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SOCIAL SERVICES, HEALTH AND SPORTS

THE ROLE OF HEALTH PROFESSIONALS IN PROMOTING AND SUPPORTING EXCLUSIVE BREASTFEEDING IN FINLAND

Literature review

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<p>Breastfeeding is beneficial to baby, mother, community, and global health. WHO set the recommendation for protecting and promoting breastfeeding, furthermore, established a global project to be applied at all the maternity hospitals all over the world. Purpose is to ensure the promotion of breastfeeding and to increase the exclusivity of breastfeeding and to educate health care staff to empower them with the information and knowledge about breastfeeding. The implementation of WHO projects in all health facilities that deal with mothers and childbirth shows a great improvement in the rate of exclusive breastfeeding. Those projects are Baby friendly hospital initiative (BFHI) or Neonatal baby friendly hospital initiative (NEO-BFHI), also implementation of the WHO of ten steps for successful breastfeeding.</p> <p>The purpose of this literature review was to explore the current literature on the role of health professionals in promoting and supporting breastfeeding in Finland. The aim was to identify the factors that contribute to the breastfeeding rate in Finland, and to examine the actions that health professionals can take to promote and support breastfeeding in Finland.</p> <p>This thesis presents the findings of the literature review conducted between September 2023 and October 2023, A total of ten (n=10) peer reviewed articles, between 2000 to 2023, sourced from Google Scholar and Pub Med databases were chosen for analysis, employing content analysis methods as the research methodology. This study reviewed the role of health professional in promoting and supporting exclusive breastfeeding in Finland. The partner organization for this thesis work was Savonia University of Applied Sciences.</p> <p>The main results showed the importance of implementing the Baby Friendly Hospital Initiative (BFHI), and to empower the health care provider with training about breastfeeding. WHO recommendation of the exclusive breastfeeding initiative within the 1st hour after birth and continuous till 6 months of age, and continuous along with the complementary feeding till two years and beyond was also stated in the results.</p> <p>These results could be utilized as a learning material to also improve the health care providers BFHI competence. As a future extended study, with larger sample, as per Ministry of Social Affairs and suggest to make BFHI mandatory to all maternity hospitals and its staff.</p>	
Keywords breastfeeding, breastfeeding initiative, Health care professionals, Literature review	

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1 INTRODUCTION

Breastfeeding is the optimal form of nutrition for infants and has numerous health benefits for both the mother and the child. However, despite the recognized benefits of breastfeeding, many mothers in Finland face barriers to breastfeeding. Health professionals, such as doctors, nurses, and lactation consultants, play a crucial role in promoting and supporting breastfeeding. (de Almeida, Moreira, Fabio 2015.)

In Finnish maternity hospital the exclusive breastfeeding rate increase by putting a lot of focus on the role of health care provider on promoting, supporting, and counseling mothers (Hakala et al. 2021). Breastfeeding in old Egyptian times were portrayed and pointed that it is important in babies' life and health. In terms of medicine and architecture, the ancient Egyptians and Peruvians were pioneers. Ancient literature and the walls of tombs and temples in Egypt and Peru both contain clear documentation of this. Ancient Egyptians and Romans were the first healers and master builders who were motivated by a profound religious belief in death and the hereafter. (ReFaey, Quinones, Clifton, Tripahti & Quinones-Hinojosa 2019)

World breastfeeding week 1 Aug 2023 declare that many countries have made a great improvement in the rate of exclusive breastfeeding in the past 10 years and expected more progress if provide more breastfeeding support effort especially in workplace. The world breastfeeding week this year under the title (Let's make breastfeeding at work) they emphasized that we need more support for breastfeeding at workplace to raise the rate of exclusive breastfeeding globally. The rate in the past 10 years is 48 % globally and the target for 2030 is 70%. WHO and UNICEF (1991) are making a collaboration to ensure mother and baby nutrition for better health through a comprehensive planning and implementing to a maternal care strategy, to increase the rate of exclusive breastfeeding to at least 50% by 2025.

Breast milk is the ideal food for infants. It is safe, clean and contains antibodies which help protect against many common childhood illnesses. Breast milk provides all the energy and nutrients that the infant needs for the first months of life, and it continues to provide up to half or more of a child's nutritional needs during the second half of the first year, and up to one third during the second year of life. Also, Breastfed children perform better on intelligence tests, are less likely to be overweight or obese and less prone to diabetes later in life. Women who breastfeed also have a reduced risk of breast and ovarian cancers. (Arts 2017; WHO 2023.)

It is well known that the baby and the mother went through a taught labor time full of stress and pain. And after delivery they both need to rest and to feel secured and the STS position skin to skin the (1st hug between them) will calm them down and release love hormone (oxytocin) which relieve stress and helps a lot in secreting breast milk. WHO guidelines to ensure babies health and have healthy generation recommended early breastfeeding (within the 1st hour of birth) initiation and exclusive breastfeeding till 6 months and continue breastfeeding with the complementary feeding to two years and beyond. (Moore, Bergman, Anderson & Medley 2016.)

WHO (1991) recommendation for skin to skin (STS), the baby should be assessed and allowed to be with his mother immediately after delivery on her chest to do something called skin to skin where

the baby become so close to his mother and to face her nipples to smile the same smile of the amniotic fluid where the baby spent nine months. In fact 1st we have to know that the area around the nipple called areola (the circular dark-colored area of skin surrounding the nipple) there are Montgomery's tubercles they are small bumps around the nipple they are sebaceous glands that secrete oil substance to lubricate the nipple and protect it from dryness and also keep germs away as their antibacterial oil effect, its smell as the same smell of the amniotic fluid that the baby live in the womb. That is the reason why the baby feels calm and secured when put in skin-to-skin position and smell his mother. Also, a lot of hormonal and physiological changes happened to the mother that stimulate milk production hormones and make the mother ready to breastfeed.

The CDC's Division of Nutrition, Physical Activity, and Obesity (DNPAO) is committed to increasing breastfeeding rates throughout the United States and to promoting and supporting optimal breastfeeding practices toward the goal of improving the public's health. According to the mentioned above the newborn baby receive the 1st nutrition from breastfeeding and it considered as a good and proper start, and it's called breastfeeding initiation. (American Academy of Pediatrics [AAP] 2012.)

The client organization for this thesis was Savonia UAS. The method of this thesis was the literature review. The purpose of this study was to explore the current literature on the role of health professionals in promoting and supporting breastfeeding in Finland. The aim was (1) to identify the factors that contribute to the breastfeeding rate in Finland, and (2) to examine the actions that health professionals can take to promote and support breastfeeding in Finland.

2 THE ROLE OF HEALTH PROFESSIONALS IN PROMOTING AND SUPPORTING EXCLUSIVE BREAST-FEEDING IN FINLAND

2.1 The role of health care professionals in breastfeeding

Health care providers have a great role and impact on the process and the success of breastfeeding by being themselves educated and obtaining the proper information then make a good planning then implementation, and evaluation. Breastfeeding initiation in many cases need the good understanding of the health care provider about breastfeeding. Proper support by the health care providers resulted in high rate of breastfeeding initiation and continuation. (Lindsay & Clarke-Sather 2020.)

THL the health authority in Finland is calling to follow the recommendation of WHO (1991) that the mothers should breastfeed their babies exclusively for 6 months of age (Hakala, Kaakkinen, Kääriäinen et al. 2021), mothers who receive health teach support show a good impact and long period breastfeeding exclusively (Sikorski, Renfrew, Pindoria, Wade 2003). To strengthen the role of health education to mothers from the beginning of pregnancy till the mother deliver her baby and till the breastfeeding established successfully, a good assessment tools to assess our program getting its goals or not, this education will include the pregnancy time (antenatal education and classes for both fathers and mothers) and the time of labor and last but not least post-natal period which starts from the hospital and continue at home till the breastfeeding established well with no problems. As it is mentioned in the nursing practice evidence-based guidelines for nurses and midwives. (WHO 2017.)

Antenatal breastfeeding health teaching should include: (Lumbigano et al 2016.)

- Giving to the parents to be a good information and knowledge about breastfeeding
- talking about all the cultural things that related to breastfeeding and discuss in an open discussion to let parents ask questions freely and got answers.
- Benefits of breastfeeding to the mother and the baby and the economy of the family as whole.
- The benefits of the 1st milk (colostrum)
- Different breastfeeding positions.
- the sings to know that your milk is enough.
- How to take care of your nipple.
- The benefits of breast massage and breast pump.
- Discuss the benefits of STS contact.
- Discuss the potential health risk of formula feeding.

At the time of delivery, the midwives and all health care providers should give a chance to the mother to do STS contact according to WHO recommendations in that context, also early we as health provider we have a vital role to encourage the mother to do skin contact with her baby if baby's health condition is stable and normal. And this led us to the importance of giving the mother an epidural anesthesia if needed instead of general anesthesia. Early skin to skin shows proper suckling and improve the breastfeeding outcome as whole. (National Health Services [NSH] Tayside 2010.)

