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# **Advantages of Breastfeeding for both Infants and Mothers**

A LITERATURE REVIEW

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**Thesis abstract**

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This thesis was conducted by Seinäjoki University of Applied Sciences in collaboration with Health Africa. The purpose of the thesis is to review evidence-based knowledge of the benefits of Exclusive Breastfeeding (EBF) for both mothers and babies. The aim of this research is to increase maternal knowledge and awareness of the importance of exclusive breastfeeding. This study also explains the important role of professional support in improving breastfeeding duration and practice among breastfeeding mothers. The knowledge of the importance of breastfeeding, counseling, and education provided by nurses and midwives is the most effective way to assist mothers in continuing to breastfeed exclusively.

The material was searched from CINHALL (SeAMK Finna), PubMed, as well as Google search engine. CINHALL and PubMed are widely used articles with publication dates ranging from 2010 to the present, and the research methodology used in all of them was a literature review with content analysis. Data has been collected in English and includes the major keywords.

Exclusive breastfeeding practices remain low, even though it has numerous health benefits for both mothers and children, due to the unpredictable complexity mothers and children may experience during the exclusive breastfeeding period. Our results provided current evidence-based knowledge on the advantages of breastfeeding and acknowledges all mothers who are still unaware of the benefits of breastfeeding. Our study also explains expert recommendations on the effects of breastfeeding.

Keywords: exclusive-breastfeeding, advantages, breastfeeding knowledge, position, lactating, demographic factors, professional support

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## **Terms and Abbreviations**

**ANC: Antenatal clinic**

**BFIH: Baby friendly initiative hospital**

**EBF: Exclusive breastfeeding**

**MOH: Ministry of Health**

**MTMSG: Mother to mother support group**

**UNICEF: United Nations' Children's Emergency Fund**

**WHO: World Health Organization**

# 1 INTRODUCTION

Breastfeeding is generally accepted as a natural and phenomenal method of baby feeding due to potential health advantages for both the infant and the mother. Breastmilk contains essential nutrients such as proteins, vitamins, and carbohydrates. However, the presence of minerals serves micronutrient requirements, and maternal antibodies strengthen the immune system, inhibiting infantile infections such as gastrointestinal, respiratory, and skin infections, as well as increasing the baby's physical and neurological development (Mosca & Gianni, 2017). In terms of maternal wellbeing, a background of lactation has been associated with a reduced risk of type 2 diabetes, and breast and ovarian cancer. Exclusive breastfeeding reduces the mother's workload, by saving her time and energy. It also reduces risk of hip fractures and osteoporosis in the postmenopausal period. (Noella, 2017)

The World Health Organization (WHO) recommends that children be breastfed exclusively until they are six months old, a practice known as exclusive breastfeeding (EBF), and that breastfeeding be an integral part of the child's diet until the child is at least two years old. (WHO 2020) Breastmilk contains many immunological properties that can protect against infection in infancy. Infections can also occur in people who do not exclusively breastfeed and are exposed to potentially contaminated bottles, milk substitutes, and other food that is not suitable for the infant stomach. These factors may lead to an increased risk of chest infection and diarrhea in infants who were never breastfed than those who were EBF for at least 4 to 6 months. (Quigley et al. 2016)

However, breastfeeding remains difficult for many mothers and infants, particularly those whose babies are physically ill, and those mothers have physical and social challenges. Early initiation rates remain relatively low in many high-income countries, especially among lower-income women. Many women in low- and middle-income countries do not meet World Health Organization advice to start breastfeeding within the first hour after birth. (Balogun et al. 2016) Many studies show that few mothers practise exclusive breastfeeding and implement the proper breastfeeding techniques during this period of lactation. This study focuses on increasing maternal knowledge and awareness of the importance of exclusive breastfeeding. (Al-Binali, 2012) The knowledge of breastfeeding importance, counselling, and education by nurses on proper positioning and coping techniques is an ultimate way to continue exclusive breastfeeding. (De Jager et al., 2013)

The purpose of this thesis is to review evidence-based knowledge on the benefits of exclusive breastfeeding (EBF) for both mothers and babies. This thesis will be conducted by Seinäjoki University of Applied Sciences in collaboration with Health Africa. The aim of this research is to increase maternal knowledge and awareness of the importance of exclusive breastfeeding and to acknowledge all mothers who are still unaware of the benefits of breastfeeding in developed countries. This study also explains the role of professional support to improve breastfeeding duration and practice among breastfeeding mothers.

## 2 THEORETICAL BACKGROUND

### 2.1 Exclusive Breastfeeding

Early breastfeeding, identified as breastfeeding within one hour of birth, is known to be one of the primary strategies to increase child survival and end preventable neonatal and infant deaths. Immediate skin to skin contact is crucial in promoting early initiation of breastfeeding. It helps to control the temperature of the body in the new-borns, and thereby ensures their survival. The maternal benefits of early breastfeeding are those that make the uterus contract and thus decrease the risk of postpartum hemorrhage. (Berkat & Sutan, 2014) After early breastfeeding, mothers are recommended to start exclusive breastfeeding for at least six months (WHO 2020).

