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Developing Lactation Support in a Primary Care Pediatric Office

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Developing Lactation Support in a Primary Care Pediatric Office

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Abstract

Background: Breast milk is known to be the best nutrition for infants, and experts recommend to exclusively breastfeed through the first six months of life and provide breastmilk through at least the first year of a child's life (American Academy of Pediatrics, 2012). The United States is currently not achieving its breastfeeding goals set out in Healthy People 2020 by the US Department of Health and Human Services (U.S. Department of Health and Human Services, 2014). The integration of Internationally Board-Certified Lactation Consultants (IBCLC) into primary care pediatrics offices has been shown to increase all breastfeeding rates (Witt, Smith, Mason, & Flocke, 2012). The purpose of this paper is to describe how the DNP student developed a business plan for the employment of a lactation counselor in a primary care pediatric office in West Michigan.

Objectives: To introduce the role of lactation support in the primary care setting. This will be done by creating a business plan for the employment of an IBCLC in a primary care pediatric office and to develop a policy for outpatient lactation support for the organization.

Methods: The lactation counselor will be integrated into a pediatric office which is part of a larger health care organization, in the midwestern United States. Breastfeeding mothers that are seen in the office were asked to participate in a pre-intervention survey about lactation support. Lewin's Change Management Model is used to guide the project.

Results: The pre-intervention survey was completed and a business plan for the organization has been produced.

Conclusions: Preliminary data has been collected and has been used for the creation of a business plan for the healthcare organization.

Implications: The foundation has been laid for the implementation of a lactation counselor in the primary care pediatric office and for post-implementation data collection.

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Developing Lactation Support in a Primary Care Pediatric Office

Introduction

Breastfeeding is essential to the public health of the United States. The United States Department of Health and Human Services set out numerous breastfeeding focused goals in Healthy People 2020. In the most recently published data, the United States is about 10% short of those goals (United States Department of Health and Human Services, 2014). The push to breastfeed is based on health benefits for infants and their mothers and financial implications. Breastmilk contains live immunity cells from the mother to help infants fight illness. Breastmilk contains all of the vitamins, minerals, and nutrients infants need to grow and thrive for the first six months of life (UNICEF, 2005). Infants and children that breastfeed are less likely to develop ear, respiratory, and gastrointestinal infections, asthma, sudden infant death syndrome, and obesity (Center for Disease Control and Prevention, 2019). Breastfed infants have also done better than formula fed infants on intelligence and behavior tests through adulthood (UNICEF, 2005). Mothers that breastfeed are at a decreased risk for developing breast or ovarian cancer, Type 2 diabetes, and high blood pressure (Center for Disease Control and Prevention, 2019).

The American Academy of Pediatrics (AAP) has stated that breastmilk is the preferred method of infant feeding through the first six months of life (AAP, 2012). The public health of the United States is impacted through breastfeeding recommendations and rates. The World Health Organization recommends exclusive breastfeeding through the first six months of life and continued breastfeeding, along with age appropriate solid foods, until 23 months. It is estimated that over 800,000 children's lives could be saved every year, worldwide, among children under five years if they were optimally breastfed between birth and 23 months of age (World Health Organization, 2018). The impact that breastfeeding has on public health cannot be ignored.

Despite the numerous benefits of breastfeeding, the percentage of infants receiving breastmilk is not high enough. Upon examination of the Healthy People 2020 data, it is clear that as infants grow older the percentage that are breastfed decreases. In 2011, 79.2% of all infants born in the United States were breastfed at least once, compared to a goal of 81.9%. Only 75.3% of all infants born in the state of Michigan were ever breastfed that same year (U.S. Department of Health and Human Services, 2014). Breastfeeding rates drop dramatically as the duration of breastfeeding increases. With a goal of 60.6% for infants that are breastfeeding at six months old, in 2011, the United States was at 49.4%, and the state of Michigan was at 46.6%. The breastfeeding goal at one year of age is 34.1%. The United States' rate was 26.7%, and the state of Michigan's rate was 23.3% in 2011 (U.S. Department of Health and Human Services, 2014).

Approximately 60% of mothers stop breastfeeding before they planned to (Centers for Disease Control and Prevention, 2019). One of the barriers mothers face to continued breastfeeding is a lack of formal support following discharge from the hospital (Teich, Barnett & Bonuck, 2014; Dunn, Kalich, Fedrizzi, & Phillips, 2015). The lack of lactation support in primary care has a significant role in poor breastfeeding rates and outcomes which in turn could lead to public health problems (Busch, Logan, & Wilkinson, 2014).

There are over 17,000 Internationally Board-Certified Lactation Consultants (IBCLCs) in the United States (International Board of Lactation Consultant Examiners, n.d.), but breastfeeding mothers may not have access to them once they are discharged from the hospital. In order to provide greater accessibility of IBCLCs to breastfeeding mothers, the integration of IBCLCs in primary care pediatric offices has been studied. The literature surrounding the subject supports the implementation of IBCLCs into primary care offices to increase breastfeeding rates (Witt, et al., 2012). The purpose of this paper is to describe an evidence-based project in which a

business plan for the employment of a lactation counselor into a primary care pediatric office and create an outpatient lactation support policy was developed.

Assessment of the Organization

In order to determine how to most effectively improve lactation support at the organization, the organization was assessed using the Canadian Foundation for Healthcare Improvement's Assessment (CIDA) Tool (Canadian International Development Agency, 2006). Included in this assessment, an analysis of the organization's strengths, weaknesses, opportunities, and threats (SWOT) was completed (Appendix A). There is a significant need for improved lactation support and education in this organization. The opportunity to increase breastfeeding rates in this population is significant, with over 150 infants being seen in this office between June 2018 and June 2019 (R. Fyan, personal communication, June 25, 2019). Providing lactation support in the outpatient setting aligns with the organizational push toward outpatient and preventative care and increasing patient satisfaction scores.

The organization has the Baby-Friendly Hospital designation, which emphasizes breastfeeding support. The organization is also pushing for more outpatient and preventative services to be available to the community. These factors, in combination with buy-in from key stakeholders and the support of the larger organization, will help facilitate this change within the organization. Barriers to the implementation include financial constraints, the issue of securing insurance payments, and the COVID-19 pandemic, which has halted all non-essential projects. The organization is transitioning its electronic health record in early 2020, which will delay the organization's readiness for this change. Despite the barriers to this project, the development of a business plan for implementing lactation services and the creation of an outpatient lactation support policy would be beneficial for the organization.

Framework for Assessment

The Canadian Foundation for Healthcare Improvement Assessment (CIDA) Tool was selected as the framework for this organizational assessment (2006). The four major components of the organizational assessment with the CIDA tool are easy to follow and assess. The CIDA tool requires information about the following areas: the external environment, organizational functioning, organizational motivation, and organizational capacity. The external environment is evaluated for community support of the organization, and if the organization can carry out its mission. Organizational functioning addresses the sustainability of the organization. The heart and soul of the organization are revealed in the assessment of organizational motivation. The assessment of the organizational capacity details the framework of the organization (CIDA, 2006). The framework and full assessment of the organization is available in Appendix B.

Ethics and Protection of Human Subjects

An application for review and exemption of this project was submitted to the organization's Institutional Review Board. Beyond further planning, no project activities were initiated until the review was completed. Institutional Review Board approval was granted in December 2019. The purpose and scope of this project are limited to quality improvement. No identifiable patient information will be collected. No physical, social, psychological, legal, or economic threats to patients are associated with this project. As such, it is anticipated that the impact of the project will pose minimal or no risk to participants. These may include the inconvenience or impacts associated with the request for anonymous and voluntary participation in the project. All members of the team have completed human subjects protection training via the Collaborative Institute Training Initiative, and their interactions with patients will be guided accordingly.

Stakeholders

Buy-in from the key stakeholders in the organization is essential to the success of any change. Individuals who have an impact on the implementation and sustainment of the desired project are defined as key stakeholders (Moran, Burson, & Conrad, 2017). Key stakeholders within this organization include patients and their families, the pediatric providers, the Licensed Practical Nurses and Medical Assistants, the Manager of Women's Services, and the Manager of Lactation Services. Other stakeholders within the organization include obstetric providers, schedulers for the office, and other primary care providers in the office.

SWOT

A SWOT analysis was performed at the pediatric office within the organization (Appendix A). Strengths and opportunities of the office include the office's role in a larger organization that has a clearly defined vision, mission, and strategic plan. There is organizational support to increase outpatient services and lactation services. As the number of women that are breastfeeding increases, the organization has the opportunity to care and support those maternal infant dyads. Few competing organizations in the region offer the same service. The implementation of a lactation counselor in the primary care pediatric office presents the opportunity for pediatric providers to work with their lactation colleagues collaboratively. The possibilities are great for the families that are cared for through this organization.

Weaknesses and threats to the project include a current lack of collaboration between pediatric providers and lactation consultants within the organization. Part of this stems from a lack of lactation education for the pediatric providers. The gap in lactation education can create inconsistent messages for families, which can cause confusion and is a current weakness of the organization. The role of a lactation counselor in the primary care pediatric office does not

currently exist in the organization. Some local, privately owned pediatric practices do have in-office lactation consultants, and this is a threat to the success of the project. Securing payment from insurance companies for lactation services is another threat to the project. The securement of payment will need to be addressed in the business plan.

Clinical Practice Question

Accordingly, the clinical question addressed by this evidence-based practice project is: Does the implementation of a lactation counselor into a primary care pediatric office improve breastfeeding rates and mothers' perceived support while breastfeeding? A follow up question is: Is the integration of a lactation counselor into a primary care pediatric office financially sustainable for the organization?

Review of the Literature

Method

The amount of research surrounding the phenomenon of interest is quite small. A rapid systematic review was performed to gather evidence supporting the use of a lactation counselor in the primary care office. Using the Cumulative Index to Nursing and Allied Health Literature (CINAHL) electronic database, the literature search was completed. The searches were limited to academic journals, human subjects, published the English language, and published between 2008 and 2019. No study types were excluded from the search. The keywords included lactation, breastfeeding, support, primary care, and pediatrician. Related search terms were listed by using Boolean operators, such as OR and AND, to broaden the search to include all pertinent articles. Each article was screened using inclusion and exclusion criteria according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher,

Liberati, Tetzlaff, Altman, & PRISMA Group, 2009). The PRISMA diagram is available in Appendix C.

Summary of Results

The literature search resulted in the assessment of four full-text articles. One of the articles was a meta-analysis of 14 randomized control trials from 1989-2008. Another was a randomized control trial that involved a total of 941 maternal-infant dyads. The remaining two studies were retrospective chart reviews that examined previous standard office practice with new practice following the introduction of new breastfeeding policies and lactation services (Appendix D).

Evidence to be used for Project

An assortment of outcome measures was analyzed in the literature. The Johns Hopkins Nursing Evidenced Based Practice (JHNEBP) scale was used to analyze the strength and quality of the literature. Synthesis of the results based on the level of evidence was completed using the JHNEBP (Johns Hopkins University, n.d.). A meta-analysis and a randomized control trial were reviewed, indicating a high level of clinical evidence. Despite producing significant results, the retrospective chart reviews were graded as level IV evidence, according to the JHNEBP. Studies examined the rates of non-formula feedings following the implementation of IBCLCs into primary care pediatric offices, as well as the duration of breastfeeding in said offices.