Post-natal breastfeeding support, we should provide the mother and her baby with the proper atmosphere to have time for bonding and recognizing each other and a privacy to be able to start breastfeeding, we can help the mother to have a breastfeeding position that suits her condition. We may provide her with a breastfeeding pillow to make it easy for her to breastfeed her baby. Our guidance as midwives or nurses is very important to help the mother to initiate breastfeeding and drive the fear out and empower the mother. Also, midwives should encourage rooming-in, which means to keep the baby with his mother at the room at the hospital and not to separate babies from their mother by putting them in a different place called nursery as in some countries, but good that it is not the case in Finland maternity hospitals. This rooming-in encourages the bond between the mother and her baby, improves maternal behavior and gives a chance to practice skin-to-skin contact (STS) and to stimulate the production of milk hormones. Edith Jackson, MD, of Yale University School of Medicine & the Grace-New Haven Hospital was awarded a federal grant to establish the 1st rooming-in unit in the United States. (Karimi, Sadeghi, Maleki-Saghooni & Khadivzadeh 2019.)

Nurses and midwives in Neonatal Intensive Care Unit

So the nurses who are working in the Neonatal Intensive Care Unit (NICU) should provide optimal information and guidance to the mothers as well as the equipment to help mothers to do efficient breast pumping, also it is evidence-based that pumping within 1st hour increases the milk production increase dramatically (at 3 weeks after birth) comparing with that if start pumping at 6 hours (Huang, Zhang, Zhou et al. 2020.) This is because the body started Lactogenesis II phase earlier in which the milk production produced according to baby suckling. For that the use of a proper kind of electric breast pump is important. It is tested and examined that it gives a good result in excreting milk from the breast especially the colostrum (the starting milk), it is the most recommended heavy duty hospital grade electric breast pump. The health care provider should provide the family members that they should help the mother to have rest and good nutrition and do pumping at least 8-10 times per day to promote the milk production and to have enough milk (Spatz et al. 2018) The reason why this number 8-10 times as it resembles that the average times the baby suck from his mother it is every 2 to 3 hours so in 24 hours the mother should pump 8 to 10 times per day to give her body the proper stimulation to get the optimal amount of milk which is around 900ml per day. (Hill & Aldag 2005.)

The important role of Breast milk is the ideal nutrition for the premature or severely ill baby (AAP 2012) much research shows that breast milk protects the premature babies from neonatal Necrotizing Enterocolitis (Altabelli, Angletti, Verrotti, Petrocelli 2020). This disease which affects the baby intestine due to the digestion of baby formula, it is an inflammatory disease, which can be prevented if we advise the mother to do breast pumping and provide the milk to the baby, which full of antibodies and nutrients help the premature baby to boost his immune system and protect him from any inflammatory disease in that critical time in his life, which is a serious health condition and could lead to mortality. Also, if the condition if the baby allow to let the baby suck from his mother, this will have a great impact on the increasing the milk production of the mother and the bond between them and improve the psychological state of them and so the improvement physiological condition.

If the mother cannot provide breast milk, can use a Pasteurized donated milk, to be safe to the babies free from diseases. (Altobelli et al. 2020.)

2.2 Benefits of breastfeeding

The U.S. Dietary Guidelines for Americans 2020-2025 recommend that infants be exclusively breastfed for about the first 6 months with continued breastfeeding while introducing appropriate complementary foods for 1 year or longer. The American Academy of Pediatrics and the World Health Organization also recommend exclusive breastfeeding for about the first 6 months with continued breastfeeding along with appropriate complementary foods for up to 2 years of age or older one to two years.

Breastfeeding benefits for the baby. The American Academy of Pediatrics (AAP 2012) recommended that the baby should breastfeed exclusively for 6 months and continuing to breastfeed along with the complementary feeding until 12 months old. Breast milk is a source of optimal nutrition, and it provides the baby antibodies that protect the baby from any diseases and post his immune system.

According to the (CDC 2022) and the evidence based the breastfeeding has a lot of benefits for both mothers and babies and we will explain how the breast milk is essential for babies health and it is the proper start in life, and still science and researches discovering millions of benefits baby can have only by having breast milk which called the white blood, because the living cells, antibodies and stem cells as well that found in it.

Breast milk is the optimal and the best nutrition to the baby as it provides the important items of nutrition baby need and also provide protection against many diseases as it contains antibodies that protect from diseases and as well as build the baby's immune system, also human milk changes all through the breastfeeding period or even breastfeeding session to provide the baby the proper nutrition as when the baby get sick the component of the breast-milk changes to provide the baby with the protected antibody to cure the baby and as the baby grows, the mother's breast milk will change to meet her baby's nutritional. (Huang et al. 2020.)

Breast milk protect the baby against some short- and long-term illnesses such as Diabetes type 1, Asthma, SIDS, obesity, Ear infection and necrotizing enterocolitis in premature babies especially in NICU. Breast milk is the optimal and the best nutrition to the baby as it provides the important items of nutrition baby need and also provide protection against many diseases as it contains antibodies that protect from diseases and as well as build the baby's immune system, also human milk changes all through the breastfeeding period or even breastfeeding session to provide the baby the proper nutrition as when the baby get sick the component of the breast-milk changes to provide the baby with the protected antibody to cure the baby, and as the baby grows, the mother's breast milk will change to meet her baby's nutritional needs. (Altobelli et al. 2020.)

There are a lot of benefits for mother who breastfeed their babies and here only some will be mentioned breast-milk is easy and ready-made food save the mother effort and time to prepare babies food, ready all the time even at night, cheap save parents money that could be paid for the formula and its accessories and going to the doctor to find out the proper formula milk that suit the baby as breast milk is made specifically to suit baby's nature and needs. Also, mothers can breastfeed their

babies anytime anywhere no need for any specific utensils. Breastfeeding protects the mother to get breast cancer or ovarian cancer or diabetic and high blood pressure. Breastfeeding helps the mother to make a gap between pregnancies, helping in birth control (Godfrey & Lawrence 2010.)

It is recommended promote and encourage initiation of exclusive breastfeeding till 6 months of age and continued breastfeeding along with complementary feeding to two years and beyond. Regarding alcohol consumption the recommendation in NNR2023 is that everyone should avoid drinking alcohol. If consuming alcohol, the intake should be low. This recommendation also applies to women who are breastfeeding, pregnant women, children, and adolescents. (Nordic Nutrition Recommendations [NNR] 2023.)

Factors that affecting breastfeeding success

In order to have a successful breastfeeding experience by the mother and to achieve the WHO target in increasing the rate of exclusive breastfeeding and to have healthy babies and healthy mothers as well, we have to know that there are many factors affecting breastfeeding initiation, continuation and therefor its success, these factors could be maternal physiological factors, baby's related factors, lack of awareness or lack of health education, misunderstanding by the mother to the breastfeeding process, mother's perception of father's attitude and milk supply. (Arora, McJunkin, Wehrer & Kuhn 2000.)

Breastfeeding as a practice affected too much by the circumstances and the good environment, and positive attitude that encouraging and supporting reflected on the mother behavior and empower her to have salve confidence that she can do it, and who to ask and where to go when need help, so the mother feel that she is not alone facing any challenge. Especial when the mother has a premature baby or a severely ill child, all that the health provider should put in their consideration, while putting a health care program for mothers to support breastfeeding. (Mäkelä, Axelin, Kolari Kuivalaine Niela-Vilén 2022.)

Humane milk bank

This idea comes from the believe that human milk is the best nutrition for babies especially the premature and the critically ill once (American Academy of Pediatrics [AAP] 2012). The advent of milk banking was begun by Theodor Escherich in Vienna 1909, then it became a good way to preserve the valuable mother milk in a human milk bank (Haiden & Ekhsars 2017).

As health care provider have an important role in the health promotion process as whole and in breastfeeding promotion and supporting. According to WHO (1991) said that midwives and nurses have a valuable role in protecting and promoting breastfeeding worldwide and the professional breastfeeding support matter a lot in rising the breastfeeding rate among mothers and, so WHO calling the government leader to value this rule and invest in that to allow them to provide a quality care is always through a well prepared health teaching programs which provided to the right personnel (fathers and mothers), in the proper time (antenatal and postnatal). Rooming in has a great importance in promoting breastfeeding and stimulating milk hormones, which lead to increase milk production, also it has a cost-effectiveness. (Mäkelä et al. 2022.)

One of the most powerful and well-known international organization that provide breastfeeding education and teaching for women is LLLI (La Lech-league international) formed in 1956 they produce a book. LLLI committed a standard of competencies for those health care provider and lactation consultant Examiner (IBLCE) as they set a specific criteria and guidelines for International Breastfeeding Certified Lactation Consultant (IBCLC), to provide a breastfeeding guidance and teaching to mothers with a standard and evidence-based background. It is very important that the health care provider who deal with mothers in maternity area during pregnancy time (antenatal care services), during and after delivery (postnatal care services). Health care provider need to conduct a proper health teaching sessions for women and fathers as well to educate them about the benefits of breastfeeding and how to make it possible and successful, we have in Finland a lot of clinics providing awareness and NEUVOLA produce such services for mothers. (Weisienger, West & Pitman 1980.)

