons access the New Baby Tea information, and then the mothers received twelve weeks of breastfeeding support from a certified lactation consultant after delivering their infants. Recruitment occurred through the office of a local obstetrical care provider.

An Information Services professional agreed to consult in developing and maintaining a coalition website. Volunteers were utilized to help facilitate the Tea. Azza Ahmed, Ph.D. of Purdue University agreed to grant access to a lactation monitoring program called LACTOR that was planned to be utilized to provide ongoing lactational support to the mothers after they deliver their infants. Unfortunately, due to technical issues the program was not able to be used. An online fillable form was used to monitor daily breastfeeding logs as an alternate to the LACTOR program. The Project Manager, a certified lactation consultant, provided the postpartum lactation support to the mothers.

The project took place in Show Low, Arizona. Show Low is a rural town in Northeastern Arizona. It is the largest city in the White Mountains, with a population of nearly 12,000 (City of Show Low, n.d.). The community has some significant resources that were beneficial to the

project. There are several certified lactation consultants, including the Project Manager and two more who have provided support for the project. The WIC office manager is an ally, and the Women and Infant Services Director at the local hospital provided valuable feedback that helped to shape the project.

The organization through which the project was implemented is a community breastfeeding coalition. The organization was developed and launched in a preliminary phase of the DNP project. The organization consists of key stakeholders within the community with a shared vision and goal of increasing breastfeeding promotion and support within the community. One method of effective facilitation of the implementation of the project interventions was to gain the support of the community; by acknowledging the roles of the key stakeholders and giving them a voice in the foundation and governance of the coalition, it had a successful start. This has also ensured that the stakeholders had a vested interest in the activities and foundation of the coalition.

The education was provided online via a learning management system. The program's online format eliminated the rural mothers' need to travel to receive services. Another benefit to using the internet was that participants had access to resources 24 hours per day, and frequent monitoring by a lactation consultant ensured that mothers had access to help and support in a timely manner. This was a practical and realistic approach that provided a network of workers to accomplish the necessary tasks and incorporated the needs and views of the community stakeholders.

Interventions

A logic model is a systematic way to view the scholarly project, which shows the relationships between the working parts of the project; inputs and resources, activities, outputs, outcomes, and impacts (Kellogg, 2006; UWEX, 2003). Short and long-term outcomes are detailed in the logic model found in Appendix C.

The short term outcomes include:

1. A community needs assessment was completed and distributed to potential coalition members at the first coalition meeting.
2. A coalition group to promote and support breastfeeding in the community is developed by April 20, 2017.
3. Formalized foundational documents (mission, purpose, goals) were developed for distribution by May 20, 2017.
4. By the end of the implementation period, 75% of the coalition members will have attended all coalition meetings.
5. Recruitment materials will be developed and distributed by May 1, 2017.
6. After participating in prenatal education program, 90% of participants completed the Breastfeeding Attrition Predictor Tool (BAPT).
7. After participation in New Baby Tea, 85% of participant support persons report positive attitude toward breastfeeding as measured by the Iowa Infant Feeding Attitude Scale (IIFAS).
8. The number of mothers who continued breastfeeding at 3 months postpartum was greater than 36.9% measured by the Beginning Breastfeeding Survey-Cumulative administered at one month postpartum and three months postpartum, and through analysis of a semi-structured interview conducted when the participant exits the

project.

The long term outcomes include:

9. A sustainability plan will be developed by the coalition and put into use beginning in Year Two.
10. Coalition member attendance will remain at or above 75% for scheduled coalition meetings.
11. Coalition goals will be reviewed and updated in May of each year.
12. The number of mothers that continued breastfeeding at 6 months postpartum was greater than 36.9%.
13. Breastfeeding mothers within the community indicated greater support from significant others, family, and friends measured at 3 months and 6 months postpartum using the Beginning Breastfeeding Survey-Cumulative tool.
14. Support persons describe change in support given to mothers at 3 months postpartum.

The Project Manager developed the antenatal education modules, within an online learning management system (LMS), using input and feedback from the coalition members. The educational modules consisted of documents, videos, images, and activities that were linked to online resources. The IT professional used his skills and knowledge to build and maintain a simple web page for the coalition and included a link to the online course. The Project Manager created a Facebook page for the coalition, which was used to share breastfeeding information with the community and to inform the community of upcoming meetings and events. The project manager, an International Board Certified Lactation Consultant, provided breastfeeding help and support to the mothers during the postpartum phase of the project. The coalition

members come from many different backgrounds and have varied levels of education and career experience. The members were instrumental in the creation of the coalition and in providing feedback during the implementation phase of the project.

Timeline

The project was first conceived in the fall semester of 2015. The initial community assessment occurred in March of 2016 and the planning phase continued through May of 2017. The key stakeholders were called upon to attend a meeting and form the coalition on April 20, 2017. This allowed time for the coalition to be formed and in place prior to the implementation of the project interventions. The breastfeeding education was delivered as a series of modules within an online learning management system. The curriculum was developed and uploaded into the learning management system by May 20, 2017. The recruitment materials were distributed on May 15, 2017. The New Baby Tea was hosted on June 3, 2017. The postpartum professional support was implemented from late June through late September of 2017. LACTOR was in place at that time, however, due to technical difficulties, it was not utilized. An online fillable form was implemented in July in order to monitor the mothers' breastfeeding progress. The last participant reached the twelfth week during the last week of September and completed the exit interview on September 27, 2017. The Final Report is expected to be disseminated in May of 2018. The detailed timeline is found Appendix D.

Measures

The evaluation plan utilized quantitative and qualitative analysis. As the DNP project is a quality improvement project, descriptive statistics were used for data analysis; inferential statistics were not used. The implementation period of the project was carried out from May 2017 through September 2017. Therefore, it was not possible to measure the long term

outcomes of the DNP scholarly project. The short term outcomes were measured using appropriate data collection methods for each outcome outlined in the Data Collection Table found in Appendix E.

Through the development of a logic model, outcomes and impacts of the project on the target population have been identified. These outcomes have driven the data collection process by informing the type of data that should be collected and by allowing the evaluator to match the data needs to appropriate data collection methods. A mixed methods data collection plan was used and the collection of data occurred at several points throughout the implementation phase of the scholarly project. The project used three validated tools that record responses as numerical values: The Breastfeeding Attrition Predictor Tool (BAPT, Appendix F), the Iowa Infant Feeding Attitude Scale (IIFAS, Appendix G), and the Beginning Breastfeeding Survey-Cumulative (BBS-C, Appendix H). An interview tool was developed for end-of-project feedback. This tool was adapted from a tool used by Murphy (2010) through Oregon Health and Science University. The questions were developed to inform the stakeholders of the participants' perceptions about the usefulness of the program and about potential revisions for future implementations of the program. The Semi Structured Interview (SSI) is found in Appendix I.

Analysis

The mixed methods evaluation approach allowed the evaluator to get a fuller picture of the outcomes of the project. See the detailed Outcome Evaluation Table in Appendix J. The three different surveys, the BAPT, the IIFAS, and the BBS-C (Appendices F, G, and H) were used at different points of time throughout the project to collect quantitative data. The BAPT survey was completed by each participant after she had finished the prenatal breastfeeding education. The IIFAS was completed by the support persons after viewing the New Baby Tea

materials. The BBS-C was completed by the participants at one month and three months postpartum. The surveys used scaled responses to depict support persons' attitude toward breastfeeding (IIFAS, Appendix G), participant dedication to breastfeeding (BAPT, Appendix F), and participant perception of breastfeeding progress (BBS-C, Appendix H). A semi-structured interview (SSI, Appendix I) was used upon completion of 12 weeks of breastfeeding or at the time of cessation if less than 12 weeks. The SSI (Appendix I) answered questions about perceived barriers to breastfeeding, perceived sources of support for breastfeeding, breastfeeding satisfaction or dissatisfaction, and attitudes toward breastfeeding. Answering these questions has provided insight that has helped to guide the future of the project.

Ethical Considerations

The Project Manager has completed human subject research training. Federal and institutional statutes were upheld to protect project participants from harm. No more than minimal risk was anticipated as a result of participation. One possible risk is internet security. To address this risk, participants were assigned a random username and password for the LMS. The fillable online form was completed anonymously using their Moodle username. These systems utilize secure servers. Only non-identifying data was collected and stored on a secure device.

Participation was fully voluntary and participants were notified of their right to leave the project at any time without risk of retaliation or punishment of any kind. The project proposal was submitted as a Quality Improvement project to the Boise State University Institutional Review Board (IRB) for approval. The project proposal was submitted for review in February 2017 and an Expedited Application was approved in March 2017 with a subsequent modification

filed and approved on May 8, 2017. The Scholarly Project IRB Letter of Determination is found in Appendix K.

The Project Manager took steps to mitigate bias. Incomplete data were not included. For example, an informed consent form was received from one mother. However, no other project activities were completed by that particular mother. She was not included in the data sets.

A lack of project funding was identified as a potential threat to quality. A grant application was submitted but was not granted. Despite minimal funding, the project was fully implemented. The Project Manager sought financially effective supplies and resources to decrease costs while ensuring quality. Additionally, the Project Manager provided services in-kind. A technology professional committed to assist with his services in-kind. Additional resources were available free of charge, such as the LMS and the fillable online form. Space for the coalition meetings was provided in kind.

Results

Outcomes 1-5 were evaluated using a checklist created with input from members of the breastfeeding coalition. After completing the prenatal breastfeeding education modules, the participants completed the BAPT; a valid and reliable tool tested by Janke (1992, 1994) and validated by Dick et al. (2002) and Evans, Dick, Lewallen, and Jeffrey (2004) (as cited by Evans, Dick, Lewallen, & Jeffrey, 2004). The BAPT has been shown to be effective for identifying women at risk for early breastfeeding attrition (Evans, Dick, Lewallen, & Jeffrey, 2004). Data collected through the completion of the BAPT, was used to measure Outcome 6.

The Grandmother's Tea event was renamed the New Baby Tea, as the coalition members felt the name original name was exclusive of other support persons. The New Baby Tea was intended for all support persons, not just grandmothers. The event was scheduled on June 3,

2017 and was included in the project planning as a method of providing education to family and support persons. The tea was planned, prepped, and set up, however, no participants attended even after some had indicated they planned to attend. As an alternative, the information from the tea was compiled into a file and shared with participants and their support persons via the LMS. A pre and post- IIFAS was completed by eight of the support persons who viewed the alternate format New Baby Tea event. The 17 item tool was used to determine the perceptions and attitudes of the support persons towards breastfeeding and data collected was used to measure Outcome 7. The permission letter is found in Appendix L.

The participants completed the BBS-C tool at one month postpartum and three months postpartum to evaluate ongoing perceptions of breastfeeding behaviors. This tool was used to evaluate the breastfeeding mothers' perceptions of breastfeeding effectiveness and helped the lactation consultant to identify the mothers who were having breastfeeding problems (Mulder & Johnson, 2010; Mulder, 2013). Data collected by this tool was used to measure Outcome 8. The permission letter is found in Appendix M.

The short term outcomes were measured according to the methods outlined in the Logic Model. Eight short term outcomes were evaluated. A summary of the short term outcome results is found in Appendix N and a checklist of tasks appears in Appendix O.

The project began with the completion of a community needs assessment (Outcome 1), followed by the formation of the coalition (Outcome 2). Key stakeholders were invited to the initial meeting. The meeting was attended by five members, including the Project Manager. The mission, purpose, and goals of the coalition were determined at the initial meeting (Outcome 3). The prenatal education was also discussed and topics for inclusion were outlined at this meeting. There were five meetings of the coalition during the implementation phase of the project,

between May 2017 and October 2017. One meeting saw low attendance, only three out of seven stakeholders. Most members attended 50% of the meetings; Outcome 4 was not met. The meeting minutes are found in Appendix P.

Recruitment packets were created and distributed through one provider's office (Outcome 5). Fifty packets were delivered to the provider, and sixteen packets were returned unopened at the end of the recruitment period. The Project Manager did not receive any calls or emails with questions or requests for help with the enrollment process. Nine participants returned the informed consent form; however, one did not complete any other project activities and was not included in data collection or analysis.

Seven (88%, $n=7$) of the participants ($N=8$) completed all of the prenatal education prior to delivery, and one (12.5%; $n=1$) participant completed the education modules one day after delivery. All eight (100%, $n=8$) participants completed the BAPT (Outcome 6). A score less than 20 on the BAPT indicates that the mother may need help, or is at risk of discontinuing breastfeeding early. Of the eight participants who completed the BAPT, three (37.5%; $n=3$) mothers scored less than 20 even after completing the prenatal education. One (12.5%; $n=1$) mother indicated that she was not sure about breastfeeding from the outset. The BAPT also indicated areas of need. Analysis of BAPT results revealed the following needs among the group of mothers: three (37.5%; $n=3$) should have a case consult, five (62.5%; $n=5$) would benefit from increased social support, four (50%; $n=4$) need increased breastfeeding knowledge, and three (37.5%; $n=3$) had low confidence in their ability to breastfeed their babies. Detailed results of the BAPT are found in Appendix Q. The participants had access to the alternate tea materials on the LMS. Eight support persons completed the IIFAS both before and after viewing the alternate tea materials. Higher scores indicate a positive attitude toward and support of

breastfeeding. Pre-test scores ranged from 44-84 out of 85. Post-test scores ranged from 50-84, with 87.5% of scores indicating a positive attitude toward breastfeeding (Outcome 7). Of the eight support persons, three (37.5%) showed no change in score and five (62.5%) showed an increased score on the post-test compared to the pre-test; these results are found in Appendix R.

Of the eight participants, one (12.5%; $n=1$) decided to discontinue breastfeeding within the first week. She declined an exit interview. Another mother (12.5%, $n=1$) discontinued breastfeeding after five weeks and completed the exit interview. The remaining six (75%; $n=6$) mothers continued to breastfeed and enter a daily log of breastfeeding activity throughout 12 weeks postpartum (Outcome 8). The BBS-C surveys were completed at one month and three months postpartum. In the study conducted by Mulder (2013), the mean range using this tool was 72-112, however a minimum threshold was not identified. A *higher* score indicates that the mother perceives breastfeeding efficacy and satisfaction (Mulder, 2013). In the first administration of the BBS-C, the scores ranged from 75 to 111 out of 120. In the second administration of the BBS-C survey, all completed surveys showed an increase in nearly all of the individual scores, ranging from 108-119. Data from the first and second administration of the BBS-C are found in Appendix S. Though breastfeeding exclusivity was not an aim of the project, a higher proportion, five (62.5%; $n=5$) mothers, were exclusively breastfeeding at the end of three months, than is noted within the United States (44.4%), Arizona (46.3%), or Navajo County (36.9%). Exclusivity rates are found in Appendix T.

The participants were asked to engage in a semi-structured interview, by phone, upon discontinuation of breastfeeding or at the end of 12 weeks of continued breastfeeding. Answers to interview questions were recorded, compiled in aggregate form, and then reviewed. This has helped the Project Manager to identify common responses among participants. The interview

has contributed data which have resulted in revising interventions for future implementation cycles. Feedback received from this tool was used to measure Outcome 8.

