

Virtual Breastfeeding Peer Support and Encouragement

Danielle Lopez

Edson College of Nursing and Health Innovation, Arizona State University

Author Note

Danielle Lopez is a Registered Nurse at Mayo Clinic Arizona in the Department of Neurology

She has no known conflict of interest to disclose.

Correspondence should be addressed to Danielle Lopez, Edson College of Nursing and Health Innovation, Arizona State University, Downtown Campus, 550 N. 3rd Street, Phoenix, AZ 85004. Email: dsandler@asu.edu

Abstract

Background: Breastmilk is the optimal source of nutrition for infants as recommended by the American Academy of Pediatrics and the World Health Organization (WHO). Despite proven benefits, rates of breastfeeding have shown to decrease drastically at six months of age.

Purpose: The purpose of this project is to assess the effectiveness of virtual peer support and infant education in increasing/improving a mother's wellbeing and breastfeeding relationship. This project was guided by the theory of self-efficacy.

Methods: Participants were recruited utilizing flyers that were posted to social media and distributed at a breastfeeding center in Southwestern United States. Six breastfeeding mothers were recruited, and each participated in four, one-hour peer support sessions that were held weekly via Zoom. Participants completed the WHO Well Being Index and the Breastfeeding Relationship scale before and after the intervention. Pre- and post-implementation scores were compared.

Ethical Considerations: The research was approved by the IRB board at Arizona State University and was in compliance with ethical considerations and standards of the institution.

Results: Descriptive analysis conducted on the WHO Well-Being Index showed the same results or improvement for 80% of the questionnaire. Descriptive analysis conducted on the Breastfeeding Relationship Scale showed improvement on 81% of questions.

Conclusions/Discussion: Breastfeeding can be taxing and overwhelming for mothers leading them to discontinue earlier than planned. Peer support has been identified to be substantial to women going through this process in helping them initiate and continue to breastfeed their infant.

Keywords: breastfeeding, peer support, breastmilk, infant nutrition

Virtual Breastfeeding Peer Support and Encouragement

Breast milk is nutrient rich and provides protective nourishment for an infant. The most current recommendations from the American Academy of Pediatrics [AAP] (2012), state that exclusively breastfeeding an infant for at least the first six months of life is optimal. This information parallels the recommendations made by the World Health Organization (n.d.). In 2020, The Centers for Disease Control and Prevention [CDC], released data from 2017 stating that in the United States (U.S.), exclusive breastfeeding rates decreased by more than half by the time the infant was six months old. McFadden et al. (2017) conducted a systematic review and concluded that when a mother was offered and provided with professional and/or peer support, breastfeeding retention rates improved. The dramatic decrease in exclusive breastfeeding rates highlights the need to explore strategies and interventions to support mothers and infants in exclusive breastfeeding for the first six months of life.

Problem Statement

Breastmilk is the optimal choice for infant nutrition due to its quality nourishment. Global and national initiatives strongly recommend exclusive breastfeeding for the first six months of an infant's life. The American Pregnancy Association, most recently released data in 2012, describing the benefits of breastmilk. Infants benefit from the tailored nutrients created from breastmilk to help fight infections, reduce risk of future asthma, diabetes, and obesity. Mothers benefit from cultivating a special connection with their child as well as decreasing their risk of breast and ovarian cancer (American Pregnancy Association, 2012). Several factors influence a mother's decision to discontinue breastfeeding. Li et al. (2008) conducted pivotal research highlighting these decisions, which include latching difficulties and perceived inadequate milk supply. Internationally, the WHO concludes that 40% of infants are exclusively

breastfed at six months of life (WHO, 2018). The U.S. has dramatically lower retention rate of exclusive breastfeeding; 25.6% of infants are exclusively breastfeeding at six months of age (CDC, 2020).

Purpose and Rationale

Exclusive breastfeeding rates drop by nearly 60% by the time an infant is six months old (CDC, 2020). Breastmilk is the ideal source of nutrition for infants. Breastmilk provides protection against infectious diseases which may cause diarrhea, respiratory infections, and otitis media (Victora et al., 2016). Mothers also receive health benefits of breastfeeding, including reduced risk of cardiovascular disease, certain cancers, hypertension, and hypercholesterolemia (American College of Obstetrics and Gynecology [ACOG], 2021). Providing peer support to new mothers could positively influence breastfeeding retention rates which would in turn improve health outcomes for infants and mothers. McFadden et al. (2017) concluded that when support is offered, either professionally or through peer support, breastfeeding retention rates improved.

Background and Significance

New Mothers

New mothers find themselves going through many changes during the post-partum period. The initial weeks of breastfeeding can seem foreign to new mothers navigating this novel experience. Common breastfeeding challenges that women face may include sore nipples, engorgement, feeling of inadequate supply, fatigue, and in some cases even embarrassment (McFadden et al, 2017). Additionally, the American Pregnancy Association (2020) lists similar challenges adding that mothers also identify a perceived inadequate milk supply such as frequent feedings, breasts not feeling as full, fussy child, and not pumping much after a feeding.

Outwardly these may seem to be signs of inadequate milk supply, but commonly have unrelated reasons (American Pregnancy Association, 2020).

Global and National Recommendations

Authorities agree and endorse exclusive breastfeeding for optimal infant health (AAP, 2012; CDC, 2020; WHO, n.d.). Healthy People 2030 (n.d.) released data stating that in 2015, 24.9% of infants were exclusively breastfed at 6 months of life with an objective for national breastfeeding rates to increase to 42.4% of infants being exclusive breastfed at six months of life. The WHO (2014) has identified a target for 2025 of at least 50% of infants being exclusively breastfed at 6 months of age globally. Arizona currently falls below these objectives, data from 2017 showed that 24.6% of infants were exclusively breastfed for the first six months of life (CDC, 2020). The CDC (2020) released data from 2017 stating that in the US, 84% of infants had ever been breastfed, but only 25.6% of infants were exclusively breastfed at six months old.

Peer Support

Breastfeeding is a skill and to become comfortable with the process, it can take time and patience from the mother. The WHO and United Nations Children's Fund (UNICEF) created The Baby-Friendly Hospital Initiative (BFHI) and was first introduced to the U.S. in 1996 to increase breastfeeding by providing new mothers with the education and skills to successfully breastfeed their infant without the bias of commercial interest (Baby-Friendly USA, Inc., n.d.). Following discharge from the hospital, a new mother may seek out additional breastfeeding support. From a systematic review of the benefits of breastfeeding peer support, researchers indicated that peer support from women with previous breastfeeding experience and formal breastfeeding and support education could be beneficial for breastfeeding mothers (Kaunonen et al., 2012). Another systematic review concluded that peer support increased breastfeeding

retention rates in low to middle income countries compared to those that did not receive support (Shakya et al., 2017).

Standard Support and Education

Over 20,000 hospitals and birthing centers across the globe partake in the BFHI to promote and support breastfeeding (Baby-Friendly USA, Inc., n.d.). The U.S. Department of Human and Health Services released The Surgeon General's Call to Action, most recently released a statement in 2011, stating that continued support for mothers after being discharged from the hospital is essential. Unfortunately, inadequate and imprecise material on breastfeeding is sometimes included in medical texts. (U.S. Department of Human and Health Services, 2011). One study found that mothers lacked the education on breastfeeding and breastmilk benefits as well as a lack professional support during the postpartum period when initiating breastfeeding (McFadden & Toole, 2006). The U.S. Department of Health and Human Services (2011) also highlighted an education deficit to new mothers on breastfeeding.

Increasing Exclusive Breastfeeding Rates

The U.S. Department of Health and Human Services (2011) found that support is fundamental to mothers in order to allow them to successfully breastfeed. Education on breastfeeding should begin during pregnancy, however mothers may not know where to find educational classes or that they are even an option. Resources should be available to mothers who wish to learn more. Additionally, mothers should feel comfortable seeking supplementary support and education if needed during their breastfeeding journey. Often times, mothers need to seek out their own support when they find they need help with breastfeeding (U.S. Department of Health and Human Services, 2011). ACOG (2021) recommends a multidisciplinary approach

to increasing breastfeeding rates, having families, health care professionals, and the community assemble and support the new mother in her breastfeeding journey.

Internal Evidence

A breastfeeding center, located in Arizona, offers lactation consulting and breastfeeding support to women in their community. The breastfeeding center has concerns that the pandemic has affected peer support provided to women. Breastmilk provides tailored nutrition to an infant and is important for optimal growth and health development. The CDC (2017) reports that in Arizona, 24.6% of infants are exclusively breastfed at six months, which is slightly lower than the national percentage of 25.6%. Factors influencing early discontinuation include worry over adequate milk supply, latching difficulty, pain associated with breastfeeding, and the concern of infant not being satiated by breastmilk (Li et al., 2008). Currently, the breastfeeding center provides information on breastfeeding resources, virtual breastfeeding classes, and individualized lactation consulting to support breastfeeding mothers. To increase access, they believe that providing virtual peer support to mothers during their breastfeeding journey will improve breastfeeding retention rates. This inquiry leads to the PICOT question, in mothers (P), how do virtual peer support breastfeeding groups (I), compare to current practice (C), influence exclusive breastfeeding over a three-month period?

Search Strategy

An extensive search of the literature was conducted to answer the PICOT question. The three databases used were chosen due to their reputability. The following databases were searched, the Cumulative Index to Nursing and Allied Health Literature (CINAHL), PubMed, and the Cochrane Library. Boolean phrases such as AND and OR were used to along with MeSH terms when searching. Keywords used in the search include breastfeeding, breastmilk, mothers,

peer support, social support, group support, online support, and online education. Searches were restricted to articles published in the last five years, full text availability, published in academic journals. Exclusion criteria included non-English language. An evaluation of the titles and abstracts was conducted determine which articles were relevant to the topic of peer support in breastfeeding women. Final articles were the chosen based on an in-depth review of validity, reliability, and applicability to the PICOT question.

CINAHL

The initial CINAHL search produced 890 results by searching the terms breastfeeding AND mothers AND peer support OR social support OR support group. The results were condensed to 220 once limits were applied, including limiting the year of publication to 2015-2021, articles only published in academic journals, and full text availability. These titles of these articles were then screened for relevancy and 31 studies were chosen for further review.