In Finland there is The Finnish Association for Breastfeeding established 1998 under the name (Vauvamyönteisyys ry), but since 2004 the name is Finnish Association For Breastfeeding Support, Imetyksen tuki ry. (ITU) a very important and supporting, is the most important source of breastfeeding support, where you can get the most reliable information, and group support. They are a group of trained volunteers their main aim is to give peer support online and live services as well, their services always free of charge and guarantee confidential. On the app there are a lot of information about breastfeeding to professional and mothers as well, and the most common breastfeeding problems that challenging the success of breastfeeding process. Also, there are expertise when you need to contact someone. They have a lot of activities in promoting and protecting breastfeeding.

Breast pumping

As a fact and scientifically approved that in order to increase the milk production, and to stimulate the breast to produce more milk we need to do breast massage and empty or drain the breast properly either manually or by breast pump, they are two types of pumps (manual or electric) Midwives educate the mother who have a healthy newborn baby and especially the severely ill baby or premature how to do effective breast massaging and teach her how to use the breast pump In the premature or sick new born baby breast milk is essential and a matter of living or dying, so her the role of the nurses in teaching the mother to do milk expression is the most, also because the baby is sick he cannot suck direct from the mother and so need do pumping to keep the milk production on the level until the baby recover and can breastfeed from his mother. (Spatz et al 2015; Huang et al. 2020.)

Let down reflex hormone

Let down reflex is the release of breast milk hormones, and it is a physiological process happened after delivery when the mother feels her baby and after STS and touching the baby what happened is many signals go to the mother brain to stimulate the release of milk hormones (Oxytocin & Prolactin) to let the milk secreted from the mother nipples and so baby suck it. (Nagel et al. 2021.)

This let down reflex affected by pain, chronic diseases, diabetic mother, cesarean section, and many things can delay the milk production. So, it is important as a health care provider to know the

mother conditions to help here for example to control her pain to help her to produce milk. And psychological support is very needed to empower the mother and to give her self confidence that she can breastfeed here baby. (Nagel et al. 2021.)

Baby-Friendly Hospital Initiative (BFHI)

Midwives and nurses should endorse the Baby-Friendly Hospital Initiative, which launched 1991 by WHO and UNICEF in response to the Innocent Declaration 1990 BFHI is a global program to be implemented and applied in all maternity facilities all over the world. BFHI made to be applied where health services provided to mothers and newborn babies to guarantee, protect and promote breastfeeding and to ensure the proper nutrition and the right start to the baby, this is through "Ten Steps for Successful Breastfeeding" (WHO 2018.)

International Code of Marketing of Breast milk Substitutes

Due to the fact that breast milk is the best source for the baby as nutrition and nourishment what proved by evidence based research, The World Health Assembly (WHA) in 1981 recognized the crucial role of breast milk and the aggressive marketing campaigns by formula companies that targeting mothers who do not know the benefits of their milk to their babies so at the time there should be rules and laws to protect them from such aggression and keep the babies right to have their mother milk. Of course, the mothers have full right to decided what to give to their babies, but this code of marketing just to protect their freedom to take decision without company's pressure. the code made to regulate the marketing of milk substitutes, bottles, and teats. And the last update on 20 – 22 June 2023.

The main reasons for putting the Code of marketing are regulate the marketing of milk substitutions and any other food to be giving to babies and young children. Stop any commercial interests to destroy breastfeeding rate. This could be through targeting the family members and giving direct advertising to formula or milk substitution. Set a standard for labeling the milk substitution such as any company should put on the label of their product the superiority of breast milk as a fact and an evidence-based proved and it is the best for the baby. (WHA 1981.)

The code in health facilities applied by doing the following as set by the Registered Nurses Association Ontario (RNAO 2003)

- No advertising for infant feeding products anywhere within health facilities
- No access to company personnel and pregnant women or mothers
- No items labeled by the company logos on health facilities or used by its staff, e.g., stationery, diary covers, key fobs, lanyards, pens, tourniquets, gestational / age in weeks calculators, weight conversion charts, post-it note pads, etc.
- No free samples to health professionals or mothers
- Only scientific and information, free from commercial bias, used in the care of babies and their parents.
- written infant feeding policy that is routinely communicated to staff and parents.

Each facility providing maternity services should prepared a written policy for infant feeding, and to be put in a clear place for all the staff, all the staff should be aware of it and communicate the information among themselves. This policy to unify the information the staff spread to mothers and not be according to each one preference and to guarantee that patients receiving an evidence-based care and a quality care service. This policy should be rotated to the whole staff, to sustain practice over time., this include breastfeeding policy which is set alone and separated from the whole infant feeding document. and contain a global standard and how to protect breastfeeding and solving to the most common breastfeeding problems. And the ten steps of successful breastfeeding to Ensure that staff have sufficient knowledge, competence, and skills to support breastfeeding will be through a regular staff training by an international breastfeeding certified lactation consultant IBCLC where the most update in breastfeeding medicine should be mentioned and orientation program for the new staff. (WHO 2017.)

Antenatal health teaching and awareness of breastfeeding to pregnant women and their families in antenatal clinic through antenatal health teaching, awareness, and education. Antenatal time is a golden time where we can give a proper education for parents to be and prepare the mother and empower her with the important information about breastfeeding and to correct her wrong information. At that time most of the mothers are eager to learn and especially the mothers for the 1st time, so it will be very good chance for the midwives to teach them all about breastfeeding, and the hazards of formula feeding to help her to have her own formed decision. (Lindsay & Clarke-Sather 2020.)

Facilitate immediate and uninterrupted skin-to-skin contact and support mothers to initiate breastfeeding as soon as possible after birth. It is very recommended by the AAP, WHO and UNICEF that early STS has a great impact on the success of breastfeeding process, and to do the important baby assessment as ABGAR while the baby on STS without interruption, and other procedures should be postponed afterward. (WHO 2017.)

Support mothers to initiate and maintain breastfeeding and manage common difficulties. Breastfeeding is a normal physiological process but also it requires guidance to obtain the art of it. A proper breastfeeding support is making a difference and help the mother to initiate breastfeeding peacefully, also teaching her the different breastfeeding positions and if there is any problem or difficulty, she should get help to overcome it and to learn how to avoid such a problem once more and the teaching or the guidance the mother receive at the hospital after delivery will remain with her when she goes home. (Mallick et al. 2020.)

Do not provide breastfed newborns any food or fluids other than breast milk, unless medically indicated. And encourage the mother to do breast pumping if her baby needs more milk, if the mother has not enough breast milk for her baby, provide the baby a donated breast milk or breast milk from the milk bank, but should not give any other fluids. (Ibrahim, Bookari, Sacre, Hanna-Wakim & Hoteit 2022.)

Enable mothers and their infants to remain together and to practice rooming-in 24 hours a day. Encourage rooming-in by keeping baby with his mother as it is good for bonding and therefore producing more milk hormones (oxytocin hormone or love hormone) and then milk production started. (Kent 2007; Cleveland clinic 2023.)

Support mothers to recognize and respond to their infants' cues for feeding We also teach the mother the hunger signs and the satiated sings as well, to let the mother understand her baby, advise the mother to watch her baby not watching the clock as breastfeeding should be on demand not following a certain schedule. (CDC 2021; Westfield, Koenig & Oh 2018.)

Counsel mothers on the use and risks of feeding bottles, teats, and pacifiers. It is recommended by the WHO and AAP not to use any artificial teats unless there is a medical condition to use it especially at the 1st 4 weeks of life to establish breastfeeding and not to make nipple confusion to the baby. (AAP 2012.)

Coordinate discharge so that parents and their infants have timely access to ongoing support and care. Before the mother going home with her baby, we should inform her where and whom she should call when she needs, like giving booklets with supporting groups such as www.imatye.fi.group support is a good source of support as the mother can get a lot of information, and where she can meet other mothers at the same situation and having the same interest and facing same challenge, they support each other and realize that they are not alone and others sharing with them same feelings, experience, problems and success as well. Also, they learn from each other's and give emotional support to each other's. At the time of discharges from the hospital the mother should have a telephone number to whom she contacts when she has any problems or concerning. Related to breastfeeding, as soon as possible problems identified and solved as long the breastfeeding duration last and continuing safely. (WHO 2017.)

Encourage skin-to-skin

At hospitals the nurses and midwives also should be prepared and obtaining the knowledge about breastfeeding through being an IBCLC to provide a good help to mothers. One of the most important thing midwives should do is to encourage mothers to do STS (skin-to-skin) for it's great impact in increasing the mother milk hormones production and to follow the WHO (2009) recommendation, especially immediately after delivery and to postpone any procedure as long as baby health is stable and baby is healthy. STS is an easy way to increase the rate of exclusive breastfeeding and guarantee successful breastfeeding journey afterward. Also, it is to know that fathers can do STS to their babies, it is improving the father and baby's bonding, calming the baby and regulate his heart-beat, regulate baby temperature and, it can be also done when the mother sick or want to have some rest. (Whelan & Kearney 2014.)