The responses to the SSI were highly detailed. In this small community, the details disclosed in the interview could potentially result in identifying the participants. Due to the potential for a breach in confidentiality, the interview responses were not included in the final report in their entirety. However, there were several common responses to the Semi-Structured Interview. Seven (87.5%; $n=7$) mothers completed the interview, one (12.5%; $n=1$) at five weeks and six (75%; $n=6$) at 12 weeks postpartum. Regarding why they chose to breastfeed their infants, the predominant answer was that breastfeeding is important to the health of their infants. Regarding early discontinuation, the participant stated a need to return to work due to major socioeconomic changes within the family unit. One participant (12.5%, $n=1$) dealt with significant maternal anatomical obstacles and stated that the extra support and lactation services provided were the sole reason she continued breastfeeding, even when friends and family suggested she quit. She also stated that the additional support helped her to reach a point in which she and her baby could overcome obstacles and breastfeeding is now a rewarding relationship between the two. Another common response indicated that the mothers found value in the program and wished to see it continue within the community; several stated that their friends would like to utilize the program. An aggregated table of SSI responses is found in Appendix U.

An intervention that was affected by contextual elements was the New Baby Tea. Only three participants (37.5%, $n=3$) indicated an intention to attend the tea. On the day of the tea, zero participants ($n=0$) attended the event. Upon a request for feedback, the mothers indicated that transportation and childcare were barriers to attendance. Another participant believed that it

would be a *lame* event and another participant simply indicated that she was sad to have missed it. In order to address the issue of the unattended event, the information that was to be presented at the tea was modified into an online module and made available through the LMS. The participants were asked to view the information with their support persons then have the support persons complete the IIFAS.

Another contextual element that interfered with the interventions was an issue with mobilizing support. In the planning phase, there was a lot of support and feedback for the project. The consensus was that this is a need within the community and stakeholders' input was considered at every step. However, being a rural community with limited resources presented some challenges. Many stakeholders are overworked and stretched to their limits with constantly increasing job duties. While they agree that quality improvement initiatives are valuable and needed, they simply do not have more hours to devote toward these new initiatives. Some processes had to be altered during the implementation phase in order to keep the project on track. For example, the recruitment packets were handed out at only one provider's office. The office staff were not asked to attend training nor were they asked to explain the project, any components of the project, or to obtain the informed consent. They simply handed the packets out to mothers who fit the population criteria and referred them to contact the Project Manager. Coalition meeting attendance was also an issue; some stakeholders had low attendance at meetings. One way that the project tried to mitigate this issue was to use an online polling application to determine dates and times for the meetings that worked for more attendees. Attendance improved and the coalition is slowly gaining in membership.

Also learned through the creation of the coalition is that another organization is pushing for the formation of local breastfeeding coalitions to be developed throughout the state. The

Arizona Breastfeeding Coalition (ABC) is encouraging communities to create coalitions to support and promote breastfeeding. ABC is centered in the Phoenix area and does not have sufficient resources to branch out statewide. The White Mountain Breastfeeding Coalition may network with ABC to share information, resources, and ideas for improving breastfeeding for Arizona mothers.

Care was taken to ensure data were not missing. Initially, a mother returned an informed consent form but did not complete any project activities. This mother was not counted within the pilot group. Additionally, one participant discontinued within the first week of breastfeeding and a second participant discontinued at five weeks. These mothers were counted in the pilot group because they had completed a significant portion of the project activities. The IIFAS was completed by eight support persons. There were no additional data missing.

The actual costs of the project varied from the estimated expenses. It was initially estimated that the project would have a total cost of \$22,088.90, with the majority of that figure representing personnel expenses. The actual cost of project implementation was \$11,487.30 with in-kind donations totaling \$10,754.22. If one considers that the pilot group had a 75% breastfeeding continuation rate at twelve weeks, the value of the program is evident. See a full financial analysis, including a 3-5 Year Budget Plan, Project Expense Report, and Statement of Operations in Appendices V, W, and X.

Summary

There were several benefits identified as a result of project implementation. After an in-depth literature review, several interventions were chosen for the pilot. The most effective interventions included the creation of a community coalition, prenatal breastfeeding education, and ongoing lactation support. The New Baby Tea was not found to be highly effective in the

pilot group; however, it did have some impact on the attitudes of some support persons. In comparison to local breastfeeding rates, the pilot group did significantly better. In 2014, Navajo County WIC participants were breastfeeding at a rate of 36.9% (USDA, 2014). The mothers in the pilot had a 75% breastfeeding rate at twelve weeks postpartum. Eight lactation consults were completed as a part of the pilot project. All of the consults occurred at some point within the first six weeks after delivery, and not all of the mothers received a consult. It was also found that although some mothers indicated they were having an issue with breastfeeding, they did not all ask for help from the lactation consultant. In some instances, the mothers would arrange a consult if prompted to by the lactation consultant. There seemed to be some reluctance to ask for help. One mother stated in her exit interview that she thought she was “doing it wrong, or maybe there was something wrong with me because it wasn’t working the way it was supposed to.” All of the mothers reported an increase in breastfeeding knowledge. Six (75%) of the eight mothers are meeting their individual breastfeeding goals and reported satisfaction with their experience.

The White Mountain Breastfeeding Coalition is now operating as an independent organization and has gained various members from different backgrounds within the community. There are nurses, lactation consultants, lactation counselors, home visitors, WIC personnel, health department representatives, and community members. This has brought a broad set of ideas and suggestions regarding many aspects of the coalition including educational components of the prenatal education modules, revising the New Baby Tea, suggestions for membership, and how to sustain the coalition in the future. The stakeholders are currently engaged in development of a sustainability plan that will be implemented in year two.

Interpretation

At the end of the end of the implementation phase of the project, 75% of participants were still breastfeeding. 100% of the mothers who completed the exit interview indicated increased breastfeeding knowledge. The results of the pilot could have been influenced by the homogeneity of the pilot group. During recruitment, mothers who were planning to breastfeed were approached by clinic staff to evaluate interest in participation. It is possible that the mothers' intentions to breastfeed influenced their commitment to continue breastfeeding.

A literature review was completed during the planning phase of the project. The findings of the review have been summarized and can be found in Appendix Y. The results of the pilot program agreed, on many counts, with existing literature. Increased lactation support aided in increased breastfeeding continuation, as it did for many of the studies looked at in a systematic review by Haroon, Das, Salam, Imdad, and Bhutta (2013). Prenatal breastfeeding education improved breastfeeding knowledge of the mothers and helped them recognize normal breastfeeding behaviors, similar to results noted by Congden (2016) and Mott, Wirtz, Nashelsky, and Vincent (2015). The coalition is still in development and it is not possible at this point to determine the full impact it will have on local breastfeeding outcomes. However, as a facilitator of the prenatal breastfeeding education and increasing awareness and access to lactation support within the community, it is believed that the coalition has already had a significant impact on the pilot group. This is congruent with results of the use of coalitions in the Michigan breastfeeding initiative (Hudson, Rutledge, & Ayers, 2015). It is also important to note the length of lactation support. Grassley and Sauls (2012) found that breastfeeding support is more effective when it is carried out over more than six weeks. Most of the mothers expressed similar perceptions of their own experiences. While most of the lactation consults occurred within the first six weeks

postpartum, the lactation consultant continued to encourage the mothers and answer questions as they arose through the twelfth week postpartum. One mother stated, “Knowing you were just an email or phone call away, and that help was available if I needed it, was very reassuring.”

It is clear to see the impact of the project on the individual mothers of the pilot group. All seven mothers who completed the exit interview stated that they valued their experience as participants in the pilot. It is believed that the impact on systems will be felt in time. Sarah Basinger, director of Women and Infant Services at the hospital in Show Low, identified lack of prenatal education as a contributor to poor breastfeeding outcomes (S. Basinger, personal communication, May 3, 2016). The coalition will continue to offer the prenatal education as a free service to all women within the community as a part of their ongoing commitment to supporting and promoting breastfeeding. In time, it is believed that this initiative will have a positive impact on the health of women and infants in the community.

What nurses do, has an effect on policy, and nurses by nature of their profession are advocating for quality care provided with less cost and better patient outcomes (Leavitt, 2009). Thus, there are policy implications of the DNP scholarly project. The project has policy implications at several levels: organizational, local, and state.

Organizational implications have been noted as the White Mountain Breastfeeding Coalition was formed and is now an independent organization. The interventions used during the implementation phase of the project have been incorporated into the sustainability plan. Some of these interventions include: continuing the online prenatal breastfeeding education course, offering lactation support, and sharing breastfeeding resources with the community.

Local policy implications are apparent as input and feedback for the White Mountain Breastfeeding Coalition was collected from individuals in administrative positions from the local

hospital, Navajo and Apache County Health Departments, and the Navajo County WIC program. These individuals participated in the development of the scholarly project and were briefed on progress and results throughout the implementation and analysis phases of the project. They will be able to use the results to inform practice within their respective organizations. For example, the Director of Women and Infant services at the local hospital has identified prenatal education as an area for growth and is working to address that need.

Policy implications at the state level can also be seen. The state received a grant to increase the number of certified lactation consultants in Arizona. The project results confirm the evidence that support provided by certified lactation consultants aids mothers in reaching their breastfeeding goals. These results can be used to inform policy that would increase funding for lactation consultant services. The project results also support the implementation of prenatal breastfeeding education as an essential factor for improving breastfeeding outcomes. This could lead to an initiative to develop and implement an educational program through the state and county health departments throughout Arizona. Additionally, the White Mountain Breastfeeding Coalition is communicating with the Arizona Breastfeeding Coalition (ABC). This communication may lead to a partnership between the local and state coalitions. Solidarity among the various coalitions within the state can help to further the breastfeeding cause within the state by strengthening the numbers and voices of these champions. ABC is pushing for legislation within the state that will support and protect breastfeeding mothers. The White Mountain Breastfeeding Coalition has pledged to support ABC and to that end, has shared a policy brief using current evidence related to breastfeeding mothers in the workplace, which was presented by the Project Manager.

Wakefield (2001) states that nurses should be “comfortable and effective” in participating and sharing in health care policy discussions, “as comfortable as they are providing patient care.” Burke (2016) also argues that in order to effectively influence policy, nursing must understand and value their role as professionals in the health care system. Kennedy-Stewart (2016) states that nurses need “to be represented in the formation of health care policy and that nursing value, knowledge, and expertise are shared with politicians so that cost effective, quality health care legislation can be achieved.” Nurses need to be present in discussions of safe, effective, quality care that improves patient outcomes and decreases healthcare costs. Nurses need to have an active voice in the advancement of the art and science of nursing care. It is clear that these values are supported by the Project Manager and through the results of the scholarly project.

There has been an increase in interest from some stakeholders within the community. WIC workers, as well as workers from the Navajo and Apache County Health Departments have requested additional information regarding the project implementation and results. More of these workers have begun attending the coalition meetings. It is believed that upon dissemination of the results, additional practice changes may occur. Specifically, an increase in referrals to the prenatal breastfeeding education and utilization of certified lactation consultants for at least the first six weeks after delivery.

One intervention that did not unfold as expected was the New Baby Tea. Even though some participants had indicated their intention of attending, there were no attendees to the event. This was for several reasons including: scheduling conflicts, transportation issues, childcare issues, and a perception that the event would be boring. As an alternative, information from the tea was shared with participants via the LMS and eight support persons were able to view the information. This was a poor substitute for personal interaction and an active learning

environment. It is unclear at this point if the coalition will utilize this intervention in the future. The tea may be an intervention better suited to the smaller individual towns that make up the larger community, especially since transportation is often cited as a barrier for this population. One cost of this strategy is that the community may miss out on the benefits of the tea noted by Grassley, Spencer, and Law (2012) including increased intergenerational support and breastfeeding awareness. Consultation with Dr. Grassley is one possible action that could yield some potential alternatives to help promote intergenerational breastfeeding support and awareness within the community.

Funding to support education and lactation support initiatives would be a welcome addition in the community. The largest portion of project expenses was \$7569.75 for personnel costs. Of the personnel costs, \$4147.18 (41.7%) was specifically for lactation consultant services, which was covered by in-kind donations. The Arizona Department of Health Services oversees the Arizona Strong Families program which includes some funding for home visitors to assist families with child development, parenting education, and some breastfeeding support (Strong Families AZ, n.d.). The Healthy Steps program also offers some breastfeeding support through the local health system, and WIC offers lactation support to those who qualify. However, there are many who fall between the cracks and do not receive the support that they need. Increased funding specifically for lactation support would have a positive impact on breastfeeding outcomes.

Limitations

One limitation of the pilot group is the small sample size. There were only 8 participants. Another limitation is homogeneity of the sample. The participants were recruited from one provider's office within the community. This was not a design flaw, as this is not a research

study; it is a project with participants meeting project criteria within a community setting. Recruiting from several offices would have increased the sample size. Another limitation was the lack of funding. This led to the use of a free LMS and online fillable form. There were some issues with set up, usability, and functionality which were all addressed prior to participant implementation at the cost of many personnel hours.

One issue was the development of the online education modules using a LMS. The first LMS that was attempted required the use of specific file formats that were not readily available and were difficult to create. After more than 15 hours of attempting to use this LMS, the Project Manager decided to search for a different LMS. The new LMS, Moodle, was much more user friendly and was under development more quickly. A second issue had to do with the use of the LACTOR program. LACTOR includes a diary function, as well as participant education that can be prompted by the lactation consultant. Due to unforeseen issues, the LACTOR program was not able to be used. An online form was used instead. Participants were able to enter their daily diary into the online form and the lactation consultant reviewed these forms several times per week. When an issue was identified, the lactation consultant was able to contact the participant through the LMS.

Conclusions

When the community positively supports and promotes breastfeeding, the community benefits. In this pilot program, mothers were able to sustain breastfeeding at a higher rate than previously experienced within the community. Community support, prenatal breastfeeding education, and extended lactation support have had a positive impact on the breastfeeding outcomes for project participants. The results of the pilot can be used to expand the program to more providers within the community. The White Mountain Breastfeeding Coalition will

continue to facilitate the prenatal education modules via an online LMS that can be accessed for free through the coalition website. Over time this work will result in a healthier community.

Officer elections held in October 2017. Officers include: president, secretary, community outreach officer, technology officer, and an assistant to help as needed. The officers have various backgrounds including: two Registered Nurses, two health department workers, and two community members. A treasurer will be added as a part of the sustainability plan. The project manager will continue to act as a consultant. The officers have decided to pursue non-profit status and are working toward that designation. The community outreach officer is working on flyers to promote the organization and the breastfeeding education courses. A tiered system is being considered to offer different levels of membership from basic to premium, and one option may offer dual membership in the White Mountain Breastfeeding Coalition and the Arizona Breastfeeding Coalition. In addition to the online course, in-person breastfeeding classes will be offered on a monthly basis, rotating through different towns throughout the White Mountain Community. The White Mountain Breastfeeding Coalition is planning to get involved in local health fairs and community events held throughout the year. A sustainability plan is under development and will be implemented in summer 2018.

There are very few coalitions or organizations within Arizona to support and promote breastfeeding. This pilot program and the development of the White Mountain Breastfeeding Coalition can serve as a model for others who would like to create a coalition within their own community. Rural communities may be able to use the project design and pilot results as they decide how best to address their own breastfeeding needs.

Implications for further study include expanding the program to a broader population. The prenatal breastfeeding education will be offered to all pregnant mothers within the

community, because it is not known if participation in prenatal breastfeeding education might convince a mother to try breastfeeding if she was previously planning to bottle feed only. It would also be interesting to see if age, ethnicity, or number of parity will influence the results of the program.

Expanding the program to the broader White Mountain community can be accomplished by sharing the education modules through provider offices, the local hospital, the Navajo and Apache County Health Department, the Department of Economic Security offices, Navajo and Apache County WIC offices, and other community organizations. This expansion can help address the long term Outcome 13, which is to increase support for breastfeeding mothers within the community. Increasing social support of breastfeeding within the community should have a positive impact on local breastfeeding rates.