Exclusive breastfeeding has been prevalent globally. Most lactating mothers fail to breastfeed their new-born exclusively during the first six months. Some introduce food to their babies early before completing the first six months after giving birth, while some supplement breastmilk with other solid or liquid foods during the first six months. The World Health Organization recommends that women should exclusively breastfeed their infants within the first six months. (WHO 2020)

Breastfeeding practices are influenced by the level of income for both the household and the country. Low-income countries are often associated with a high breastfeeding rate, while a low breastfeeding rate is prevalent in high-income countries. This variation is evident even between social groups in a country depending on the wealth possessed by a family. Low-income families from high-income countries also practice breastfeeding, especially exclusive breastfeeding, which the WHO and UNICEF highly recommend. (DeVane-Johnson et al. 2018)

Low exclusive breastfeeding rates are primarily associated with malnutrition-prone countries, such as Somalia. In Somalia, approximately 13% of new-borns are exclusively breastfed due to the poor feeding habits surrounding the environment. However, Africa has a high breastfeeding rate but with poor breastfeeding techniques. Most mothers from Africa like feeding their new-born with water and other liquid foods within the first six months after birth. Exclusive breastfeeding is less practiced within African countries, especially in West African



countries. Some countries record a high practice rate of bottle-feeding, especially in Nigeria, Sudan, Tunisia, and Namibia. (Jama et al., 2020)

A study conducted by Shommo and AL-Shubrumi (2014) in Saudi Arabia shows that the limited maternal awareness of breastfeeding may adversely affect infants due to infants not having enough milk that they are supposed to get from their mothers. The research discovered that mothers have insufficient general knowledge of breastfeeding, such as (31.2%) describing that breast milk contains good immunity power that protects the infant against diseases, and some mothers only know about one or two health benefits of breastfeeding, while 16.7% of mothers did not know any health benefit from breastfeeding. Another research in Saudi Arabia by Al-Binali (2012) points out that inadequate awareness and inappropriate breast-feeding practices can adversely affect the health of both the child and the mother.

West Africa has low records of breastfeeding, especially exclusive breastfeeding, influenced by a range of factors. The main factor is the knowledge gap of lactating mothers on breastfeeding, and other minor factors include physical changes, such as sagging breasts and inability to balance breastfeeding with work. WHO records that high infant mortality within five years after birth is caused by a low breastfeeding rate in the first six months after birth. This is because most children become prone to infections and die due to low immunity. (WHO 2020)

Another research found that African American people had a low rate of exclusive breastfeeding due to cultural influence, and it shows that culture also influences breastfeeding practices around the world. In a research that included the choice of breastfeeding practice for African American, Hispanic, and Non-Hispanic white mothers showed that African American women did not breastfeed their new-born, especially with exclusive breastfeeding. (DeVane-Johnson et al. 2018)

According to Nguyen et al. (2013), a study conducted in Vietnam, the lack of the understanding among the mothers and a lack of a positive environment may lead to poor breastfeeding practices. One third of babies do not receive breastmilk within one hour of birth, and about one fifth of children are breastfed exclusively for the six months of life. Evidence indicates that pre-lacteal feeding, such as providing food or liquid to new-borns before breastfeeding is practiced or before breastmilk "flows in" is one most common reason for babies not having sufficient mother's breastmilk. This is a significant contributor to sub-optimal breastfeeding practices in Vietnam due to limited maternal knowledge.

Garg et al. (2010) described that maternal knowledge of early breastfeeding is important because it has a significant effect on the behavior and activities of the mothers. Globally, improved maternal awareness of breastfeeding advantages and resources has been shown to help improve breastfeeding rates, particularly early breastfeeding initiation in rural areas in Punjab, India. Previous research showed that among mothers, early breastfeeding awareness was insufficient. Sufficient maternal awareness is one of the considerations that may influence breastfeeding plans and practices.

Early initiation of breastfeeding benefits for both mothers and child rates are poor. Globally, only 42 percent of new-born were breastfed within one hour of birth in 2017, an improvement from 37 percent in 2005. Various factors have been involved with early breastfeeding. They include cultural practices, for example, providing pre-lacteal feeding, antenatal treatment, delivery at a Baby friendly hospital (BFH), mode of delivery, use of trained birth attendants and the number of infants. (Berkat & Sutan, 2014)

## **2.2 Postnatal Motherhood**

Breastmilk is the natural food for infants for the first six months of life after a baby's birth. Breast milk provides the necessary nutrients that an infant requires to grow strong and healthy. Children who are primary breastfed have fewer infections or serious illnesses, and mothers' benefit from prolonged amenorrhea. Breastfeeding is one of the most effective ways to promote child health and bond the child and the mother together. (Mbada et al., 2013)

According to Shukir and Ghareeba (2020), the most important factors contributing to a mother's decision to begin breastfeeding are the child's wellbeing, naturalness, and social attachment. The main factor for starting bottle feeding is that the mother is concerned about the amount of breast milk that the child will get. The education of the mother and the family, including father and grandmother through health providers, on the benefits of breastfeeding, will have a positive effect on the number of mothers who want to breastfeed. It would be more helpful to address these during the first trimester of pregnancy. Further research is needed to determine the effect of a strong, concentrated, instructional program on improving breastfeeding rates.