AAP (2012) recommend the importance of STS immediately after birth as and we can do all the essential assessment (APGAR score) for the baby, while the baby on STS and not to separate the baby from his mum at least for one hour or when the baby start 1st breastfeeding (AAP 2012; Karimi et al. 2019). Breastfeeding initiation in many cases need the good understanding of the health care provider about breastfeeding by being themselves educated and obtaining the proper information

then make a good planning then implementation, and evaluation. Proper support by the health care providers resulted in high rate of breastfeeding initiation and continuation. (Mallick et al. 2020.)

Infants be exclusively breastfed for about the first 6 months with continued breastfeeding while introducing appropriate complementary foods for 1 year or longer. The American Academy of Pediatrics and the World Health Organization also recommend exclusive breastfeeding for about the first 6 months with continued breastfeeding along with appropriate complementary foods for up to 2 years of age or older. (The U.S. Dietary Guidelines for Americans 2020-2025.) As mentioned above breastfeeding is very essential for the baby as a source of optimal nutrition it provide the baby with the nutrition and antibodies that protect the baby from any diseases and post his immune system (CDC 2022).

3 PURPOSE AND AIM

The purpose of this study was to explore the current literature on the role of health professionals in promoting and supporting breastfeeding in Finland. The aim was (1) to identify the factors that contribute to the breastfeeding rate in Finland, and (2) to examine the actions that health professionals can take to promote and support breastfeeding in Finland.

To achieve this purpose the author has set up the following research question:

How the health care professionals in Finland can promote and support breastfeeding?

4 IMPLEMENTATION

4.1 Literature review

The method of this thesis is a literature review. The methodology used here in this study is a literature review. According to Aveyard (2014) the literature review is very important for many reasons such as the prohibitive factor of increasing rigorous processes of research ethics and governance procedures, which discourages studies based on primary data the literature review is a stigmatization and an interpretation of literature made by others (articles, books, thesis) in the same context according to (Cooper et al. (2018) surveys (books, conferences, dissertations) which relevant to the topic of study and present all that information in a way to show to the audience how is the topic is worth addressing. The author may also make or add some recommendation for further improvement on the topic of interest. The author may also make or add some recommendation for further improvement on the topic of interest. The University of Edinburgh states that a literature review is an academic writing contain a lot of information and knowledge about a specific topic which are previously written by others, you collect them, summarized them, and could evaluate them to get a conclusion to the reader. (Pautasso 2013; Coughlan & Cronin 2021.)

The review started by searching the research published on the benefits of breastfeeding and the important role of the health care providers mainly (nurses and midwives) in promoting and protecting breastfeeding and as well as increasing the rate of exclusively breastfeeding babies. To meet the goals of WHO, my database are the most known electronic database Pub Med and Google Scholar. I read a lot of research related to my topic and I selected the most updated and reviewed once. I started down the number by the guidance of my supervisor. The summarized steps of research implementation in (Figure 1). To conduct a literature review using relevant databases and keywords to gather information on the role of health professionals in promoting and supporting breastfeeding in Finland.

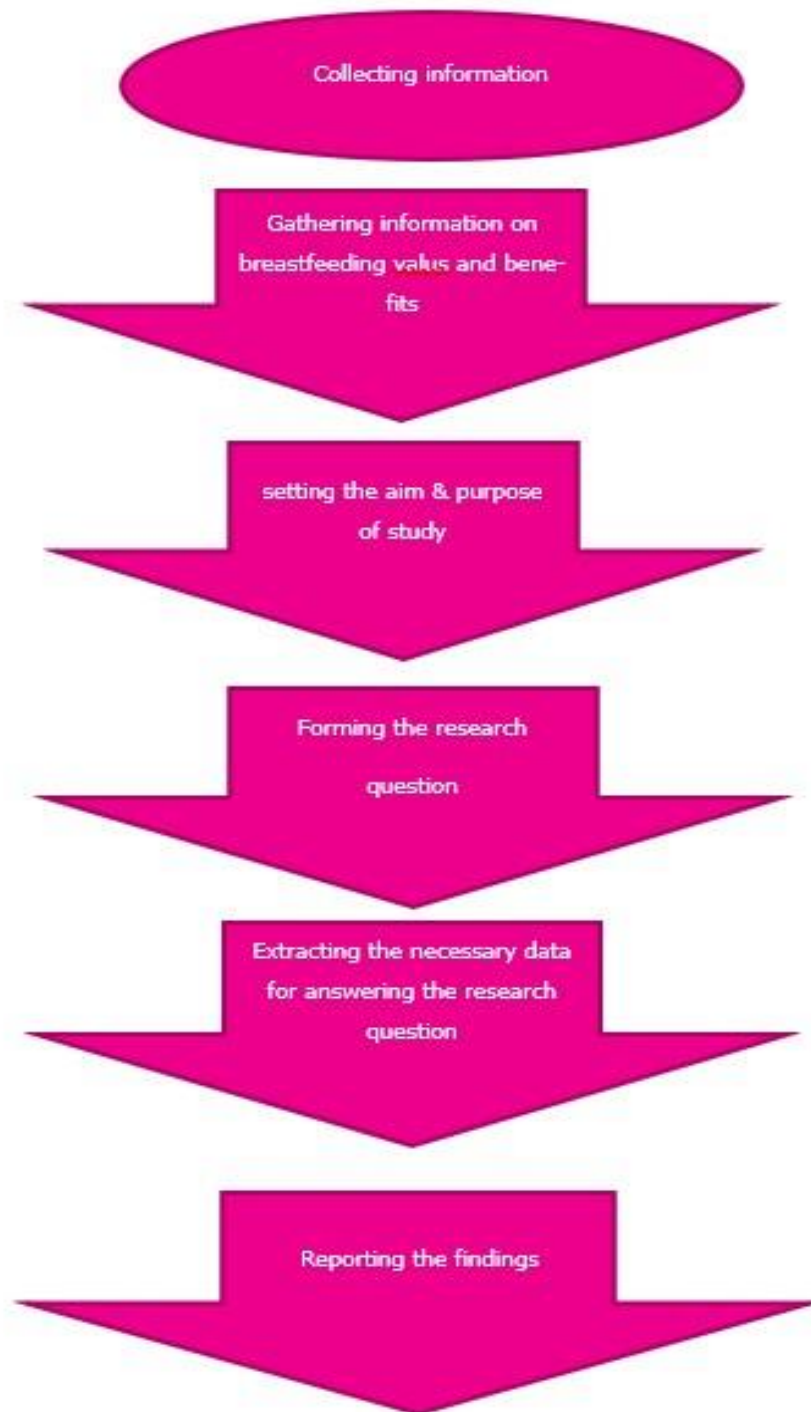


Figure 1: Steps of research implementation.

4.2 Data collection

Data collection is the process of collecting information about the research topic, systematically to answer and support the research question, it should include the two key points A logical search process and strategy are important components of the data collection process.

The search and the strategy plan must meet the eligibility requirements and address the research question during the data gathering procedure. data gathering procedure. A logical search process and strategy are important components of the data collection process.

The search must meet the eligibility requirements and provide a response to the research question, and the strategic strategy must be strong enough to support it. (Pursell & McCrae 2020.)

Articles that answer the research question, are written in English, and are typically reviews that do not focus solely on one region of Africa were given extra consideration.

To keep the project report current, only recent publications that were published after 1990 were selected. By experts in the same field, all the articles underwent peer review. According to (Pursell & McCrae 2020.)

A peer reviewed publication is one that reports a study that has been approved by one or more academics and researchers working in the same field of study. Articles were found after a search using the key phrases "breastfeeding," "health care provider," and "promotion." There are 1143 articles in PubMed and 68100 in Google scholar. These number is very big and reduced to 80 after screening by topic title, the number reduced more after reading the abstract to be 30, further specification after going through the full text articles to be 20, and finally selected article number is ten (n=10), to answer the topic question of the thesis. (Appendix 1.)