PubMed

PubMed was searched and initially produced 579 results by using the search terms breastfeeding AND peer support. These results were narrowed down to 243 once limits were applied, including limiting the publication to the last five years, articles only published in academic journals, and full text availability. The studies provided were then reviewed for significance and 29 articles were then chosen for further review.

Cochrane Library

The initial Cochrane Library search and initially yielded 1,129 studies by using the search terms breastfeeding AND support. The results were narrowed down to 163 studies by searching terms breastfeeding AND peer support. To further condense results, limits were applied, including restricting results to those studies published within the last five years, and the terms

breastfeeding AND peer support AND mothers were searched to yield 39 studies, which were evaluated further.

Critical Appraisal & Synthesis of Evidence

To evaluate literature reviewing this topic, the Melnyk and Fineout-Overholt's (2019) rapid critical appraisal tool was used to assess articles. This evaluation resulted in 10 high quality articles included in the critical appraisal of this topic. To ensure the most up to date information, all studies were all published within the last five years. Five of the studies were based in the United Kingdom, two of the studies were based in the United States, two of the studies were based in Australia, and one was based in Iran. None of the studies identified any bias. Five of the studies did not identify funding. The study designs consisted of randomized controlled trials, cross sectional-surveys, semi-structured interviews, qualitative studies, netnography, mixed methods, retrospective analysis, systematic reviews, Cochrane systematic review, and meta-analysis studies. Due to the nature of the topic, in addition to quantitative studies reviewed(see Appendix A, Table A1), qualitative evidence was critical to include in order evaluate thoughts and feelings of mothers who are currently breastfeeding (see Appendix A, Table A2). Additionally, a synthesis table (see Appendix A, Table A3) was completed in order to provide an overview of the evidence that was complied.

The interventions of the quantitative studies were various forms of peer support provided to mothers who are breastfeeding or intending to breastfeed. The interventions ranged from face-to-face support, telephonic support, and online support. The qualitative studies surveyed women on what type of support was desired during their breastfeeding journey as well as their thoughts of breastfeeding peer support and its benefits. The study participants consisted of mothers who breastfed and peer supporters or peer counselors. A qualitative study by Phillips et al. (2018)

surveyed individuals on different ways to employ motivational interviewing when providing peer support to mothers. This study was unique in that it identified different techniques that peer supporters can help mothers. The variables measured in the studies focused on the duration of breastfeeding associated with peer support interventions as well as psychosocial aspects of the effect of peer support on the mother. Psychosocial benefits were important to include to evaluate mother's perspective of the support groups. A study by Brown and Shenker (2020) evaluated how peer support effected women based on their level of education, at home partner, parity, and ethnicity in order to identify if any of these characteristics had any impact on breastfeeding.

The studies identified that peer support offered through peer counselors, the community, and peer support groups were generally beneficial in increasing the duration of breastfeeding as well as providing psychosocial benefits. The studies did not identify which forms of peer support were more beneficial. The qualitative studies identified that women would like peer support offered to them while they are breastfeeding for encouragement, support, education, and a sense of community.

Theory Application

Theory frameworks help guide researchers in creating interventions and searching for potential outcomes. In this research study, self-efficacy theory aligns with the subject matter. Bandura (1977) created the self-efficacy theory, which describes that actions are a direct inspiration of perceived self-efficacy (see Appendix B, figure 1). Self-efficacy affects an individual's determination to pursue an action that is introduced which is then vital to creating persistent achievements. When individuals face challenges completing the action, self-efficacy expectations establish how much time and energy is used on successfully fulfilling the activity. The theory of self-efficacy has four main components, which include: performance

accomplishments, vicarious experience, verbal persuasion, and emotional arousal. Performance accomplishments occur when an individual has recurrent achievements. These successes expose individuals to more activities, which may translate to additional difficult tasks, ensuring attempts at new activities and enhancing successes. Vicarious experience allows individuals to view others accomplished tasks and gives them the ability to view themselves as being able to have the same achievements. Verbal persuasion is encouragement from others. Others who have completed the task inspire the individual to be able to successfully accomplish the task. Due to the individual not having first had experience with the action, this component of self-efficacy is not as strong. Emotional arousal indicates that a stress response to an action may hinder the individual's ability to cope with the activity, which can ultimately obstruct their performance and affect their self-efficacy. This potential undesirable effect is important to understand so that individuals can combat the potential negativity.

Education on the benefits of breastmilk and breastfeeding needs to be provided to pregnant mothers so that they can make an informed decision on breastfeeding their infant. Motivation is crucial when initiating breastfeeding due to its potential complexities. Self-efficacy is vital for mothers to begin and continue to breastfeed. Several challenges may arise causing potential self-doubt, which could trigger emotional arousal and a stress response. Having previous successful experiences, seeing others successfully breastfeeding, and words of encouragement can help a mother when working through anxieties of breastfeeding. A strong sense of self-efficacy is crucial when breastfeeding, as this can be supported through social support groups.

Implementation Framework

Rosswurm and Larrabee (1999) created a model for evidence-based practice that provides an organized procedure for practitioners to use when making a modification to evidence-based practice (see Appendix B, figure 2). The model consists of six steps that guide the evidence-based change, which include: assess the need for change; link problem with interventions and outcomes; synthesize best evidence; design a change in practice; implement and evaluate the practice change; and integrate and maintain the practice change. Assessing the need for change includes identifying the issue at hand, collecting data, and identifying the stakeholders. Linking the problem includes identifying prospective interventions and outcomes for the issue at hand. Synthesizing the best evidence requires conducting an in-depth literature review of the issue as well as interventions that have been published. Designing a change encompasses outlining the desired change, intervention, and outcomes for the issue. Implement and evaluate the practice change occurs when the intervention is put into practice and evaluated properly by those who designed the potential solution. Integrate and maintain the practice change occurs once the intervention has been proven valuable. This model is adaptable and applies well to increasing breastfeeding duration through peer support groups.

Currently, breastfeeding statistics are low with an international incentive to increase rates and duration of breastfed infants. An intervention that is referred to frequently in the literature and requested by mothers is providing peer support to women who are intending to breastfeed as this may be an isolating process. This is evident in the literature as listed in this paper. The stakeholders in this case are mothers and infants who will be partaking in the intervention. Peer support can come in many ways, including face to face interactions, telephonically, or through online support. The COVID-19 pandemic has brought challenges to in person peer support due to social distancing and masking requirements. Therefore, at this time, peer support would be

best provided through a virtual platform to ensure participant safety. The next steps include implementing this intervention and collecting data on whether peer support groups are efficacious for mothers to continue breastfeeding. The outcomes to be evaluated include the duration of breastfeeding and breastfeeding knowledge.

Implications for Practice Change

Implementing a social support program to mothers who are breastfeeding or intending to breastfeed can be vital in increasing breastfeeding initiation, duration, education, as well as creating a sense of community for new mothers experiencing this new phenomenon. The evidence demonstrated that peer support may be beneficial to mothers who are breastfeeding or who intend to breastfeed. Having support provided by peers and those with vast breastfeeding experience can provide invaluable advice and encouragement to new mothers who are navigating this new experience. When mothers are looking for education, community, friendships, or advice, sharing commonalities can be therapeutic during this hectic time.

During the COVID-19 pandemic, social distancing and masking guidelines have made peer support groups difficult to attend. Many were cancelled or began using alternative platforms. Aside from the pandemic, mothers may also choose to avoid in-person support groups to avoid exposing their newborn to illnesses as their immunity is immature. Online support through social networks may be a helpful platform to provide advice and encouragement. Social networks are not regulated and might provide mothers with false education and recommendations. Real-time face to face support may be increasingly helpful in providing a deeper connection between participants. Providing a virtual support group via video conferencing may be extremely helpful in bridging the gap when in person social support groups for breastfeeding mothers are inaccessible. Additionally, providing virtual conferences can help

alleviate time constraint challenges mothers may face, they can choose to log on when available or choose to mute or close video if feeling unprepared.

Ethical Considerations

It is vital to consider ethical principles to ensure the project's integrity and the safety of the participants. Four ethical principles will guide this project: beneficence, autonomy, non-maleficence, and justice. Beneficence means that good quality outcomes will come from the procedure or process that took place (Stanford University, n.d.). This is accomplished by having healthcare providers stay up to date on training, education, and skills (Stanford University, n.d.). In this study, the moderators of the group will ensure they have the most recent data, education, skills, and knowledge regarding the benefits and techniques of breastfeeding so that they can be a resource for participants. Additionally, the goal of the support group is to uplift breastfeeding mothers and to provide encouragement. Autonomy calls for individuals to make independent decisions without any bias or persuasion. During this study, participants will be provided with transparent health information regarding the subject matter as well as support and encouragement to move forward with the decision that is best for them without any bias. Non-maleficence means that during procedures, no harm will be done (Stanford University, n.d.). Non-maleficence will be accomplished in this study by being fully transparent about support that will be provided, with the goal that the support group will be a safe place for mothers to come to discuss their breastfeeding journey. Justice is the final principle and demands that all participants involved are provided with equivalent advantages and disadvantages of clinical trials (Stanford University, n.d.). The participants in this study will all attend the same support groups and receive the same support, education, and encouragement.

Participants will be fully informed of the goals of the support group. Patient's will be informed of their rights, risks, and options to leave the group if they feel they choose. Consent will be obtained from each of the participants prior to attending the first support group. The research was approved by the IRB board at Arizona State University and was in compliance with ethical considerations and standards of the institution.

Population and Setting

A standalone lactation consultant center that is not affiliated with a hospital organization receives referrals from different clinics across the valley. They provide one-on-one lactation consultation, free online breastfeeding education classes, and provide informational resources to mothers. The stakeholders include the organization's CEO, lactation consultants, faculty mentor, mothers, and infants. The CEO is also a lactation consultant and coordinates the organization's classes and resources. Lactation consultants are vital for this project as inevitably, questions will be raised regarding breastfeeding technique or breastmilk knowledge. Participants will be referred to lactation consultants should the need arise. Finally, the faculty mentor is vital for this project as she is a Women's Health Nurse Practitioner and has formal knowledge on breastfeeding. She has volunteered to be available during the support group sessions as an additional resource. Mothers are vital stakeholders as they will be receiving the peer support to encourage their continuation of breastfeeding. Infants will benefit from this intervention as they will be receiving optimal nutrition. The intervention will be completed virtually via the Zoom application.