Breastfeeding Duration. The implementation of an IBCLC resulted in an increase in breastfeeding duration in all of the trials. Corriveau and colleagues introduced a new breastfeeding friendly policy into a primary care office, which included in the implementation of an IBCLC in the office. Despite the lack of statistical significance in their research, there was an increase in breastfeeding rates through six months postpartum (2013). Bonuck and colleagues

witnessed an increase in exclusive breastfeeding rates and low rates of formula supplementation in non-exclusively breastfed infants at three months of age following the implementation of an IBCLC in the primary care setting (2014). In the study conducted by Witt et al., the researchers witnessed an increase in non-formula feeds by 10% at two months, 15% at four months, 11% at six months, and 9% at nine months of age (2012). Based on the results of these studies, an increase in breastfeeding duration should be observed following the implementation of an IBCLC in a primary care setting.

Exclusive Breastfeeding Rates. In the studies included in this review, there is evidence that the integration of an IBCLC into the primary care office increases exclusive breastfeeding rates. Corriveau and colleagues observed a statistically significant increase in exclusive breastfeeding rates through six months of life following the implementation of an IBCLC in the primary care office. In a comparison of pre-intervention with post-intervention, an increase of at least 10% in exclusive breastfeeding rates was seen at all five measurement points, hospital discharge, one week, two months, four months, and six months (2013). Bonuck and colleagues also observed a statistically significant increase in exclusive breastfeeding rates through three months in their study. Maternal infant dyads involved in the intervention group that included a lactation counselor had greater odds of higher exclusive breastfeeding rates at one, three, and six months (Bonuck et al., 2014). Similar findings were evident in the meta-analysis performed by Patel and Patel. Exclusive breastfeeding rates at one month and three months were statistically significant and had strong odds ratios when compared to non-exclusive breastfeeding (2015). These studies demonstrate that the implementation of IBCLCs into primary care results in increased exclusive breastfeeding rates.

Discussion. Healthy People 2020 and the AAP make it clear that exclusive breastfeeding until six months of age is a worthy goal. To achieve the goal of exclusively breastfeeding for six months, women need evidenced-based support in the primary care setting. There is evidence of a positive impact on exclusive breastfeeding rates due to implementation of an IBCLC (US Department of Health and Human Services, 2014; AAP, 2012). In the studies included in this review, there is strong evidence that the integration of an IBCLC into the primary care office directly increases exclusive breastfeeding rates and duration of breastfeeding.

Limitations. The retrospective studies included in this review were limited by biases. Some of the data was limited by other unknown variables that have been shown to impact breastfeeding, such as smoking status, socioeconomic status, and education level. The randomized control trial used maternal self-reporting, which may have affected the results. None of the studies included infants born preterm or other infants that had chronic medical conditions.

Phenomenon Conceptual Model

The Donabedian model served as the conceptual model to explain the phenomenon of increased breastfeeding support for this project (Appendix E). The three main foci of this model are structure, process, and outcomes. Knowledge about the relationships between structure, process, and outcomes can inform about the current quality of care delivered and how that quality of care can be improved. The three foci can positively and negatively impact each other and the quality of care that is delivered (Donabedian, 1988).

Structure. Donabedian (1988) defines structure as the “attributes of the settings in which care occurs.” Structure includes human and material resources, as well as the structure of the organization. Structure related to human resources primarily focuses on the number of personnel and the qualifications of that personnel. At present, there are two lactation consultants employed

at the organization. However, all of their time is spent assisting maternal-infant dyads that are inpatient or have scheduled outpatient appointments at the hospital. Key stakeholders within the organization have determined that the allocation of human resources, a lactation counselor, to a primary care pediatric office could improve patient satisfaction scores and breastfeeding rates in the organization. This new role will require financial resources as well. The organizational framework of the organization is essential when considering the implementation and sustainment of such a change. Collaboration between the pediatric providers and the lactation counselor will be vital to improving breastfeeding rates. A partnership between the lactation counselor and the billing and coding department to ensure proper billing practices are being achieved is important to the financial sustainment of the role in the organization.

Process. The concept of process involves care delivery and receiving and how exactly that is carried out. Processes build on the structure of the organization. A good structure will help the care delivery process, but an unsatisfactory structure will inhibit the care delivery process. The current structure of the organization does not include lactation support in the primary care pediatric office. When maternal-infant dyads seen in this office have lactation issues, they are referred to the lactation consultants at the hospital to schedule an outpatient appointment. The outpatient lactation appointment may not be convenient for the family and may delay interventions that could strengthen the breastfeeding relationship. Integration of a lactation counselor into the primary care pediatric office would be a positive process change that would allow the maternal-infant dyad to be seen immediately following their pediatric appointment and would allow for more convenient follow-up lactation appointments.

Outcomes. Donabedian describes outcomes as the impact of care on the health status of individual patients and populations, which can include improvements in the patient's knowledge,

behavior changes, and patient satisfaction (1988). Currently, reports could be run by the organization detailing the current breastfeeding rates at this primary care pediatric office. This data is not publicly available nor are patient satisfaction scores. Based on the literature, the implementation of an IBCLC is known to increase breastfeeding rates and duration of breastfeeding (Witt et al., 2012). With a supportive structure and a positive process change, an improvement in breastfeeding rates following the integration of a lactation counselor in the primary care pediatric office should be evident.

Project Plan

Purpose of Project and Objectives

The overall goal of this quality improvement project is to improve the care and support given to breastfeeding mothers and their children. This project aimed to develop a business plan for the employment of a lactation counselor for the primary care pediatric office and to create an outpatient lactation support policy for the organization. The project sought to answer the following question: Does the implementation of a lactation counselor into a primary care pediatric office improve breastfeeding rates and mothers' perceived support while breastfeeding?

Design for the Evidence-based Initiative

The development of a business plan and the creation of an outpatient lactation support policy is an evidence-based quality improvement project. Lewin's Change Management Model (1951) guided the project. Before beginning the quality improvement project, the DNP student submitted an Institutional Review Board (IRB) application to the organization for quality improvement exemption. The implementation of the project did not begin until formal IRB approval was granted from the organization. The IRB approval letter can be found in Appendix F.

Setting

The practice setting is located on the edge of a suburban Midwestern community. The pediatric primary care department is part of a larger building which houses family medicine, urgent care, a radiology department, a pharmacy, an OB/GYN office, laboratory services, a private ophthalmology office, and a physical therapy office. All of the departments, except for the ophthalmology office, are part of a more extensive regional health care system, which is part of a nationwide health care organization. There are three pediatric providers, two physicians, and one pediatric nurse practitioner at the project site. The providers work alongside two Licensed Practical Nurses and one Medical Assistant that work solely in the pediatric department. A significant number of families cared for at this site live in rural areas. The pediatric department sees patients from birth to eighteen years old. From June 1, 2018, to June 1, 2019, over 150 children between the ages of one day to twelve months were seen for the first time by the pediatric team (R. Fyan, personal communication, June 25, 2019). The health care system is a non-profit organization that receives funding from private charities, insurers, and self-pay from patients. The current electronic health record is going to be phased out in January 2020 to an electronic health record with improved capabilities. The manager of this office has given the DNP student permission to conduct a project at this location (see Appendix G).

Participants

The DNP student surveyed breastfeeding mothers at the primary care pediatric office following IRB exemption. All mothers that were currently breastfeeding a child that is younger than twelve months old or had breastfed a child in the last twelve months were asked to participate. The office staff, including pediatric providers, LPNs, and family medicine team members, will be involved in the implementation of the lactation counselor following the

completion and acceptance of the business plan. The Manager of Women's Services will be involved in the creation of the outpatient lactation policy for the organization.

Model Guiding Implementation

Lewin's Change Management Model will be guiding the implementation of the business plan and outpatient lactation support policy (Appendix H). Lewin's model involves three steps: unfreezing, changing, and refreezing (1951). The three steps occur in sequential order, and the previous step must be completed before moving on to the next.

The unfreezing stage involves the anticipation of change. In this stage, a leader recognizes the need for change and may perform a gap analysis between the current state of care and the desired state. The unfreezing stage often has a sense of urgency behind it, pushing the team to find a solution to the discrepancy in care delivery. The team must decide on a solution and prepare for the change. Factors that move the change forward need to be strengthened during this stage, and opposition to the change needs to be stifled. In the primary care pediatric office, several key stakeholders have recognized the need for a change in the care that is delivered to breastfeeding mothers. The solution has been decided upon, but the upcoming EHR transition has dampened their sense of urgency. The key stakeholders are confident that their sense of urgency related to this change will return once the new EHR is implemented. In this stage, the DNP student will be writing the business plan for the employment of a lactation counselor for the primary care pediatric office as well as the policy for outpatient lactation support.

Following the unfreezing stage is the changing stage. Lewin describes this stage as a process, not a single event (1951). Each member of the team will have an internal reaction to the change, which can impact the success of the change. Change is often associated with fear, anxiety, and resistance. A clear plan, along with thorough communication and guidance, will

help to overcome negative feelings toward the proposed change and assist the team in achieving their desired goal (Shirey, 2013). The changing stage will only occur in the primary care pediatric office if the organization can unfreeze with enthusiasm. The key stakeholders will have to encourage each other and other members of the practice during the integration of the lactation counselor. The integration of a new service into the practice may cause scheduling challenges and uneasiness about roles and communication between providers. Reminders of the desired new quality of care will need to be shared consistently with staff. Positive comments from families receiving care at the practice regarding the new lactation support may further inspire staff in embracing the new change despite its challenges. The changing stage will be the longest in this implementation.

Refreezing is the final stage of Lewin's model (1951). In this stage, the change becomes embedded into the practice and its culture and guidelines. A new normal for the organization is created, and stability is regained. With the solidification of the change comes a new, higher standard of care for the organization. The organization is now a leader regarding the implemented change, and continued buy-in from its team members is vital in the sustainment of the new standard (Shirey, 2013). The acceptance and utilization of the lactation counselor role in the primary care pediatric office will be fundamental in developing the new standard of care for breastfeeding mothers in the organization. Once this acceptance occurs, it will merely be part of regular care at this primary care pediatric office for mothers to be seen by the lactation counselor following their pediatric appointments and for the pediatric providers to work in conjunction with the lactation counselor. The refreezing of the organization following the implementation of the lactation counselor into the practice will aid in the sustainment of the role and set the organization's standard of care apart from that of other primary care pediatric offices.

As previously discussed, there is evidence that the integration of a lactation counselor in a primary care pediatric office increases breastfeeding rates and duration of breastfeeding.

Implementing the new role with Lewin's Model of Change Management has provided a clear framework for the organization as it makes this transition and adopts a new standard of care for breastfeeding mothers and their children.

Implementation Steps and Strategies

The objectives for this DNP project were ultimately aimed at improving the care provided to breastfeeding maternal-infant dyads by integrating a lactation counselor into the primary care pediatric office. In order to complete the project promptly, a monthly timeline containing all necessary project steps has been created by the DNP student (Appendix I).