There are many reasons why mothers are forced to stop breastfeeding, including mental stress, lack of encouragement from family, community and health providers, poor breastmilk production, cracked or sore nipples, breast engorgement and fear while breastfeeding in public.

Some of these issues need further study for health providers to consistently provide adequate antenatal advice and assistance. The main obstacle to EBF practice is the assumption that breastmilk alone is not adequate to satisfy the nutrition needs of infants. This is well noted in previous literature. This may be due to the failure of mothers to differentiate "hunger cries" from other baby cries. (Diji et al. 2016)

Moreover, mothers who did not receive formal schooling or who attended primary schools are found to be less likely to exclusively breastfeed their children than mothers who completed middle school or higher. (Jama, 2020) The Jama (2020) study found that this may be attributed to the role of education in raising awareness of exclusive breastfeeding and encouraging health-seeking activities such as going to antenatal clinic appointment.

However, the adjustment to motherhood can be a challenge. Mothers may be unprepared for the intensity of their child's care and may experience fear, shock, and even sadness, because breastfeeding practices are completely new to mothers who have had a baby for the first time. For several, this is exacerbated by loneliness. In western culture, it is common for the family to take care of the mother after birth, and let them relax and rest, whereas new mothers in western society are frequently almost entirely responsible for baby care, leaving them stressed. In addition, low maternal self-efficacy is associated with increased understanding of inadequate breastmilk. However, feelings of depression and anxiety can interfere with the ability to breastfeed. Postnatal stress mothers are more likely to experience worse feelings with newborns such as being less sensitive to touch and breast handling, which can contribute to breastfeeding problems. (Brown, 2017)

According to Brown (2017), one of the reasons for breastfeeding cessation is the use of formula milk. the international code of marketing of breastmilk substitutes provides for a code prohibiting the advertisement of breastmilk substitutes for infants under the age of 6 months. This code must only be enforced if it is written in the legislation of individual countries.

Maternity leave, short and unpaid maternity leave, is another reason for early cessation of breastfeeding. However, increased paid maternity leave is associated with a longer period of breastfeeding and the amount of paid leave varies greatly, supporting mothers to eventually return to work and ensuring that workplace rules such as allowing breaks in the workplace to support continuous breastfeeding across all forms of work is vital. (Brown, 2017) It would be

helpful to receive training on how to use a breast pump and how to create a breastfeeding friendly work environment. (Diji et al. 2016)

According to Daou, Tamim & Nabulsi (2020), mothers who stop early exclusive breastfeeding their children will likely develop health problems such as admission to the Neonatal Intensive Care Unit and jaundice, as well as more maternal health issues. More babies were confirmed to have reflux, heart attacks, or viral infections between the second and third weeks, with some requiring hospitalization.

A study conducted in China by Yang, Brandon & Lu (2019) showed that preterm mothers who are separated from their infants faced significant problems, such as insufficient milk supply, breast engorgement, delayed milk supply initiation, and breastfeeding failure. Breastfeeding mothers most express milk until their babies are discharged from the neonatal unit of hospital. Because hand and breast pump expression are not as effective at stimulating and sustaining a milk supply as suckling a child at the breast, most mothers fail to develop and sustain a sufficient milk supply during their baby's hospitalization. Isolation of mothers from their babies in Chinese neonatal units is a major barrier to breastfeeding initiation.

Bhat, Raddi & Sawant (2019) described that most mothers do not know about the proper breastfeeding strategy. This may lead to numerous insightful complications in infants and lactating mothers. This includes insufficient baby feeding, altered development, oral thirst, proper milk secretion, insufficient feed, and nipple problems.

According to Garner et al. (2014), there can also be physical difficulties either unique to breastfeeding mechanics or general challenges to obesity, which have been more frequently addressed. Large breasts, particularly massive pendulous breasts, were the most common physical challenge. Flat nipples or inability to see the nipples presented additional difficulties, especially for leaching. In addition, placing the baby to the breast can need support from others.

The appropriate position, latching of the baby to the areola and relaxation for both the mothers and the baby are essential of the comprehensive breastfeeding technique. Numerous tactless positioning techniques are recognized, and most mothers are able to accept the skilled role. The most common breastfeeding position is cradling, which can be painful, especially in primipara Caesarean sections. Proper nipple alignment and latching decreases friction and discomfort, minimizing tender nipples. To continually improve the effects of successful

exclusive breastfeeding, new mothers need satisfactory details on the breastfeeding methods. (Bhat, Raddi & Sawant, 2019)

Gebremariam et al. (2021) performed a cross-sectional analysis and reported that breastfeeding is the responsibility of mothers, but the participation of others, particularly their families, is a significant determinant. The knowledge of breastfeeding importance, counselling, and education by nurses on proper positioning and coping techniques is an ultimate way to continue exclusive breastfeeding. (De Jager et al., 2013)

### **3 GOAL AND PURPOSES OF THE THESIS**

The purpose of the thesis is to review evidence-based knowledge of the benefits of exclusive breastfeeding (EBF) for both mothers and babies. The aim of this research is to increase maternal knowledge and awareness of the importance of exclusive breastfeeding.

This research will also illustrate how skilled support can help mothers understand the benefits of breastfeeding and raise breastfeeding knowledge. The research questions are as follows:

#### **RESEARCH QUESTIONS:**

What are the advantages of breastfeeding for infants?