Project Description and Timeline

Peer support has been identified as being beneficial for breastfeeding mothers. For a lactation consultant organization in Arizona, how do support groups benefit mothers in achieving

their personal breastfeeding goals? To investigate this, first the women will be recruited through flyers posted throughout the clinic building, flyers distributed in informational folders, virtual flyers posted in private social media groups that cater to breastfeeding women, and a pediatrician's social media page. Next, the women will be provided with additional information on the support group and will be presented with consent forms. Once consent is obtained, the women will then complete a demographics questionnaire, the Breastfeeding Relationship Scale, and WHO Well-Being Index. The women will be invited to attend support group sessions, each lasting one hour, that will be held once a week for four weeks. The support group will be held on a virtual platform to allow for flexibility.

The peer support groups will be an open session for women to ask for and provide support for each other. The organizer/leader of the group will be a peer as well. If any specific questions arise regarding breastfeeding technique or infant nutrition, these questions will be referred to a lactation consultant or the infant's pediatrician. After the four support group sessions, the women will be invited to take the previous questionnaire's: the WHO Well-Being Index and the Breastfeeding Relationship Scale

Anticipated barriers to this intervention include participant retention and time constraints. Life with a newborn may be stressful and leave mothers feeling like they do not have time to set aside to attend a support group. Holding the groups on a virtual platform will hopefully allow more flexibility to allow mothers to attend.

Data Collection and Data Analysis

The outcomes measured for this intervention include increasing breastfeeding peer support to mothers who choose to breastfeed. The initial Breastfeeding Relationship Scale will be used and will demonstrate a mother's thoughts and feelings regarding current support being

provided. The Breastfeeding Relationship Scale was demonstrated to have internal consistency of 0.73-0.83. The participants will take the Breastfeeding Relationship Scale before and after the peer support group intervention is completed, which will demonstrate how support has impacted the breastfeeding relationship. Participants will also take the WHO Well-Being Index, which demonstrates a person's welfare over the last two weeks. The WHO Well-Being Index has been demonstrated to be reliable with a Cronbach's alpha of 0.83. Self-efficacy theory parallels and influences this intervention, as the participants will explain their accomplishments, listen to stories of other participants, and receive and provide encouragement to other contributors. Descriptive analysis will be conducted on the data retrieved from both questionnaires. Additionally, Rosswurm and Larrabee's model for evidence-based practice continues to be implemented, as the fifth step, implementing and evaluating the intervention, is carried out.

Budget

The direct and indirect cost of the project includes the educational content, printing material, Zoom software, and RedCap Software (Appendix C). The educational content and printing material was funded by the project lead. The Zoom Software and RedCap Software is supplied by Arizona State University. The sessions are held virtually and led by the project lead, who is receiving no compensation.

Results

Demographics

There were six total participants in the group. The demographics of the participants were similar: 100% held an associate degree or higher, 100% were married or in a domestic relationship, 83% identified their race as white. 83% were ages 20-34, and 50% of participants

had one child. One individual attended all four sessions, two individuals attended three sessions, two individuals attended two sessions, and one individual attended one session.

WHO Well-Being Index

The WHO Well-Being Index uses a Likert scale (Appendix D). Descriptive statistics were calculated on the pre and post questionnaire. Due to low participation rate, data was not statistically significant. However, question one and question five showed improvement. Question 4 showed a decline.

Breastfeeding Relationship Scale

The Breastfeeding Relationship Scale uses a Likert scale (Appendix D). Descriptive statistics were calculated on the pre and post questionnaire. Due to a low participation rate, data was not statistically significant. All responses in the poster questionnaire showed improvement or had similar responses, except for question seven.

Potential Impact

The potential impact of this intervention is vast, with the main objective to increase support provided to breastfeeding mothers. Breastmilk is extremely beneficial for infants as it is tailored nutrition in addition to helping support their immune system. Furthermore, breastfeeding may strengthen the bond between a mother and child. Support groups may entice more mothers breastfeed if they feel unsupported in their personal network or if they lack the knowledge on the benefits of breastmilk. If support groups are more readily available and further education can be provided, increased breastfeeding rates can be reality. As breastfeeding support groups are not always readily available, encouraging more providers to establish a support system for mothers can be valuable. Creating future health policy focusing on breastfeeding support should also be

considered in the future to continue to encourage breastfeeding and support the mother infant dyad.

Sustainability

The virtual breastfeeding support groups can be sustained at the project site by having a staff member, lactation consultant, or peer facilitate the support groups. As this group uses a virtual platform, there is no need to find real estate to hold the support groups. More in-depth infant education can be provided or be tailored to the groups preference for future sessions.

Discussion

The results of the project indicated that virtual breastfeeding peer support may be beneficial to a mother's well-being and breastfeeding relationship with their infant. Recommendations for infants to receive breastmilk are consistent and evident throughout international organizations (AAP, 2012; CDC, 2020; WHO, n.d.). Breastfeeding might be challenging, taxing, isolating, overwhelming for mothers which may lead them to discontinue earlier than intended. International and national campaigns have been launched to encourage mothers to breastfeed their infant for at least six months (U.S. Department of Health Services, 2011; WHO, 2014). Peer support has been identified and demonstrated to be substantial to women going through this process in helping them initiate and continue to breastfeed their child (Brown & Shenker, 2020; Kaunonen et al., 2012; Phillips et al., 2018; Shaklya et al., 2017). Additionally, the significance peer support offers may help mothers achieve a sense of community surrounding them. Therefore, breastfeeding peer support programs are invaluable to women who are planning on breastfeeding their child.

Strengths and Limitations

The project was easily accessible to patients as a virtual platform was used. Participants were able to join the group from the comfort of their own home or a location of their choosing. The project was cost effective as minimal supplies were used, there was no need to rent space to hold the groups and the facilitator volunteered her time. Limitation of the project include poor participant engagement, as only one participant attended all four sessions, the small sample size, and the intervention is only sustainable if a facilitator is available to host sessions.

Future Research

Further study may consider increasing the sessions over a longer period of time. Although we did not measure breastfeeding rates, future projects may choose to measure this outcome to evaluate the impact of peer support on breastfeeding retention.

References

- Ahluwalia, I. B., Morrow, B., & Hsia, J. (2005). Why do women stop breastfeeding? Findings from the pregnancy risk assessment and monitoring system. *PEDIATRICS*, 116(6), 1408–1412. <https://doi.org/10.1542/peds.2005-0013>
- American Academy of Pediatrics. (2012). Breastfeeding and the use of human milk. *PEDIATRICS*, 129(3), e827–e841. <https://doi.org/10.1542/peds.2011-3552>
- American College of Obstetrics and Gynecology. (2021). Barriers to breastfeeding: Supporting initiation and continuation of breastfeeding: Committee opinion. *Obstetrics & Gynecology*, 137(2), e54–e62
- American Pregnancy Association. (2012, April 25). *What's in breastmilk?* <https://americanpregnancy.org/healthy-pregnancy/first-year-of-life/whats-in-breastmilk-71018/>
- American Pregnancy Association. (2020). *Do I have a low milk supply?* <https://americanpregnancy.org/healthy-pregnancy/breastfeeding/low-milk-supply-26894/>
- Azimi, N., & Nasiri, A. (2020). The effect of peer counseling on breastfeeding behavior of primiparous mothers: A randomized controlled field trial. *Public Health Nursing*, 37(3), 446–452. <https://doi.org/10.1111/phn.12692>
- Baby-Friendly USA, Inc. (n.d.). *The baby-friendly hospital initiative*. Retrieved on February 11, 2021, from, <https://www.babyfriendlyusa.org/about/>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215.
- Bridges, N. (2016). The faces of breastfeeding support: Experiences of mothers seeking breastfeeding support online. *Breastfeeding Review*, 24(1), 11–20.

Brown, A., & Shenker, N. (2021). Experiences of breastfeeding during COVID-19: Lessons for future practical and emotional support. *Maternal & Child Nutrition*, 17(1).

<https://doi.org/10.1111/mcn.13088>

Brown, C. R. L., Dodds, L., Legge, A., Bryanton, J., & Semenic, S. (2014). Factors influencing the reasons why mothers stop breastfeeding. *Canadian Journal of Public Health / Revue Canadienne de Santé Publique*, 105(3), e179–e185.

Centers for Disease Control and Prevention. (2020, September 17). *Breastfeeding report card*.

<https://www.cdc.gov/breastfeeding/data/reportcard.htm>

Healthy People 2030. (n.d.). Increase the proportion of infants who are breastfed exclusively through age 6 months – MICH-15. Retrieved February 11, 2021, from,

<https://health.gov/healthypeople/objectives-and-data/browse-objectives/infants/increase-proportion-infants-who-are-breastfed-exclusively-through-age-6-months-mich-15/data>

Kaunonen, M., Hannula, L., & Tarkka, M.-T. (2012). A systematic review of peer support interventions for breastfeeding. *Journal of Clinical Nursing*, 21(13–14), 1943–1954.

<https://doi.org/10.1111/j.1365-2702.2012.04071.x>

Lee, S., & Kelleher, S. L. (2016). Biological underpinnings of breastfeeding challenges: The role of genetics, diet, and environment on lactation physiology. *American Journal of*

Physiology - Endocrinology and Metabolism, 311(2), E405–E422.