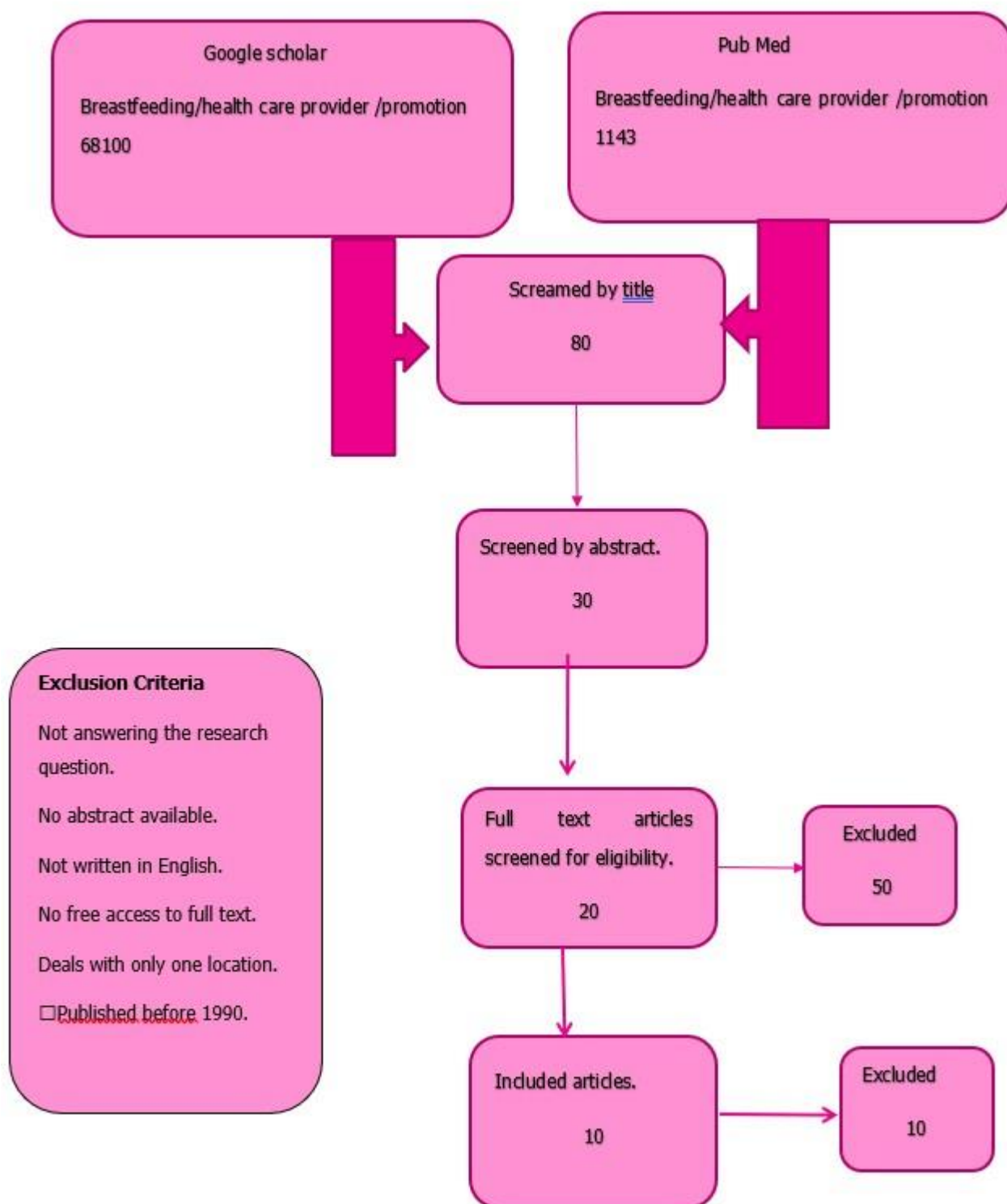


Figure 2: process of Article selection & exclusion criteria

4.3 Content analysis

In research data analysis is the most important component. Data analysis compiles gathered information. It entails interpreting collected data by applying logical and analytical reasoning to identify trends correlations or patterns. A content analysis method can be applied inductively or deductively to both qualitative and quantitative data. Nursing studies frequently include qualitative content analysis although the method's analysis has not received much attention in the literature and most research publications merely give a cursory overview of it. to analysis a qualitative content When a phenomenon is fragmented or has not been the subject of prior research inductive content analysis is employed. If comparing categories at different times or testing a prior theory in a new setting was the main goal a deductive method can be helpful. (Elo & Kyngäs 2008.)

In this study the literature review methodology employed in this thesis lacks the resources necessary for a thorough examination of the selected sources. However, content analysis is required in literature review investigations to condense classify and display the study materials. (Tuomi & Saara-järvi 2018). In this study the results or the findings of the reviewed articles were combined and summarized to gain a better knowledge about the study purpose which is the role of the health care provider in promoting breastfeeding in Finland. This was done with the aim of fully describing and explaining what factors impact on the success of breastfeeding promotion in Finland. (Figure 3.)

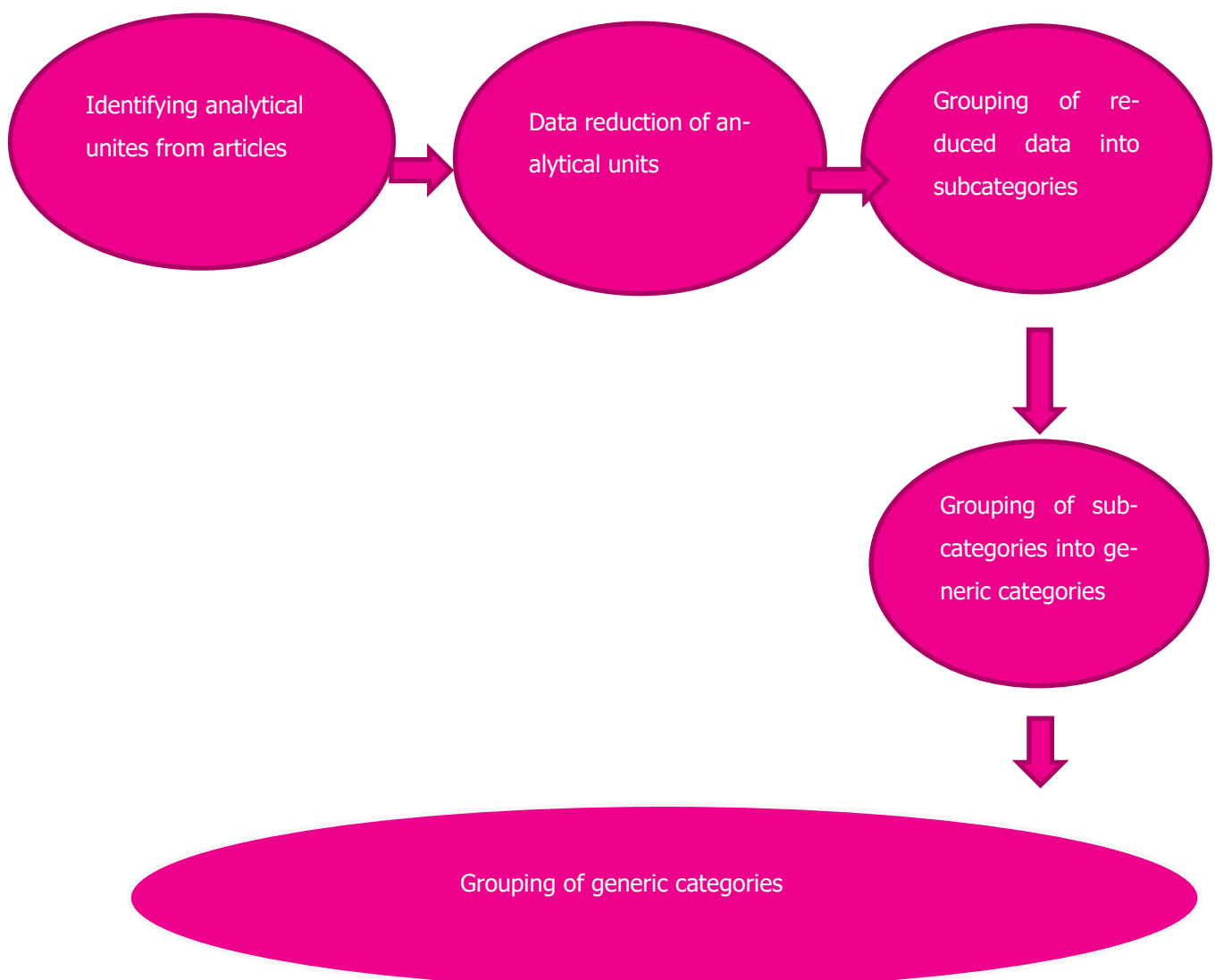


Figure 3: Process of content data analysis

A research's subject can also be sorted, quantified and described using content analysis since it provides a means of classifying and describing the subject and of creating models that can condense and generalize the phenomenon under study. To do this though the author must carefully examine research materials in accordance with the study's objectives. (Elo & Kyngäs 2008.) Inductive content analysis employs the process of abstraction to condense and organize data enabling researchers to apply concepts, categories or themes to address the research objectives (Kyngäs et al. 2019.) The author was able to determine the primary topics and informational categories in relation to the research papers after carefully looking over the materials. Phrases or sentences from the mail articles served as the analytical units that were selected to aid in addressing the research question. The identification of the analytical units was aided by the predetermined topics. Following their collection and repeated analysis the decreased data's analytical units were streamlined and divided into smaller groups. This was followed by putting the sub-categorized data under generic categories. The final step involved putting the generic categories into the two (2) main categories derived from the articles, into five (5) generic categories, into eight (8) subcategories (Table 1.)

The two main categories are:

- Implement Baby friendly hospital initiative.
- Empowering the health care professional with the breastfeeding teaching and training.