What are the advantages of breastfeeding for the mother?

## **4 DATA COLLECTION METHOD AND ANALYSIS**

### **4.1 Review of Literature**

Literature reviews are highly demanded in most research areas. Their requirement derives from the continuously increasing production of scientific journals. The literature appraisal requires the ability to communicate with activities, from the selection and examination of suitable resources to knowledge synthesis from various sources, from analytical thought to paraphrasing. (Pautasso, 2013)

There are several purposes for writing something which will impact the duration and style of study, but a research study is generally a rigorous evaluation of existing collective knowledge on a subject. Instead of simply compiling everything that has been written, a literature review should be an insightful, personal, and comprehensive analysis of the evidence, offering a holistic view that provides an informative, personal but unbiased description of the findings. (Winchester & Salji, 2016)

According to Hannah (2019), the instructions for certain areas may serve as the foundation for the growth of expertise, establish policy and practice guidance, include proof of impact, and if well done, have the potential to produce new ideas and innovations.

#### **4.1.1 Data Collection**

There are many approaches to data collection in qualitative research. This thesis focuses on obtaining data from existing peer-review nursing articles, online sources, relevant thesis, as well as other sources. The information was searched by using primary databases like EBSCO (CINAHL), OVID (MEDLINE) and PubMed. The initial search for the research topic was done by using these different databases. The information was extracted by using different key words. The articles provided relevant background information and a foundation for developing research questions. Articles were selected only if available in full text, empirical research, peer reviewed, and published in English. The articles published only within 10 years have been selected. The data was collected using various key words, such as Breastfeeding, Exclusive breastfeeding, Breastfeeding practice, Breastfeeding challenge, Breastfeeding technique, Breastfeeding initiation, Breastfeeding benefits, and Professional support. The data collection

process was carried out in stages, as seen in Figure 1. The outcomes were reported and evaluated at any point. For the relevant studies, full text publications from 10 articles that matched the inclusion/exclusion criteria. Each article was reviewed independently by the two researchers, as explained separately in Appendix 1.