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Appendices

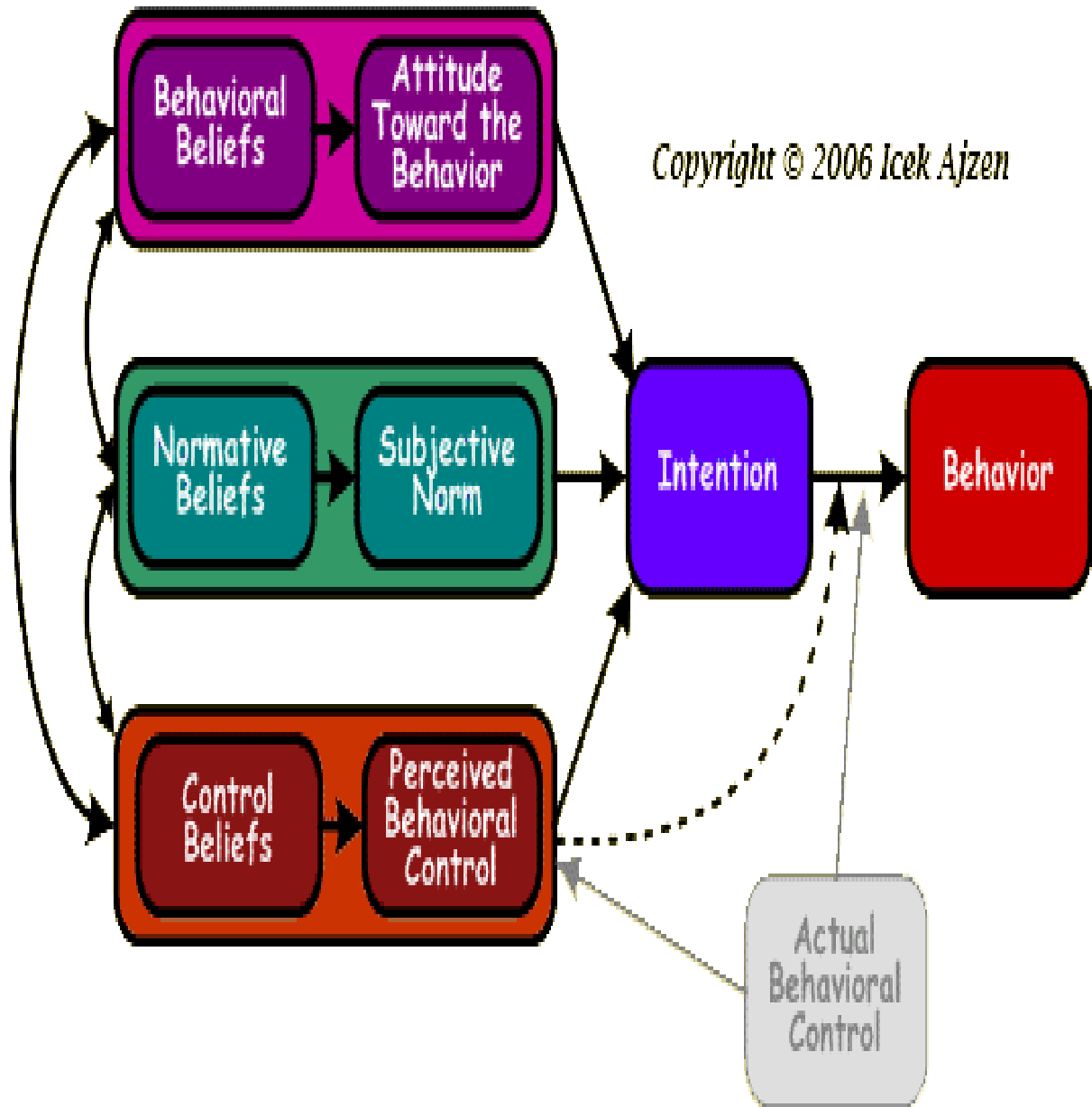
Appendices

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- Appendix B – Project Framework
- Appendix C – Logic Model
- Appendix D- Timeline
- Appendix E – Data Collection Table
- Appendix F – Breastfeeding Attrition Predictor Tool
- Appendix G – Iowa Infant Feeding Attitude Scale
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Appendix A

Theoretical Model

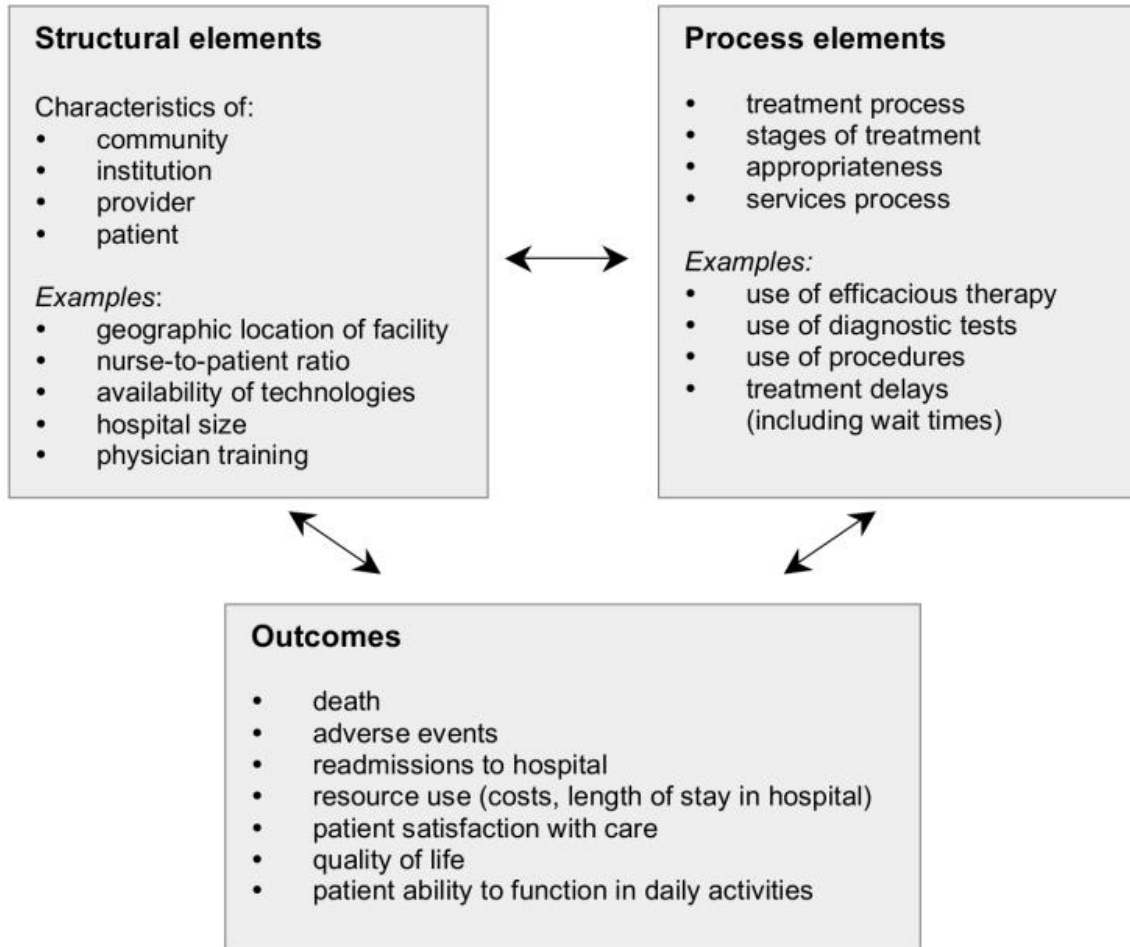
Theory of Planned Behavior Model (Boston University, 2016).



Appendix B

Project Framework

Donabedian Model



Appendix C
Logic Model
Kellogg Logic Model

Resources/Inputs	Activities	Outputs	Outcomes: Short term	Outcomes: Long term	Impact
<p>Includes the human, financial, organizational, and community resources a program has available to direct toward the work.</p>	<p>Includes the processes, tools, events, technology, and actions that are intended to bring changes or results.</p>	<p>Direct products of program activities and may include types, levels and targets of services to be delivered by the program.</p>	<p>Specific changes in program. SMART. Attainable in 1-3 years.</p>	<p>Specific changes in program. SMART. Attainable in 4-6 years.</p>	<p>Fundamental intended or unintended change occurring as a result of program activities in 7-10 years.</p>
<p>-Potential coalition members: Lactation Consultants, Navajo County WIC, Summit Healthcare RMC, Whiteriver IHS, Health care providers, Hope House, Community midwives -Printed materials -Internet hosting service for coalition website -Grant/Funds</p>	<p>-Contact potential coalition members. -Create foundational coalition documents. -Goals of the coalition developed. -Bylaws and directives developed. -Memorandum of Understanding developed with entities participating in coalition. -Coalition website developed. -Community lactation resources, such as local lactation consultants, listed on coalition website for easy access to breastfeeding mothers, healthcare providers, and other community members.</p>	<p>-Coalition initiated. <i>Number of Members added.</i> -Development of resources and activities within the community to promote and support breastfeeding. - Identified assets and barriers to breastfeeding within the community.</p>	<p>A community needs assessment was completed in April 2016 and distributed to coalition members at first coalition meeting.</p> <p>A coalition group to promote and support breastfeeding in the community is developed by April 20, 2017.</p> <p>Formalized foundational documents (mission, purpose, goals) were developed for distribution by May 20, 2017.</p> <p>By the end of the implementation period, 75% of the coalition members will have attended all coalition meetings.</p>	<p>A sustainability plan will be developed and put into use in year two.</p> <p>Coalition member attendance will remain at or above 75% for scheduled coalition meetings.</p> <p>Coalition goals will be reviewed and updated in May of each year.</p>	<p>Breastfeeding is supported and promoted within the community.</p>

<ul style="list-style-type: none"> -Coalition members -Breastfeeding Mothers -Printed materials -Electronic education system -Internet hosting service for education modules -Grant/Funds 	<ul style="list-style-type: none"> -Prenatal breastfeeding curriculum selected/developed. -Prenatal education modules uploaded to learning management system. - Breastfeeding Attrition Predictor Tool completed by participants. -Advertise and recruit participants between 34 and 36 weeks gestation from local prenatal providers and WIC offices. 	<ul style="list-style-type: none"> - Educational modules will be developed and uploaded to learning management system. -10-15participants will be enrolled for project participation. -Mothers receive prenatal breastfeeding education. 	<p>Recruitment materials will be developed and distributed by May 1, 2017.</p> <p>After completing the prenatal education modules, 90% of the participants completed the Breastfeeding Attrition Prediction Tool (BAPT).</p>	<p>The number of mothers that continued breastfeeding at 6 months was greater than 36.9%.</p>	<p>Mothers and infants within the community experience the health benefits of breastfeeding.</p>
<ul style="list-style-type: none"> -Coalition members -Printed materials -Supplies and refreshments -Physical space -Volunteers -Support persons -Grant/Funds 	<ul style="list-style-type: none"> -Train volunteers -Plan activities -Create/Reproduce materials -Create invitations for participant support persons. -Develop pre/post-test tool. -Advertise and promote the New Baby Tea. 	<p>New Baby Tea implemented.</p>	<p>After participation in New Baby Tea, 85% of participant support person's report positive attitude toward breastfeeding as measured by the Iowa Infant Feeding Attitude Scale (IIFAS).</p>	<p>Breastfeeding mothers within the community indicated greater support from grandmothers, family, and friends measured at 3 months and 6 months using a validated tool.</p> <p>Grandmothers describe change in support given to mothers at 3 months.</p>	<p>Community members have increased knowledge of breastfeeding and support breastfeeding mothers within the community.</p>
<ul style="list-style-type: none"> -Coalition members -Breastfeeding Mothers --LACTOR system for monitoring breastfeeding and 	<ul style="list-style-type: none"> -Meet with Lactation Consultants prior to the implementation period for training on the use of the LACTOR program monitoring. 	<ul style="list-style-type: none"> -Weekly debriefings with lactation consultants. -Mothers receive individualized support from lactation consultants via the internet, in person, or both 	<p>The number of mothers who continued breastfeeding at 3 months was greater than 36.9% as measured by the Beginning Breastfeeding</p>	<p>The number of mothers that continued breastfeeding at 6 months was greater than 36.9%.</p>	<p>Mothers and infants within the community experience the health benefits of breastfeeding.</p>

<p>providing additional individualized education -Grant/Funds</p>		<p>depending on individual needs assessed through the LACTOR program. -Lactation Consultants trained.</p>	<p>Survey-Cumulative at one month and three months postpartum.</p>		
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Scholarly Project Title: Education and Enhanced Support to Improve Breastfeeding Knowledge

Planned Work

- Develop a community breastfeeding coalition.
- Develop a prenatal breastfeeding education program to be delivered through the coalition.
- Develop and implement a New Baby Tea event to be delivered through the coalition.
- Utilize the LACTOR program to provide professional lactation support.

Intended Results

Increased promotion and support of breastfeeding within the community.

Appendix D
Timeline for DNP Scholarly Project

Project: Education and Enhanced Support to Improve Breastfeeding Knowledge								
Activity	Fall 2015	Spring 2016	Summer 2016	Fall 2016	Spring 2017	Summer 2017	Fall 2017	Spring 2018
Literature Review, mission, vision, problem statement, timeline for project	Dec 2015							
Needs Assessment		April 2016						
Presentation of Problem		Mar 2016						
Timeline		April 2016	June 2016					
Meet with WIC Coordinator		April 2016						
Meet with CNO of local hospital and Director of Women and Infant's Services		May 2016						
Project Outcome Development			June 2016					
Meet with Potential Coalition Members					Jan 2017			
Develop Coalition including website, foundational documents, sustainability plan, etc.					March 2017			
Develop Memorandum of Understanding with Coalition Members					March 2017			
Develop/select education modules, outcome measurement tools.					April 2017			
IRB Approval Process					March 2017			
Marketing campaign					April 2017	August 2017		
Identify and train the team.						April 2017		
Recruit Participants						May 2017		
Educational Modules Delivered via Internet						May 2017	October 2017	
New Baby Tea implemented						May 2017		

Appendix E

Data Collection Table

Outcome(s)	Resources	Data (Indicators)	Method to gather data	Technical assistance needed	Potential cost
1. A community needs assessment was completed in April of 2016 and distributed to coalition members at first coalition meeting.	-Project Manager -Potential coalition members. -Printed materials -Internet hosting service for coalition website -Grant/Funds	Check list, meeting minutes, Community Needs Assessment narrative document.	A log of all activities completed will be managed and stored with coalition documents.	None.	~10 hours of coordinator time = \$200 (offered in-kind) Printing cost.
2. A coalition group to promote and support breastfeeding in the community is developed by April 20, 2017.	-Project Manager -Potential coalition members. -Printed materials -Internet hosting service for coalition website -Grant/Funds	Check list, meeting minutes.	A log of all activities completed will be managed and stored with coalition documents.	None.	~10 hours of coordinator time = \$200 (offered in-kind) Possible cost for web hosting. Cost not yet identified.
3. Formalized foundational documents (mission, purpose, goals) were developed for distribution by May 20, 2017.	-Project Manager -Potential coalition members. -Printed materials -Internet hosting service for coalition website -Grant/Funds	Check list, meeting minutes, foundational documents.	A checklist of documents will be recorded and stored with other coalition documents.	None.	~20 hours of coordinator time = \$400 (offered in-kind) Printing costs.