Meetings necessary to ensure completion of the project on time, collection of data, analysis, and the final project defense are included in this timeline. Objectives of the project with implementation strategies include:

1. Surveyed current breastfeeding mothers and mothers that have breastfed in the past twelve months in the primary care pediatric office completed by February 28, 2020. Understanding their breastfeeding journey and current breastfeeding support systems will allow for further assessment of need. The families cared for by this organization are key stakeholders in this change, and their opinions and concerns need to be taken into account. To achieve this objective, the DNP student completed the following:
 - Developed a survey using Qualtrics by October 1, 2019 (Appendix J). This survey will be accessible through an anonymous link on an electronic device so that mothers can complete the survey before leaving the office.

- Reviewed the survey with the graduate statistician to ensure that data collected from the survey will be translatable by November 15, 2019.
 - Submitted for IRB exemption for QI project to the organization by November 30, 2019 following approval from faculty members.
 - The DNP student was present in the primary care pediatric office with the anonymous link on an electronic device for the survey multiple times a week in November, December, and January. The LPNs or pediatric providers introduced the DNP student to the mothers and asked if the mothers were willing to participate in the survey.
 - The DNP student intended to meet with the graduate statistician to develop a visual representation of the descriptive data collected by March 31, 2020.
2. Gathered data to assess current breastfeeding rates in the office before the implementation of lactation counselor was completed by March 15, 2020. To achieve this objective, the DNP student completed the following:
- Submitted an IRB application for QI exemption prior to requesting patient data by November 30, 2019.
 - Submitted a request for breastfeeding rates through the organization's data analytics center.
 - Charts with the E&M code of 99381 and 99391 between January 1, 2019, and December 31, 2019, will be reviewed for breastfeeding duration through the first year of life.

- The DNP will request that the report data be de-identified by the data analytics center and be sent to the DNP student's encrypted organizational email address.
 - Completed a manual chart review due to the organizational data analytics team changing electronic health record software.
 - The DNP student intended to work with the graduate statistician to create a graph for the descriptive data for the presentation by March 15, 2020 but was unable to do so due to time constraints.
3. The DNP student developed a business plan for the employment of a lactation counselor. In order to compose a successful business plan, the DNP student completed a course on business and quality in nursing. To achieve this objective, the DNP student completed the following:
- Enrolled and audited a graduate-level nursing course on business and quality in nursing through the local university after receiving approval from the dean of the nursing school.
 - Participated in the coursework to learn about and enhance business plan composition experience.
 - Completed business plan and give to Manager of Women's Services at the organization by March 31, 2020, for presentation to the organization.
4. The development of an outpatient lactation support policy will assist in the consistency of the care provided and in the role of the lactation counselor and pediatric providers. The DNP student was not able to complete the following steps:

- Meeting with the Manager of Women’s Services and the Manager of Lactation Services at the organization in early March 2020
 - Collaborate with the Clinical Nurse Specialist for the Maternal-Child Department at the organization to develop the policy following other organizational policies
 - Present the outpatient lactation support policy to the Manager of Women’s Services and the Manager of Lactation Services at the organization by March 31, 2020
5. The DNP student’s final project report will be provided to the organization as well as the educational institute. The DNP student defended the project in April 2020. A final copy of the defense will be uploaded to Scholarworks following the final presentation.
- Recommendations for implementation of the business plan and outpatient lactation policy will be included.

Measures

The success of this project will be determined by the completion of the objectives to develop an enticing business plan for the organization. In order to achieve this, the DNP student will have to demonstrate need for the lactation counselor role via survey results from breastfeeding mothers and recent breastfeeding rates from chart reviews. The mothers being surveyed will represent a convenience sample. The DNP student is aiming to survey at least thirty breastfeeding mothers. This data will allow the DNP student to build a compelling business plan for the organization.

Successful implementation of the business plan and outpatient lactation policy will result in the employment of a lactation counselor in the primary care pediatric office. The implementation will lead to increased breastfeeding rates and duration of breastfeeding compared to pre-implementation statistics, as suggested by the literature. The organization should also see an increase in patient satisfaction scores related to mothers' perceived breastfeeding support.

Data Collection Procedures

Data regarding current breastfeeding rates at the primary care pediatric office was compiled by the DNP student due to the data analytics department transitioning electronic health records at the time of the project. Patients that were seen by the pediatric team with the E&M code of 99381 and 99391 between January 1, 2019, and December 31, 2019, was assessed for breastfeeding duration during their first year of life. This data was collected from the organization's EHR and de-identified prior to being sent to the student.

Data regarding breastfeeding mother's current lactation support was collected through an online survey only accessible through an anonymous link. The DNP student developed this survey through Qualtrics, licensed through the educational institute. The survey does not contain any patient identifiable information. The DNP student was present in the primary care pediatric office in January through February 2020, multiple times a week, to give current breastfeeding mothers access to the survey. Consent to participate in the survey was required (Appendix J).

Data Management

The project manager, the DNP student, was responsible for the management of all data collected for this project. The DNP student was able to produce a report of the descriptive statistics from the online breastfeeding survey through Qualtrics. The online survey results are

only available to the project manager through a password-protected account. The data related to the current breastfeeding rates was compiled into a de-identified report. The DNP student intended to work with the graduate statistician at the educational institute to develop a visual representation of the descriptive statistics obtained from the online survey and the EHR but was unable to do so. There are no plans to destroy the survey or EHR data as the data will only be accessible through the primary investigator's accounts. This information is included in the business plan for the organization.

Analysis

The descriptive data collected was presented via visual representation. There is not any post-intervention data collection being completed by the DNP student, so comparison analysis is not possible. The statistics regarding current breastfeeding rates at the office and lactation support services used by mothers will be presented to the organization in the business plan. The statistics are presented in the form of tables and graphs.

Resources & Budget

For the successful implementation of this project, the proper use of human and financial resources must be considered. The human resources required for implementation of this project include a variety of professionals within the organization including the pediatric providers, the staff of the primary care pediatric office, the Manager of Women's Services, the Manager of Lactation Services, the Clinical Nurse Specialist for Maternal-Child Services at the organization, members of the data analytics team at the organization, and the graduate statistician at the educational institute.

Technological resources will also be required for the implementation of the project. The organization's EHR, Athena, will be utilized to collect data regarding current breastfeeding rates.

The Qualtrics website will be utilized to collect online survey results from current breastfeeding mothers. A visual budget has been designed by the DNP student to assess proposed project costs (Appendix K).

Results

In order to build a convincing business plan, the DNP student completed a chart review to analyze current breastfeeding rates at the primary care pediatric office. The DNP student surveyed breastfeeding women at the primary care pediatric office as well. That survey can be found in Appendix I. This information has been utilized in the completion of a business plan for the organization. A de-identified version of the business plan is available in Appendix J.

Current Breastfeeding Rates

Between January 1, 2019, and December 31, 2019, the MHPP Rockford Pediatric Medicine group billed 320 patients with a 99381 or 99391 E&M code. Of these 320 patients, 274 were breastfeeding at their initial newborn visit, which is 85.6% of patients. That exceeds the Healthy People 2020 goal of 83.2% of infants being breastfed initially. The percentage of mothers who initially breastfed and discontinued breastfeeding by the infant's two-week check-up was 3.6%. Additionally, 34.6% of mothers who had initially breastfed, discontinued breastfeeding between the infant's two-week and nine-month well-child appointments. This office witnessed 17% of all infants that were breastfed, breastfeed until the age of one year, which is well below the Healthy People 2020 goal of 34.1%. As of December 31, 2019, 114 infants were still being breastfed at a variety of ages (medical charts, March 3, 2020). A visual representation of the current breastfeeding rates compared to the Healthy People 2020 goals is below.

Breastfeeding Rates	Healthy People 2020 Goals	Current Pediatric Office Rates
Initiated breastfeeding	83.2%	85.6%
Breastfeeding at 6 months	60.6%	58%
Breastfeeding at 1 year	34.1%	17%

Breastfeeding Survey Results

A survey of 31 women at the primary care pediatric office was conducted between January 16, 2020, and February 28, 2020. The survey was completed by women that were currently breastfeeding a child younger than twelve months old or had breastfed a child younger than twelve months old in the previous twelve months, see appendix I for a copy of the survey.

Of those women that participated in the survey, 77% were exclusively breastfeeding or pumping while the other 33% were using a formula to supplement breastfeeding. The average duration of breastfeeding for those surveyed was between four and six months. 48% of women surveyed had received professional lactation support in the hospital, and 9% following discharge from the hospital. 74% of women surveyed thought the presence of a lactation professional in the primary care office would be extremely beneficial to their breastfeeding journey. Common sources for breastfeeding support and tips included family and the internet, which may not provide the most up-to-date evidence-based guidelines for supporting breastfeeding. A visual representation of the data collected from the survey is in a table below.

Q1. Are you currently breastfeeding?	28- Yes	3- No
Q2. How are you providing breastmilk?	21- exclusive breastfeeding or pumping	3- exclusive breastfeeding or pumping

	7- supplementing with formula	
Q3. How long have you been breastfeeding the child you are currently breastfeeding?	3- less than 2 weeks 6- 2 weeks to 2 months 8- 2 months to 4 months 4- 4 months to 6 months 2- 6 months to 8 months 3- 8 months to 10 months 0- 10 months to 12 months 1- Greater than 12 months	2- 8 months to 10 months 1- 10 months to 12 months
Q4. Were you assisted by a Lactation Counselor prior to discharge from the hospital?	15- Yes 12- No 1- I don't remember	3- No
Q5. Have you ever had a 1-on-1 appointment with a Lactation Counselor after hospital discharge?	4- Yes 24- No	3- No
Q6. Have you ever attended a breastfeeding support group?	5- Yes 23- No	1- Yes 2- No
Q7. Who/where do you receive breastfeeding support and tips from to assist you? (Select all that apply)	9- A lactation counselor 4- Breastfeeding support group 0- Postpartum doula 18- Other: 7- family 5- friends 9- Internet 4- Healthcare provider	1- Lactation counselor 1- Postpartum doula 1- Other 1- Online course
Q8. Would the presence of a lactation counselor in the pediatric office positively impact your breastfeeding journey?	21- Extremely positive 5- Moderately positive 1- Slightly positive 1- Neither positive nor negative	2- Extremely positive 1- Moderately positive

Business Plan Creation

The DNP student participated in a business and quality in nursing course to enhance learning and skills related to producing an exceptional business plan for the healthcare organization. The DNP student utilized a variety of sources to produce the business plan, including the Manager of Women's Services, the billing and coding department at the healthcare organization, the marketing department at the healthcare organization and the student's organizational mentor.

Discussion

The office's breastfeeding rates were quite remarkable during the first 9 months of a child's life, which speaks to the support that mothers are currently receiving from their pediatric providers. However, the breastfeeding rate of 17% at one year of life is significantly lower than the Healthy People 2020 goal of 34%. It is not known how many of these infants had been supplemented with formula during the first year of life. Based on the breastfeeding survey results, one can assume that as many as 33% of the infants included in the chart review might have been supplemented with formula while breastfeeding. The goal of the lactation counselor in the primary care setting is to increase the overall breastfeeding rate and the exclusive breastfeeding rate. The literature supports that this is a plausible outcome following the implementation of a lactation counselor in the primary care setting.