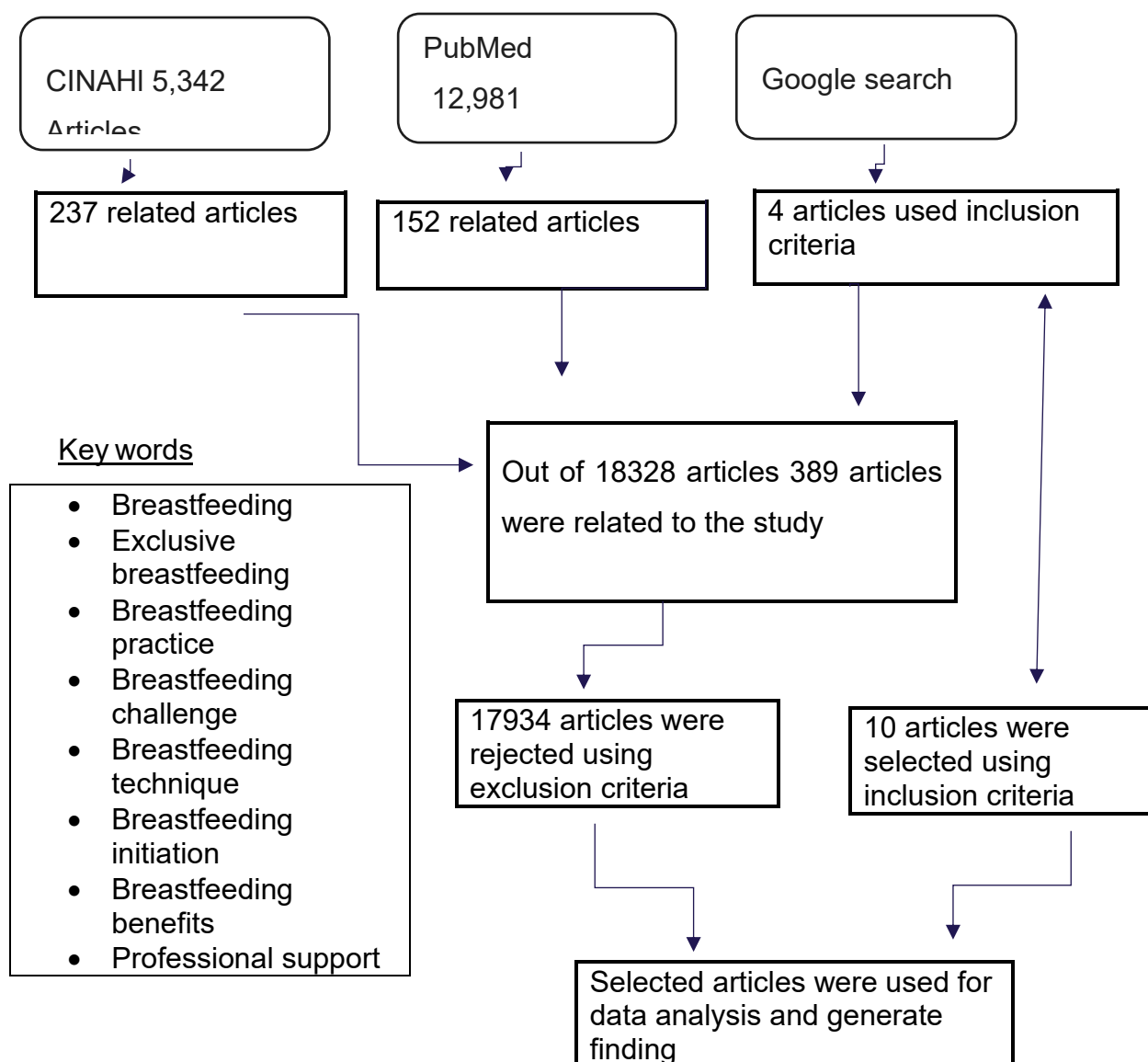


Figure 1 . Flow chart of methodology

#### 4.1.2 Inclusion and Exclusion Criteria

The article search process was extensive, as many of the articles required payment, membership, or login information to be accessed. The articles were searched using keywords



and collected those that matched the context and extracted those that were out of the subject. Those articles that provided the necessary context material and the basis for addressing research questions were selected if they were available in full text, empirical analysis that has been peer-reviewed and published in English. Consideration has been given to those articles that have been published only within 10 years.

<b>Inclusion criteria-</b>	<ul style="list-style-type: none"> <li>• Scientific article</li> <li>• Full text article</li> <li>• written in English</li> <li>• Published in 2010 and after</li> <li>• Applicable to Nursing and breastfeeding context</li> </ul>
<b>Exclusion</b>	<ul style="list-style-type: none"> <li>• Non-Scientific article</li> <li>• Not in full text article</li> <li>• Language other than English</li> <li>• Published before 2010</li> <li>• Not applicable to Nursing and health care</li> <li>• Not related to breastfeeding</li> </ul>

*Figure 2 . Inclusion and exclusion criteria*

## 4.2 Data Analysis

The data analysis methodology in our study was based on an inductive content analysis method. Inductive content analysis is a qualitative data analysis method, in which previous

knowledge of the research topic is limited and the data often explicitly draws codes, categories, or themes (Cho & Lee, 2014). The content review process includes three major phases: planning, coordination, and presentation of findings. The stage of preparing consists of collection, sensing and sorting relevant information for the interpretation of material. The organization methods include transparent scripting, logical creation, and integration. The results are interpreted during the reporting period using inductive techniques in the form of sections that describe a condition. (Elo et al. 2014)

Meanwhile, words and terminology such as exclusive breastfeeding, early initiation, baby nutrition, breastfeeding technique, health benefits for mother and baby, growth and development, and wellbeing, among others, were either written in the paper or underlined as they were read. Following the coding of information containing words and terms was collected as a separate subcategory. The related subcategories were given a general heading that was selected to belong to generic categories. Following that, all the generic categories were related to the main category, which was our research subject.

Figure 3 illustrates the methods of categorizing all the materials included in the literature review. Our research topic was in the main group. The key category contained was divided into two general categories: advantages for mothers and advantages for babies. This is further subdivided into different themes and findings.

Breastfeeding advantages	Advantages for baby	<ul style="list-style-type: none"> <li>• prevents long term diseases.</li> <li>• Satisfactions, bonding</li> <li>• worked as family planning methods, delay ovulation.</li> <li>• prevents breast and ovarian cancer.</li> </ul>
	Advantages for mothers	<ul style="list-style-type: none"> <li>• strengthen the infant's immune system.</li> </ul>

		<ul style="list-style-type: none"><li>• high nutritious value</li><li>• physical and emotional wellbeing</li><li>• growth, development, and metabolic control</li></ul>
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*Figure 3 . Data Analysis Process*

## 5 FINDINGS

### 5.1 Advantages of Breast Feeding for the Infants

Breastmilk contains live antibodies that support an infant's immune system. This is due to the milk's high nutritional value of proteins, fats, probiotics, and carbohydrates. Also, antibodies aid in the fight against germs and viruses. When a lactating mother gets exposed to germs, her antibodies activate and pass these antibodies to the new-born through breastfeeding. When the infant develops these antibodies, he or she becomes immune to subsequent viruses and germs. Therefore, a child fed with exclusive breastfeeding is less prone to infections such as ear infections, gastrointestinal infections and reflux, constipation, diarrhoea, and many others. (Brahm & Valdes, 2017)

Breastfeeding has a positive impact on many aspects of a child's physical well-being, such as decreased risk of diarrheal and gastrointestinal infections and asthma, as it remains controversial with other supposed benefits, such as whether breastfeeding offers security against paediatric obesity. (McCrorry & Murray, 2013)

Breastmilk is necessary to compensate for developmental deficits in neonatal immune function and to decrease intestinal permeability for early fetal life (Dieterich et al. 2013). Additionally, breastmilk has a high nutrition value for the child and aids in healthy growth. Breastmilk has a nutrition content that facilitates brain maturation. It has a vitamin component called choline that initiates an infant's brain development. As a result, a child who is exclusively breastfed gains a large amount of choline, which improves cognition and memory. Many studies show that breastmilk can be related to a high intelligence level later in a child's life. It also boosts the infant's general growth by strengthening jaws and bones. (Hallowell & Spatz, 2012)

According to Zielinska, Sobczak & Hamulka (2017), breastmilk has long term benefits for the infant, such as preventing chronic diseases, allergies, cardiovascular diseases, diabetes, among others. Female infants have an added advantage when exclusively breastfed because they develop strong immunity against breast and ovarian cancer, while generally all infants are protected from blood cancer. Besides, infants become less prone to cardiovascular diseases, such as blood pressure. They also become immune to respiratory problems, such as asthma and allergies.