Table 1. Content analysis

Analytical units from Articles	Reduction of data	Sub-categories	Generic categories	Main categories
<p>After the Baby-Friendly Hospital Initiative and Baby-Friendly Hospital Initiative for neonatal wards (Neo-BFHI) interventions were concluded, we found significant improvements in the breastfeeding attitudes of healthcare professionals and in breastfeeding-related care practices. This RCT was registered (0307-0041) with Clinical Trials.gov on 03/03/2017.</p>	<p>Improvement in health care attitude.</p> <p>Improvements in breastfeeding related care practice.</p>	<p>Baby friendly approach and breastfeeding support</p>	<p>Baby-Friendly Hospital Initiative (BFHI)</p>	<p>Implementation of BFHI (Baby Friendly Hospital Initiative)</p>
<p>Intensified breastfeeding support was linked to higher exclusive breast-feeding rates, and a Baby-Friendly approach aimed at empowering parents.</p>	<p>-Pre- and post-natal breastfeeding teaching.</p>			
<p>Initiation of breastfeeding within the first hour of birth has prodigious benefits for newborn health and survival, and counseling on breastfeeding during ANC can promote this behavior.</p>	<p>Initiation of breastfeeding within the 1st hour.</p> <p>Benefits for newborn health and survival.</p> <p>-Breastfeeding counselling during ANC.</p>	<p>Early breastfeeding initiation within the 1st hour</p>	<p>Implementation of breastfeeding within the 1st hour</p>	
<p>The current project has demonstrated that the implementation of evidence-based practice was effective in promotion of early breast milk expression among mothers of preterm infants in the neonatal ICU. The role of a nurse specialist in breastfeeding, involvement of multidisciplinary staff and utilization of online</p>	<p>Implementation of evidence-based practice in promoting early breast milk expression among mothers of premature baby in NICU</p> <p>-The role of a specialist nurse in breastfeeding.</p> <p>Multidisciplinary staff</p>	<p>Early breast milk expression for premature and NICU babies</p>		
<p>Comprehensive strategies to decrease maternal psychological distress, as well as policies that focus on dismantling structural barriers to breastfeeding, may improve breastfeeding outcomes.</p>	<p>Strategies to decrease maternal distress and psychological distress.</p> <p>Improve breastfeeding outcome.</p>	<p>Decrease maternal distress to improve breastfeeding outcome</p>		
<p>The reviewed papers in this systematic review and meta-analysis showed that mother-infant skin to skin contact increases the success rate and duration of the first breast-feeding, and hence it is the best provider of post-natal care for the infants.</p>	<p>Importance of skin to skin in successful breastfeeding.</p> <p>-Post natal care and support that improve breastfeeding outcome.</p>	<p>Training the staff to give proper support and help the mother to do skin to skin and provide a good support.</p>	<p>Post-natal care</p>	

Health professionals need to be better trained to work on promoting breastfeeding, whether by health and medical schools or by healthcare administrators, in order to consolidate multi professional teams committed to maternal-infant health.	Better trained. Promotion. Consolidate multi-professional teams	Better training	Health care professional training	Education for the health care professionals
Efforts are needed to address knowledge, attitudes, and practices (KAP) components to have good knowledge, positive attitudes, and good practices. Hence, it is advised to design multi-component interventions that improve the knowledge related to BF, highlight the importance of acquiring positive attitudes towards BF, and equip the pediatricians with the necessary skills to exhibit BF-friendly practices.	Address the knowledge, attitudes, and practices (KAP) components. -The importance of acquired a positive attitude toward breastfeeding. Provide the pediatricians the necessary skills to Exhibit BF-friendly practices	Health professional training Positive attitude		
There is a need for training around breast-feeding for all healthcare professionals.	Breastfeeding teaching and training for the health care providers.	Breastfeeding teaching		
The results suggest the need to train or retrain health professionals about exclusive breastfeeding, and regularly supervise their activities.	Training health professional the importance of exclusive breastfeeding	Training		
Our results highlight a need for targeted outpatient pediatric provider education around optimal support of breastfeeding, especially when mothers are taking medications, have an infectious disease or concern about substance use, or will return to work or school in their child's first year of life.	Targeted outpatient breastfeeding teaching.	Teaching	Education	

5 RESULTS

The implementation of BFHI has a great impact on the promotion, protection and increase the rate of exclusive breastfeeding, also solve most of the breastfeeding related problems, as the program made to match each unite at the health facility ,it made carefully to suit each department, it contain planning, implementation, evaluation and monitoring to the implementation of the ten steps of successful breastfeeding that established by WHO (2017.)

The role of health professionals in promoting & supporting exclusive breastfeeding in Finland, can be achieved by two main categories which are Implementation of Baby Friendly Hospital Initiative (BFHI) and Education for the health care professional (Figure 4.)

5.1 The role of health care professionals in breastfeeding

Implementation of BFHI (Baby Friendly Hospital Initiative)

Firstly, when talking about the implementation of the BFHI and how this could promote and increase in the rate of exclusive breastfeeding in Finland, and the Finnish national guidelines promoting and supporting breastfeeding (Mäkelä et al. 2022). It is obvious that The Baby Friendly Hospital Initiative is a global program initiated by WHO 1991). To promote, support and protect breastfeeding and increase the rate of exclusivity of breastfeeding by improve the health care services provided in the health facilities. Also, WHO (1991) made a specific program to meet the Neonatal intensive care units (NICU) baby needs called NEO-BFHI in 2015. The implementation of BFHI and NEO-BFHI had a great positive result in improving breastfeeding rate and out come as its aim is to make the facility encourage breastfeeding and to empower the health care provider with the knowledge about breastfeeding and be well trained to support by providing the proper care to mothers. (Mallick et al. 2020.) After the implementation of NEO-BFHI in the neonatal intensive care a dramatically increase in breastfeeding related problem that been solved and the health care professional positive attitude toward breastfeeding (Mäkelä et al. 2022). The implementation of the BFHI will be through making a plane that suit each department at the hospital to implement the ten steps of the WHO in promoting breast feeding, and this show a great improvement in health professional attitude toward breastfeeding which lead to increase the breastfeeding rate and breastfeeding related practice. (WHO 2017.)

One of the most important practices that impact positively on the success and prolonged the duration of the breastfeeding is the early initiation of breastfeeding within the 1st hour after delivery, the baby should put on the mother chest to initiate the 1st latch with a minimal support from the health care provider. The mothers educated about the importance of early initiation (within the 1st hour after birth) of breastfeeding during pregnancy and to explain to her that this behavior has a great impact on her baby´s health and guarantee a successful breastfeeding journey. (Mallick et al. 2020.)