The business plan that the DNP student produced will be sent on to the Manager of Women's Services at the organization, as well as the pediatric providers and the business manager of the office that has been studied. This group of professionals will have to decide how to proceed with the business plan information. The implementation of the business plan and subsequent implementation of the outpatient lactation counselor will largely depend on the

ability of the healthcare organization and the economy to stabilize following the COVID-19 pandemic.

Limitations

Limitations of this project include the lack of exclusive breastfeeding rates for the primary care pediatric office being studied, a small sample size for the breastfeeding survey, and the DNP student's inability to measure results post-implementation of the lactation counselor in the primary care setting. The healthcare organizations Information Technology department was unable to perform the chart review due to the organization switching Electronic Health Record software during the DNP student's project timeframe. The sample size for the breastfeeding survey was limited by the DNP student's availability to be in the office to administer the survey. Breastfeeding rates and patient perception of the effectiveness of the outpatient lactation counselor could be measured by another DNP student in the future.

Stakeholder Support and Sustainability

Sustainment of the proposed change will happen if the primary care pediatric office can navigate all three steps of Lewin's Change Management Model (1951). A great deal of encouragement and buy-in from organizational leadership and key stakeholders will be necessary to adopt the new standard of care for breastfeeding maternal-infant dyads. Through clearly defined roles and responsibilities in the outpatient lactation support services policy and consistent collaboration between the pediatric providers and the lactation counselor, the change will become a regular part of care at the primary care pediatric office. The adoption of this project by another DNP student or dedication of a role within the organization to ensure a smooth transition and continued oversight is ideal. This new team member would be able to collect post-implementation data and provide data analysis. If there are positive results, the

organization would more easily be able to implement lactation counselors across its' primary care offices.

Implications for Practice and Further Study in the Field

The incorporation of lactation support into the primary care pediatric office will have numerous benefits for mothers, children, and the healthcare organization. There is clear support from the literature to implement lactation support in the primary care setting. This lactation support does not need to be limited to primary care pediatric offices. Family medicine practices that have a large number of women of childbearing age and infants should consider employing a lactation counselor to improve their office's breastfeeding rates and perception of patient support.

The implementation of a lactation counselor in the primary care pediatric office will present challenges initially, mainly related to scheduling, role definitions, and development of professional relationships. By overcoming those challenges, the office should see an increase in breastfeeding rates, exclusive breastfeeding rates, and patient satisfaction. Post-implementation results should be disseminated to further advocate for the employment of lactation counselors in the primary care setting.

Reflection on DNP Essentials

As part of the Doctor of Nursing Practice education, the American Association of Colleges of Nursing (AACN) put forth eight essentials that provide a foundation for the student's advanced nursing practice. Competency in all eight essentials prepares the student to become a nursing practice expert and leader (AACN, 2006). This particular project challenged the DNP student to become competent in all eight DNP essentials through the development, implementation, and dissemination of the business plan.

Scientific Underpinnings for Practice

The foundation for nursing practice comes from a variety of sciences. The DNP should have a vast knowledge of all the different sciences and be able to translate that knowledge to transform practice to benefit patients (AACN, 2006). Throughout the business plan development, the translation of evidence-based best practice for breastfeeding mothers and children was the focus. Different nursing theories and theories from other disciplines were used to guide the project. The business plan for the employment of a lactation counselor in the primary care pediatric office was based on evidence supporting breastfeeding and will be implemented using theoretical frameworks from different areas of science.

Organizational and Systems Leadership

A great leader has the ability to analyze a situation at the micro level and at the systems level all while assisting others in providing quality care. A DNP prepared nurse “should be prepared with sophisticated expertise in assessing organizations, identifying systems’ issues, and facilitating organization-wide changes in practice delivery” (AACN, 2006, p. 10). The DNP student was able to hone their systems thinking and organizational leadership during the process of creating the business plan. The student was able to meet with organizational leadership to decide upon a quality improvement project that would be beneficial for the healthcare organization and plausible for the student to complete in the allotted timeframe. A careful organizational assessment was completed and utilized in the creation of the business plan. The DNP student was able to analyze the current quality of care being delivered by the organization and propose change to improve that care. Consideration of the office and organization’s needs were included in the business plan.

Clinical Scholarship and Analytical Methods

The DNP prepared nurse is able to translate research into practice, and apply and evaluate that new practice (AACN, 2006). Through the use of chart reviews in the electronic health record and surveys of breastfeeding mothers, the DNP student was able to evaluate current practice at the healthcare organization. The data obtained through the survey and chart review were translated into statistics which are included in the business plan. The purpose of the business plan is to initiate change to current practice to improve breastfeeding rates for the office.

Information Systems Technology

Proficiency in the use of healthcare information systems and technology to evaluate and implement quality improvement projects is a hallmark of a DNP prepared nurse (AACN, 2006). The DNP student was able to use the healthcare organization's previous electronic health record to perform a chart review of breastfeeding rates. Anonymous surveys were distributed by the student to breastfeeding mothers using a survey software. Microsoft Excel was used by the student to analyze the data collected from the chart review and the breastfeeding surveys.

Advocacy for Health Care Policy

The ability to plan, impact, and integrate health care policies into healthcare organization is an expectation of the DNP prepared nurse (AACN, 2006). During the course of the organizational assessment, the student recognized that the healthcare organization did not have an outpatient lactation policy and is working with the organization to create an outpatient lactation policy. The student was able to analyze the policies of several other primary care offices in the literature pertaining to lactation support in the primary care office. The student examined the Affordable Care Act's policy on protection of lactation support.

Interprofessional Collaboration

Given the complexities of the United States' health systems, the DNP prepared nurse must be prepared to collaborate with other professions to provide the best care possible (AACN, 2006). The DNP student was able to collaborate and communicate with key stakeholders for the organization, organizational leadership, lactation professionals, pediatricians, billing and coding experts, marketing professionals, and business leaders. The student worked closely with office staff to ensure that every possible breastfeeding mother was surveyed during the student's availability.

Clinical Prevention Population Health

The DNP prepared nurse has a foundation in clinical prevention and health promotion related to population health (AACN, 2006). Through analysis of the literature, the student was able to discern that supported breastfeeding results in an overall healthier population. The student synthesized this data, and the current breastfeeding rates at the primary care office and included that information in the business plan. Special attention has been given to the cultural and socioeconomic status of the families that seek care at the healthcare organization.

Advanced Nursing Practice

A DNP prepared nurse is expected to have knowledge of one advanced role in nursing practice (AACN, 2006). This project focused on the pediatric population. The DNP student demonstrated advanced nursing practice through the creation of a business plan to support breastfeeding mothers and support the health of breastfeeding infants. Through the use of chart review, the DNP student was able to assess the overall health of the infant's being seen at that office. The DNP student developed partnerships with the pediatric providers in the office and the

lactation professionals at the organization to help enable best evidence-based care and improve patient outcomes.

Dissemination of Results

The business plan will be shared with the leadership at the healthcare organization, including the business manager for the office, the pediatric providers, and the Manager of Women's Services prior to the end of April 2020. The final product of this project was presented virtually at Grand Valley State University on April 15th, 2020 in front of the DNP student's project team and other members of the university and healthcare organization. The final draft of the scholarly project paper will be published to ScholarWorks.

Conclusion

The project aimed to improve breastfeeding rates and duration of breastfeeding in the primary care pediatric office. This was done through the development of a business plan for the employment of a lactation counselor. Current literature supports the use of IBCLCs in primary care practices to improve breastfeeding rates and duration of breastfeeding (Bonuck et al., 2014; Corriveau et al., 2013; Patel & Patel, 2016; Witt et al., 2012). At the current time, the organization does not have any lactation professionals employed in the primary care setting. To improve the care provided to breastfeeding maternal-infant dyads, the DNP student identified a quality improvement initiative by developing a business plan for the employment of a lactation counselor in the primary care pediatric office. Current breastfeeding rates for the office and lactation support utilized by breastfeeding women are included in the business plan for the organization. By implementing a lactation counselor in the primary care pediatric office, the healthcare organization has a significant opportunity to make a lasting, positive impact on the health of their patients, their patient's mothers, and the public health of the United States.

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Appendices

Appendix A

SWOT Analysis

SWOT Analysis	
Strengths	Weaknesses
<ul style="list-style-type: none"> • <i>Part of a large healthcare system in West Michigan</i> • <i>Clearly defined vision, mission, and strategic plan</i> • <i>Organizational support for outpatient services</i> • <i>Organizational support for increasing lactation services</i> • <i>Organization is designated a Baby Friendly Hospital</i> 	<ul style="list-style-type: none"> • <i>Provider inexperience in providing evidence-based lactation support</i> • <i>Inconsistency between what mothers are told inpatient and what the pediatric team communicates</i> • <i>Lack of collaboration between current lactation services and pediatric providers</i> • <i>This role does not currently exist in the organization</i>
Opportunities	Threats
<ul style="list-style-type: none"> • <i>Increase communication and collaboration between current lactation services and pediatric providers</i> • <i>A small number of competing organizations provide this service</i> • <i>Number of women that desire to breastfeeding is on the rise</i> 	<ul style="list-style-type: none"> • <i>Multiple competing organizations in West Michigan</i> • <i>Potential battles with insurance payment for provided services</i>

Appendix B

CIDA Tool

Organizational Assessment of Pediatric Primary Care Office within the CIDA Tool			
<i>Key Elements</i>	<i>Definition</i>	<i>Findings</i>	<i>Source of information</i>
External Environment	How well the organization functions within its external environment, the administrative framework, and the external culture. <i>Is the organization supported by the community and can it carry out its mission?</i>	<p>*Macro*: The organization performs a health needs assessment of the community every 3 years to plan how to continue their mission. There is a local board of trustees that oversees the welfare and growth of the organization. The organization is one of three large health systems in the area.</p> <p>*Micro*: The office is part of a larger medical home, which houses urgent care, a pharmacy, outpatient physical therapy services, an ophthalmology office, family practice providers and pediatric providers. The office is on the edge of a rural area, which allows the providers to carry out the mission of the organization, including commitment to those who are poor. The organization location is utilized and supported by a variety of community members. There are 3 other pediatric offices in the area.</p>	<p>Organization's website</p> <p>Observation at clinical site</p> <p>Interview with clinical site manager</p>
Organizational Functioning	The effectiveness, efficiency, relevance to stakeholders, and financial viability. <i>Is the organization sustainable?</i>	<p>*Macro*: The organization is part of a larger organization that is a 501(c)(3) charitable mission. With 94 acute care hospitals across 22 states, the organization generated a revenue of \$18.3 billion and donated \$1.1 billion to the community.</p> <p>*Micro*: In the past year, the organization has allocated a large amount of money toward</p>	<p>Organization's website</p> <p>Interview with Women's Service Line Manager</p>

		the expansion and sustainment of the organization’s outpatient services and offices. The organization’s focus is shifting from inpatient to outpatient. The organization is effective and efficient.	
Organizational Motivation	The history, culture, mission, and incentive system. <i>What is the heart and soul of the organization?</i>	<p>*Macro*: A setting that seeks to develop a lifelong health partnership with a patient and their family. This organization is part of a larger, nationwide organization that seeks to be a national leader in improving health through reverence, commitment to those who are poor, justice, stewardship, and integrity.</p> <p>*Micro*: A shift has been made to outpatient services. The organization wants to focus on prevention of disease instead of just the treatment and management of disease. The organization seeks to promote health and wellness throughout the community, regardless of race, gender, or socioeconomic status. The organization really seeks to provide excellent care to all who walk through their doors.</p>	<p>Organization’s website</p> <p>Interview with Women’s Service Line Manager</p> <p>Observation at project site</p> <p>Interview with clinical site mentor</p>
Organizational Capacity	The organizational infrastructure- human resources, finances, processes, technology, leadership, structure, and inter-organizational relationships. <i>What is the framework of the organization?</i>	<p>*Macro*: The organizational leadership consists of 10 regional leaders. Transparent financial reports are available online. The organization is changing its EMR for the entire organization starting in January 2020. The organization is part of a much larger hospital system, which sustains fundraising.</p> <p>*Micro*: The organization partners with numerous primary care and specialty care offices across the area and services</p>	<p>Organization’s website</p> <p>Interview with Women’s Service Line Manager</p> <p>Observation at project site</p>