Moreover, other health benefits include immunity against jaundice and obesity. Jaundice is a disease that manifests by yellow skin and eyes. First-time breastmilk contains colostrum, which can help prevent yellowing of skin membranes by giving the newborn a soothing feeling that lowers jaundice risks. On the other hand, breastmilk reduces an infant's chances of becoming obese both in childhood and adolescence. Research shows that exclusively breastfed children are well prevented from obesity, especially later in 3 years. (Zielinska, Sobczak & Hamulka, 2017) This is because breastmilk has good nutritional content, which is the right amount for an infant to digest. Lastly, breastmilk has an advantage because it is readily available when the newborn needs food. It has the right temperature, and its nutritional value is not altered because it is natural. Additionally, it provides the right calories, which the infant requires in early months. Therefore, it is difficult for a well-breastfed infant to develop a shortage in nutritional components in the early years of life compared to a non-breastfed newborn. (Zielinska et al. 2017)

According to Gholampour, Riem, and van (2020), the postpartum period is an important time for a mother to form a good bond with her baby. Changes in the maternal brain may be vital for all mothers to make them ready to accept their new role as a mother and build a strong relationship with the baby. A well-breastfed child is likely to develop strong, healthy social relationships with others. According to Hallowell & Spatz (2012), well-breastfed infants have low development of psychological and behavioral problems that influence their social life. Infants that are exclusively breastfed grow up more maturely and are assertive when growing among other children. Psychological issues are those that affect our thinking and general behavior.

Whereas the relationship between breastfeeding and child behavior could not be tested in the research, another study shows that mothers breastfeeding their infants leads to an improved maternal and baby connection, giving peace of mind to the child by skin-to-skin contact with the mother. (Couto, Dias & Oliveira 2020)

## **5.2 Advantages of Breast Feeding for Mothers**

Breastfeeding is an activity that can only be shared by a mother and her infants. Because of the close physical relationship between mother and child, infants who are breastfed receive not only the best nutrients, but also the best parenting from their mother. When breastfeeding

goes well, maternal wellbeing is uniquely enhanced. However, breastfeeding remains difficult for many mothers with infant relationships, particularly those whose babies are born prematurely. (Lau, 2018)

Breastfeeding has long-term effects on the mother. It prevents long-term diseases such as reproductive cancers, heart diseases, diabetes, osteoporosis, and rheumatoid arthritis. According to research, women that give birth have a reduced risk of breast cancer and other cancers. Besides, it prevents endometrial and ovarian cancer in exclusively lactating women because it prevents ovulation. Studies suggest that the longer the nursing period, the higher the chances of preventing these cancers because breastfeeding will prevent the release of hormones that promote these cancers. Breastfeeding also reduces the risk of thyroid cancer in lactating mothers. (Britt, Cuzick & Phillips, 2020)

According to Schwarz & Nothnagle (2015), breastfeeding lowers the risk of cardiovascular diseases. Studies suggest that mothers who exclusively breastfed their newborns reduce the risk of heart diseases by 25%. It is because breastfeeding burns calories and fats, which may influence heart diseases by building up. One of the common cardiovascular diseases prevented by breastfeeding is high blood pressure, and this is because it balances existing sugar levels and reduces the effect of excess fats. Exclusive breastfeeding also decreases the risk of rheumatoid arthritis by 50%. This happens especially when a mother breastfeeds the newborn for the first two months and it lowers the risk by 20% when the infant is breastfed exclusively for the first six months. Lastly, it protects the lactating mother from type-2 diabetes by making insulin more available to all cells. Breastfeeding also increases bone density during the postpartum period, hence lowering the risk of osteoporosis. (Schwarz & Nothnagle, 2015)

## 6 DISCUSSION

Because health care services provide little adequate breastfeeding information during pregnancy and postnatal times, this study focuses on understanding the central role of nurses in educating women about awareness of breastfeeding skills and techniques, as well as the benefits of exclusive breastfeeding. Being a nurse and always dealing with women, babies, and families requires confidence to encourage, understand, and support. As a nurse, it is an obligation to provide clinical guidance, and follow-up with health providers while maintaining moral guidelines entailing research. However, mothers require assistance from a variety of sectors in order to reduce upcoming challenges and increase exclusive breastfeeding rates. Research findings conducted by different researchers point out the role of professional health care support in different parts of the world.

Evidence from China shows limited availability of health care professionals; hence the lactating mothers do not receive support when they need to establish and maintain their milk supply (Yang, Brandon & Lu, 2019). For instance, a research from Brown (2017) found out that assistance for breastfeeding during the antenatal and post-natal duration from professionally qualified, experienced workers is important. Many women, however, do not receive theoretical services from the health care providers who serve them. This is not due to a lack of participation, but an increasing pressure on midwives and health care visitors to take care of more women than their actual capacity and the time served.