<https://doi.org/10.1152/ajpendo.00495.2015>

Li, R., Fein, S. B., Chen, J., & Grummer-Strawn, L. M. (2008). Why mothers stop breastfeeding: Mothers' self-reported reasons for stopping during the first year. *Pediatrics*, 122, S69–

S76. <https://doi.org/10.1542/peds.2008-1315i>

- McCoy, M. B., Geppert, J., Dech, L., & Richardson, M. (2018). Associations between peer counseling and breastfeeding initiation and duration: An analysis of Minnesota participants in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). *Maternal and child health journal*, 22(1), 71-81.
<https://doi.org/10.1007/s10995-017-2356-2>
- McFadden, A., & Toole, G. (2006). Exploring women's views of breastfeeding: A focus group study within an area with high levels of socio-economic deprivation. *Maternal & Child Nutrition*, 2(3), 156–168. <https://doi.org/10.1111/j.1740-8709.2006.00054.x>
- McFadden, A., Gavine, A., Renfrew, M. J., Wade, A., Buchanan, P., Taylor, J. L., Veitch, E., Rennie, A. M., Crowther, S. A., Neiman, S., & MacGillivray, S. (2017). Support for healthy breastfeeding mothers with healthy term babies. *Cochrane Database of Systematic Reviews*, 2, 1-237. <https://doi.org/10.1002/14651858.CD001141.pub5>
- McLardie-Hore, F. E., McLachlan, H. L., Shafiei, T., & Forster, D. A. (2020). Proactive telephone-based peer support for breastfeeding: A cross-sectional survey of women's experiences of receiving support in the RUBY randomized controlled trial. *BMJ Open*, 10(10). <https://doi.org/10.1136/bmjopen-2020-040412>
- Melnyk, B. & Fineout-Overholt, E. (2019). *Evidence-based practice in nursing & healthcare, a guide to best practice* (4th ed.). Lippincott, Williams, & Wilkins.
- Phillips, R., Copeland, L., Grant, A., Sanders, J., Gobat, N., Tedstone, S., Stanton, H., Merrett, L., Rollnick, S., Robling, M., Brown, A., Hunter, B., Fitzsimmons, D., Regan, S., Trickey, H., & Paranjothy, S. (2018). Development of a novel motivational interviewing (MI) informed peer-support intervention to support mothers to breastfeed for longer. *BMC Pregnancy and Childbirth*, 18(1). <https://doi.org/10.1186/s12884-018-1725-1>

- Regan, S., & Brown, A. (2019). Experiences of online breastfeeding support: Support and reassurance versus judgement and misinformation. *Maternal & Child Nutrition*, 15(4), e12874. <https://doi.org/10.1111/mcn.12874>
- Rosswurm, M. A., & Larrabee, J. H. (1999). A model for change to evidence-based practice. *Image: Journal of Nursing Scholarship*, 31(4), 317–322. <https://doi.org/10.1111/j.15475069.1999.tb00510.x>
- Shakya, P., Kunieda, M. K., Koyama, M., Rai, S. S., Miyaguchi, M., Dhakal, S., Sandy, S., Sunguya, B. F., & Jimba, M. (2017). Effectiveness of community-based peer support for mothers to improve their breastfeeding practices: A systematic review and meta-analysis. *PLOS ONE*, 12(5), e0177434. <https://doi.org/10.1371/journal.pone.0177434>
- Snyder, K., & Worlton, G. (2021). Social support during COVID-19: Perspectives of breastfeeding mothers. *Breastfeeding Medicine*, 16(1), 39-45. <https://doi.org/10.1089/bfm.2020.0200>
- Stanford University (n.d.). *What are the basic principles of medical ethics?*. Retrieved May 24, 2021, from <https://web.stanford.edu/class/siw198q/websites/reprotech/New%20Ways%20of%20Making%20Babies/EthicVoc.htm>
- U. S. Department of Agriculture. (n.d.) *Common breastfeeding challenges*. Retrieved February 11, 2021, from, <https://wicbreastfeeding.fns.usda.gov/common-breastfeeding-challenges>
- U.S. Department of Health and Human Services. (2011). The Surgeon General’s call to action to support breastfeeding 2011.
- University of Arizona. (n.d.). *Breastfeeding*. Retrieved on February 11, 2020, from, <https://extension.arizona.edu/breastfeeding>

Victora, C. G., Bahl, R., Barros, A. J. D., França, G. V. A., Horton, S., Krasevec, J., Murch, S., Sankar, M. J., Walker, N., & Rollins, N. C. (2016). Breastfeeding in the 21st century:

Epidemiology, mechanisms, and lifelong effect. *The Lancet*, 387(10017), 475–490.

[https://doi.org/10.1016/S0140-6736\(15\)01024-7](https://doi.org/10.1016/S0140-6736(15)01024-7)

World Health Organization. (2014). *Global nutrition targets 2025: Breastfeeding policy brief*.

https://apps.who.int/iris/bitstream/handle/10665/149022/WHO_NMH_NHD_14.7_eng.pdf?ua=1

World Health Organization. (2018). *Breastfeeding*. <https://www.who.int/news-room/facts-in-pictures/detail/breastfeeding>

World Health Organization. (n.d.). *Continued breastfeeding for healthy growth and development of children*.

https://www.who.int/elena/titles/continued_breastfeeding/en/#:~:text=Breastfeeding%20has%20many%20health%20benefits%20for%20both%20the%20mother%20and%20infant.&text=Breastfeeding%20protects%20against%20diarrhoea%20and,obesity%20in%20childhood%20and%20adolescence

Appendix

Evaluation and Synthesis Table

Table A1*Evaluation Table Qualitative Studies*

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Sampling | Sample/ Setting | Major Variables/ Research Question | Measurement/ Instrumentation | Data Analysis | Findings/ Themes | Level of Evidence; Application to practice/ Generalization |
|--|---|--|---|---|---|---|--|--|
| Citation: Snyder & Worlton, (2021). Social Support During COVID-19: Perspectives of Breastfeeding Mothers. Country: USA Funding: Creighton University Bias: Not Recognized | Social Support Theory | Design: Cross-sectional phenomenological qualitative Purpose: Explore perceptions of social support among breastfeeding mothers during COVID-19 pandemic | N: 29 Setting: telephonic interview Sample Demographics: 100% Female gender, 79% Caucasian, 10% Hispanic, 11% Asian. Average age 29.93, 10 FTM, 19 MMC IC: Mothers providing their infant with breastmilk EC: Not discussed Attrition: Not discussed | Research Question: 1. What is the mother's perception of social support of breastfeeding during the COVID-19 pandemic? 2. Who provides support to the mother? 3. How is support provided to the mother? 4. How is the support desired? | Open ended interview Approximately 15-minute interview Audio recorded 12 semi structured interview questions focused on the constructs of social support Data was analyzed concurrently as interview was conducted Interview was transcribed by interviewer into Word document | NVIVO qualitative analysis software used Immersion and crystallization | Four constructs of social support: emotional, informational, instrumental, and appraisal | LOE: Level VI Strengths: thorough discussion with mothers on viewpoint of social support, who provides their support, how support is provided, and how support is desired Weaknesses: Small sample size, relative homogeneous participant sampling, lack of measurable data Conclusions: Social support is affected by COVID-19, leaving mothers with a desire for more social support. Mothers are feeling increased stress. Application to patient population: Identified experiences of mothers on breastfeeding support during COVID-19 pandemic allowing clinicians to address identified issues |

Key: **BCW** – Behavior Change Wheel; **BF** – Breastfeeding; **COM-B** - Capability, Opportunity, and Motivation model of Behavior; **EC** – Exclusion Criteria; **FB** – Facebook; **FTM** – First Time Mom; **IC** – Inclusion Criteria; **LOE** – Level of Evidence; **MI** – Motivational Interviewing; **MMC** – Mothers of Multiple Children; **N** – Number of participants; **PS** – Peer Support; **UK** – United Kingdom; **USA** – United States of America

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Sampling | Sample/ Setting | Major Variables/ Research Question | Measurement/ Instrumentation | Data Analysis | Findings/ Themes | Level of Evidence; Application to practice/ Generalization |
|--|---|--|---|--|--|--|---|--|
| <p>Citation: Regan. & Brown (2019). Experiences of Online Breastfeeding Support: Support and Reassurance Versus Judgement and Misinformation</p> <p>Country: United Kingdom</p> <p>Funding: Not listed</p> <p>Bias: Not recognized</p> | Not recognized | <p>Method: Qualitative Study; Semi structured interview</p> <p>Purpose: Explore positive and negative impact of social media support on women's experiences of breastfeeding</p> | <p>N: 14</p> <p>Demographics: 100% female gender, 100 % white British origin, average age 33.12 years</p> <p>Setting: in-person interview based on convenient time and location</p> <p>IC: Mothers 18+ with a child up to 3 years old who BF or did BF</p> <p>EC: inability to consent, aged <18 years, non-English or Welsh speaker</p> <p>Attrition: Not discussed</p> <p>Definitions: Breastfeeding Support – Facebook groups/forums where</p> | <p>Research question: What experience did breastfeeding mothers have when seeking online support?</p> | <p>10 semi structured interview questions</p> <p>Interviews transcribed by interviewer</p> | <p>Thematic analysis used to identify key terms</p> <p>Second rater reviewed themes with agreement of 90% of cases. Disagreements were discussed until agreed upon</p> | <p>3 Major themes and 11 subthemes were noted</p> <p>Major themes - Motivation for using online forums; benefits of online support; limitations of online support</p> | <p>LOE: Level VI</p> <p>Strengths: in depth discussion with mothers on positive and negative experiences with social support via social media forums</p> <p>Weakness: small sample size, relative homogeneous participant sampling, participants were older in age, lack of measurable data</p> <p>Applicability: identified additional areas for peer support for mothers who breastfeed, taking into consideration positive and negative experiences</p> |

Key: **BCW** – Behavior Change Wheel; **BF** – Breastfeeding; **COM-B** - Capability, Opportunity, and Motivation model of Behavior; **EC** – Exclusion Criteria; **FB** – Facebook; **FTM** – First Time Mom; **IC** – Inclusion Criteria; **LOE** – Level of Evidence; **MI** – Motivational Interviewing; **MMC** – Mothers of Multiple Children; **N** – Number of participants; **PS** – Peer Support; **UK** – United Kingdom; **USA** – United States of America