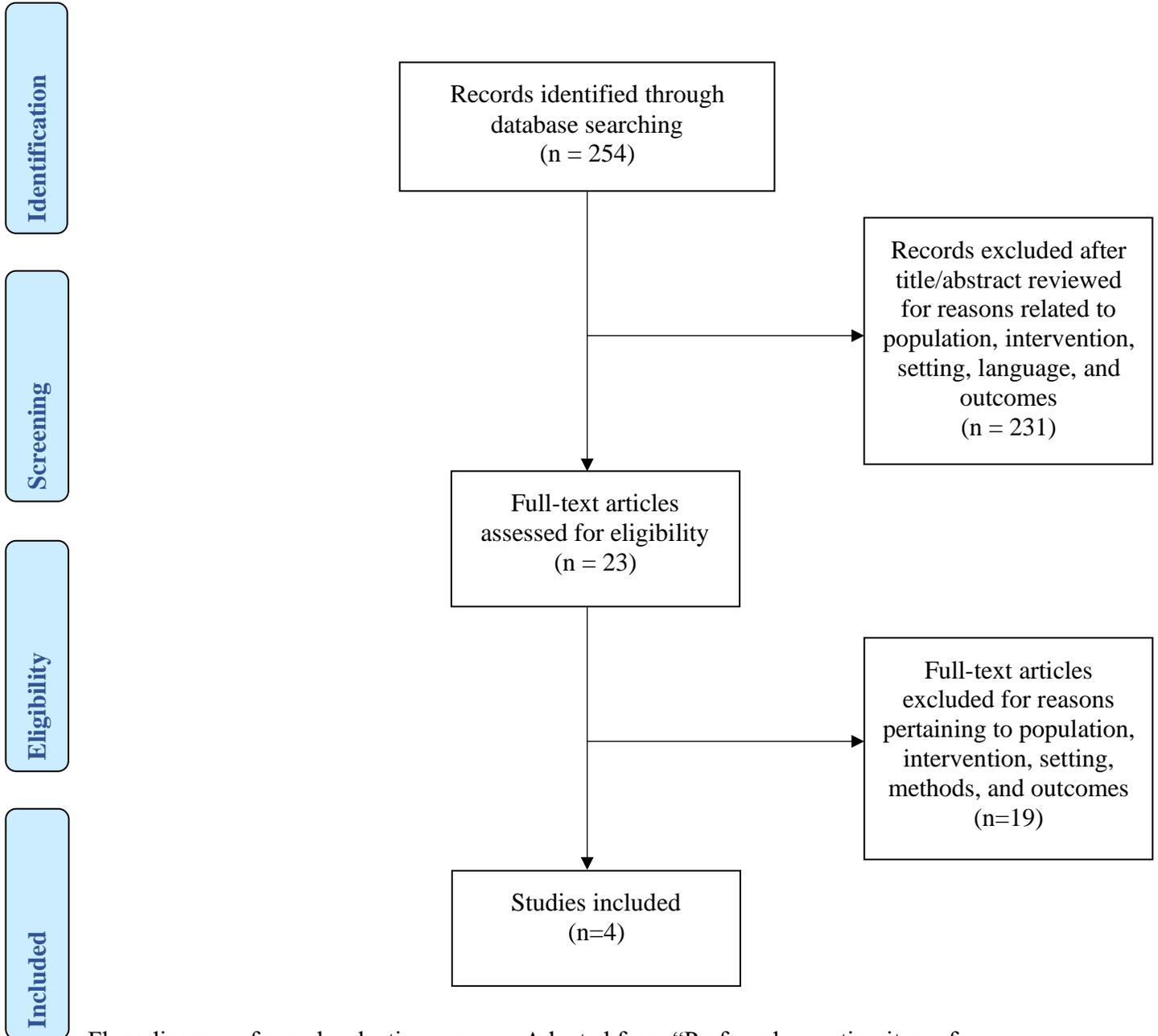
		available at the main hospital campus. Recently, the organization dedicated a large sum of money toward outpatient services. The organization utilizes an electronic health record. Leadership at the organization includes an office manager, a director of women's services, and a lactation director. The organization does have relationships with other local organizations, both competitors and non-competitors.	
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Appendix C

PRISMA Flow Diagram of Systematic Search



Flow diagram of search selection process. Adapted from “Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement”, by D. Moher, A. Liberati, J.

Tetzlaff, D. Altman, and PRISMA Group. Copyright 2009 by *PLoS Medicine*.

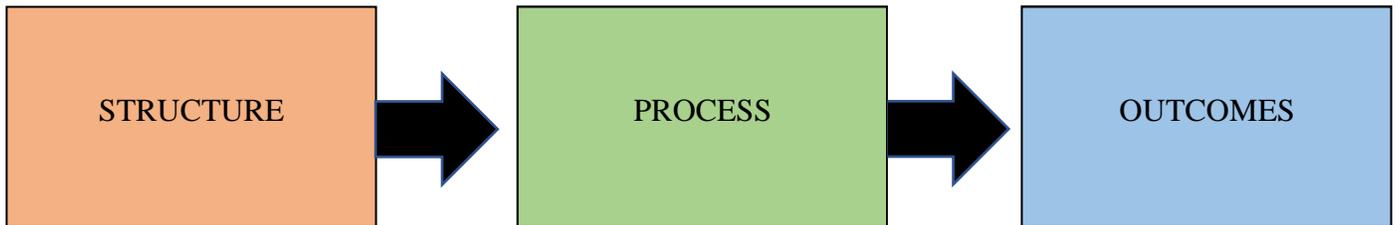
Appendix D

Literature Review Table

Author (Year) Purpose	Design (N)	Inclusion Criteria	Intervention vs Comparison	Results	Conclusion
Bonuck et al., 2014	2 RCTs (n=275 & n=666)	Spoke English or Spanish, were 18 years or older, singleton pregnancy, in the first or second trimester of pregnancy, were not a risk for premature birth, and did not have risk factors that would preclude or complicate breastfeeding	Divided into 4 groups: -Electronic prompts -Lactation counselor -Electronic prompts and lactation counselor -Control 3 interviews at 1, 3, and 6 months	One RCT did not show statistically significant results favoring interventions on exclusive breastfeeding but saw improvement in any breastfeeding rates. The other RCT did show statistically significant improvement in breastfeeding rates in the intervention groups.	This breastfeeding support intervention increased breastfeeding duration and intensity.
Corriveau et al., 2013	Retrospective before-and-after study (n=757 dyads)	Healthy infants, greater than 37 weeks' gestation, singleton birth, seen at the office within one week of life, remained for first 6 months of life and attended 2, 4, and 6 month well-child appointments.	New protocol introduced: all staff trained in breastfeeding, an IBCLC on site, and a new EMR template to flag couplets that needed more care.	Exclusive breastfeeding rates were statistically higher in the postintervention group. Rates were higher for all breastfeeding in the postintervention, but not statistically significant	The introduction of a breastfeeding friendly policy in the primary care office may increase exclusive breastfeeding rates

Patel & Patel, 2016	Meta-analysis Systematic Literature Review (n=14 RCTs)	RCTs with or without blinding, between 1/1985 and 1/2014. In developed countries that were published in English.	Had to use an IBCLC, CLC, lactation counselor, or lactation consultant. Interventions occurred antepartum, intrapartum, or postpartum.	Increased in breastfeeding initiation with lactation support. Increased mean and median in breastfeeding duration with lactation support. Increased breastfeeding rates with lactation support.	Consistent results provide evidence for the use of lactation support in the community and health systems.
Witt et al., 2012	Chart review (n=166, n=184)	Newborns new to the practice in Cleveland, OH. Born from January 1, 2007 to June 30, 2007 and January 1, 2009 and June 30, 2009.	All healthy term breastfeeding infants were seen 3-5 days post hospital discharge for a visit with the IBCLC in the office. Then seen again by 2 weeks of age with the primary care provider and the IBCLC.	Non- formula feeding increased by 10% at 2 months, 15% at 4 months, 11% at 6 months, and 9% at 9 months of age.	Dyads that are seen for in person, in office visits for early breastfeeding support experience longer duration of breastfeeding

Appendix E
Donabedian Model



Modified from Donabedian, A. (1988). The quality of care how can it be assessed? *Journal of the American Medical Association*. doi: 10.1001/jama.1988.03410120089033

Appendix F

Organizational IRB Approval Letter

NOTICE OF CLINICAL QUALITY IMPROVEMENT MEASUREMENT DESIGNATION

To: Charlotte Minnema, BSN, RN

Re: IRB# 19-1127-7
Developing Lactation Support in the Primary Care Pediatric Office

Date: 12/20/2019

This is to inform you that the Institutional Review Board (IRB) has reviewed your proposed research project entitled "*Developing Lactation Support in the Primary Care Pediatric Office*". The IRB has determined that your proposed project is not considered human subjects research. The purpose and objective of the proposed project meets the definition of a clinical quality improvement measurement. All publications referring to the proposed project should include the following statement:
"This project was undertaken as a Clinical Quality Improvement Initiative at and, as such, was not formally supervised by the Institutional Review Board per their policies."

The IRB requests careful consideration of all future activities using the data that has been proposed to be collected and used "in order to create a foundation for outpatient lactation support to be implemented in a primary care setting."

The IRB requests resubmission of the proposed project if there is a change in the current clinical quality improvement measurement design that includes testing hypothesis, asking a research question, following a research design or involves overriding standard clinical decision making and care.

Please feel free to contact me if you have any questions regarding this matter.