<p>4. By the end of the implementation period, 75% of the coalition members will have attended all coalition meetings.</p>	<ul style="list-style-type: none"> -Project Manager -Coalition members. -IT consultant -Printed materials -Internet hosting service for coalition website -Grant/Funds 	<p>Sign in sheet, meeting minutes.</p>	<p>Activity log used for each meeting.</p>	<p>None.</p>	<p>~5 hours of coordinator time = \$100 (offered in-kind)</p> <p>~20 hours of IT consultant time = \$480 (offered in-kind)</p> <p>Space for meetings available at no charge.</p>
<p>5. Recruitment materials will be developed and distributed by May 1, 2017.</p>	<ul style="list-style-type: none"> -Coalition members -Printed materials. -Large opaque envelopes. -Return envelopes. -Stamps. 	<p>Check list, meeting minutes, recruitment packet.</p>	<p>A log of all activities completed will be managed and stored with coalition documents.</p>	<p>None.</p>	<p>~20 hours of coordinator time = \$400 (offered in-kind)</p> <p>Printing and return postage cost.</p>
<p>6. After completing in prenatal education modules, 90% of participants completed the Breastfeeding Attrition Prediction Tool (PABT).</p>	<ul style="list-style-type: none"> -Project Manager -IT consultant -Coalition members -Breastfeeding Mothers -Printed materials -Electronic education system -Internet hosting service for education modules -Recruitment packets -Grant/Funds 	<p>A recruitment log and checklist will be utilized for tracking participants.</p> <p>A checklist will be used to track module completion.</p> <p>The Breastfeeding Attrition Predictor Tool (BAPT) will be used to measure</p>	<p>The Breastfeeding Attrition Prediction Tool will be accessed by the participants via the web-based learning management system.</p>	<p>None. The Project Manager possesses the knowledge and skills to manage education materials within a learning management system.</p>	<p>~60 hours of coordinator time = \$1200 (offered in-kind)</p> <p>~5 hours of IT consultant time = \$120 (offered in-kind)</p> <p>Printing costs. Web hosting cost. No fee for learning management system. IS consult provided in-kind.</p>

		breastfeeding attitudes during the prenatal period.			Printed materials. Incentives for mothers who complete the education modules.
6. After participation in New Baby Tea, 85% of participant support persons report positive attitude toward breastfeeding as measured by the Iowa Infant Feeding Attitude Scale (IIFAS).	-Project Manager -Coalition members -Printed materials -Supplies and refreshments -Physical space -Volunteers -Support persons -Grant/Funds	A sign-in sheet and checklist will be used at the event. A paper version of the Iowa Infant Feeding Attitude Scale (IIFAS) will be used.	The tool will be administered at the end of the event. The data will be compiled and analyzed using an appropriate system.	If some type of SAS system will be needed, then the Project Manager will need access to and training on how to use the system.	~15 hours of coordinator time = \$300 (offered in-kind) Catering, supplies. No fee for space, tables, chairs. Refreshments and supplies. Printed materials.
7. The number of mothers that continued breastfeeding at 3 months was greater than 36.9% measured by the Beginning Breastfeeding Survey- Cumulative (BBS-C) at one month and three months postpartum.	-Project Manager - IT consultant -Coalition members -Breastfeeding Mothers -LACTOR system for monitoring breastfeeding and providing additional individualized education -Grant/Funds	Review of participant records in LACTOR system. The participants will complete the Beginning Breastfeeding Survey- Cumulative at one month postpartum and at three months postpartum. A semi-structured interview will be conducted at the	Part of the LACTOR system is the mother entering a breastfeeding journal. We will be able to see exactly how long the mothers are breastfeeding by monitoring the journals. The exit interview may be a face to face or a telephone interview.	Training in the use of the LACTOR system will be needed. This is a web-based program and does not require any maintenance by individual users. No technical assistance needed for the interview.	~2 hours per week of coordinator time for 16 weeks = \$640 (offered in-kind) ~2+ hours per week of lactation consultant time for 16 weeks = \$2400 (offered in-kind) ~1hour per week of IT consultant time for 20 weeks = \$480 (offered in-kind) No fee for LACTOR system.

		end of 12 weeks of breastfeeding or when the mother discontinues breastfeeding, whichever comes first.			Thank you gift for Lactation consultants.
--	--	--	--	--	---

*Appendix F***Breastfeeding Attrition Predictor Tool**

Prenatal Breastfeeding Survey (BAPT)			
Please fill in the oval that most closely describes how you feel about each statement. Would YOU...			
	Agree	Neither	Disagree
1. Breastfeeding is more convenient than formula feeding.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Breast milk is healthy for the baby.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Breast milk is more nutritious than infant formula.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Breastfeeding makes your breasts sag.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Breastfeeding makes you closer to your baby.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Breastfeeding makes returning to work more difficult.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Breastfeeding is more economical than formula feeding.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. When you breastfeed you never know if the baby is getting enough milk.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Mothers who formula feed get more rest than breastfeeding mothers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Breastfeeding is more time consuming than formula feeding.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Breastfeeding is messy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Breastfeeding ties you down.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Breastfeeding helps you bond with your baby.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Breastfeeding is better than formula.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

For each of the following individuals, indicate how they think you should feed your infant.

	Feed Formula	No Opinion	Feed Breast Milk	N/A
15. The baby's father thinks I should:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. My mother thinks I should:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. My mother-in-law thinks I should:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. My sister thinks I should:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. My doctor thinks I should:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate whether you agree or disagree with the following statements. Would YOU...

	Agree	Neither	Disagree
20. I have the necessary skills to breastfeed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. I am physically able to breastfeed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. I know how to breastfeed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. I am determined to breastfeed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. I won't need help to breastfeed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Breastfeeding is easy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. I am confident I can breastfeed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- The actual number values are not important, and the numbers are not meant to be shared with the mother.
- The overall BAPT score is made up of three sub-scores: positive/negative breastfeeding sentiment (knowledge), social/professional supports (support), and perceived behavioral control (confidence).
- The overall score on this validated survey is predictive of the mother's success at breastfeeding. The maximum score is 38. Mothers who score 20 or lower, may need additional help to meet their breastfeeding goals.

Appendix G

Iowa Infant Feeding Attitude Scale

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Appendix

The Iowa Infant Feeding Attitude Scale

For each of the following statements, please indicate how much you agree or disagree by circling the number that most closely corresponds to your opinion (1 = *strong disagreement* [SD], 2 = *disagreement* [D], 3 = *neutral* [N], 4 = *agreement* [A], 5 = *strong agreement* [SA]). You may choose any number from 1 to 5.

	SD	D	N	A	SA
*1. The nutritional benefits of breast milk last only until the baby is weaned from breast milk.	1	2	3	4	5
*2. Formula-feeding is more convenient than breast-feeding.	1	2	3	4	5
3. Breast-feeding increases mother–infant bonding.	1	2	3	4	5
*4. Breast milk is lacking in iron.	1	2	3	4	5
5. Formula-fed babies are more likely to be overfed than are breast-fed babies.	1	2	3	4	5
*6. Formula-feeding is the better choice if a mother plans to work outside the home	1	2	3	4	5
7. Mothers who formula-feed miss one of the great joys of motherhood.	1	2	3	4	5
*8. Women should not breast-feed in public places such as restaurants.	1	2	3	4	5
9. Babies fed breast milk are healthier than babies who are fed formula.	1	2	3	4	5
*10. Breast-fed babies are more likely to be overfed than formula-fed babies.	1	2	3	4	5
*11. Fathers feel left out if a mother breast-feeds.	1	2	3	4	5
12. Breast milk is the ideal food for babies.	1	2	3	4	5
13. Breast milk is more easily digested than formula.	1	2	3	4	5
*14. Formula is as healthy for an infant as breast milk.	1	2	3	4	5
15. Breast-feeding is more convenient than formula feeding.	1	2	3	4	5
16. Breast milk is less expensive than formula.	1	2	3	4	5
*17. A mother who occasionally drinks alcohol should not breast-feed her baby	1	2	3	4	5

Note. Items marked with asterisks are reverse-scored and the scores for each item are then summed. Higher scores indicate more positive attitudes toward breast feeding.

Appendix H

Beginning Breastfeeding Survey- Cumulative

Beginning Breastfeeding Survey-Cumulative

Please circle the answer that best describes breastfeeding for you and your baby.

	5	4	3	2	1
1. <u>My baby eagerly opens his/her mouth wide</u>	Always	Usually	Sometimes	Rarely	Never
2. <u>My baby sucks eagerly</u>	Always	Usually	Sometimes	Rarely	Never
3. <u>My baby's sucking feels strong</u>	Always	Usually	Sometimes	Rarely	Never
4. <u>I can hear my baby swallow while breastfeeding</u>	Always	Usually	Sometimes	Rarely	Never
5. <u>My baby enjoys breastfeeding</u>	Always	Usually	Sometimes	Rarely	Never
6. <u>My baby is comforted by breastfeeding</u>	Always	Usually	Sometimes	Rarely	Never
7. <u>My baby is fussy while breastfeeding</u>	Never	Rarely	Sometimes	Usually	Always
8. <u>My baby doesn't want to breastfeed</u>	Never	Rarely	Sometimes	Usually	Always
	Subscale Score:.....				
	5	4	3	2	1
9. <u>I feel comfortable when I am breastfeeding</u>	Always	Usually	Sometimes	Rarely	Never
10. <u>I feel calm and relaxed while breastfeeding</u>	Always	Usually	Sometimes	Rarely	Never
11. <u>I enjoy breastfeeding my baby</u>	Always	Usually	Sometimes	Rarely	Never
12. <u>Breastfeeding my baby is easy</u>	Always	Usually	Sometimes	Rarely	Never
13. <u>I feel confident about breastfeeding</u>	Always	Usually	Sometimes	Rarely	Never
14. <u>My baby is content and relaxed after breastfeeding</u>	Always	Usually	Sometimes	Rarely	Never
15. <u>I know how to breastfeed my baby</u>	Always	Usually	Sometimes	Rarely	Never
16. <u>I feel frustrated while trying to breastfeed</u>	Never	Rarely	Sometimes	Usually	Always
17. <u>I feel unhappy about breastfeeding</u>	Never	Rarely	Sometimes	Usually	Always
18. <u>My baby doesn't get enough milk from breastfeeding</u>	Never	Rarely	Sometimes	Usually	Always
19. <u>I have trouble breastfeeding my baby</u>	Never	Rarely	Sometimes	Usually	Always
	Subscale Score:.....				
	5	4	3	2	1
20. <u>My nipples or breasts hurt so much that I want to stop breastfeeding</u>	Never	Rarely	Sometimes	Usually	Always
21. <u>I feel so tired that I have trouble staying awake to breastfeed</u>	Never	Rarely	Sometimes	Usually	Always
22. <u>I feel embarrassed if I breastfeed in front of other people</u>	Never	Rarely	Sometimes	Usually	Always
23. <u>I'm afraid of feeling nipple or breast pain</u>	Never	Rarely	Sometimes	Usually	Always
24. <u>I am not sure if I am breastfeeding the right way</u>	Never	Rarely	Sometimes	Usually	Always
	Subscale Score:.....				
	Total Score:.....				

*Appendix I***Semi Structured Interview Script**

Hello, my name is Amber Gentry and I am a doctoral nursing student at Boise State University. I want to thank you for talking with me today and for taking part in my DNP scholarly project. As you remember my project is focused on helping mothers with breastfeeding success. You participated in prenatal education, your support person attended the New Baby Tea, and you've completed the Beginning Breastfeeding Survey-Cumulative at one month and three months (*participant may have exited the project before this time, so only list what they have completed*). Today I am following up to see how things have gone for you. I would really like to hear your point of view on the questions I ask. There are no right or wrong answers; I am just interested in hearing your opinion. I am recording this conversation to make sure that I hear all of your responses accurately. This will help me to focus more on getting to know you right now and hearing about your experience while we are talking, and less on trying to write down everything we discuss. The only people who would ever hear the recording or see the notes are myself and possibly my faculty advisor for my project. Your name will not be connected with the recording or notes. No names will ever be connected with any of your comments in any way. Taking part in the interview today is voluntary. Our discussion will last about half an hour to an hour. Are there any questions you might have before we get started with the interview?

1. To start off, I am really interested to hear about your life with your new baby. Tell me something about being a new mom.
2. Thinking back to when you first found out you were pregnant, how did you think you would like to feed your baby? Did you continue to feel that way throughout the rest of your pregnancy?
What were some of your thoughts about breastfeeding?
3. Tell me about your experience with your prenatal provider's advice about breastfeeding.

4. What were your experiences with breastfeeding when you were in the hospital after having your baby? What do you remember about breastfeeding in the hospital and those first days you were home with your new baby?
5. When thinking about your experiences with breastfeeding your baby, what are some things that you love(d) about it?
6. Tell me something that you found to be a struggle with breastfeeding. What were some feelings you had during those hard times when you felt as if you couldn't continue on with breastfeeding? What did you do to turn those hard times around (*for those who discontinued before 12 weeks, do not ask this question*)? What really kept you going during the hard times (*for those who discontinued before 12 weeks, do not ask this question*)?
7. *For those who dropped out before 12 weeks ask:* What was the main reason that you decided to stop breastfeeding? How did you feel about your decision? *If the mother indicates that she would have liked to continue breastfeeding, ask this question:* What are some things that you think would have helped you continue breastfeeding?
8. Thinking about the people in your life and the different relationships you have with them, tell me something about your friends' and family's experiences with breastfeeding?
9. Tell me something that you found to be helpful with breastfeeding. What were some feelings you had during the times you felt things were working smoothly and going well? What made these times easier?
10. Thinking back to all that you have shared today with me, what do you think is the most important point you would like me to know about your experiences with breastfeeding?
11. Thinking about your experience as a participant in the project, what could make the program better? What could make it easier for you to manage?

12. Is there anything else you would like to share?

Once again, I want to thank you for being part of my doctoral project and let you know how much I appreciate you taking the time to speak with me today. Do you have any questions for me? (*End of script.*)

These questions were adapted from a tool used by Christine Bezunesh Murphy through Oregon Health and Science University, reference listed below.

Please note that this is a preliminary script and will be reviewed by and finalized with collaboration from coalition members once the coalition is formed in April, 2017.

Reference

Murphy, C. (2010). Breastfeeding experiences of black women in Oregon : a phenomonological approach. Oregon Health and Science University Digital Commons; Scholar Archive. Retrieved from: <http://digitalcommons.ohsu.edu/cgi/viewcontent.cgi?article=1523&context=etd>

Appendix J
Outcome Evaluation Table

Objective: To evaluate the effectiveness of prenatal breastfeeding education and postnatal breastfeeding support on breastfeeding behaviors.