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Sampling | Sample/ Setting | Major Variables/ Research Question | Measurement/ Instrumentation | Data Analysis | Findings/ Themes | Level of Evidence; Application to practice/ Generalization |
|--|---|--|---|---|---|---|--|---|
| | | | information was provided passively online | | | | | |
| Citation: Phillips et al. (2018). Development of a Novel Motivational Interviewing (MI) Informed Peer Support Intervention to Mothers to Breastfeed Longer Country: UK Funding: National Institute for Health Research Health Technology Assessment Program Bias: Not recognized | BCW Framework and COM-B Model | Method: Qualitative interview Purpose: To develop and characterize a novel MI informed breastfeeding peer-support intervention | N: 14 healthcare professionals Focus group fathers 1 (N = 3) Focus group mothers 2 (N=14) Focus group peer supporters (N=15) Demographics: 2 health visitors, 2 midwifery services managers, 4 community midwives, 3 postnatal/ hospital-based midwives, 1 early years practitioner, 2 midwifery support workers Setting: 2 sites in South Wales and 1 site in North West of England | Research question: How does novel MI affect behavior changes in breastfeeding support groups | Flexible Semi structured topic guides Interviews were audio recorded Qualitative data was transcribed verbatim, anonymized, and analyzed | Initial coding framework was developed using the BCW as a guide NVIVO was used for analysis Sample transcript were independe ntly double coded to assess validity | BCW stage 1: understandi ng behavior – COM-B Behavior change wheel stage 2: Identifying intervention options – Education, training, modeling, restructurin g the environmen t, enablement, persuasion, incentivizat ion | LOE: Level VI Strengths: Strong qualitative design, informational Weakness: intervention is intensive, would require additional resources to deliver, relatively small sample size Applicability: Identified MI intervention to be used in peer support groups for future research |

Key: **BCW** – Behavior Change Wheel; **BF** – Breastfeeding; **COM-B** - Capability, Opportunity, and Motivation model of Behavior; **EC** – Exclusion Criteria; **FB** – Facebook; **FTM** – First Time Mom; **IC** – Inclusion Criteria; **LOE** – Level of Evidence; **MI** – Motivational Interviewing; **MMC** – Mothers of Multiple Children; **N** – Number of participants; **PS** – Peer Support; **UK** – United Kingdom; **USA** – United States of America

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Sampling | Sample/ Setting | Major Variables/ Research Question | Measurement/ Instrumentation | Data Analysis | Findings/ Themes | Level of Evidence; Application to practice/ Generalization |
|---|---|--|---|---|---------------------------------|--|---|--|
| | | | IC: Participants had completed formal training in BF PS EC: Not discussed Attrition: Not discussed | | | | | |
| Citation: Bridges. (2016). The Faces of Breastfeeding Support: Experiences of Mothers Seeking Breastfeeding Support Online Country: Australia Funding: Not identified Bias: Not identified | Maternal Breastfeeding Self Efficacy | Method: Netnography (online ethnographic research) Purpose: In order to understand experiences of mothers using closed FB groups attached to the Australian Breastfeeding Association | N: 23 participants Demographics: administrators of BF FB groups. Additional data was not collected Setting: Online interviews and online focus groups EC: Not discussed Attrition: Not discussed | Research Question: Study attempted to address gaps via thematic analysis of interviews and focus groups of users of a closed FB group used specifically for BF support and information | Open ended questions | Theoretical thematic analysis. Themes identified at semantic level | Overarching theme was support. Four sub-themes are community, complementary, immediate, and information | LOE: V Strengths: Large participation. FB may be accessible to many individuals. Consistent with recent online support group literature Weakness: No demographic data was collected. Researcher was a volunteer with ABA, which may have influenced the lens through which the data was collected and analyzed. The mitigate this, PhD supervisors assisted with thematic analysis Feasibility: Closed online FB group, low cost, constant availability |

Key: **BCW** – Behavior Change Wheel; **BF** – Breastfeeding; **COM-B** - Capability, Opportunity, and Motivation model of Behavior; **EC** – Exclusion Criteria; **FB** – Facebook; **FTM** – First Time Mom; **IC** – Inclusion Criteria; **LOE** – Level of Evidence; **MI** – Motivational Interviewing; **MMC** – Mothers of Multiple Children; **N** – Number of participants; **PS** – Peer Support; **UK** – United Kingdom; **USA** – United States of America

Table A2*Evaluation Table Quantitative Studies*

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Purpose | Sample/ Setting | Variables | Measurement/ Instrumentation | Data Analysis | Results/ Findings | Level of Evidence; Application to practice/ Generalization |
|---|---|---|--|--|--|----------------------------|---|---|
| Citation: Shakya et al. (2017). Effectiveness of Community- Based Peer Support for Mothers to Improve Their Breastfeeding Practices: A Systematic Review and Meta-Analysis Country: United Kingdom Funding: Not received Bias: No bias identified | Theoretical/ Conceptual framework not identified | Design: Systematic Review and Meta-Analysis Purpose: To examine the effectiveness of community- based peer support for mothers on their breastfeeding practices as compared to mothers who have not received community- based peer support | N = 47 total studies; 28 RCT; 13 quasi- experimental; 6 observational studies DS: PubMed/ MEDLINE, The Cochrane Library; CINAHL, Web of Science, SocINDEX, PsycINFO EC: Articles excluded include intervention by HCW; Intervention not clear; Outcome variable different than interest of this review; | IV1: Community Based Peer Support DV1: Duration of EB in LMIC DV2: Duration of EB in HIC DV3: Initiation of BF within first hour of life LMIC DV4: Prelacteal feeding in LMIC DV5: EB at 6 months | Confidence Interval set at 95%; Tau ² , Chi ² , df, and I ² statistics used to quantify heterogeneity. Z and P used for total overall effect | PRISMA; RoBANS Criteria | DV1: Chi ² = 153.22; df = 4, (P<0.00001); I ² = 97.4% DV2: Chi ² = 4.78; df = 4; (P<0.31); I ² = 16.3% DV3: Tau ² = 0.14; Chi ² = 126.19; df = 3 (P < 0.00001); I ² = 98%; Z = 2.14 (P = 0.03) DV4: Tau ² = 0.01; Chi ² = 2.26; df = 1 (P < 0.13); I ² = 56%; Z = 11.38 (P = 0.00001) DV5: Chi ² = 0.20; df = 1; (P = 0.65); I ² = 0% | LOE: I Strengths: first systematic review and meta-analysis to report effectiveness of peer support for EBF mothers; pivotal research Weakness: differences in study populations, types of interventions, trainings. Quasi- experimental studies may increase risk of bias Feasibility: low cost community- based peer support groups |

Key: **BAME** – Black and Minority Ethnic; **BF** – Breastfeeding; **DF** – Degree of Freedom; **DS** – Databases Searched; **EB** – Exclusively Breastfeeding; **EC** – Exclusion Criteria; **F2F** – Face to Face; **HCW** – Health Care Worker; **HIC** – High Income Country; **HR** – Hazard Ratio; **IC** – Inclusion Criteria; **LMIC** – Low-Middle Income Country; **N** – Number of participants; **OR** – Odds Ratio; **PC** – Peer Counselor; **PRISMA** – Preferred Reporting Items for Systematic Reviews and Meta-Analysis; **PSEI** – Peer Support Evaluation Inventory; **RCT** – Randomized Controlled Trial; **REDCap** – Research and Electronic Data Capture; **RoBANS** – Risk of Bias Assessment Tool for Nonrandomized Studies; **UK** – United Kingdom; **USA** – United States of America; **WHO** – World Health Organization; **WIC** – Women, Infants, and Children

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Purpose | Sample/ Setting | Variables | Measurement/ Instrumentation | Data Analysis | Results/ Findings | Level of Evidence; Application to practice/ Generalization |
|---|---|--|---|---|---|---|--|---|
| | | | secondary of included study Attrition: Not applicable Definitions: Not applicable | | | | | can be implemented to support mothers |
| Citation: McLardie-Hore et al. (2020). Proactive Telephone- Based Peer Support for Breastfeeding; A Cross- Sectional Survey of Women's Experiences of Receiving Support in the RUBY Randomized Controlled Trial Country: Australia Funding: Philanthropic | Not identified | Design: Cross Sectional Survey; Mixed Methods Purpose: Aimed to evaluate interventions from the participant perspective of the RUBY trial | N = 360 Demographics: Women enrolled in the RUBY RCT Setting: Melbourne, Australia in participant homes EC: Not identified Attrition: Not discussed | IV: Telephone calls from RUBY RCT trial volunteers DV1: Intimacy DV2: Trust DV3: Perceived Acceptance DV4: Empathy DV5: Attachment DV6: Closeness DV7: Commitment DV8: Social Competence DV9: Social Skills DV10: Conflict | Pearson's X^2 used to compare categorical variables and t- tests for continuous variables | REDCap; Stata Statistical Software; subscales of PSEI ; Attride-Stirling analytic tool; Inductive analysis; Likert-type scale | Agree to strongly agree Domain Means: DV1: 70.9% DV2: 87.6% DV3: 80.3% DV4: 79.0% DV5: 46.5% DV6: 57.6% DV7: 76.7% DV8: 79.0% DV9: 61.6 DV10: 9.6% Findings/ Themes: Empathetic, non-judgmental support; easy way to be support; more than BF support; early | LOE: III Strengths: large number of participants; quantitative findings to support qualitative findings Weakness: Those that didn't participate likely did not BF until 6 months, these individuals may not be happy with experience Feasibility: Telephone support is a low- |

Key: **BAME** – Black and Minority Ethnic; **BF** – Breastfeeding; **DF** – Degree of Freedom; **DS** – Databases Searched; **EB** – Exclusively Breastfeeding; **EC** – Exclusion Criteria; **F2F** – Face to Face; **HCW** – Health Care Worker; **HIC** – High Income Country; **HR** – Hazard Ratio; **IC** – Inclusion Criteria; **LMIC** – Low-Middle Income Country; **N** – Number of participants; **OR** – Odds Ratio; **PC** – Peer Counselor; **PRISMA** – Preferred Reporting Items for Systematic Reviews and Meta-Analysis; **PSEI** – Peer Support Evaluation Inventory; **RCT** – Randomized Controlled Trial; **REDCap** – Research and Electronic Data Capture; **RoBANS** – Risk of Bias Assessment Tool for Nonrandomized Studies; **UK** – United Kingdom; **USA** – United States of America; **WHO** – World Health Organization; **WIC** – Women, Infants, and Children