G. Robert DeYoung, PharmD, FCCP, BCPS
IRB Chairperson

Copy: File

Appendix G

Project site Practice Manager Approval

Charlotte Minnema · Fri, Mar 1, 10:56 AM ☆ ↩ ⋮
to johsham ▾

Good morning Sherrie,

My name is Charlotte Minnema and I am the DNP/Pediatric NP student working with Dr. Morely-Smolek and Kristin Vanderwell. I had discussed with the two of them ideas for projects that I could work on to fulfill my degree requirements. Both of them mentioned the idea of having an RN with the pediatric team, ideally someone that is certified as a lactation consultant so that billing could occur for that service. They also want me to explore the idea of the RN having nurse visits, much like the visits that the RNs in family medicine do. My project would be developing a business plan to see if having an RN in the pediatric team would be feasible. Kristin would be my site mentor for the project and would be my go-to to figure out who I need to talk to for certain needs.

I wanted to check with you before we proceeded into me actually starting on the project. Kristin had mentioned that this would be the third DNP project in this office, which is awesome! I do not think I will need anything from you, besides your blessing.

Thank you so much,
Charlotte

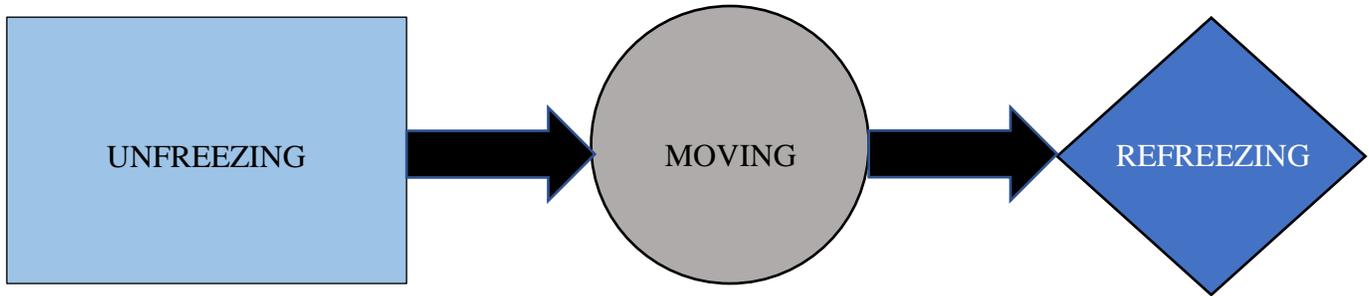
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Charlotte Minnema, BSN, RN, CLC

Sherrie M. Johnson · Fri, Mar 1, 11:03 AM ☆ ↩ ⋮
to me ▾

I'm fine with you moving forward... look forward to hearing about your progress.

Sherrie Johnson, MSW, LMSW
Practice Manger

Appendix H (Lewin's Model)



Modified from: Lewin, K. (1951). *Field Theory in Social Science: Selected Theoretical Papers*.

New York: Harper & Row.

Appendix I

Initial Monthly Project Timeline

October	November	December	January	February	March	April
Development of survey	Proposal Defense 11/13/19	Enroll in Business and quality in nursing class	Request breastfeeding rates data from data analytics team	Compile data with grad statistician	Write business plan + policy	Defend Project
	IRB application		Business and quality in nursing class	Business and quality in nursing class	Business and quality in nursing class	Business and quality in nursing class
	Surveying of breastfeeding mothers	Surveying of breastfeeding mothers	Surveying of breastfeeding mothers		Write project defense	Submit to Scholarworks

Appendix J

Breastfeeding mothers in-office on-line survey

Welcome to the quality improvement project!

We are interested in understanding more about existing breastfeeding support. You will be asked to answer some questions about your breastfeeding experience and breastfeeding support. Please be assured that your responses will be kept completely confidential.

The study should take you around five minutes to complete. Your participation in this research is voluntary. You have the right to withdraw at any point during the study, for any reason, and without any prejudice. If you would like to contact the Principal Investigator in the study to discuss this research, please e-mail gvbreastfeedingsurvey@gmail.com.

By clicking the button below, you acknowledge that your participation in the study is voluntary, you are 18 years of age, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason.

Q1: Are you currently breastfeeding your child?

- Yes
- No (If the mother answers “No”, she will be transferred to Q9)

Q2: How are you providing breastmilk?

- Exclusive breastfeeding or pumping
- Breastfeeding and formula feeding

Q3: How long have you been breastfeeding the child you are currently breastfeeding?

- Less than 2 weeks
- 2 weeks-2 months
- 2 months-4 months
- 4 months-6 months
- 6 months-8 months
- 8 months-10 months
- 10 months-12 months
- Greater than 12 months

Q4: Were you assisted by a lactation counselor prior to discharge from the hospital?

- Yes
- No
- I don't remember

Q5: Have you ever had a 1-on-1 appointment with a lactation counselor after hospital discharge?

- Yes
- No

Q6: Have you ever attended a breastfeeding support group?

- Yes
- No

Q7: Who/Where do you receive breastfeeding support and tips to assist you (Check all that apply)?

- A lactation counselor
- A breastfeeding support group
- A post-partum doula
- Other:

Q8: Would the presence of a lactation counselor in the pediatric office positively impact your breastfeeding journey?

- Extremely positive
- Moderately positive
- Slightly positive
- Neither positive nor negative
- Slightly negative
- Moderately negative
- Extremely negative

If the mother answered “Yes” to Q1, the survey will end after Q8

Q9: How did you provide breastmilk?

- Exclusive breastfeeding or pumping
- Breastfeeding and formula feeding

Q10: How long did you breastfeed your most recently breastfed child?

- Less than 2 weeks
- 2 weeks-2 months
- 2 months-4 months
- 4 months-6 months
- 6 months-8 months
- 8 months-10 months
- 10 months-12 months
- Greater than 12 months

Q11: Were you assisted by a lactation counselor prior to being discharged from the hospital?

- Yes
- No
- I don't remember

Q12: Did you ever have a 1-on-1 appointment with a lactation counselor after hospital discharge?

- Yes
- No
- I don't remember

Q13: Have you ever attended a breastfeeding support group?

- Yes
- No
- I don't remember

Q14: Who/where did you receive breastfeeding support and tips from to assist you (Check all that apply)?

- A lactation counselor
- A breastfeeding support group

- A postpartum doula
- Other:

Q15: Would the presence of a lactation counselor in the pediatric office have positively impacted your breastfeeding journey?

- Extremely positive
- Moderately positive
- Slightly positive
- Neither positive nor negative
- Slightly negative
- Moderately negative
- Extremely negative

Appendix K

Proposed Project Budget

Doctor of Nursing Practice Project Financial Operating Plan**Project Title: Developing Lactation Support in the Primary Care Pediatric Office****Revenue**

Project Manager Time (in-kind donation)	15,500.00
Team Member Time:	
Pediatric Nurse Practitioner (Site Mentor)	3,000.00
Manager of Women's Services	5,000.00
Manager of Lactation Services	1,000.00
Consultations	
Statistician	100.00
Clinical Nurse Specialist	100.00
TOTAL INCOME	\$24,700

Expenses

Project Manager Time (in-kind donation)	15,500.00
Team Member Time:	
Pediatric Nurse Practitioner (Site Mentor)	3,000.00
Manager of Women's Services	5,000.00
Manager of Lactation Services	1,000.00
Consultations	
Statistician	100.00
Clinical Nurse Specialist	100.00
Education	
Business and Quality in Nursing Class	2,469.00
Cost of electronic device for survey	2,000.00
TOTAL EXPENSES	\$29,169

Net Operating Plan	-4,469.00
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Appendix L

De-identified Business Plan

A Business Plan for Lactation Support in the Primary Care Pediatric Office

Charlotte Minnema, BSN, RN, CLC

Grand Valley State University

Executive Summary

The addition of a lactation counselor to the organization's Pediatric Medicine team has the potential to increase breastfeeding rates for the office, improve the patient experience and enhance the health of the patients served. As a Baby-Friendly Hospital, the organization provides extensive prenatal breastfeeding education and immediate breastfeeding support in the postpartum period, but the outpatient lactation services currently offered are limited and may not be convenient for all families. The employment of an outpatient lactation counselor in a primary care pediatric office would allow the organization to pursue their vision to "become the national leader in improving the health of our communities and each person [they] serve" (Organizational website, 2020). The addition of a lactation counselor would also allow the organization to embrace the Institute for Healthcare Improvement's Triple Aim for Population Health.

The organization is in a unique position to offer continuous breastfeeding support. There is a strong desire for easily accessible breastfeeding support from mothers at the office. This service would be part of routine care for breastfeeding newborns visiting the office and could be expanded to other offices within the organization to provide access to all families. Neither of the organization's major competitors in West Michigan offer such a service in their outpatient offices.

Marketing should target expecting and breastfeeding women across West Michigan. A combination of traditional marketing strategies should be combined with social media campaigns. The cost of employing an outpatient lactation counselor should be offset by the revenue brought in by lactation visits. The addition of an outpatient lactation counselor in an office would set the care provided by the organization apart from all others in the community.

A Business Plan for Lactation Support in the Primary Care Pediatric Office

Breastfeeding is essential to the public health of the United States and needs support in the primary care setting. Breastfeeding offers numerous health benefits to infants, including but not limited to decreased risk of ear, respiratory, and gastrointestinal infections, sudden infant death syndrome, and obesity (Center for Disease Control and Prevention, 2019). Mothers that breastfeed are at a decreased risk for developing breast or ovarian cancer, Type 2 diabetes, and high blood pressure (Centers for Disease Control and Prevention, 2019). The benefit of breastfeeding can have a significant impact on the lifelong health of the child and the public health of the United States.

More women are initiating breastfeeding in the immediate postpartum period than in years past, but that momentum is not sustained as the infant grows (Centers for Disease Control and Prevention, 2019). More women are delivering at Baby-Friendly hospitals, such as the organization, that provide an extensive amount of lactation support before discharge (Baby-Friendly USA, 2020). However, finding lactation support post-hospital discharge can be difficult for some mothers. The infant's primary care provider's office is instrumental in the promotion and sustainment of the breastfeeding relationship. In 2011, the Surgeon General published a *Call to Action* to support breastfeeding across the infant's life (United States Department of Health and Human Services, 2011). This document has numerous applicable steps for primary care pediatric offices to take to better support breastfeeding. The promotion and sustainment of breastfeeding are in line with the organization's vision to "become the national leader in improving the health of our communities and each person [they] serve" (Organizational Website 2020). The Surgeon General's call to action should be utilized by the organization to further

promote and support breastfeeding in the West Michigan community through the employment of a lactation counselor in a primary care pediatric office.

Organizational Background

Mission Statements

The organization's mission, core values, and vision drive the care that the organization provide. The organization's status as a Baby-Friendly Hospital carries a significant amount of prestige in the community and is associated with the promotion of breastfeeding (Organizational Website, 2020). However, breastfeeding support for most mothers ends when they are discharged from the hospital with their newborn. To improve the health of the communities the organization serves, continued and convenient breastfeeding support needs to be an option for all families.

The organization has also adopted the Institute for Healthcare Improvement's (IHI) Triple Aim for Populations (IHI, 2020). The purpose of the Triple Aim is to "simultaneously improving the health of the population, enhancing the experience and outcomes of the patient, and reducing per capita cost of care for the benefit of communities" (IHI, 2020). Continued breastfeeding is known to improve the health of infants and their mothers (American Academy of Pediatrics, 2012). Having easily accessible breastfeeding support will enhance the experience of care provided to maternal-infant dyads and will ultimately lead to improved patient satisfaction scores (Agency for Healthcare Research and Quality, 2016). Finally, if a child breastfeeds, they are at a decreased risk for a variety of infections, which will lead to fewer sick office visits, which will drive down the per capita cost of care (Walters, Phan & Mathisen, 2019). The integration of a lactation counselor in the primary care pediatric office can assist the

organization in pursuing the IHI Triple Aim. The importance of such a role cannot be overlooked.