Outcome	Outcome Instrument Data	Analysis Goal	Analytic Technique
1. A community needs assessment was completed in April 2016 and distributed to coalition members at the first coalition meeting.	Meeting minutes, narrative document Pre-implementation checklist for coalition members.	Ensure the task was completed in order to disseminate to coalition members for discussion.	N/A
2. A coalition group to promote and support breastfeeding in the community is developed by April 20, 2017.	Pre-implementation checklist for coalition members.	Ensure that the group was formed.	N/A
3. Formalized foundational documents (mission, purpose, goals) were developed for distribution by May 20, 2017.	Meeting minutes. Pre-implementation checklist for coalition members. The documents referred to in the checklist were created with input and feedback from the coalition members.	Ensure the documents were created and stored appropriately.	N/A
4. By the end of the implementation period, 75% of the coalition members will have attended all coalition meetings.	Attendance log.	Determine the members regularly attending meetings and participating in	None needed initially, but this may be needed in the future to determine the effectiveness of the group in accomplishing tasks.

		the governance of the coalition.	
5. Recruitment materials will be developed and distributed by May 1, 2017 including a recruitment flyer, cover letter, Informed Consent Form, and an invitation to the New Baby Tea.	Checklist. The recruitment materials were created with input and feedback from the coalition members.	Ensure recruitment materials are ready for the implementation period.	N/A
6. After participating in prenatal education program, 90% of participants completed the Breastfeeding Attrition Predictor Tool (BAPT).	The participants will complete the Breastfeeding Attrition Predictor Tool (BAPT); a valid and reliable tool tested by Janke (1992, 1994) and validated by Dick et al. (2002) and Evans, Dick, Lewallen, and Jeffrey (2004) (as cited by Evans, Dick, Lewallen, & Jeffrey, 2004).	Describe and summarize responses to questions related to changes in participant knowledge and attitudes toward breastfeeding.	Descriptive statistics: the tool uses a scale to predict the mother's likelihood of continuing to breastfeed their infant beyond the initial postpartum period. Results will be recorded in aggregate form and displayed in a table.
7. After participation in the New Baby Tea, 85% of participant support person report positive attitude toward breastfeeding as measured by the Iowa Infant Feeding Attitude Scale (IIFAS).	Iowa Infant Feeding Attitude Scale (IIFAS) This tool has been shown to be highly valid and reliable in a study conducted by Grassley and Spencer (2012).	Describe and summarize responses to questions related to changes in support persons' knowledge and attitudes toward breastfeeding.	Descriptive statistics: This 17 item tool uses a scale for each item, 1-5. The numbers for each item are then added to develop a numerical representation of the support person's attitude toward breastfeeding. Results will be reported in aggregate form and displayed in a table.
8A and 8B. The number of mothers who continued breastfeeding at 3 months was greater than 36.9% measured by the Beginning Breastfeeding	8A. Beginning Breastfeeding Survey- Cumulative administered at 1month postpartum	Describe and summarize responses to questions related to changes in breastfeeding behavior.	8A.Descriptive statistics: The 24 item Beginning Breastfeeding Survey-Cumulative tool uses a scale to assess each item, 1-5. The numbers for each item are then added to develop a numerical representation of the mother's breastfeeding experience at both one month and three months postpartum

<p>Survey-Cumulative administered at one month postpartum and three months postpartum, and through analysis of a semi-structured interview conducted when the participant exits the project.</p>	<p>and 3 months postpartum. This tool has been validated in multiple breastfeeding studies (Mulder & Johnson, 2010; Mulder, 2013).</p> <p>8B. The participants were also asked to complete a semi-structured interview. The script was developed using input and feedback from coalition members and was vetted and reviewed for reliability and validity by the first and second project readers.</p>		<p>(after the delivery of their baby). Results will be recorded in aggregate form and displayed in a table.</p> <p>8B. Qualitative data: identifying common responses. The Semi-Structured Interview responses will be compiled in aggregate form to identify common responses related to continued breastfeeding and discontinued breastfeeding. A table will be used to organize the data.</p>
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*Appendix K***Scholarly Project IRB Letter of Determination**

BOISE STATE UNIVERSITY
RESEARCH AND ECONOMIC DEVELOPMENT
Research Compliance

Date: May 08, 2017
To: Sara Ahten cc: Amber Gentry
From: Social & Behavioral Institutional Review Board (SB-IRB)
c/o Office of Research Compliance (ORC)
Subject: SB-IRB Notification of Approval - Modification - 187-SB17-040
Education and Enhanced Support to Improve Breastfeeding Success

The Boise State University IRB has approved your proposed modifications to your protocol application. Your protocol is still in compliance with this institution's Federal Wide Assurance (#0000097) and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46).

Protocol Number: 187-SB17-040	Received: 5/6/2017	Review: Expedited
Expires: 3/15/2018	Approved: 5/8/2017	

This approval does not extend or change your protocol's current expiration date noted above.

You must notify the SB-IRB of any additional changes to your approved protocol using the Biosafety Protocol Update form. The SB-IRB must review and approve the modifications before they can begin.

All forms are available on the ORC website at <http://goo.gl/D2FYTV>

Please direct any questions or concerns to ORC at 426-5401 or humansubjects@boisestate.edu.

Thank you and good luck with your research.

1910 University Drive Boise, Idaho 83725-1139
Phone (208) 426-5401 orc@boisestate.edu

This letter is an electronic communication from Boise State University

*Appendix L***IIFAS Letter of Permission**

Amber Gentry <ambergentry@u.boisestate.edu>

IIFAS

Delamora, Arlene [SOE] <adelamor@iastate.edu>
To: Amber Gentry <ambergentry@u.boisestate.edu>

Tue, Jan 17, 2017 at 10:40 AM

You have our permission to use the scale in your research. I have attached two documents for you today. I have attached a copy of our paper describing the IIFAS and its psychometric properties. A copy of the scale can be found on the last page. I am also attaching a copy of a document that describes our requests for using the IIFAS in your research. Please review the "Use of the IIFAS in Publications" document and let me know if you have any concerns.

Arlene de la Mora

Appendix M

BBS-C Letter of Permission



Office for Nursing Research and Scholarship
408 Nursing Building
Iowa City, Iowa 52242-1121
319-335-7134 Fax 319-353-5535
www.nursing.uiowa.edu

February 19, 2017

Amberlyn Jergins Gentry
Boise State University
ambergentry@u.boisestate.edu
928-243-7101

Re: Permission to use the Beginning Breastfeeding Survey-Cumulative (BBS-C)

Dear Amber:

Thank you for contacting us to request permission to use the Beginning Breastfeeding Survey-Cumulative (BBS-C), a survey to measure a mother's perception of breastfeeding effectiveness. I understand that you intend to use the BBS-C to complete your Doctor of Nursing Practice Scholarly Project addressing breastfeeding practices in rural Arizona. We are pleased to grant you permission to the BBS-C for this purpose.

As a reminder, by returning a signed copy of our instrument use agreement, you agree to:

- 1) Include a reference to the following article any time you use the BBS-C:
Mulder, P. J. (2013). Revision of the beginning breastfeeding survey: A cumulative assessment of breastfeeding. *Journal of Nursing Measurement*, 21, 80-95. DOI: 10.1891/1061-3749.21.1.80
- 2) To indicate that you are using a version of the measure "adapted from the Beginning Breastfeeding Survey-Cumulative (BBS-C)" and include a citation to the article in (1) if you modify the BBS-C in any way, including changes in wording or the measure itself.
- 3) To forward the appropriate citation and additional relevant information if the results of your use of the BBS-C are published or otherwise disseminated (e.g., in a conference presentation or poster). This information should be forwarded to the University of Iowa College of Nursing, Office for Nursing Research and Scholarship (linda-hand@uiowa.edu).

We wish you the best of luck in your scholarly endeavors.

Sincerely,

Pamela J. Mulder, PhD, RN
Assistant Professor



*Appendix N***Short Term Outcome Results**

Outcome	Completed (Yes or No)
A community needs assessment was completed and distributed to potential coalition members at first coalition meeting.	Yes
A coalition group to promote and support breastfeeding in the community is developed by April 20, 2017.	Yes, completed May 20, 2017.
Formalized foundational documents (mission, purpose, goals) were developed for distribution by May 20, 2017.	Yes
By the end of the implementation period, 75% of the coalition members will have attended all coalition meetings.	No- Members attended 50% of meetings. One meeting was attended by only 3 members.
Recruitment materials will be developed and distributed by May 1, 2017.	Yes- Materials were completed and distributed on May 15, 2017.
After participating in prenatal education program, 90% of participants completed the Breastfeeding Attrition Predictor Tool (BAPT).	Yes- 100% of participants completed the BAPT.
After participation in the New Baby Tea, 85% of participant support persons report positive attitude toward breastfeeding as measured by the Iowa Infant Feeding Attitude Scale (IIFAS).	Yes- after accessing the alternative format of the New Baby Tea materials, 87.5% of support persons who completed the IIFAS indicated a positive attitude toward breastfeeding.
The number of mothers who continued breastfeeding at 3 months postpartum was greater than 36.9% measured by the Beginning Breastfeeding Survey-Cumulative administered at one month postpartum and three months postpartum, and through analysis of a semi-structured interview conducted when the participant exits the project.	Yes- 75% of the participants were still breastfeeding at 3 months postpartum.

Appendix O

Checklist of Tasks

Task	Completed (Yes/No)	Date Completed
Community Needs Assessment	Yes	March 2016
Coalition Formed	Yes	May 20, 2017
Coalition Mission Developed	Yes	May 20, 2017
Coalition Purpose Developed	Yes	May 20, 2017
Coalition Goals Developed	Yes	May 20, 2017
Recruitment Materials Developed	Yes	May 13, 2017
Prenatal Education Modules Developed	Yes	May 12, 2017
Prenatal Education Modules loaded into LMS	Yes	May 12, 2017
LACTOR instructions loaded into LMS	Yes	May 12, 2017
LACTOR Training for Lactation Consultants	No- not needed.	
Organize materials for New Baby Tea	Yes	June 2, 2017
Facilitate New Baby Tea	No- no attendees came.	June 3, 2017
Post Recruitment Coalition Meeting	Yes	July 13, 2017
Post Implementation Coalition Meeting	Yes	August 22, 2017
Develop Sustainability Plan		January 2018
Final Report to Coalition		March 2018

Appendix P

Coalition Meeting Minutes

**WHITE MOUNTAIN
BREASTFEEDING COALITION
MEETING**



April 20, 2017
6:30-8:30 PM

NPC WMC - Ponderosa Center 106
Show Low, AZ 85901

Meeting called by: Amber Gentry Type of meeting: Foundational
 Facilitator: Amber Gentry Note taker: Amber Gentry
 Attendees: Amber Gentry, Susan Jamison, Kathryn Stapley, Angela Kimmins, Alison Alop
 Please read: _____
 Please bring: _____

AGENDA ITEMS

Topic	Presenter	Time allotted
✓ Project Overview- An overview of the project was presented to those in attendance. A printed copy of the presentation was included in the member folders. A copy of the community health assessment was also included in the member folders. Discussion about the need for breastfeeding promotion concurred with findings of the needs assessment.	Amber Gentry	
✓ Coalition Foundational Documents- Name, Mission, purpose and goals. It was agreed that the coalition would be named: White Mountain Breastfeeding Coalition. It is intended to include all areas in the White Mountain Community and not just the city of Show Low. The agreed upon mission of the coalition is: Our mission is to improve the health of our community through the support and promotion of breastfeeding. The purpose was agreed upon as: To provide a network of community partners dedicated to the improvement of breastfeeding outcomes within the White Mountain Community. And the goals were agreed to be: Goals: <ol style="list-style-type: none"> 1. Create a network of community partners with a shared vision. 2. Identify resources within the community to support the mission of the coalition. 3. Support and facilitate breastfeeding education for mothers and families in the White Mountain Community. 		
✓	Amber Gentry	
✓ Election of Officers- This was deferred to a future meeting.	Amber Gentry	
✓ Recruitment Packets- The project will aim to recruit 10-15 pregnant mothers for the pilot phase. Discussion about gestational age led to the change from 36 weeks gestation to 34 weeks gestation to try to reach more mothers. The recruitment flyer was reviewed with the edit of the gestational age. The cover letter was reviewed and the letter was dated May 1, 2017 to coincide with the expected recruitment start date, and the addition of "upon completion" as a requirement to receive the \$20 gift card. The Tea invitation underwent several changes including the date (June 3, 2-4 PM), the name (New Baby Tea), and the description on the back will need to be revised in order to include the mother and to indicate that the event is for all support persons, not just grandmothers. The Informed Consent form was reviewed and edited in several places.	Amber Gentry	

including the addition of lactation consultant contact information, addition of you/your indicating mother participation in the tea, gestational age 34 to 36 weeks at time of recruitment, date of the tea, removal of language about discontinuing breastfeeding before 12 weeks postpartum, and clarification of criteria for the \$20 gift card. All four revised documents are attached to these minutes.

- ✓ Prenatal Education- Discussion was opened regarding topics to be included in the prenatal education modules. Topics to include are: 1. Skin to skin care and the golden hour: facilitates better breastfeeding outcomes and should emphasize that visitors should be limited until after the first feed (not just the first hour). 2. Basics of breastfeeding: how milk production and feeding works, positioning, latching, nipple types. Breastfeeding can be good because it's ready anytime, anywhere. 3. Breastfeeding recommendations- avoiding artificial nipples, health benefits, exclusive breastfeeding. 4. When to reach out for help. 5. Back to work- hand expression, pumping, storage of breastmilk, handling breastmilk, daycare workers, right to breaks, and breastfeeding supplies covered by insurance. 6. Mother's rights and breastfeeding. Have a right to breastfeed wherever the mother has a right to be. Legal protection of breastfeeding. Amber Genty
- ✓ Website Development- Brief discussion about the development of a web site for the coalition and including a contact page for local lactation consultants so that community members can find help quickly and easily. Kathryn indicated that she would like to help with the web site and knows some tricks to increase visibility and traffic to the website. Amber Genty
- ✓ Set Date for Tea- The date for the New Baby Tea will be June 3rd from 2-4. The location was changed to NPC Aspen Center 110. Amber Genty
- ✓ Set Date for Next Meeting- The next coalition meeting will be on Tuesday, May 23 from 6:30-8:30PM at NPC- Ponderosa Center 106. Amber Genty

OTHER INFORMATION

Observers: _____

Resources: Member folders distributed

Special notes: Invite Barbara from Healthy Steps to next meeting.

White Mountain Breastfeeding Coalition Meeting			5/23/2017 6:30 AM to 8:05 AM NPC White Mountain Campus Ponderosa Center Rm 106
Meeting called by: <u>Amber Gentry</u>	Type of meeting: regular		
Attendees: Amber Gentry, Edward Gentry, Angela <u>Kimmins</u>			
Agenda			
Review 4/20/17 Meeting Minutes	Amber Gentry	10	
Discussion: <u>A copy of the previous meeting minutes were</u> distributed.			
<hr/>			
Conclusions: will present minutes at next meeting due to low attendance.			
Action items: <u>NA</u>	Person responsible:	Deadline:	
<hr/>	<hr/>	<hr/>	
Update on Project Progress	Amber Gentry	10	
Discussion: A brief summary of project progress was discussed.			
<hr/>			
Conclusions:			
Action items: <u>NA</u>	Person responsible:	Deadline:	
<hr/>	<hr/>	<hr/>	

May 23, 2017 meeting minutes continued.