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Purpose | Sample/ Setting | Variables | Measurement/ Instrumentation | Data Analysis | Results/ Findings | Level of Evidence; Application to practice/ Generalization |
|--|---|--|--|---|---------------------------------|--|--|--|
| funding from the Felton Bequest and La Trobe University Bias: None declared | | | | | | | support beneficial | cost intervention, especially when staffed with volunteer peer supporters. |
| Citation: McCoy et al. (2017). Associations Between Peer Counseling and Breastfeeding Initiation and Duration: An Analysis of Minnesota Participants in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Country: USA Funding: Minnesota | Self-Efficacy | Design: Retrospective Analysis Purpose: Compare bf initiation and time to discontinuation of breastfeeding between those who received peer services and those who did not receive services. | N = 31,709 Demographics: Pregnant women or postpartum women Setting: Minnesota EC: infants without mothers' information, infants whose mothers were not on WIC during pregnancy, multiple births, twin births, triplet births | IV: PC program DV1: Breastfeeding Initiation Prenatally Assigned PS, Adjusted DV2: Prenatally assigned peer, did not receive PS, Adjusted DV3: BF Discontinuation, Adjusted Month 1 DV4: BF Discontinuation Month 2-12 | 95% CI, OR, and HR | Unconditional logistic regression used to estimate OR and 95% CI Cox regression models to examine the associations between peer counseling and breastfeeding continuation and to estimate HR and 95% CI | DV1: OR 1.66; 95% CI 1.19-2.32 DV2: OR 1.13; 95% CI 0.80-1.58 DV3: HR 0.45; 95% CI 0.33-0.61 DV4: HR 0.33; 95% CI 0.18-0.60 | Level of evidence: V Strengths: large sample size; quantitative analysis Weakness: Bias may be present due to women self-selecting to receive PS Feasibility: Possible to provide PS to women prenatally and postnatally to those interested in these services if PCs are available |

Key: **BAME** – Black and Minority Ethnic; **BF** – Breastfeeding; **DF** – Degree of Freedom; **DS** – Databases Searched; **EB** – Exclusively Breastfeeding; **EC** – Exclusion Criteria; **F2F** – Face to Face; **HCW** – Health Care Worker; **HIC** – High Income Country; **HR** – Hazard Ratio; **IC** – Inclusion Criteria; **LMIC** – Low-Middle Income Country; **N** – Number of participants; **OR** – Odds Ratio; **PC** – Peer Counselor; **PRISMA** – Preferred Reporting Items for Systematic Reviews and Meta-Analysis; **PSEI** – Peer Support Evaluation Inventory; **RCT** – Randomized Controlled Trial; **REDCap** – Research and Electronic Data Capture; **RoBANS** – Risk of Bias Assessment Tool for Nonrandomized Studies; **UK** – United Kingdom; **USA** – United States of America; **WHO** – World Health Organization; **WIC** – Women, Infants, and Children

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Purpose | Sample/ Setting | Variables | Measurement/ Instrumentation | Data Analysis | Results/ Findings | Level of Evidence; Application to practice/ Generalization |
|--|---|-------------------------------|---|-----------|---------------------------------|---------------|----------------------|--|
| Department of Health Bias: None identified | | | <p>Attrition: Not discussed</p> <p>PC: women from the community with personal bf experience who have a desire to help fellow women</p> <p>Receipt of PS: one or more contacts between the client and a PC program staff member and could include one or multiple telephone, text, email, or in-person contact</p> <p>Peer Services: one or more contacts regardless of whether the first contact was prenatal or postpartum</p> | | | | | |

Key: **BAME** – Black and Minority Ethnic; **BF** – Breastfeeding; **DF** – Degree of Freedom; **DS** – Databases Searched; **EB** – Exclusively Breastfeeding; **EC** – Exclusion Criteria; **F2F** – Face to Face; **HCW** – Health Care Worker; **HIC** – High Income Country; **HR** – Hazard Ratio; **IC** – Inclusion Criteria; **LMIC** – Low-Middle Income Country; **N** – Number of participants; **OR** – Odds Ratio; **PC** – Peer Counselor; **PRISMA** – Preferred Reporting Items for Systematic Reviews and Meta-Analysis; **PSEI** – Peer Support Evaluation Inventory; **RCT** – Randomized Controlled Trial; **REDCap** – Research and Electronic Data Capture; **RoBANS** – Risk of Bias Assessment Tool for Nonrandomized Studies; **UK** – United Kingdom; **USA** – United States of America; **WHO** – World Health Organization; **WIC** – Women, Infants, and Children

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Purpose | Sample/ Setting | Variables | Measurement/ Instrumentation | Data Analysis | Results/ Findings | Level of Evidence; Application to practice/ Generalization |
|--|---|---|---|---|---|--|---|--|
| <p>Citation: McFadden et al. (2017). Support for Healthy Breastfeeding Mothers with Healthy Term Babies</p> <p>Country: UK</p> <p>Funding: Grant from the Evidence and Programme Guidance Unit, Department of Nutrition for Health and Development, WHO</p> <p>Bias: None Identified</p> | Not identified | <p>Design: Cochrane Systematic Review</p> <p>Purpose: To examine interventions which provide extra support for bothers who are breastfeeding or considering breastfeeding; and to assess their impact on breastfeeding duration and exclusivity</p> | <p>N: 73 (58 individually randomized trials; 15 cluster randomized trials)</p> <p>DS: CENTRAL; MEDLINE; Embase; CINAHL; hand searches of 30 journals; weekly current awareness alerts for a further of 44 journals, plus monthly BioMed Central email alerts</p> <p>EC: Studies with more than 25% attrition</p> | <p>IV: Intervention (F2F contact, telephone, both F2F and telephone)</p> <p>DV1: Cessation of BF at up to 6 months</p> <p>DV2: Cessation of EBF at up to 6 months</p> <p>DV3: Cessation of any BF by 4-6 weeks</p> <p>DV4: Cessation of EBF by 4-6 weeks</p> | The main outcome measure was the effect of the interventions on stopping breastfeeding by specified points in time. Results presented with Chi ² , df, P, and I ² | Review Manager 5 Software. When results were unclear, attempt to contact original authors was made | <p>DV1: Chi² = 0.40, df = 2 (P = 0.82), I² = 0%</p> <p>DV2: Chi² = 37.55, df = 2 (P < .00001, I² = 94.7%)</p> <p>DV3: Chi² = 0.91, df = 2 (P = 0.64), I² = 0%</p> <p>DV4: Chi² = 10.63, df = 2 (P = 0.005), I² = 81.2%</p> | <p>LOE: I</p> <p>Strength: Multiple studies of high quality used in systematic review. Independent review was conducted by 2 researchers. Risk of bias conducted.</p> <p>Weakness: Risk of bias is subjective. Particular biases were not conducted in 15 cluster randomized trials. Trials may have been missed if they were unpublished or unregistered</p> <p>Feasibility: When support is offered,</p> |

Key: **BAME** – Black and Minority Ethnic; **BF** – Breastfeeding; **DF** – Degree of Freedom; **DS** – Databases Searched; **EB** – Exclusively Breastfeeding; **EC** – Exclusion Criteria; **F2F** – Face to Face; **HCW** – Health Care Worker; **HIC** – High Income Country; **HR** – Hazard Ratio; **IC** – Inclusion Criteria; **LMIC** – Low-Middle Income Country; **N** – Number of participants; **OR** – Odds Ratio; **PC** – Peer Counselor; **PRISMA** – Preferred Reporting Items for Systematic Reviews and Meta-Analysis; **PSEI** – Peer Support Evaluation Inventory; **RCT** – Randomized Controlled Trial; **REDCap** – Research and Electronic Data Capture; **RoBANS** – Risk of Bias Assessment Tool for Nonrandomized Studies; **UK** – United Kingdom; **USA** – United States of America; **WHO** – World Health Organization; **WIC** – Women, Infants, and Children

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Purpose | Sample/ Setting | Variables | Measurement/ Instrumentation | Data Analysis | Results/ Findings | Level of Evidence; Application to practice/ Generalization |
|--|---|---|---|--|--|---|---|--|
| | | | | | | | | exclusivity of breastfeeding is increased. Providing support to these individuals may be done F2F, telephonically, or both |
| Citation: Azimi & Nasiri (2019). The Effect of Peer Counseling on Breastfeeding Behavior of Primiparous Mothers: A Randomized Controlled Field Trial Country: Iran Funding: Not listed Bias: None identified | Not identified | Design: Randomized Controlled Field Trial Purpose: To investigate the impact of peer counseling on the breastfeeding behavior of primiparous mothers in a sample of Iranian women | N: 80 women (n = 40 experimental; n= 40 control) Setting: health center, questionnaire completed in privacy IC: willingness to participate; accessibility; reading and writing literacy in Persian; newborn being singleton; primiparous; non-presence of a disabling disease or | IV: Intervention DV1: Experimental group DV2: Control group | WHO B-R-E-A-S-T-Feed Observation form used to evaluate breastfeeding performance of mothers. Peer-led counseling was performed in a separate room, BF was a private affair non-observable by others | SPSS. McNemar's test used to compare mother's breastfeeding behavior in experimental group before and after intervention. Chi ² or Fisher's exact test applied to compare frequency distribution of demographic. Level of significance was considered at p < .05 | The mean score of breastfeeding behavior in experimental group increased from 13.5 before intervention to 25.7 after 3 months, indicating a significant increase of 12.85 unites. Peer counseling program, breastfeeding with an hour of birth increased from the baseline 11% to | LOE: I Strength: Large sample size. Strong study design. Weakness: Study results may be biased due to different cultural norms. Findings may be better with similar cultures Feasibility: Peer counseling program could improve breastfeeding behaviors in mothers to |