Current Lactation Support

The lactation support services department at the organization currently consists of a manager of lactation services and three lactation counselors. As a Baby-Friendly hospital, all postpartum nurses at the organization have received extensive education on lactation initiation and support in the inpatient setting and should be able to assist every mother with breastfeeding. Several labor and delivery, postpartum, and Neonatal Intensive Care Unit nurses are also certified lactation counselors or Internationally Board-Certified Lactation Counselors and serve as additional support for mothers and infants receiving care at the organization.

The role of the lactation counselor in the inpatient setting is to provide lactation support to high-risk mothers, such as mothers with infants in the Neonatal Intensive Care Unit, those that experience significant birth trauma, or infants with anatomical differences. The inpatient lactation counselor also assists mothers in obtaining a breast pump through their medical insurance, as well as conducting outpatient lactation appointments and leading outpatient lactation support groups. Through a review of the above lactation counselor responsibilities, it is evident that the current inpatient lactation staff would not be able to assume responsibility for providing lactation support at a primary care pediatric office. A position dedicated to the support of maternal-infant dyads at a pediatric office would further the organization's efforts to promote and sustain breastfeeding relationships.

Healthy People 2020 Goals

The United States Department of Health and Human Services set out numerous breastfeeding focused goals in Healthy People 2020. Despite the multiple benefits of

breastfeeding, the percentage of infants receiving breastmilk is not high enough. Upon examination of the Healthy People 2020 data, it is clear that as infants grow older, the percentage that are breastfed decreases. In 2015, 83.2% of all infants born in the United States were breastfed at least once, compared to a goal of 81.9%. Only 77.7% of all infants born in the state of Michigan were ever breastfed that same year (U.S. Department of Health and Human Services, 2020). Breastfeeding rates drop dramatically as the duration of breastfeeding increases. In 2015, the targeted goal for infants breastfeeding at six months of age was 60.6%. Unfortunately, the United States achieved 57.6% and the state of Michigan was 55.6%. The breastfeeding goal at one year of age is 34.1%. The United States' rate was 35.9%, and the state of Michigan's rate was 34.6% in 2015 (U.S. Department of Health and Human Services, 2020).

Approximately 60% of mothers stop breastfeeding before they planned to (Centers for Disease Control and Prevention, 2019). "Inadequate primary care lactation support has had a direct effect on poor breastfeeding outcomes and rates," which in turn could lead to public health problems (Busch, Logan, & Wilkinson, 2014). While goals are being achieved, there is still room for improvement. According to the literature, continuity of lactation support in the primary care pediatric office should result in increased rates of breastfeeding (Witt, Smith, Mason & Flocke, 2012).

Current Breastfeeding Rates

Between January 1, 2019, and December 31, 2019, the MHPP Rockford Pediatric Medicine group billed 320 patients with a 99381 or 99391 billing code. Of these 320 patients, 274 were breastfeeding at their initial newborn visit, which is 85.6% of patients. That exceeds the Healthy People 2020 goal of 83.2% of infants being breastfed initially. The percentage of mothers who initially breastfed and discontinued breastfeeding by the infant's 2-week check-up

was 3.6%. Additionally, 34.6% of mothers who had initially breastfed, discontinued breastfeeding between the infant's 2 week and 9-month well-child appointments. This office witnessed 17% of all infants that were breastfed until the age of one year, which is well below the Healthy People 2020 goal of 34.1%. As of December 31, 2019, 114 infants were still being breastfed at a variety of ages (medical charts, March 3, 2020). Below is a chart comparing the office's rates with the goals set by Healthy People 2020.

Breastfeeding Rates	Healthy People 2020 Goals	Current Pediatric Office Rates
Initiated breastfeeding	83.2%	85.6%
Breastfeeding at 6 months	60.6%	58%
Breastfeeding at 1 year	34.1%	17%

The addition of a lactation counselor to the Pediatric Medicine team should drastically increase the breastfeeding rates beyond the 2-week mark following the literature (Bonuck, Stuebe, Barnett, Labbok, Fletcher, & Bernstein, 2014; Corriveau, Drake, Bellams, & Rovnyak, 2013; Witt, Smith, Mason, & Flocke, 2012). With 40% of mothers that initiated breastfeeding ceasing to breastfeed before the child reaches nine months old, there is a significant opportunity to make a positive impact on the lives of children in the West Michigan community. Such an

addition to the pediatric team may lead to the office exceeding the Healthy People 2020 goal of 34% of infants breastfeeding at one year of life.

Perception of Need

A survey of 31 women at the Pediatric office was conducted between January 16, 2020, and February 28, 2020. The survey was completed by women that were currently breastfeeding a child younger than 12 months old or had breastfed a child younger than 12 months old in the previous 12 months. (see Appendix A.)

Of those women that participated in the survey, 77% were exclusively breastfeeding or pumping while the other 33% were using a formula to supplement breastfeeding. The average duration of breastfeeding for those surveyed was between four and six months. 48% of women surveyed had received professional lactation support in the hospital, and 9% following discharge from the hospital. The idea of the presence of a lactation professional in the primary care office being extremely beneficial to their breastfeeding journey was shared by 74% of women.

Common sources for breastfeeding support and tips included family and the internet, which may not provide the most up-to-date evidence-based guidelines for supporting breastfeeding. Below is a chart showing the results of the survey. The integration of a lactation counselor in a primary care pediatric office would improve patient experience, which is one of the IHI’s Triple Aim goals.

Q1. Are you currently breastfeeding?	28- Yes	3- No
Q2. How are you providing breastmilk?	21- exclusive breastfeeding or pumping	3- exclusive breastfeeding or pumping

	7- supplementing with formula	
Q3. How long have you been breastfeeding the child you are currently breastfeeding?	3- less than 2 weeks 6- 2 weeks to 2 months 8- 2 months to 4 months 4- 4 months to 6 months 2- 6 months to 8 months 3- 8 months to 10 months 0- 10 months to 12 months 1- Greater than 12 months	2- 8 months to 10 months 1- 10 months to 12 months
Q4. Were you assisted by a Lactation Counselor prior to discharge from the hospital?	15- Yes 12- No 1- I don't remember	3- No
Q5. Have you ever had a 1-on-1 appointment with a Lactation Counselor after hospital discharge?	4- Yes 24- No	3- No
Q6. Have you ever attended a breastfeeding support group?	5- Yes 23- No	1- Yes 2- No

<p>Q7. Who/where do you receive breastfeeding support and tips from to assist you? (Select all that apply)</p>	<p>9- A lactation counselor 4- Breastfeeding support group 0- Postpartum doula 18- Other: 7- family 5- friends 9- Internet 4- Healthcare provider</p>	<p>1- Lactation counselor 1- Postpartum doula 1- Other 1- Online course</p>
<p>Q8. Would the presence of a lactation counselor in the pediatric office positively impact your breastfeeding journey?</p>	<p>21- Extremely positive 5- Moderately positive 1- Slightly positive 1- Neither positive nor negative</p>	<p>2- Extremely positive 1- Moderately positive</p>

Market and Competition Analysis

Analysis of Strengths, Weaknesses, Opportunities, and Threats (SWOT)

A SWOT analysis was performed at the pediatric office within the organization (Appendix B). Strengths and opportunities of the organization are that the office is part of a larger organization that has a clearly defined vision, mission, and strategic plan. There is

organizational support to increase outpatient services and lactation services. As the number of women that are breastfeeding increases, the organization has the opportunity to care for and support those maternal-infant dyads. The implementation of a lactation counselor in the primary care pediatric office presents the chance for pediatric providers to work with their lactation colleagues collaboratively. The possibilities are great for the families that are cared for through this organization.

Few competing organizations in the region offer the same service. Specifically, no offices within two major competitors' health systems currently offer in-office lactation support. Both organizations do hold outpatient breastfeeding support groups like the organization. Several private pediatric groups do offer in-office lactation services on a limited basis. Despite smaller private offices offering breastfeeding support, the organization has a unique opportunity to provide a service that is not provided by its major competitors.

Weaknesses and threats to the project include a current lack of collaboration between pediatric providers and lactation consultants within the organization. Part of this stems from a lack of lactation education for pediatric providers. The gap in lactation education can create inconsistent messages for families, which can cause confusion and is a current weakness of the organization. The role of a lactation counselor in the primary care pediatric office does not currently exist in the organization. Securing payment from insurance companies for lactation services is another threat to the project. Lactation support services are protected by the Patient Protection and Affordable Care Act (Sherburne Hawkins, Dow-Fleisner, & Noble, 2015). The payment securement strategies are outlined in the financial plan section of this business plan.

Development Plan and Schedule

Outpatient Lactation Responsibilities

To best support mothers providing breastmilk, an appointment with the lactation counselor should immediately follow the infant's first visit to the pediatrician's office. Such a visit will allow the mother to meet the lactation counselor in the office, thus establishing a trusting relationship. The lactation counselor should observe a breastfeeding or pumping session, during this initial visit in addition to obtaining a breastfeeding history from the mother. This interaction will give the lactation counselor a baseline for the maternal-infant dyad moving forward. If there are problems noted during the first visit, the lactation counselor should work in collaboration with the pediatric provider to preserve the breastfeeding relationship if that is what the mother desires. Anticipatory guidance related to exclusive breastfeeding through the first six months of life and continued breastfeeding through the first year should be offered at this visit as well (Younger Meek & Hatcher, 2017).

Additional appointments with the lactation counselor may be needed based on medical necessity or the mother's desire. The lactation counselor should work in on-going collaboration with the pediatric providers, and the mother's provider, to provide evidence-based care to the maternal-infant dyad. Continued lactation support and education should be offered through the first year of the child's life. This will include offering anticipatory guidance to breastfeeding mothers regarding returning to work, the use of breast pumps, breast milk storage, maintaining milk supply, and weaning all in collaboration with the pediatric providers.

Lactation Counselor Position Development Timeline

The job opening and description should be posted to the organization's online job board between June and August of 2020. A Registered Nurse (RN) with a certification in lactation

should fill the position of outpatient lactation counselor position. The RN should be an Internationally Board-Certified Lactation Counselor or a Certified Lactation Counselor. During this time, the new position should be introduced to all staff members at the primary care pediatric office. This will allow staff and providers time to promote the new service to expectant and currently breastfeeding mothers. The outpatient lactation policy should be available and reviewed by all staff members at the primary care pediatric office before the new lactation counselor starts. This may be completed in the form of a required education module to ensure compliance and understanding of the outpatient lactation policy.

The new hire will have to complete the organization's orientation unless the individual is transferring from another department. The lactation counselor should also spend time orienting with the inpatient lactation counselors with their outpatient lactation visits, in addition to observing several newborn visits with the pediatric providers. The outpatient lactation counselor at the organization should be conducting breastfeeding visits by October 2020.