Website and Facebook Page			Amber Gentry	30
Discussion: The coalition website and Facebook page were shown.				
Conclusions:				
Action items: NA		Person responsible:	Deadline:	
New Baby Tea			Amber Gentry	30
Discussion: 3 activities were selected. Refreshments will be cupcakes, vegetable tray, and water or lemonade.				
Angela and Amber discussed the procurement of supplies for the tea. Angela has some items for prizes that she will bring to the tea. Amber has supplies for the games and will obtain food, paper goods, balloons, and any additional supplies needed.				
Conclusions:				
Action items: NA		Person responsible:	Deadline:	
Other Business				10
Discussion: no additional business noted.				
Conclusions:				
Action items: NA		Person responsible:	Deadline:	
Schedule Next Meeting			Amber Gentry	5
Discussion: Amber will send out a Doodle Poll to select date for next meeting.				
Conclusions:				
Action items: NA		Person responsible:	Deadline:	



<h2>White Mountain Breastfeeding Coalition Meeting</h2>		<p>7/13/2017 6:30 PM to 7:30 PM NPC White Mountain Campus Ponderosa Center Rm 106</p>	
Meeting called by:	Amber Gentry	Type of meeting:	Regular
Facilitator:	Amber Gentry	Note taker:	Amber Gentry
Attendees:	Amber Gentry, Edward Gentry, Hope Gentry, Timothy Guthry, Kathryn Stapley, Jessica Sok, Susan Jamison		
<h3>Agenda</h3>			
Project Update	Amber Gentry	10	
<p>Discussion: An overview of project progress was given. Discussed current number of participants and their progress in the Project. Amber has conducted 2 lactation consults and has another consult scheduled for tomorrow.</p>			
<p>Conclusions:</p>			
Action items: NA	Person responsible:	Deadline:	
Website, Facebook Page, LACTOR	Amber Gentry	30	
<p>Discussion: Due to low attendance at last meeting, the website, facebook page, and Moodle page were demonstrated.</p>			
<p>Kathryn Stapley would like to volunteer to manage the website as she has knowledge and experience with this.</p>			
<p>Kathryn will create some sample logos for the coalition to vote on at the next meeting.</p>			
<p>Conclusions:</p>			
Action items:	Person responsible:	Deadline:	

July 13, 2017 meeting minutes continued.

New Baby Tea			Amber Gentry			10		
Discussion: Discussed the lack of attendance at the tea. Discussed the alternate format. Members agree that offering an alternate format was a sound plan.								
Conclusions:								
Action items:			Person responsible:			Deadline:		
Other Business								
Discussion: Suggestions for additional members include Dr. Bennet and Rachel Armstrong, RN, as well as any local Midwives that may be interested in the coalition.								
Conclusions:								
Action items: Kathryn Stapley will invite Dr Bennet and Rachel Armstrong to the next meeting.			Person responsible:			Deadline:		
Schedule Next Meeting								
Discussion: Amber Gentry will send a Doodle Poll for the next meeting as this was a more effective way of coordinating schedules.								
Conclusions:								
Action items: Amber Gentry send Doodle Poll.			Person responsible:			Deadline:		

White Mountain Breastfeeding Coalition Meeting

8/22/2017
6:30 PM to 7:30 PM
NPC White Mountain Campus
Ponderosa Center Rm 106

Facilitator: Amber Gentry Note taker: Amber Gentry

Attendees: Amber Gentry, Alison Altop, Angela Kimmins, Amariah Fabian, Kathryn Stapley

Agenda

Review Minutes from 7/13 Meeting Amber

Discussion: No corrections noted.

Vote on Logo Amber

Discussion: Kat Stapley presented several options for the coalition logo. The group selected 2 logos to revise. The revised logos will be sent out via email for voting and can be placed on the coalition website and the Facebook page once finalized.

Project Update Amber

Discussion: A brief update of project progress was given. 7 out of 8 participants are still breastfeeding. The participants are reaching the end of the program and exit interviews will begin soon.

1st Survey Results Amber

Discussion: All participants have completed the first BBS-C survey. As they reach the 12th week of participation, they will complete the 2nd survey. The results can be compared.

What's Next

Discussion: We will hold officer elections at the next meeting. Offices will include: President, Vice President, Treasurer, Secretary, and Technology Coordinator. Several ideas were suggested to help sustain the group:

- Continue to offer the Moodle class and keep it free by offering a one-month enrollment. Each username would be valid for one month. Then could be deactivated to allow another user to utilize that spot. We are limited to 49 users and one administrator under the free version.
- Make flyers/application forms for the Moodle class and distribute to WIC, DES, provider offices, OB department at the hospital, and the prenatal educator.
- Run a table at the Summit Health Fair next summer.
- Local events- get a booth and share information about breastfeeding and the coalition with the community.
- ABC- Arizona Breastfeeding Coalition wants to support more local coalitions. May be a helpful resource.
- Latch-in- organize community participation in state and national latch-in activities/events.
- Come up with a catch phrase each month/season for the Facebook page. Some think that the word “coalition” may be off-putting. For example, Fall in love with breastfeeding..... White Mountain Breastfeeding Coalition.

New Business

Discussion: Barbara from Healthy Steps is interested in participating with her staff. Kat will call Barbara to invite her to the next meeting. Dr. Bennett has “liked” the coalition’s Facebook page. Anyone with an interest in supporting breastfeeding is welcome to attend.

The Doodle polls seem to work best for scheduling. Amber will send out a new Doodle poll for our next meeting.

No additional business.

Adjourn

**White Mountain
Breastfeeding
Coalition Meeting**

**10/3/2017
6:00 PM to 8:00 PM
NPC White Mountain Campus
Ponderosa Center Rm 106**

Facilitator:

Amber Gentry

Note taker:

Amber Gentry

Attendees:	
Amber Gentry, Alison Altop, Angela Kimmins, Amariah Fabian, Kathryn Stapley, Allison Hephner, Susan Jamison, Jessica Sok Hazen, Tina Chevalier	
Agenda	
Review Minutes from 8/22 Meeting	Amber
Discussion: No corrections noted.	

Logo Outcome	Amber
Discussion: Kat Stapley finalized the logo. The logo has been published on the Facebook page and the coalition website.	

Project Update	Amber
Discussion: A brief update of project progress was given. Data tables were shared. 75% of participants continued breastfeeding at 3 months postpartum. Most support persons who viewed the alternate tea materials indicated a positive attitude toward breastfeeding. All participants indicated an increase in breastfeeding knowledge upon completion of the education modules. Feedback was given on how to improve the modules including a report of some technical issues using the LMS.	

Officer Nominations and Elections	Amber
Discussion: Officers were nominated and elected as follows:	
2 Co-Presidents: Kat Stapley and Amber Gentry	
1 Secretary/Treasurer: Amariah Fabian	
1 Community Outreach Representative: Allison Hephner	
1 Assistant to Help as needed: Angela Kimmins	

What's Next/Sustainability:

Discussion:

- We need to promote the coalition. Need to develop flyers to promote the education.
- Amariah possibly has a connection to put together a local radio ad.
- Monthly meetings will be held on the first Tuesday of every month at 6:00 PM.
- Some coalition members would like to offer in-person classes and possibly support groups such as the “Breastfeeding Café”. If we offer in-person classes, we would require pre-registration and need a certain number of participants to hold these classes. Classes would be held in surrounding areas, not just Show Low which may help with the transportation issue and may make the education available to those who do not have internet access. Classes would be free of charge.
- We should add a Facebook Group to allow for discussion as opposed to a page that does not encourage discussion.
- Amariah will gather information about opening a bank account and report back to the group.
- Amber will send out contact information.
- We will need to secure a new meeting space as we move out of the project phase.
- Allison will schedule time for recording with the Safe and Sound show. This is for healthcare workers, first responders, community resources, etc. The show plays on the Show Low station and loops episodes for one month.
- Allison may also be able to get us in contact with the White Mountain Independent, or the Birdman Podcast.
- Several local radio stations may allow us to record an ad to promote the coalition.

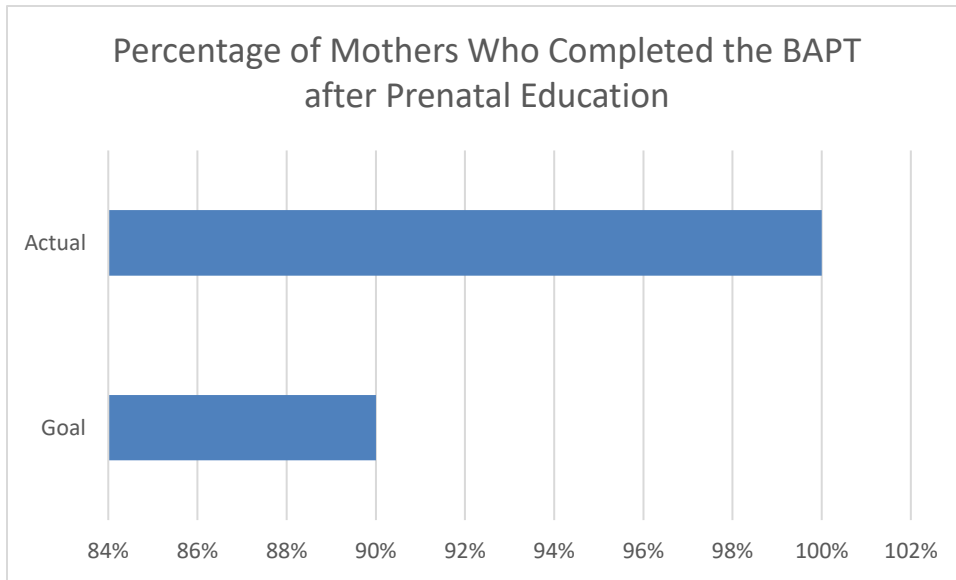
New Business

Discussion: No additional business.