According to Bäckström, Wahn & Ekström (2010), mothers begin to assume that the physical support of health care providers will help them and manage their prenatal anxieties and their changing role. On the other hand, they receive insufficient attention, and health care providers fail to follow up women's satisfaction with support because of women's psychological problems. Mothers describe clinical assistance unfavorably, with limited time and lack of availability. Previous studies have been conducted to explore whether a learning strategy within antenatal and child health care can increase maternal perception of support and enhance maternal feeling for the child.

A study by M 'LIRIA, Kimiywe & Ochola (2020) in Kenya discovered that mother to mother support groups (MTMSGs) are one of the community-based pathways to improving optimum breast-feeding ratio. This programme is made for breastfeeding, lactating mothers as well as caregivers who come together to encourage each other and learn more about baby and young

child feeding habits. Usually, a licensed facilitator or qualified member of a health care community worker is involved in this training program. Breastfeeding strategy is held by UNICEF to promote the exclusive breastfeeding rate worldwide. Mothers received breastfeeding instructions especially focused on exclusive breastfeeding, support for breast attachment to the baby, postures, rooming, and breastfeeding on child's demand.

A review by Chaput et al. (2015) suggests that child feeding decisions are a public rather than personal interest and conflict with the mothers' right to make those choices. However, the public health effort to encourage breastfeeding aims to deflect responsibility for the emotional and psychological effects of the breastfeeding campaign on breastfeeding mothers with breastfeeding difficulties. Increased maternal awareness of breastfeeding training and programs will guide effective interventions and ultimately alleviate stress and tension, leading to providing better maternal health.

In 1991, the World Health Organization and UNICEF introduced the Baby friendly hospital initiative (BFHI) to strengthen prenatal treatment and protect, encourage, and sustain breastfeeding. One of the global objectives of the campaign is to enable all women to breastfeed their baby exclusively for six months. In addition to increasing the number of workers, money is being spent to train clinicians to consider breastfeeding and to value support for new mothers. Support should be achieved from a variety of individuals who work with breastfeeding mothers rather than just midwives and health visitors alone. For example, offering training to physicians improves breastfeeding rates, particularly if strategies are discovered to handle problems effectively. (Brown, 2017)



## 7 CONCLUSION AND RECOMMENDATION

This study has been carried out to explain the benefits of breastfeeding. However, several causes that lead to ineffective breastfeeding exist at the neonatal stage, as well as social, cultural, and political levels that are often outside the influence of mothers. If mothers understand the importance of breastfeeding both for themselves and for their infant, the frequency of breastfeeding may increase. However, there are barriers to effective breastfeeding, but we can also see the benefits that mothers and children can receive if successful breastfeeding is achieved.

Moreover, breastfeeding issues could be minimized if women receive more information during their pregnancies and postnatal periods. Breastfeeding methods should be aimed at the primary level and should educate them about the importance of breastfeeding, their positioning strategies, and the health benefits for both mothers and babies. Similarly, the father and family should participate in education, particularly to update them on current breastfeeding guidelines, which lower the breastfeeding challenges.

Furthermore, governments and non-governmental organizations have made some efforts to increase breastfeeding rates. In our opinion, this study could be useful as it shows how important it is to give proper information. Nevertheless, nurses and health care workers should do their best to be role models themselves and to mothers by continuing education to always update their knowledge, but still much needs to be addressed to go further and follow the initiatives that have already been implemented. It is recommended that further research be conducted on the benefits of breastfeeding and current breastfeeding strategies to prepare mothers for upcoming breastfeeding challenges, which strengthen breastfeeding practices and duration.

## 8 ETHICALITY AND RELIABILITY

As nursing students, we adhere to the legal standards as well as the SeAMK written study guidelines. Nurses have some legal responsibilities that they must uphold when caring for mothers. Ethical responsibilities include respecting mothers' right to choose their own care, privacy, security, and values that are often considered before doing any procedure (Manton et al. 2014). According to Noble and Smith (2015), it is a measure of the reliability of the data collection process in relation to its intended purpose. However, to check the quality of this report, several research questions were asked. We took data from a reliable database, such as CINAHL PubMed, as well as health guidelines from Google scholar. This study, from the beginning to the end, was performed in compliance with authenticity.

Articles were selected based on the methodology inclusion and exclusion criteria to get reliable, evidence-based research findings while avoiding bias. The information was gathered from recent publications and reviews. In the nursing context, evidence-based tools were used. The reports and reviews that resulted from this study were based on research questions that were related. The sources used in this study are mentioned in the reference list, along with authors' names, the articles, and page numbers. We, as the authors of this thesis, did not make them up or fabricate to exaggerate the content of the data, but referenced accordingly, which contributes to promote this study's trustworthiness. There was also communication and guidance for proper structuring of the study between the supervisor and the authors.