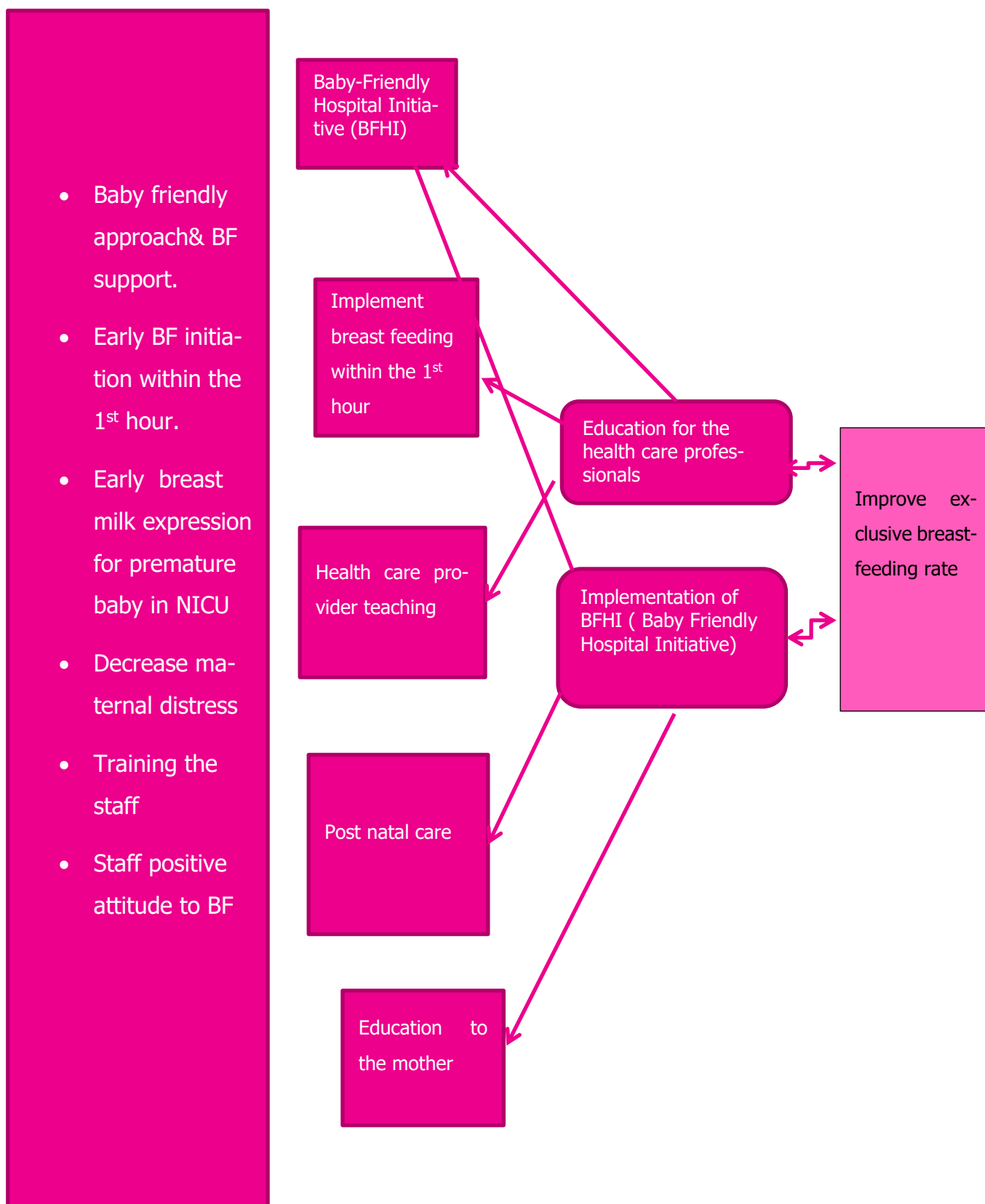


Figure 4: The role of health professional in promoting and supporting exclusive breastfeeding in Finland.

During pregnancy the mothers should be prepared and educated about breastfeeding, the importance of early breastfeeding initiation (within the 1st hour) the different breastfeeding positions, benefits of breastfeeding to the baby and to the mother's health, how to store breast milk, how to increase mother milk flow, and as well as all about breast feeding. All of that are the content of the antenatal health education and the intensified breast-feeding counselling course, which the mothers receive in the perinatal period. Breastfeeding teaching and counselling to the mothers has been shown to lead to increase breastfeeding rate and increase the exclusivity of breastfeeding. It helps a lot in solving breastfeeding related problems as well. (L S Hannula 2014.)

Premature and preterm babies are in a great need for mother breast milk according to evidence based as breast milk contain antimicrobial and inflammatory elements. Health teaching for mothers to initiate breast milk expression as early as possible is recommended, and it is clear that it is hard for mothers who separated from their babies to do so and they need a lot of support from the staff. Fathers attitude toward breastfeeding could affect the mother decision so fathers will be included in the education program. (Huang et al. 2020.)

Premature baby's immune system not developed well, and they lack of many important immune elements, while they are founded in breast milk such as Immunoglobulins, Oligosaccharides, maternal leukocytes, chemokines, and specific type of fatty acids that suit the newborn digestion which is long -chain polyunsaturated fatty acids. Also, the breast milk protects the premature babies from the most common disease among them which is necrotizing enterocolitis (NEC). (Huang et al. 2020.) Mother's psychological distress impact on the breastfeeding process and it linked with the breastfeeding outcome directly and the proved by evidence based, so mother psychological state should be in our consideration when we deal with breastfeeding. (Nagel et al. 2021.)

The most important milk production hormones are oxytocin which are responsible on milk ejection and prolactin for milk synthesis and sustainability. In psychological distress the maternal levels of cortisol increase, and this impair the release of oxytocin, which decrease mother milk and impact negatively on breastfeeding outcome. Thus, a complex hormonal driven orchestration of glandular development during pregnancy and then secretory activation in the early postpartum period is necessary for the establishment and maintenance of lactation. This orchestration must also include timely breastfeeding after delivery, appropriate infant positioning on the breast and effective latching to achieve efficient milk removal, positive maternal-infant interaction during feeding, and frequent, ongoing nursing. Considering the complex bio behavioral and interactive aspects of lactation, it seems sense to consider the psychological health and well-being of both the mother and the newborn as potential significant factors in successful nursing. (Nagel et al. 2022.)

Skin To Skin (STS) or (SSC) is a magical solution and has a great positive impact on the breastfeeding, and best way is to do it within the 1st hour of birth according to the ten steps for successful breastfeeding (WHO 2017). However, in many hospitals due to the routine checkup procedures this

delay or even not done at the 1st day after delivery, and this is due to the hospital policies. All the routine procedure may be postponed after the skin-to-skin contact or after one hour as long as the baby healthy. STS regulate the baby body temperature so in normal healthy baby no need to put baby under warmer to prevent hypothermia and keep the baby on the mother chest. Moreover, keeping the baby with his mother increase the mother self-esteem and calm the baby and relieve stress as the baby smell the oil secreted from the mother Montgomery glands which a located in her areola and it's smell same as the Vernix Caseosa sounding his skin and he used to smell it when he was at the mother womb so he start to feel secured. Many are still attached to his mother. Rey and Martinez in 1978 are the 1st once to implement STS.

Healthy newborns exhibit their unique, instinctive characteristics as rooting and sucking when they have STS contact with their mother right away. Mother-infant skin-to-skin contact results in an increase in the mother child's verbal and tactile interaction, which in turn stimulates the baby's body and promotes the growth and development of the baby's feeding and nutritional habits. Consequently, the baby latches onto her or his mother's breast, learning to suckle and start feeding itself as well as the mother milk hormones stimulated by the STS, and it improve milk flow. There is a relation between STS and established a successful breastfeeding (Karimi et al. 2019.)

5.2 Education for the health care professional

Health care workers are responsible for supporting, protecting, and promoting breastfeeding among mothers in antenatal period, and postnatal period as well, breastfeeding consultation and babies' nutrition is important as the scheduled immunization follow up and baby assessment because babies' nutrition considered as a cornerstone for his well-being and protect from a lot of disease. As the same time health workers should empowered with the information about breastfeeding and got a proper training and education from the municipality and the ministry of health, especially the health worker who work with mothers and child health. Implementation the "Ten steps to successful breastfeeding". (WHO 2017.) to promote and support breastfeeding and implement Baby Friendly Hospital Initiative (WHO 1991).

Breastfeeding education and consultation should be provided to mothers during pregnancy to educate mothers about all about breastfeeding and to be prepared for a successful breastfeeding journey and to relive any stress, during delivery in labor room to facilitate skin to skin and early breastfeeding initiation and post-natal period, to address any difficulty and to solve it. Sadly, it has been observed that the health services provided to patients separately, in another word health worker should work together in a multidisciplinary team to support patients, and this give patients a secured feeling that all the team is working together for the best to the patient. (Almeida 2015.)

According to the WHO (2017) recommendation for healthy baby should be exclusive breastfeed till 6 months of age, and then start complementary feeding along with breastfeeding till two years and beyond (WHO 2017). But the rate of exclusive breastfeeding is low, and this is because the lack of knowledge, attitude, and practices (KAP) of health care provider toward breastfeeding, and training

the staff is the best way to improve KAP and to increase the exclusive breastfeeding among mothers. (Al Rifai et al. 2023.) It obvious that the proper health teaching about breastfeeding need a well-trained staff, but also other factors may impact on providing teaching such as lack of time, so alternatives can help such as peer support group under the supervision of a well-trained health workers (Modjajdji, Seabela, Ntuli, Madiba 2023).

The most important reason why training health care provider about breastfeeding is important, that some health worker themselves have wrong information and may spread it to mothers, so teaching staff 1st, then they consult mothers. Also, health professional may break the International Code of Marketing that set by that protect breastfeeding practice, and this is by promoting for formula milk or giving wrong information to mothers (WHO 2017.)

6 CONCLUSION

6.1 Considerations of the results

This study aimed to find the answer for the research question of "The role of health professionals in promoting and supporting exclusive breastfeeding in Finland". Previous studies have shown the importance of breastfeeding for baby, mother, community and globally that there are many factors that could affect its success and how health care providers promote for exclusive breastfeeding. The study concludes that breast milk is the optimal nutrition for newborn baby from 1st day of life till 6 months of age, and then start complementary feeding along with breastfeeding till two years and beyond (WHO 2021.) Finnish maternity hospital should focus on the crucial role of the health care provider in promoting and increase the rate of exclusive breastfeeding in Finland (Hannula, Kaunonen & Puukka 2014; Hänninen & Rautava 2019; Hakala et al. 2021).

Health care providers have a great role in promoting, protecting, and counseling for breastfeeding, by teaching mothers through a well-prepared health teaching program including antenatal, prenatal, and postnatal period (Kuhnly 2018; Mallick et al. 2020). Maternity hospitals should be a friendly and encouraging atmosphere for breastfeeding through empower the health professional with the knowledge and information about breastfeeding ,and so their attitude toward breastfeeding improved and the implementation of the "Ten steps to successful breastfeeding" (WHO 2017), and the implementation of BFHI and NEO-BFHI, which significantly increase the rate of the exclusive breastfeeding and solve the breastfeeding related problems (Mäkelä et al. 2022), educate mothers to adopt the behavior of STS immediately after birth (Karimi et al. 2019). Early initiation of breastfeeding, the importance of the early breast milk expression for premature baby and NICU babies (Huang et al. 2020).