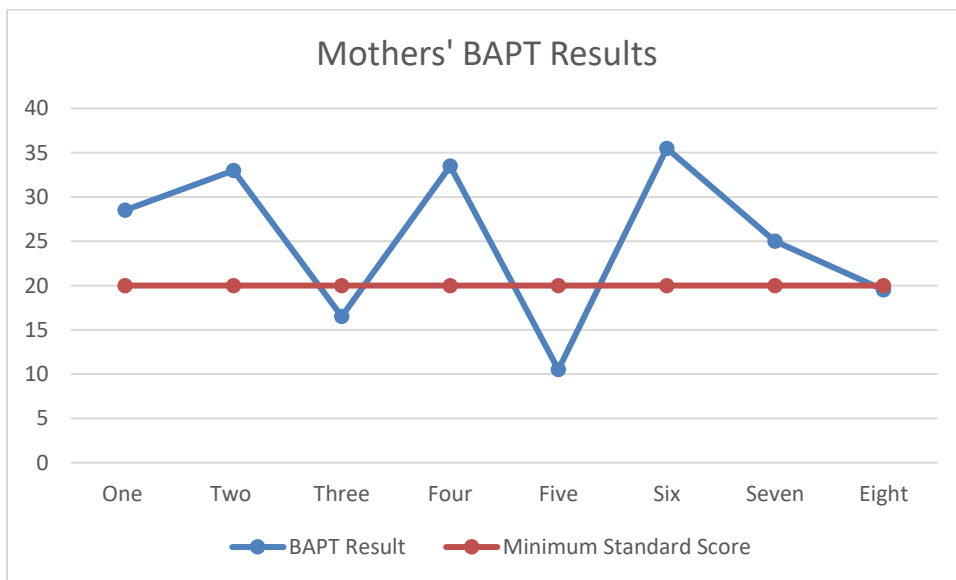
Adjourn

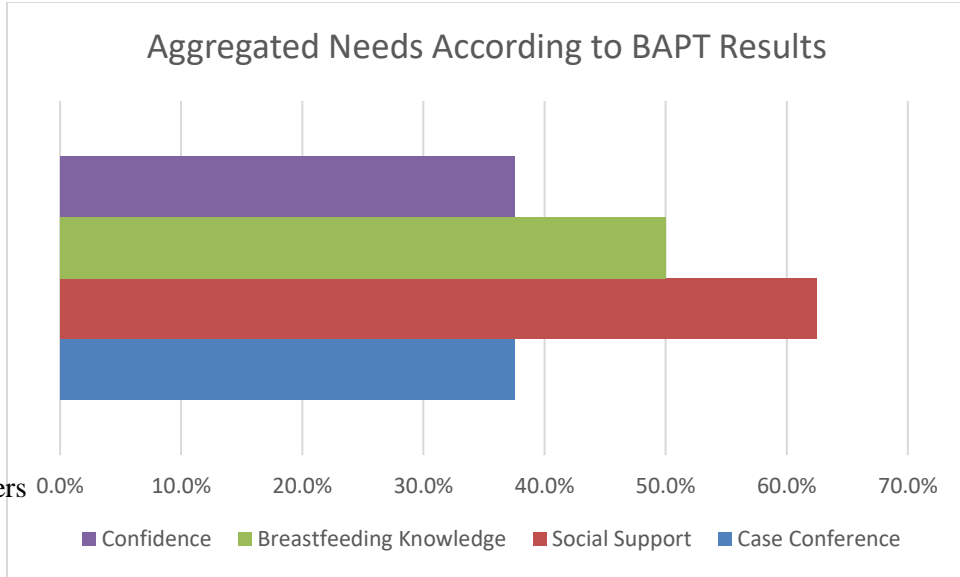
Appendix Q

Breastfeeding Attrition Predictor Tool Results



Breastfeeding Attrition Predictor Tool Individual Results

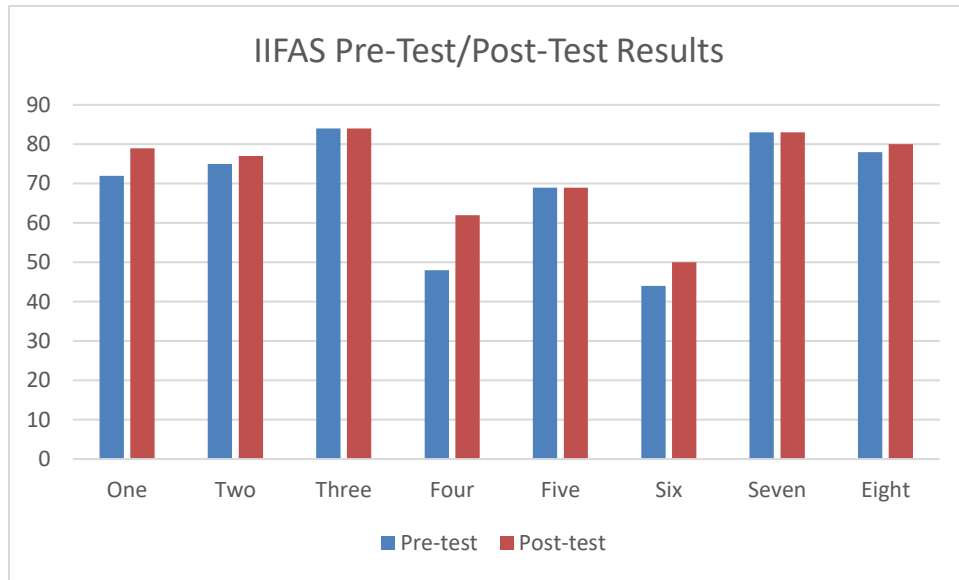




Percentage of Mothers

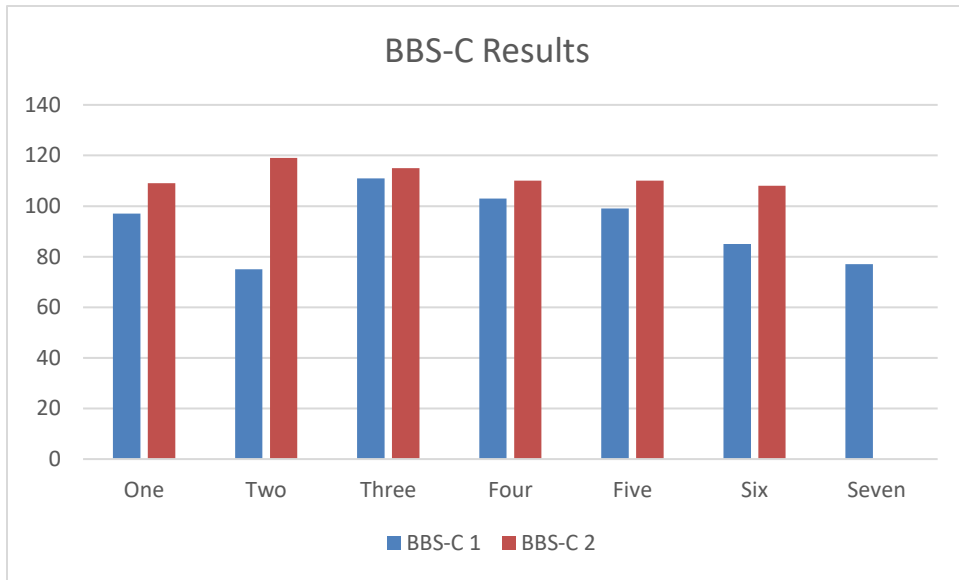
Appendix R

IIFAS Pre-Test and Post-Test Results



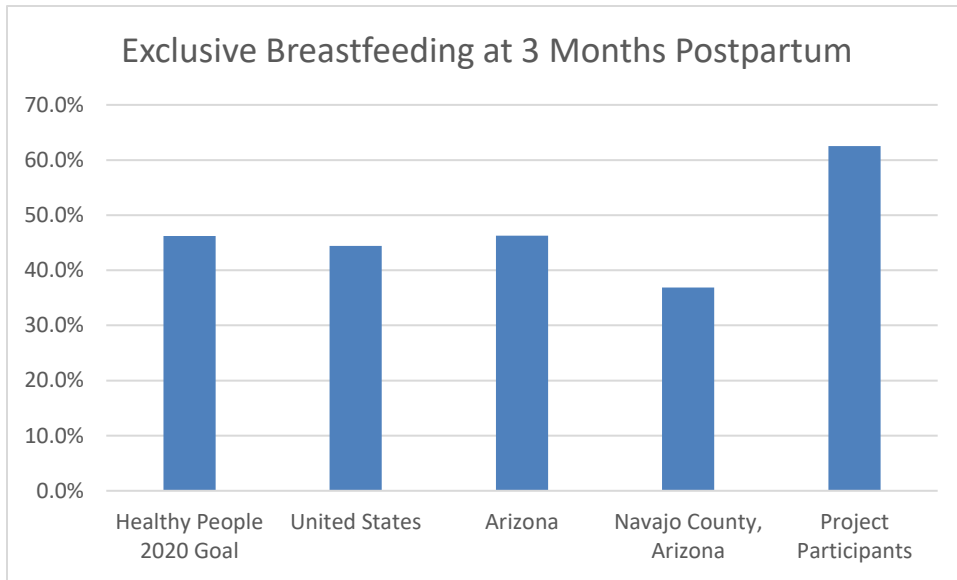
Appendix S

BBS-C One Month and Three Month Survey Results



Appendix T

Breastfeeding Exclusivity Table



Appendix U

Aggregated Table of SSI Common Responses

Question	Responses
To start off, I am really interested to hear about your life with your new baby. Tell me something about being a new mom.	<p>This is my first baby.</p> <p>I'm sometimes afraid that I'm doing it wrong.</p> <p>I didn't know what to expect.</p> <p>It was overwhelming.</p> <p>I didn't think it would be this hard.</p> <p>It's been a big adjustment to have two kids now.</p> <p>There is nothing like it in the world.</p>
Thinking back to when you first found out you were pregnant, how did you think you would like to feed your baby? Did you continue to feel that way throughout the rest of your pregnancy? What were some of your thoughts about breastfeeding?	<p>I didn't think about it.</p> <p>My friend told me how good breastfeeding is so I wanted to do it for my baby.</p> <p>I knew I wanted to breastfeed from the beginning.</p>
Tell me about your experience with your prenatal provider's advice about breastfeeding.	<p>My doctor didn't talk to me about breastfeeding.</p> <p>He told me about how the hospital lets you breastfeed your baby right after it's born.</p> <p>He said that they would help me at the hospital, and there are lactation consultants at the hospital now, so I was happy to hear that.</p> <p>He told me breastfeeding is best.</p>
What were your experiences with breastfeeding when you were in the hospital after having your baby? What do you remember about breastfeeding in the hospital and those first days you were home with your new baby?	<p>The nurses were helpful.</p> <p>The lactation consultant was helpful.</p> <p>I held my baby skin to skin.</p> <p>The lactation consultant called to check on me after I went home.</p> <p>My baby kept falling asleep; he didn't feed good.</p> <p>The nurses and lactation consultant at the hospital were very helpful.</p> <p>This was my first experience with the golden hour. I didn't realize that {my baby} would seek it on {my baby's} own.</p>
When thinking about your experiences with breastfeeding your baby, what are some things that you love(d) about it?	<p>I feel proud.</p> <p>I love that I can do this for my baby.</p> <p>It makes me proud that I can do something that nobody else can do for my baby.</p>

	<p>I know I'm making the healthiest choice for my baby.</p> <p>I want to do the best thing for my baby. It makes me feel like I'm protecting my baby. I love feeling close to my baby. I like holding my baby, but I didn't like breastfeeding.</p> <p>I love the closeness and I love that this is something I can do for her that no one else can.</p> <p>It's kind of empowering to me.</p> <p>It is amazing to me that the human body is designed to work this way and that I can make all that my baby needs to grow strong and healthy.</p> <p>It's the best food for my baby.</p> <p>I love it when he smiles at me and I love watching him.</p>
<p>Tell me something that you found to be a struggle with breastfeeding. What were some feelings you had during those hard times when you felt as if you couldn't continue on with breastfeeding? What did you do to turn those hard times around (<i>for those who discontinued before 12 weeks, do not ask this question</i>)? What really kept you going during the hard times (<i>for those who discontinued before 12 weeks, do not ask this question</i>)?</p>	<p>It helped me to see that my baby was healthy. The lactation consultant was the best help to me.</p> <p>It hurt at first.</p> <p>I would want my baby to stop because it hurt. I'm glad that I had someone to keep encouraging me and keep me positive.</p> <p>The hardest part was when I went back to work; it's hard to find time to pump sometimes.</p> <p>Getting him to latch was a problem the whole time and I don't think I was making good milk.</p> <p>This time has been so much easier for me. {My baby} latched right away and everything was working the way it should.</p> <p>I had a little soreness in the very beginning, but it went away pretty quickly.</p> <p>I haven't even considered the thought of quitting.</p> <p>When they say that breastfeeding doesn't hurt, they lie.</p> <p>It hurt so bad. It helped to know that sometimes it can hurt and I got a lot of support from you and that was huge. I was really frustrated and annoyed by all of the people telling me that I should just quit.</p>

<p><i>For those who dropped out before 12 weeks ask: What was the main reason that you decided to stop breastfeeding? How did you feel about your decision? If the mother indicates that she would have liked to continue breastfeeding, ask this question: What are some things that you think would have helped you continue breastfeeding?</i></p>	<p>I always had a struggle with breastfeeding. I had to get a job. Some of my friends think it's weird that I'm breastfeeding, but I don't care.</p>
<p>Thinking about the people in your life and the different relationships you have with them, tell me something about your friends' and family's experiences with breastfeeding?</p>	<p>My mom didn't breastfeed so she didn't really help me. My friend breastfed and she told me a lot about it; she didn't sugarcoat it. My aunt did but she had to stop because she didn't make enough milk. My mom breastfed all of us- she was my biggest cheerleader. My friend that made me want to breastfeed is still breastfeeding. I haven't really focused too much on their experiences. I remember my mom breastfeeding my siblings and she has helped me a lot. My mom never had a hard time breastfeeding. Some of my friends didn't seek any support. I only know a couple of people who would have done anything to nurse.</p>
<p>Tell me something that you found to be helpful with breastfeeding. What were some feelings you had during the times you felt things were working smoothly and going well? What made these times easier?</p>	<p>Seeing my baby is healthy. I don't have to wash bottles. I don't have to make bottles in the middle of the night. I don't have to worry if I have enough supply with me because I can breastfeed anywhere. My mom. I don't feel like it was ever easy. I really haven't given it too much thought. Your consulting was helpful. The hold and positioning was very helpful. It was helpful to know that sometimes it does hurt; I'm not failing, I'm normal.</p>
<p>Thinking back to all that you have shared today with me, what do you think is the most important point you would like me to know about your experiences with breastfeeding?</p>	<p>That my baby is healthy because I am breastfeeding. It was good to learn about breastfeeding before my baby was born; it helped me decide to do it.</p>

	<p>I think that if everyone had a cheerleader to support them and help them through the tough times, there would probably be a lot more people breastfeeding.</p> <p>I really wanted to breastfeed my baby, but I didn't know it would be so hard.</p> <p>I didn't feel confident about my ability to breastfeed, but I had made up my mind that I wanted it to work.</p> <p>To have someone you can depend on who has experience with what you are doing.</p> <p>Other women need to know that it's okay if it hurts and eventually it won't hurt. And when you get through it, it's such a reward.</p>
<p>Thinking about your experience as a participant in the project, what could make the program better? What could make it easier for you to manage?</p>	<p>It's hard to enter the diary every day.</p> <p>I looked at the class again a few times after my baby was born.</p> <p>Sometimes it was hard to journal.... the journal helped me more when I was starting.</p> <p>The program was helpful.</p> <p>The journal was helpful.</p> <p>It was harder to keep up with the journal after I went back to work.</p> <p>The education was helpful.</p> <p>I like the daily journal in the beginning, but after about 5 or 6 weeks or so, it seemed like a lot of work to log the journal every day.</p> <p>I liked knowing that I could call for help if I needed to.</p> <p>Easier access to the online parts and on the journal it might be easier to have a better system or app to click when I change the diaper and it can tally it up and I can send it at the end of the day. This would be better for consistency.</p>
<p>Is there anything else you would like to share?</p>	<p>My mom looked at some of the class, too.</p> <p>It {participating in the project} made it easier to get things started and to stay with it.</p> <p>One of my friends is pregnant and she wants to do the program.</p> <p>I am so happy that things are going better this time.</p> <p>Please keep doing this.</p> <p>I'm glad I did it.</p>

	<p>It helped me to get through the rough times and to have access to you. I felt spoiled and I feel like I got more attention.</p> <p>I think it was great.</p> <p>I think it should be available for other women and it will help women do it more. I think sometimes when women “can’t” breastfeed it can lead to pp depression. I know that if I couldn’t breastfeed, I would feel like I’m failing my kid and it would be awful to feel that way.</p> <p>We need more support to be able to do it.</p>
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Appendix V

3-5 Year Budget

IEP						
Revenues	Budget Year 1	Budget Year 2	Budget Year 3	Budget Year 4	Budget Year 5	Rationale
	\$ 20,097.39	\$ -	\$ -	\$ -	\$ -	In-Kind Personnel Salaries
	\$ 400.00	\$ -	\$ -	\$ -	\$ -	In-Kind Room Rental
	\$ 200.00	\$ -	\$ -	\$ -	\$ -	In-Kind Marketing Services
Total	\$ 20,697.39	\$ -	\$ -	\$ -	\$ -	
Expenses						
Personnel						
Project Manager	\$ 12,367.57	\$ 4,043.63	\$ 4,043.63	\$ 4,043.63	\$ 4,043.63	The initial year includes the completion of a community needs assessment, development of the project, and evaluation of the project (306 hours). Subsequent year's project management includes ongoing evaluation of project outcomes, and update to community needs assessment, quarterly recruiting, facilitation of quarterly coalition meetings, quarterly facilitation of New Baby Tea events, and training of office staff (approximately 100 hours/year).
IT Consultant	\$ 1,417.50	\$ 1,641.12	\$ 1,641.12	\$ 1,641.12	\$ 1,641.12	Variance due to shorter implementation in initial project and initial set up services in 1st year only.

Lactation Consultants (2)	\$ 6,312.32	\$20,119.50	\$20,119.50	\$20,119.50	\$ 20,119.50	Variance due to the initial project including only 16 weeks of lactation consultant services (64 hours). Subsequent years include 2 lactation consultants providing 2 hours per week (208 hours).
Equipment						
Printer	\$ 179.00	\$ -	\$ -	\$ -	\$ -	Initial cost only in 1st year. The printer will depreciate each year.
Travel	\$ 130.83	\$ 168.20	\$ 168.20	\$ 168.20	\$ 168.20	Variance due to short duration of initial project (3 trips for training, 3 coalition meetings, 1 New Baby Tea, each 42 miles roundtrip). Continuance of program will require additional travel in subsequent years (1 trip for training, 4 coalition meetings, 4 New Baby Tea events, each 42 miles roundtrip).
Materials and Supplies						
Ink/Toner	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	Printing cost for coalition documents, community health assessment, training materials for office staff, and printed materials for New Baby Tea. Documents will be updated/reviewed yearly.
Paper	\$ 23.00	\$ 23.00	\$ 23.00	\$ 23.00	\$ 23.00	Printing cost for coalition documents, community health assessment, training materials for office staff, and printed materials for New Baby Tea. Documents will be updated/reviewed yearly.
Training Materials for Office Staff	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	Brochures, pamphlets, and other printed materials for each office manager.

New Baby Tea Props	\$ 59.19	\$ -	\$ -	\$ -	\$ -	The props can be used from year to year. Initial cost only. Refer to "Prop" tab.
New Baby Tea Consumables	\$ 32.54	\$ 125.42	\$ 125.42	\$ 125.42	\$ 125.42	Variance is due to one event offered during initial project, four events in subsequent years. The consumables will be needed each year. Refer to "Consumables" tab.
New Baby Tea Refreshments	\$ 134.74	\$ 538.96	\$ 538.96	\$ 538.96	\$ 538.96	Variance is due to one event offered during initial project, four events in subsequent years. Refreshments will need to be budgeted each year. Refer to "Consumables" tab.
New Baby Tea Paper Goods	\$ 27.00	\$ 108.00	\$ 108.00	\$ 108.00	\$ 108.00	Variance is due to one event offered during initial project, four events in subsequent years. Paper goods will need to be purchased each year. Refer to "Consumables" tab.
Care Packages	\$ 405.21	\$ 1,620.60	\$ 1,620.60	\$ 1,620.60	\$ 1,620.60	Variance due to one cohort in initial project, four cohorts each year in subsequent years. Supplies will be needed each year to distribute in the mother care packages. Refer to "Consumables" tab.
Space						
Room Rental	\$ 400.00	\$ 800.00	\$ 800.00	\$ 800.00	\$ 800.00	Variance due to initial year includes 3 meetings and 1 New Baby Tea. Subsequent years include 4 meetings and 4 New Baby Tea events.
Web Services						
Website and Hosting Service	\$11.00	\$ 11.00	\$ 11.00	\$ 11.00	\$ 11.00	

Learning Management System	\$ -	\$ -	\$ -	\$ -	\$ -	Moodle offers free learning management system. This is not in-kind. This is a free service.
LACTOR Web-based Breast-feeding program	\$ -	\$ -	\$ -	\$ -	\$ -	There is no charge to use this web-based breastfeeding monitoring program developed by Dr. Ahmed at Purdue University.
Marketing and Advertising						
Graphic Design Services	\$ 200.00	\$ -	\$ -	\$ -	\$ -	Variance due to initial cost. Once materials are developed, they can be reviewed and updated in subsequent years.
Marketing materials cost.	\$ 50.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	Variance due to initial year only having one recruitment period Subsequent years will have four periods of recruitment.
Total	\$ 22,088.90	\$29,678.43	\$29,678.43	\$29,678.43	\$ 29,678.43	
Operating Income						
	\$ (1,391.51)	Under Development	Under Development	Under Development	Under Development	