Key: **BAME** – Black and Minority Ethnic; **BF** – Breastfeeding; **DF** – Degree of Freedom; **DS** – Databases Searched; **EB** – Exclusively Breastfeeding; **EC** – Exclusion Criteria; **F2F** – Face to Face; **HCW** – Health Care Worker; **HIC** – High Income Country; **HR** – Hazard Ratio; **IC** – Inclusion Criteria; **LMIC** – Low-Middle Income Country; **N** – Number of participants; **OR** – Odds Ratio; **PC** – Peer Counselor; **PRISMA** – Preferred Reporting Items for Systematic Reviews and Meta-Analysis; **PSEI** – Peer Support Evaluation Inventory; **RCT** – Randomized Controlled Trial; **REDCap** – Research and Electronic Data Capture; **RoBANS** – Risk of Bias Assessment Tool for Nonrandomized Studies; **UK** – United Kingdom; **USA** – United States of America; **WHO** – World Health Organization; **WIC** – Women, Infants, and Children

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Purpose | Sample/ Setting | Variables | Measurement/ Instrumentation | Data Analysis | Results/ Findings | Level of Evidence; Application to practice/ Generalization |
|--|---|---|--|---|--|--|--|---|
| | | | known breast problem in the mother; absence of congenital anomalies and oral abnormalities in the newborn; participation in postpartum classes in a health center EC: mothers' unwillingness to continue participation; failure to answer the counselor's phone calls; relocation of the mother Attrition: 15% | | | | 71% after intervention | modify breastfeeding techniques |
| Citation: Brown & Shenker. (2020). Experiences of Breastfeeding During COVID-19: Lessons for | | Method: Mixed methods online survey Purpose: To understand the impacts of COVID-19 on BF that will | N: 1,219 participants; mean age of mother 30.92 Demographics: UK mothers who breastfed their baby aged | IV: Questionnaire containing both closed and open questions DV1: Education | Questionnaire containing both open and closed questions; | Quantitative data analyzed using SPSS; descriptive statistics explored; T tests, chi-square, and Spearman's rho calculated for associations between BF | DV1: Mothers who were still breastfeeding were more likely to have a degree or postgraduate qualification compared with | LOE: IV Strengths: large sample size; Initial coding was completed by one researcher, with |

Key: **BAME** – Black and Minority Ethnic; **BF** – Breastfeeding; **DF** – Degree of Freedom; **DS** – Databases Searched; **EB** – Exclusively Breastfeeding; **EC** – Exclusion Criteria; **F2F** – Face to Face; **HCW** – Health Care Worker; **HIC** – High Income Country; **HR** – Hazard Ratio; **IC** – Inclusion Criteria; **LMIC** – Low-Middle Income Country; **N** – Number of participants; **OR** – Odds Ratio; **PC** – Peer Counselor; **PRISMA** – Preferred Reporting Items for Systematic Reviews and Meta-Analysis; **PSEI** – Peer Support Evaluation Inventory; **RCT** – Randomized Controlled Trial; **REDCap** – Research and Electronic Data Capture; **RoBANS** – Risk of Bias Assessment Tool for Nonrandomized Studies; **UK** – United Kingdom; **USA** – United States of America; **WHO** – World Health Organization; **WIC** – Women, Infants, and Children

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Purpose | Sample/ Setting | Variables | Measurement/ Instrumentation | Data Analysis | Results/ Findings | Level of Evidence; Application to practice/ Generalization |
|--|---|--|---|---|---------------------------------|--|---|---|
| <p>Future Practical Emotional Support</p> <p>Country: UK</p> <p>Funding: Not identified</p> <p>Bias: No conflict of interest identified</p> | | <p>guide practice and policy with regards to supporting pregnant and new mothers</p> | <p>0-12 at least once during the COVID-19 pandemic</p> <p>EC: Not identified</p> <p>Attrition: Not identified</p> | <p>DV2: Partner at home</p> <p>DV3: Parity</p> <p>DV4: Ethnicity</p> | | <p>continuation/cessation and misinformation. Chi-square and t tests calculated between feeding experiences and demographic; multivariable logistic regression models used to explore living circumstances, education, and BF experience; thematic analysis conducted for qualitative data</p> | <p>those no longer breastfeeding ($\chi^2 = 60.935$, $P = 0.000$)</p> <p>DV2: living with a partner ($\chi^2 = 8.665$, $P = 0.005$)</p> <p>DV3: Multiparous ($\chi^2 = 14.456$, $P = 0.000$).</p> <p>DV4: BAME mothers were less likely to still be breastfeeding compared with White mothers ($\chi^2 = 10.770$, $P = 0.001$).</p> <p>Themes</p> <p>Positive: more time to focus, fewer visitors,</p> | <p>a second reviewing themes and subthemes. Where disagreement occurred, themes were discussed until agreed</p> <p>Weakness: individuals who do not have internet access were not able to participate; weighted towards mothers with higher education; disproportionate demographics</p> <p>Feasibility: Pandemic effected BF and highlighted need for BF support, which can be done via low-cost methods</p> |

Key: **BAME** – Black and Minority Ethnic; **BF** – Breastfeeding; **DF** – Degree of Freedom; **DS** – Databases Searched; **EB** – Exclusively Breastfeeding; **EC** – Exclusion Criteria; **F2F** – Face to Face; **HCW** – Health Care Worker; **HIC** – High Income Country; **HR** – Hazard Ratio; **IC** – Inclusion Criteria; **LMIC** – Low-Middle Income Country; **N** – Number of participants; **OR** – Odds Ratio; **PC** – Peer Counselor; **PRISMA** – Preferred Reporting Items for Systematic Reviews and Meta-Analysis; **PSEI** – Peer Support Evaluation Inventory; **RCT** – Randomized Controlled Trial; **REDCap** – Research and Electronic Data Capture; **RoBANS** – Risk of Bias Assessment Tool for Nonrandomized Studies; **UK** – United Kingdom; **USA** – United States of America; **WHO** – World Health Organization; **WIC** – Women, Infants, and Children

| Citation | Theoretical/ Conceptual Framework | Design/ Method/ Purpose | Sample/ Setting | Variables | Measurement/ Instrumentation | Data Analysis | Results/ Findings | Level of Evidence; Application to practice/ Generalization |
|----------|---|-------------------------------|--------------------|-----------|---------------------------------|---------------|--|--|
| | | | | | | | <p>more privacy, increased responsive feeding, greater partner support, delayed return to work</p> <p>Negative: lack of F2F support, lack of social and emotional support, stress of caring without family support, no experience BF in public, work pressures, increased focus on BF</p> | through support methods |

Key: **BAME** – Black and Minority Ethnic; **BF** – Breastfeeding; **DF** – Degree of Freedom; **DS** – Databases Searched; **EB** – Exclusively Breastfeeding; **EC** – Exclusion Criteria; **F2F** – Face to Face; **HCW** – Health Care Worker; **HIC** – High Income Country; **HR** – Hazard Ratio; **IC** – Inclusion Criteria; **LMIC** – Low-Middle Income Country; **N** – Number of participants; **OR** – Odds Ratio; **PC** – Peer Counselor; **PRISMA** – Preferred Reporting Items for Systematic Reviews and Meta-Analysis; **PSEI** – Peer Support Evaluation Inventory; **RCT** – Randomized Controlled Trial; **REDCap** – Research and Electronic Data Capture; **RoBANS** – Risk of Bias Assessment Tool for Nonrandomized Studies; **UK** – United Kingdom; **USA** – United States of America; **WHO** – World Health Organization; **WIC** – Women, Infants, and Children

Table A3*Synthesis Table*

| Study Author | Snyder & Worlton | Regan & Brown | Philips et al. | Bridges | Shakya et al. | McLardie-Hore et al. | McCoy et al. | McFadden et al. | Azimi & Nasiri | Brown & Shenker |
|---------------------------|------------------|--|------------------------|-------------|----------------------------------|---------------------------------------|------------------------|----------------------------|-----------------------------------|------------------------------|
| Year | 2021 | 2019 | 2018 | 2016 | 2017 | 2020 | 2017 | 2017 | 2019 | 2020 |
| Design/LOE | CSP; Qualitative | Qualitative; semi-structured interview | Qualitative; Interview | Netnography | Systematic Review; Meta-analysis | Cross Sectional Survey; Mixed Methods | Retrospective Analysis | Cochrane Systematic Review | Randomized Controlled Field Trial | Mixed Methods; Online Survey |
| LOE | VI | VI | VI | VI | I | IV | V | I | I | IV |
| Sample | | | | | | | | | | |
| n subjects | 29 | 14 | 14 | 23 | 47 | 360 | 31,709 | 73 | 80 | 1,219 |
| Country | USA | UK | UK | Australia | UK | Australia | USA | UK | Iran | UK |
| Setting | | | | | | | | | | |
| Telephonic | X | | | | | | | | | |
| In Person | | X | | | | | | | | |
| Clinic | | | X | | | | | | X | |
| Community | X | | | | X | | X | X | | X |
| Participant Homes | | | | | | X | | | | |
| Online | | | | X | | | | | | |
| Intervention | | | | | | | | | | |
| Observational | X | | | | | | | | | X |
| Social Media | | X | | X | | | | | | |
| Motivational Interviewing | | | X | | | | | | | |
| Community PS | | | | | X | | | X | | |
| Telephone Calls | | | | | | X | | | | |
| PC Program | | | | | | | X | | X | |
| F2F | | | | | | | | X | | |
| Measurement Tools | | | | | | | | | | |
| Open Ended Interview | X | | | X | | | | | | |
| Semi Structured Interview | | X | X | | | | | | | |
| CI | | | | | X | | X | | | |
| Tau ² | | | | | X | | | | | |
| Chi ² | | | | | X | | | X | | X |
| df | | | | | X | | | X | | |
| I ² | | | | | X | | | X | | |
| Z | | | | | X | | | | | |
| P | | | | | X | | | X | | |
| Pearson's X ² | | | | | | X | | | | |
| t-test | | | | | | X | | | | X |
| OR | | | | | | | X | | | |
| HR | | | | | | | X | | | |