Data should be collected concerning breastfeeding rates at multiple points following the implementation of the lactation counselor in the office. It may be beneficial to distribute surveys to breastfeeding mothers following the integration of the lactation counselor to assess patient experience and to adjust services to meet the needs of breastfeeding women as part of a continuous improvement process.

The Operational Plan

Organizational Structure

The outpatient lactation counselor will report directly to the Manager of Women's Services at the organization. Collaboration with the pediatric and family medicine providers and nursing staff is expected from the outpatient lactation counselor. The outpatient lactation

counselor will also have to actively communicate and collaborate with the office manager and participate in daily huddles with the entire office staff if scheduling allows. The active involvement of the outpatient lactation counselor in the office will establish a trusting relationship between the providers and staff and the lactation counselor.

The success of this role will significantly depend on the interactions between the pediatric and family medicine providers and the lactation counselor. The providers need to trust that the education and guidance being offered by the lactation counselor is evidenced-based and in the best interest of the patient's health. If the providers do not trust the lactation counselor, they will not refer their patients to that service. The OB/GYN providers in the organization will also play a vital role in the promotion of outpatient lactation services. The obstetric providers of the organization are actively involved in the maintenance of the Baby-Friendly designation, as well as initiating the conversation regarding breastfeeding during the antenatal period. There is a significant opportunity for those providers to refer patients to the organization's pediatric and family medicine offices with outpatient lactation counselors integrated into their care.

Organizational Specifics

A specific exam room should be dedicated to outpatient lactation services in the office. This exam room should be near the pediatric wing, for convenience of collaborating with pediatric providers as well as the use of pediatric-specific equipment, such as infant scales. However, the office will be undergoing renovations in the near future which may impact the availability of a designated exam room. In the event a single exam room is not able to be allocated solely to outpatient lactation, a specific room in the pediatric wing should be used only for lactation that day. This may change depending on which pediatric providers seeing patients that day. For example, only one provider sees patients on Mondays, leaving three rooms in the

pediatric wing as possible lactation rooms that day. On Thursdays, two providers see patients, one MD and one PNP. The PNP rarely utilizes all three of her patient exam rooms, so one of those rooms could be designated as the lactation room as needed.

It is assumed that the outpatient lactation role will be budgeted as an 0.6 FTE position. To best serve all mothers that are breastfeeding, the outpatient lactation counselor should be scheduled for a portion of every day of the week. If the outpatient lactation counselor were to only work three four-hour days a week, 0.3 FTE would be allotted to the position. The scheduling staff will need to know the schedule for lactation services. This will allow for most newborns to be seen in the office by the lactation counselor between day three and five of life, as is the recommendation from the American Academy of Pediatrics (Younger Meek & Hatcher, 2017). Based on the current pediatric provider schedule, such scheduling of newborns will allow for even distribution of newborn appointments across all three pediatric providers' schedules. Additional scheduled hours for the lactation counselor may be needed, given patient demand or an increase in need. Expanding the role to other primary care offices should also be considered to bring added convenience to the families served by the organization.

Since the outpatient lactation counselor will be a Registered Nurse (RN), the pediatric team could also utilize these skills in other capacities. The family medicine teams within the office have RNs that complete follow-up phone calls with patients, conduct medication reconciliation, and provide nurse visits. The pediatric team at the organization may explore expanding the role of the outpatient lactation counselor in the future to meet the needs of the office.

The Marketing Plan

Target Population

The population that should be targeted by the marketing of the outpatient lactation counselor in the primary care office is pregnant women, women that are seeking convenient and collaborative lactation support with their pediatric provider, and families that are experiencing difficulties with their current pediatric provider. Women of childbearing age are increasingly involved with technology and social media, which may be prime ways to market this new service (Hughson, Daly, Woodward-Kron, Hajek, & Story, 2018).

For women that are receiving prenatal care through an organizational office, the conversation regarding her choice to breastfeed should occur soon in the pregnancy. During this conversation, the provider should also ask if the family has a pediatric provider chosen for the child. Regardless of their answer, the pediatric and family medicine providers at the organization should be offered with a focus on the outpatient lactation counselor embedded in the office at the organization.

In the case of women that deliver at the organization's hospital but have not picked a pediatric provider, the labor and delivery and postpartum nurses, as well as the staff pediatricians rounding on the newborns, should make mention of the lactation support services offered at organizational offices. Word of mouth advertisement can be powerfully persuasive (Chu & Kim, 2018). The use of the organization's staff to market the new service should be encouraged by administrative staff.

Marketing Materials

The organization's marketing department will be responsible for the creation and distribution of marketing materials related to the new outpatient lactation support services

offered within the office. A great deal of attention should be given to the extensive breastfeeding education provided during the prenatal period at the organization's OB/GYN and Family Medicine offices, the outstanding breastfeeding support offered in the immediate postpartum period by nursing staff and inpatient lactation counselors in our Baby-Friendly Hospital. As the child grows, continued breastfeeding support through lactation counselors should be embedded in the MHPP pediatric and family medicine offices.

Flyers or pamphlets promoting the new service should be made available at all of the organization's OB/GYN, family medicine, and pediatric offices, as well as at the hospital. The marketing team should also initiate a social media campaign following the employment of the outpatient lactation counselor to reach new and expecting mothers. Traditional marketing strategies should also be considered, such as interviews of the outpatient lactation counselor on local news outlets.

Financial Plan

Expected Costs

The creation of the outpatient lactation counselor role will involve the creation of additional lactation FTEs in the current budget. The outpatient lactation counselor role will constitute 0.3 to 0.5 FTE and will be an hourly position with an average hourly rate of \$34.00. The salary of the outpatient lactation counselor should be offset by the revenue produced by the outpatient lactation visits. A laptop for charting in the patient's electronic medical record will also need to be allocated to the outpatient lactation counselor. This will come from the lactation budget and will cost approximately \$300.00.

Costs related to marketing also need to be considered. The cost of marketing the potential new service to mothers via social media through the organization's pages would be \$0. A cost

would be incurred if the campaign was moved into market. Flyers could be printed for 10 cents per print through the organization's print shop. A pull up banner to display in office lobbies would cost between \$100 and \$150. If the team decided to move forward with a billboard for advertisement, the cost is between \$1,000 and \$1,400 per week of use. The benefit of promoting a service within the organization is that the costs for promotion can be kept low.

Expected Returns on Investment

Information regarding insurance payments and revenue are currently being generated by the billing and coding department at the organization. Due to the transition to telehealth, and the halt of non-essential projects, the billing and coding team has not completed the request for information regarding insurance payment for lactation services. Specific amounts related to the pediatric providers billing and family medicine providers billing for lactation services have been requested. More information will be distributed when it becomes available.

Conclusion

The organization is in a unique position to promote and support breastfeeding relationships in West Michigan through the employment of an outpatient lactation counselor. Such a move would attract more patients to the organization's network, improve the experiences of breastfeeding women and infants, and impact the public health of the community. To do so would be in line with the mission, core values, and vision of the organization.

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Appendix A
Breastfeeding mothers in-office on-line survey

Welcome to the quality improvement project!

We are interested in understanding more about existing breastfeeding support. You will be asked to answer some questions about your breastfeeding experience and breastfeeding support. Please be assured that your responses will be kept completely confidential.

The study should take you around five minutes to complete. Your participation in this research is voluntary. You have the right to withdraw at any point during the study, for any reason, and without any prejudice. If you would like to contact the Principal Investigator in the study to discuss this research, please e-mail gvbreastfeedingsurvey@gmail.com.

By clicking the button below, you acknowledge that your participation in the study is voluntary, you are 18 years of age, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason.

Q1: Are you currently breastfeeding your child?

- Yes
- No (If the mother answers “No”, she will be transferred to Q9)

Q2: How are you providing breastmilk?

- Exclusive breastfeeding or pumping
- Breastfeeding and formula feeding

Q3: How long have you been breastfeeding the child you are currently breastfeeding?

- Less than 2 weeks
- 2 weeks-2 months
- 2 months-4 months
- 4 months-6 months
- 6 months-8 months
- 8 months-10 months
- 10 months-12 months
- Greater than 12 months

Q4: Were you assisted by a lactation counselor prior to discharge from the hospital?

- Yes
- No
- I don't remember

Q5: Have you ever had a 1-on-1 appointment with a lactation counselor after hospital discharge?

- Yes
- No

Q6: Have you ever attended a breastfeeding support group?

- Yes
- No

Q7: Who/Where do you receive breastfeeding support and tips to assist you (Check all that apply)?

- A lactation counselor
- A breastfeeding support group
- A postpartum doula
- Other:

Q8: Would the presence of a lactation counselor in the pediatric office positively impact your breastfeeding journey?

- Extremely positive
- Moderately positive
- Slightly positive
- Neither positive nor negative
- Slightly negative
- Moderately negative
- Extremely negative

If the mother answered “Yes” to Q1, the survey will end after Q8

Q9: How did you provide breastmilk?

- Exclusive breastfeeding or pumping
- Breastfeeding and formula feeding

Q10: How long did you breastfeed your most recently breastfed child?

- Less than 2 weeks
- 2 weeks-2 months
- 2 months-4 months
- 4 months-6 months
- 6 months-8 months
- 8 months-10 months
- 10 months-12 months
- Greater than 12 months

Q11: Were you assisted by a lactation counselor prior to being discharged from the hospital?

- Yes
- No
- I don't remember

Q12: Did you ever have a 1-on-1 appointment with a lactation counselor after hospital discharge?

- Yes
- No
- I don't remember

Q13: Have you ever attended a breastfeeding support group?

- Yes
- No
- I don't remember

Q14: Who/where did you receive breastfeeding support and tips from to assist you (Check all that apply)?

- A lactation counselor
- A breastfeeding support group
- A postpartum doula
- Other:

Q15: Would the presence of a lactation counselor in the pediatric office have positively impacted your breastfeeding journey?

- Extremely positive
- Moderately positive
- Slightly positive
- Neither positive nor negative
- Slightly negative
- Moderately negative
- Extremely negative

Appendix B
SWOT Analysis

SWOT Analysis	
Strengths	Weaknesses
<ul style="list-style-type: none"> • <i>Part of a large healthcare system in West Michigan</i> • <i>Clearly defined vision, mission, and strategic plan</i> • <i>Organizational support for outpatient services</i> • <i>Organizational support for increasing lactation services</i> • <i>Organization is designated a Baby Friendly Hospital</i> 	<ul style="list-style-type: none"> • <i>Provider inexperience in providing evidence-based lactation support</i> • <i>Inconsistency between what mothers are told inpatient and what the pediatric team communicates</i> • <i>Lack of collaboration between current lactation services and pediatric providers</i> • <i>This role does not currently exist in the organization</i>
Opportunities	Threats
<ul style="list-style-type: none"> • <i>Increase communication and collaboration between current lactation services and pediatric providers</i> • <i>A small number of competing organizations provide this service</i> • <i>Number of women that desire to breastfeeding is on the rise</i> 	<ul style="list-style-type: none"> • <i>Multiple competing organizations in West Michigan</i> • <i>Potential battles with insurance payment for provided services</i>