Appendix W

Project Expense Report

Source of Expense	Expense Description	Dollar Value	Type of Cost (fixed or variable)	Description of Cost	Estimated Volume	Expense Per Unit
Coalition Creation and Management		Cost (\$)				
Administrative Supplies & Support	Printer, cartridges, phone charges, paper, copying.	\$ 284.17	Variable	Supplies	1000	\$ 0.15
Webhosting service and development, per year	Website development, hosting, and maintenance.	\$ 11.00	Fixed	Website	1	\$ 11.00
Learning management system and hosting service used to deliver prenatal breastfeeding education.	Moodle free LMS	No Charge	Fixed	LMS	1	\$ -
Rental of Meeting Room, cost to be determined, per meeting, 6 meetings.	Space for coalition meetings.	\$ 600.00	Fixed	Space	1	100.00
Refreshments, Props and supplies, printed materials for New Baby Tea Event	Paper goods, surveys, food and drinks, supplies and materials for activities,	\$ 84.54	Variable	Supplies	1	\$ 84.54

	educational materials.					
Care packages for participants, 10-15 participants anticipated.	Diapers and breastfeeding supplies and gift cards for participants who complete prenatal education.	\$ 303.37	Fixed	Supplies	8	\$ 37.92
	Total Requested:	\$ 1,283.08				
Education Initial Training		Cost (\$)				
Training provided by project coordinator to staff at 1 provider offices.	Salary for Amber Gentry, \$30/hour for 1.25 hours per clinic, at initial training and two follow-up visits.	\$ 37.50	Fixed	Salary	7.5 hours	\$ 225.00
		\$ 11.81	Fixed	Fringe	7.5 hours	\$ 9.45
	Total Requested:	\$ 49.31				
Evaluation/Assessment		Cost (\$)				
Community Needs Assessment	Needs assessment completed and report prepared for coalition members.	\$ 180.00	Fixed	Salary	6 hours	\$ 30.00
		\$ 56.70	Fixed	Fringe	6 hours	\$ 9.45
	Total Requested:	\$ 236.70				

Management & Operations Salary						
Project Manager at \$30/hour, Fringe at 31.5%.	Project operations salaries = \$30/hour times 31.5% fringe times 133.55 hours	\$ 4,006.50	Fixed	Salary	133.55 hours	\$ 30.00
		\$ 1,262.05	Fixed	Fringe	133.55 hours	\$ 9.45
Information Technology Personnel at \$24 per hour. Fringe at 31.5%.	8 hours of website development and monitoring.	\$ 192.00	Fixed	Salary	8 hours	\$ 24.00
		\$ 60.48	Fixed	Fringe	8 hours	\$ 7.56
Lactation Consultants at \$75 per hour. Fringe at 31.5%.	Monitoring participants' daily journal and in-person consultation as needed. 42.05 hours.	\$ 3,153.75	Fixed	Salary	42.05 hours	\$ 75.00
		\$ 993.43	Fixed	Fringe	42.05 hours	\$ 23.63
	Total Requested:	\$ 9,668.21				
Marketing & Advertising						
Graphic Design of marketing materials.	Fee for design service.	\$ 200.00	Fixed	Design	1	\$ 200.00

Marketing & Advertising materials and disbursement.	Copying, printing, distribution.	\$ 50.00	Variable	Supplies	200	\$ 0.25
	Total Requested:	\$ 250.00				
	Grand Total Requested:	\$ 11,487.30				
In Kind Donations (From Above)						
Training provided by project coordinator to staff at 1 provider offices.	Salary for Amber Gentry, \$30/hour for 1.25 hours per clinic, at initial training and two follow-up visits.	\$ 37.50	Fixed	Salary	7.5 hours	\$ 225.00
		\$ 11.81	Fixed	Fringe	7.5 hours	\$ 9.45
Community Needs Assessment	Needs assessment completed and report prepared for coalition members.	\$ 180.00	Fixed	Salary	6 hours	\$ 30.00
		\$ 56.70	Fixed	Fringe	6 hours	\$ 9.45
Project Manager at \$30/hour, Fringe at 31.5%.	Project operations including data collection and analysis and clinic staff training. Salary = \$30/hour times 31.5% fringe times 133.55 hours	\$ 4,006.50	Fixed	Salary	133.55 hours	\$ 30.00

		\$ 1,262.05	Fixed	Fringe	133.55 hours	\$ 9.45
Information Technology Personnel at \$24 per hour. Fringe at 31.5%.	8 hours of website development and monitoring.	\$ 192.00	Fixed	Salary	8 hours	\$ 24.00
		\$ 60.48	Fixed	Fringe	8 hours	\$ 7.56
Lactation Consultants at \$75 per hour. Fringe at 31.5%.	Monitoring participants' journal and in-person consultation as needed. 42.05 hours.	\$ 3,153.75	Fixed	Salary	42.05 hours	\$ 75.00
		\$ 993.43	Fixed	Fringe	42.05 hours	\$ 23.63
Graphic Design of marketing materials.	Fee for design service.	\$ 200.00	Fixed	Design	1	\$ 200.00
Meeting Space.	Room for coalition meetings and for implementation of New Baby Tea.	\$ 600.00	Fixed	Space	6	\$ 100.00
	Total In-Kind Donations:	\$ 10,754.22				
	Adjusted Grand Total:	\$ (733.08)				

Appendix X

Statement of Operations

Statement of Operations			
Revenues			
In-Kind Donation Space Rental			\$ 600.00
In-Kind Donation Personnel			\$ 9954.22
In-Kind Advertising Services			\$ 200.00
		Total	\$ 10,754.22
Expenses			
Salaries			\$ 7569.75
Benefits			\$ 2384.47
Equipment			\$ 179.00
Supplies			\$ 493.08
Web Services			\$ 11.00
Marketing and Advertising			\$ 250.00
Room Rental			\$ 600.00
		Total	\$ 11,487.30
Operating Income			\$ (733.08)

Appendix Y

Literature Summary Table

Johns Hopkins Nursing Evidence-Based Practice Appendix G: Individual Evidence Summary Tool

EBP Question: Will providing antenatal education and enhanced healthcare provider and lay person support through the postnatal period (I) improve duration and exclusivity of breastfeeding (O) among breastfeeding mothers (P)?

Date: May 23, 2016

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
1	Ahmed & Ouzzani 2013	Prospective, descriptive, mixed methods study	26 mother/infant dyads, location not disclosed	The authors of this study wanted to determine the feasibility of an online lactation monitoring system. The system was found to be user friendly and aided continuity of care. The system was monitored daily by a lactation consultant who could call to offer support and assistance if a problem was suspected based on daily journal entries by the mother. The mother can also review current and previous data giving her a broader picture of her breastfeeding progress.	Small sample size.	II-B
2	Chantry, C. 2011	Qualitative Research Study	448 mothers with healthy term infants. Ethnically diverse. Half were college graduates and half only had high school	Breastfeeding mothers need adequate support to overcome common barriers to breastfeeding including pain, mechanical problems, infant too sleepy, issues with latching and sucking, etc. While professional support does help, lay support may be more effective.	This study is limited to low income mothers and their infants. The results	III-B

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
			education. Half public and half private health insurance.		may not be generalizable.	
	Congden 2016	Qualitative Study	2200 mothers who delivered at greater than 35 weeks gestation at a single hospital in Massachusetts.	Mothers and their families need more education and support including expectations for the perinatal period. Too much emphasis is placed on childbirth education and not enough emphasis on normal infant development, breastfeeding, and infant care education. Improving education and support in these areas can improve breastfeeding outcomes.	Results may not be generalizable.	III-B
3	Edwards, Bickmore, Jenkins, Foley, & Manjourides 2013	RCT- Pilot Study	75 WIC participants	Use of a computerized program can supplement and improve education and support provided by healthcare professionals.	Pilot studies may not show statistically significant differences.	I-B
4	Giglia, R., Cox, K., Zhao, Y., & Binns, C. 2015	RCT	414 mothers, the majority were from Midwest Australia, had to have access to internet, and most were over 30 years of age.	The internet intervention had an effect on longer duration of breastfeeding. The intervention included access to an online forum where participants could ask questions of peers and providers, send email to other participants or providers, and access approved websites that had been checked for accuracy of information. Due to the fact that most of the sample was over 30 years of age may eliminate the relatability of this	Long period of data collection, 21 months. Not all of the survey questions were answered by every mother. Use of the	I-B

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
				study to the adolescent population. However, with this being an internet intervention including a social media component, it may appeal to millennials.	intervention website was not assessed by the researcher, so it is not clear if this site affected the results.	
5	Grassley, Spencer, & Law 2012	Quasi Experimental	49 grandmothers	The study found no differences in the attitudes toward breastfeeding between the control and intervention groups. However, there was an increase in breastfeeding knowledge and the grandmothers that attended the tea appreciated learning and being included in breastfeeding education. Additionally, several of the grandmothers reported a change in the support they offered to their breastfeeding daughters as a result of attending the tea.	The small sample size may limit generalizability.	II-B
6	Hoddinott, P., Britten, J., & Pill, R. 2010	RCT	Seven community settings were used in Scotland. The population was not clearly identified in terms of number of participants and demographics. The sample was described as clinics	In those localities where breastfeeding declined (3 out of 7), it was found that there were issues with location, understaffing issues, and organizational issues such as the management focusing more on the administrative aspect. In the locations where breastfeeding rates increased, the interdisciplinary team worked well together to focus on the need of supporting breastfeeding mothers through the implementation of a public health policy.	It is unclear if the results are generalizable.	II-B

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
			implementing a public health policy, which included seven localities.			
7	Hudson, Rutledge, & Ayers 2015	Qualitative Study	9 breastfeeding coalitions in Michigan.	Coalitions enhance breastfeeding mothers' access to breastfeeding support groups. The coalitions had to include specific services including: facilitating support groups, peer support through the WIC program, meetings led by trained professionals, developing and enhancing a website and breastfeeding resource guide for mothers and health professionals who promote breastfeeding, and they all offered incentives to encourage support group participation and to encourage mothers to breastfeed. Three important themes were identified through the facilitation of the coalitions. Meet mothers where they are (this had to do with mothers access to the resources, support groups, and events), build community partnerships, and leverage additional resources to implement and sustain breastfeeding support groups.	The study was limited to the state of Michigan. Regional differences may limit the generalizability of results.	III-B
8	Powell & Baic 2011	Qualitative Study	8 male partners; 4 partners of breastfeeding mothers and 4 partners of bottle feeding mothers	Providing breastfeeding education and promotional literature to the male partner is a strategy to support breastfeeding mothers.	Small sample size.	III-B

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
9	Radtke-Demirci, Cohen, Parker, Holmes, & Bogen 2016	Randomized Pilot Intervention Trial	146 postpartum women over the age of 18 years who gave birth between 34 and 37 6/7 weeks gestation who planned to breastfeed for at least two months.	Most of the women in the study had access to technology and smartphones and were already using this to track pregnancy progression and concerns. Breastfeeding was one of the most frequently searched topics using technology or smart phones. This study found that women desire to use technology for emotional, informational, technical, and consultive-type breastfeeding support . Timing for this type of support was also discussed. Some women preferred daily support while others felt it would be more helpful after returning to work. There was a desire for this type of support through pregnancy and beyond the postpartum period.	Homogenous sample. Results may not be generalizable.	I-A
10	Rosen, Krueger, Carney, & Graham 2008	Quasi Experimental	194 women receiving care at an Army hospital. <input type="checkbox"/> N/A	Prenatal breastfeeding education delivered by certified lactation consultants/counselors increased the duration of breastfeeding among the intervention groups.	Changes in duty station caused differences in the intervention group sizes. Retrospective chart review. Timing of breastfeeding intent inquiry.	II-A

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
11	Sherriff, N., & Hall, V. 2011	Qualitative Research Study	8 white British fathers ranging from 27-48 years old living in two areas in the UK. <input type="checkbox"/> N/A	Fathers need and want to be included in the decision and process of infant feeding. Fathers lack support and knowledge in regards to breastfeeding. Fathers also lack the knowledge of how best to support their breastfeeding partners. Fathers may be a missing link in regards to breastfeeding support.	Small sample, no diversity except for ages ranging from 27-48. All were white British fathers.	III-B
12	Dyson, McCormick, & Renfrew 2005	Systematic Review	 <input checked="" type="checkbox"/> N/A	Health education and peer support are effective in increasing breastfeeding initiation and continuation rates. Effective types of health education include: one-to-one, needs-based, informal sessions either antenatal or perinatal by a trained professional or peer counselor.	Interventions need to be assessed in diverse populations.	IV-B
13	Giglia & Binns 2014	Literature Review	 <input checked="" type="checkbox"/> N/A	-The use of the internet to support breastfeeding and deliver breastfeeding education is one of many strategies currently used. -Internet interventions in this area are limited and lack rigorous study design and comprehensive analysis. -Having a lactation consultant available to new mother's on the computer screen in their homes could vastly improve breastfeeding outcomes. -The ability to evaluate difficulties and provide regular monitoring, especially to women in remote	There are limited studies that look at the effect of internet interventions on breastfeeding outcomes.	V-B

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
				<p>areas, will improve outcomes and save time and travel costs.</p> <p>-Concerns about exposure need to be addressed such as using a secure videoconferencing platform.</p>		
14	Haroon, Das, Salam, Imdad, & Bhutta 2013	Systematic Review	▣ N/A	Individual and group counseling “markedly” increased exclusive breastfeeding rates. Education was also found to be effective in increasing rates of breastfeeding initiation and exclusivity.	The studies evaluated had a high risk of bias due to the method used for blinding.	IV-A
15	Lumbiganon, Martis, Laopaiboon, Festin, Ho, & Hakimi 2014	Systematic Review	▣ N/A	Formal education alone did not make a statistically significant difference in the initiation of breastfeeding. Peer counseling was found to have a more significant effect on breastfeeding rates. These authors don’t recommend any educational interventions to improve breastfeeding initiation which contradicts some of the other studies and reviews evaluated.	There is a small risk of bias in the review.	IV-A
16	Mott, Wirtz, & Nashelsky 2015	Literature Review	▣ N/A	Lay and professional support are equally effective in promoting the initiation and continuation of breastfeeding as well as exclusivity. Lay support was found to be more effective than professional support, but only for a short time. This article recommends that women be educated about breastfeeding and receive support pre- and post- delivery.	Difficulty of blinding participants. Moderate to high amount of “heterogeneity”.	V-B

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
17	Renfrew, McCormick, Wade, Quinn, & Dowswell 2012	Systematic Review	▣ N/A	Lay or professional support or a combination of the two is effective. Strategies that rely on face-to-face support are more effective. Support should be patient-centered or needs-based. Support only offered after there is a problem will not be effective.	Some interventions did not adequately describe the actual support given.	IV-A
18	Wong, Tarrant, & Lok 2015	Systematic Review	▣ N/A	Longer term interventions or interventions that start in the antenatal period and continue through the postnatal period are more effective. The studies examined showed a higher rate of breastfeeding in women who attended at least one antenatal group breastfeeding session. The studies that used individual education saw an increase in breastfeeding rates in general, as well as, an increase in the duration of breastfeeding. Exclusivity was also affected with both group and individual antenatal breastfeeding education. The authors suggest that one-to-one antenatal education and specialized group education may be effective for addressing the disparities among vulnerable populations.	Some of the studies did not include clear definitions of the outcomes being measured. Some of the interventions included non-breastfeeding content.	IV-A
19	Zakocs & Edwards	Literature Review	▣ N/A	Effective coalitions incorporate six factors: enact formal governance procedures, encourage strong leadership, foster active participation of members, cultivate diverse memberships, promote collaboration among member agencies, and facilitate group cohesion.	In the studies reviewed, there was a wide variety of definitions of effectiveness of coalitions.	V-A

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
				Single community coalitions have reported modest positive effects.		