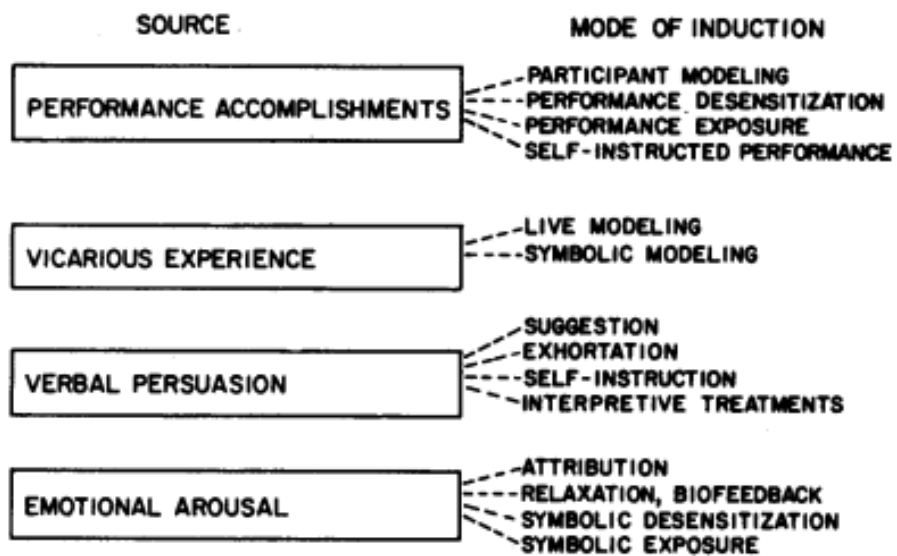
Key: BCW – Behavior Change Wheel; **BF** - Breastfeeding; **COM-B** – Capability, Opportunity, and Motivation Model of Behavior; **CSP** – Cross Sectional Phenological; **F2F** – Face to Face; **LOE** – Level of Evidence; **N** – Number of Participants; **PC** – Peer Counselor; **PS** – Peer Support; **UK** – United Kingdom; **USA** – United States of America

| | | | | | | | | | | |
|---------------------------------------|-----------------------|-----|-----------------------------|--------------------------------------|-----|-----|---------------|-----|-----|-----|
| WHO B-R-E-A-S-T-Feed Observation form | | | | | | | | | X | |
| Spearman's rho | | | | | | | | | | X |
| Framework | Social Support Theory | N/A | BCW Framework & COM-B Model | Maternal Breastfeeding Self Efficacy | N/A | N/A | Self-Efficacy | N/A | N/A | N/A |
| Findings | | | | | | | | | | |
| Impact of PS on BF | X | X | | X | | X | X | X | X | X |
| Increased BF Duration | | | | | X | | X | X | | |
| Increased BF education | | | | | X | | | | | |
| Education | X | | X | X | | | | | | |
| Training | | | X | | | | | | | |
| Intimacy | | | | | | X | | | | |
| Trust | | | | | | X | | | | |
| Acceptance | | | | | | X | | | | |
| Attachment/Closeness | | | | | | X | | | | |
| PC increased BF behavior | | | | | | | X | | X | X |
| Partner Support | X | | | | | | | | | |
| Emotional Support | X | | | | | | | | | |
| Online Support Benefit | | X | | | | | | | | |
| Environment | | | X | | | | | | | |

Appendix B

Models and Frameworks

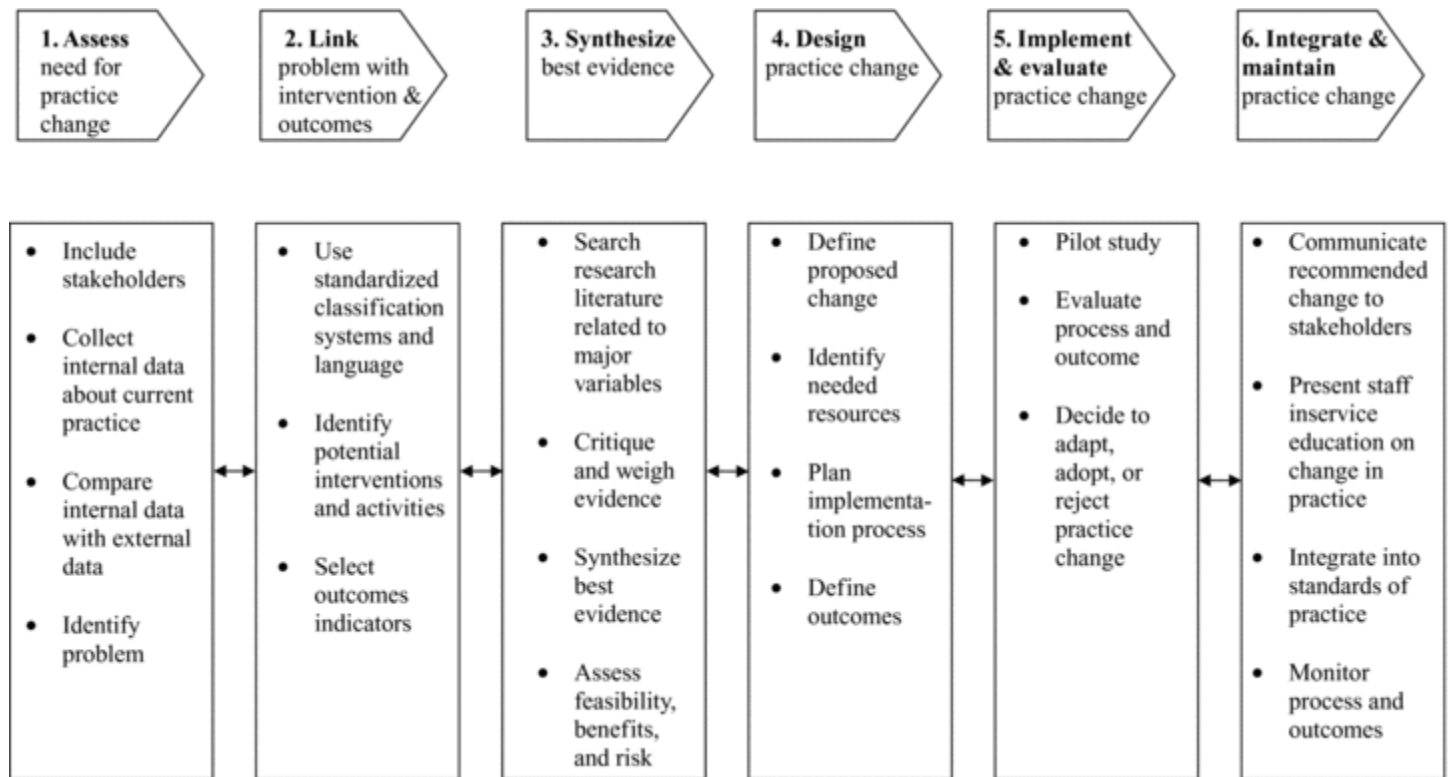
Figure 1

Self-Efficacy Theory

Bandura (1977)

Figure 2

Rosswurm and Larrabee's Model for Evidence-Based Practice



Rosswurm & Larrabee (1999)

Appendix C

Budget

| EXPENSE ITEMS | Requested Amount |
|---|------------------|
| Direct Costs | |
| Educational Material - The Secrets of Baby Behavior by Dr. Jane Heinig | \$ 5.00 |
| Designing and printing recruitment flyers | \$70 |
| Indirect Costs | |
| Zoom Software | \$150/year |
| RedCap Software | \$0 |
| Funding | |
| Personal | \$70 |
| Potential Revenue/Cost Savings | |
| Holding sessions virtually allows the clinic to have more availability for appointments | Cost savings |
| TOTAL EXPENSES | \$ 75.00 |

Appendix D

Questionnaires

Figure 1

The WHO Well-Being Index

WHO (Five) Well-Being Index (1998 version)

Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. Notice that higher numbers mean better well-being.

Example: If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a tick in the box with the number 3 in the upper right corner.

| <i>Over the last two weeks:</i> | All the time | Most of the time | More than half of the time | Less than half of the time | Some of the time | At no time |
|---|--------------|------------------|----------------------------|----------------------------|------------------|------------|
| 1. I have felt cheerful and in good spirits | 5 | 4 | 3 | 2 | 1 | 0 |
| 2. I have felt calm and relaxed | 5 | 4 | 3 | 2 | 1 | 0 |
| 3. I have felt active and vigorous | 5 | 4 | 3 | 2 | 1 | 0 |
| 4. I woke up feeling fresh and rested | 5 | 4 | 3 | 2 | 1 | 0 |
| 5. My daily life has been filled with things that interest me | 5 | 4 | 3 | 2 | 1 | 0 |

Figure 2*The Breastfeeding Relationship Scale***The Breastfeeding Relationships Scale (BFRS)**

| CONSTRUCTS | Item # | Items |
|---|--------|---|
| Mother-Infant Breastfeeding Interaction (8) | 1 | I pay attention to my baby during breastfeeding. |
| | 2 | I caress my baby during breastfeeding. |
| | 3 | I talk to my baby during breastfeeding. |
| | 4 | I smile at my baby during breastfeeding. |
| | 5 | I make eye contact with my baby during breastfeeding. |
| | 6 | My baby touches my breast during breastfeeding. |
| | 7 | My baby turns his/her head to me during breastfeeding. |
| | 8 | My baby makes eye contact with me during breastfeeding. |
| Breastfeeding Synchronicity (4) | 9 | I know when my baby is ready to breastfeed. |
| | 10 | My baby lets me know when he/she wants to be breastfed. |
| | 11 | I know when my baby is finished breastfeeding. |
| | 12 | My baby lets me know when he/she is finished breastfeeding. |
| Perceived Adequate Milk Supply (4) | 13 | My current milk supply is adequate to breastfeed my baby. |
| | 14 | In the future I will be able to make enough milk to breastfeed my baby. |
| | 15 | I can tell whether I am making enough milk for my baby by listening to my baby's feeding sounds and counting the number of dirty diapers. |
| | 16 | I am breastfeeding my baby directly on the breast. |