6.2 Ethicalness and reliability

This study was conducted in accordance with ethical research guidelines (Kananen 2011; Finnish Advisory Council for Scientific Integrity TENK 2012). The Finnish University of Applied Rec-tors' Conference It was examined, and the knowledge used to Sciences Arene (2020).

I exclusively used reputable, trustworthy, and morally sound databases and books that were readily available. as sources for the research materials at school. But it's important to high-light a few of the several potential shortcomings in the study, namely the limited number of publica-tions examined. The cause of reason is that there are still few high-caliber research publica-tions from the area because of inadequate of the funding of studies. One other issue is that sev-eral study publications that are now available on this topic contain incomplete or inaccu-rate data sets. This study used mostly recent and relatively high-quality review articles. Data collec-tion methods in the articles were covered in this review. Additionally, this is just a bachelor's thesis and so has a limited scope.

6.3 Professional growth

This thesis is a literature review, and it is a new experience for me, I have learned a lot while working on it. I gain a lot of information and knowledge and skill about the science of writing a literature review as the workflow processes used in scientific studies (Savonia University of Applied Sciences Curricula 2023).

I have learned the way to collect data in a scientific way, how to recognize the most important parts in the article such as the result and the conclusion, and to have the critical way of thinking in making the summary of the articles in a logic way. Also, I have learned a lot from my supervisor and her guidance, I believe that this will help me in my practical life as a registered nurse.

6.4 Applicability and development ideas

The main purpose of this study is to show the importance of exclusive breastfeeding and the role of health professions to promote and support breastfeeding rate in Finland. The results revealed that to improve exclusive breastfeeding rate there are two main things, which are firstly the implementation of BFHI. (Mäkelä et al. 2022.) The implementation of "Ten steps to successful breastfeeding" (WHO 2017) and secondly to educate and train the health care providers (Moussa, Aissata & Hamelin 2010; Al Rifai et al. 2023.)

Premature babies need breast milk because it contains antimicrobial and anti-inflammatory elements that suit their weak immune systems. Health education programs play a significant role in educating mothers about the importance of starting breastfeeding early and providing STS immediately after birth. (Huang et al. 2020.)

When staff trained and educate well, they got the positive attitude toward breastfeeding, and show improve in breastfeeding related problems (Malick, Rukundo, Benedict & Wenjuan 2020; Al Rifai et al. 2023.) Nurses also got understanding that it is their role to facilitate and support mother to do skin to skin immediately after birth because its significant impact in improving breastfeeding and increase mother milk flow (Karimi et al. 2019).

Hoping that when a student read this study and go through the results got a better understanding about the benefits of breastfeeding, and the role of health professions especially nurses, and importance of adhering to the (WHO 2017) recommendations and the implementation of the ten steps for successful breastfeeding and improve the ways of antenatal and postnatal breastfeeding teaching program to mothers to facilitate the process of breastfeeding (Kukkonen & Rautava 2018).

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APPENDIX 1. SELECTED ARTICLES

Author, title, country, and year of publication	Purpose	PARTICIPANTS	Study design	Main findings
1-Maternal psychological distress and lactation and breastfeeding outcomes EM Nagel 2022	Comprehensive strategies to decrease maternal psychological distress, as well as policies that focus on dismantling structural barriers to breastfeeding, may improve breastfeeding outcomes.	Systematic review		Comprehensive strategies to decrease maternal psychological distress, as well as policies that focus on dismantling structural barriers to breastfeeding, may improve breastfeeding outcomes.
2-The effect of mother-infant skin to skin contact on success and duration of first breastfeeding Fatemeh Zahra Karimi,2019 Taiwan J Obstet Gynecol	Mother-infant SSC after birth has beneficial effects on breast-feeding and can increase the success rate and duration of the first lactation	Meta-analysis and systematic review	Randomized clinical trial and quantitative	The reviewed papers in this systematic review and meta-analysis showed that mother-infant skin to skin contact increases the success rate and duration of the first breast-feeding, and hence it is the best provider of post-natal care for the infants.
3-Healthcare professionals' breast-feeding attitudes and hospital practices during delivery and in neonatal intensive care units: pre and post implementing the Baby ... H Mäkelä, A Axelin, T Kolari, T Kuivalainen, H Niela-Vilén Journal of Human Lactation, 2022. Journals.sagepub.com	To determine healthcare professionals' breastfeeding attitudes and hospital practices before and after the implementation of the Baby-Friendly Hospital Initiative.	quasi-experimental pretest–post test study design	quasi-experimental pretest–post test study	We found significant improvements in the breastfeeding attitudes of healthcare professionals and in breastfeeding-related care practices.
4-Facility readiness and counseling during antenatal care and the relationship with early breastfeeding in Haiti and Malawi LiPublished online 2020 May 29. doi: ndsay Mallick, Rukundo K. Benedict, and Wenjuan Wang	The aim of this study is to first describe the breastfeeding-related service environment including facility readiness, provider training, and the delivery of services during ANC in Haiti and Malawi. Second, this study links nationally representative health facility data from Service Provision Assessment (SPA) surveys with household-based Demographic and Health Surveys (DHS) data to assess the relationship between the breastfeeding-related service environment and EIBF.)	literature review	literature review observational	Initiation of breastfeeding within the first hour of birth has prodigious benefits for newborn health and survival, and counseling on breastfeeding during ANC can promote this behavior.

<p>5-Knowledge, attitudes, and practices of pediatricians in relation to breastfeeding support: A national survey in Lebanon H Al Rifai, H Shatila, L Nasreddine, N Yazbeck, T Kabakian-Khasholian, L Itani, F Naja Plos one, 2023. Journals.plos.org</p>	<p>Examine the knowledge, attitudes, and practices (KAP) of Lebanese pediatricians in relation to supporting BF.</p>	<p>literature review Data collection was conducted using an online survey sent via email</p>		<p>efforts are needed to address these KAP components in order to have good knowledge, positive attitudes, and good practices. Hence, it is advised to design multi-component interventions that improve the knowledge related to BF, highlight the importance of acquiring positive attitudes towards BF, and equip the pediatricians with the necessary skills to exhibit BF-friendly practices.</p>
<p>6-Support of breastfeeding by health professionals: integrative review of the literature J.M. Almeida JM Almeida, SAB Luz, FV Ued Revista paulista de pediatria, 2015. SciELO Brasil</p>	<p>To review the literature to evaluate how health professionals promote and support breastfeeding.</p>	<p>literature review</p>	<p>literature review</p>	<p>Health professionals need to be better trained to work on promoting breastfeeding, whether by health and medical schools or by healthcare administrators, in order to consolidate multi professional teams committed to maternal-infant health.</p>
<p>7-Breast-feeding support in Ireland: a qualitative study of health-care professionals' and women's Published online by Cambridge University Press: 01 December 2014 John M Kearney Barbara Whelan and DOI: https://doi.org/10.1017/S1368980014002626</p>	<p>To examine women's experience of professional support for breast-feeding and health-care professionals' experience of providing support.</p>	<p>literature review</p>	<p>semi-structured qualitative interviews</p>	<p>There is a need for training around breast-feeding for all health-care professionals</p>
<p>8-A study to promote breast feeding in the Helsinki Metropolitan area in Finland LS Hannula, ME Kaunonen, PJ Puukka - Midwifery, 2014</p>	<p>the aim of this study was to assess the impact of providing intensified support for breast feeding during the perinatal period.</p>	<p>literature review</p>	<p>Quasi-experimental design with non-equivalent control group.</p>	<p>Intensified breast-feeding support was linked to higher exclusive breast-feeding rates, and a Baby-Friendly approach</p>

				aimed at empowering parents
9-Missed opportunities in the outpatient pediatric setting to support breastfeeding: Results from a mixed-methods study MM Ramos, RA Sebastian, E Sebesta... - Journal of pediatric ..., 2019 New Mexico	providers play a crucial role in the promotion of breastfeeding. We conducted a mixed methods study to measure provider knowledge, attitudes, and current practices around breastfeeding counseling.	survey	The study design was cross-sectional.	Our results highlight a need for targeted outpatient pediatric provider education around optimal support of breastfeeding, especially when mothers are taking medications, have an infectious disease or concern about substance use, or will return to work or school in their child's first year of life.
10-Promotion of early breast milk expression among mothers of preterm infants in the neonatal ICU in an obstetrics and gynaecology hospital: a best practice ... X Huang, J Zhang, F Zhou, Y Yang... - JBI Evidence ..., 2020 Australia	It is important to adopt strategies to promote early, frequent and effective expression of breast milk	The JBI Practical Application of Clinical Evidence System and Getting Research into Practice audit and feedback tool were used in this project. Questionnaire surveys and interviews were used for baseline and follow-up audits.		The current project has demonstrated that the implementation of evidence-based practice was effective in promotion of early breast milk expression among mothers of preterm infants in the neonatal ICU. The role of a nurse specialist in breastfeeding, involvement of multidisciplinary staff and utilization of online