## BIBLIOGRAPHY

- Al-Binali, A.M.2012. Breastfeeding knowledge, attitude and practice among schoolteachers in Abha female educational district, southwestern Saudi Arabia. [Online article]. Int Breastfeed journal 7(10). [Ref 08 March 2021]. Available at: <https://doi.org/10.1186/1746-4358-7-10>
- Brown, A.2017. Breastfeeding as a public health responsibility; a review of evidence. [Online article]. Journal human Nutrition and Dietetics 30,759-770. [Ref 01. December 2020]. Available at: <https://onlinelibrary.wiley.com/doi/epdf/10.1111/jhn.12496>
- Balogun, O.O., O'Sullivan, E.J., McFadden A, Ota E., Gavine A, Garner, CD., Renfrew, MJ., MacGillivray, S.2016. Interventions for promoting the initiation of breastfeeding. [Online articles]. Cochrane Database Syst Rev 9(11). [Ref 02 March 2021]. Available at: [CD001688. Doi: 10.1002/14651858.CD001688.pub3. PMID: 27827515; PMCID: PMC6464788](https://doi.org/10.1002/14651858.CD001688.pub3)
- Britt, K. L., Cuzick, J. & Phillips, K. A. 2020. Key steps for effective breast cancer prevention. [Online article]. Nature Reviews Cancer 20, 417-436. [Ref 06 March 2021]. Available at: <https://doi.org/10.1038/s41568-020-0266-x>
- Bhat, A., Raddi, S. & Sawant, P. 2019. 'Breastfeeding Techniques among Primiparous Women'. [Online article] International Journal of Nursing Education 11(1), 13–16. [Ref. 08 February 2021]. Available at: [doi: 10.5958/0974-9357.2019.00004.7](https://doi.org/10.5958/0974-9357.2019.00004.7)
- Bäckström, C.A., Wahn, E.I.H. & Ekström, A.C.2010. Two sides of breastfeeding support: experiences of women and midwives. [Online article]. International Breastfeed Journal 5(20). [Ref.20 March 2021]. Available at: <https://doi.org/10.1186/1746-4358-5-20>
- Berkat, S. & Sutan, Rosnah. 2014. "The Effect of Early Initiation of Breastfeeding on Neonatal Mortality among Low Birth Weight in Aceh Province, Indonesia: [Online article]. An Unmatched Case Control Study", Advances in Epidemiology (7). [Ref. 04 February 2021]. Available at: <https://doi.org/10.1155/2014/358692>
- Brahm, P. & Valdés, V. 2017. The benefits of breastfeeding and associated risks of replacement with baby formulas. [Online article]. Rev Chil Pediatr 88(1), 15–21. [Ref. 04 February 2021]. Available at: <https://doi.org/10.4067/S0370-41062017000100001>
- Cho, JY. & Lee, EH.2014. Reducing confusion about grounded theory and qualitative content analysis. Similarities and differences. [Online article]. The qualitative report 19(32), 1-20. [Ref. 03 February 2021]. Available at: <https://iribresearch.ir/rm/maghaleh/6.pdf>
- Couto, G., Dias V.& Oliveira I.2020. Benefits of exclusive breastfeeding. An integrative review]. (Online article] Nursing practice Today 7(4), 245-254. [Ref.04 April 2021]. Available at: <https://npt.tums.ac.ir/index.php/npt/article/view/951>

- Chaput, K.H., Nettel-Aguirre, A., Musto, R., Adair, C.E. and Tough, S.C. 2016. Breastfeeding difficulties and supports and risk of postpartum depression in a cohort of women who have given birth in Calgary: a prospective cohort study. [online article]. *CMAJ Open* 4(1), 103–109. [Ref. 03 March 2021]. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4866929/>
- Dieterich, CM., Felice, J.P., O'Sullivan, E. & Rasmussen KM. 2013. "Breastfeeding and health outcomes for the mother-infant dyad." [Online article]. *Pediatric clinics of North America* 60(1) 31-48. [Ref.01 November 2020]. Available at: doi: [10.1016/j.pcl.2012.09.010](https://doi.org/10.1016/j.pcl.2012.09.010). Epub 2012 Nov 3. PMID: 23178059; PMCID: PMC3508512
- Diji, A. KA., Bam, V. Asante. E., Yemotsoo, Alberta. L. Yeboah. Samuel & Owusu, H.A. 2016. Challenges and predictors of exclusive breastfeeding among mothers attending the child welfare clinic at a regional hospital in Ghana: a descriptive cross-sectional study. [Online article]. *Int Breastfeed Journal* 12 (13). [Ref.04 February 2021]. Available at: <https://doi.org/10.1186/s13006-017-0104-2>
- De Jager, E., Skouteris, H., Broadbent, J. Amir, L. & Mellor, K. 2013. Psychosocial correlates of exclusive breastfeeding: a systematic review. [Online article]. *Midwifery* 29(5), 506-518. [Ref.09 February 2021]. Available at: [doi:10.1016/j.midw.2012.04.009](https://doi.org/10.1016/j.midw.2012.04.009)
- DeVane-Johnson, S., Giscombe, C. W., Williams, R., Fogel, C. & Thoyre, S. 2018. A Qualitative Study of Social, Cultural, and Historical Influences on African American Women's Infant-Feeding Practices. [Online article]. *The Journal of perinatal education* 27(2), 71–85, 2018. [Ref.06 February 2021]. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6388681/>
- Daou, D., Tamim, H. and Nabulsi, M. 2020. Assessing the impact of professional lactation support frequency, duration and delivery form on exclusive breastfeeding in Lebanese mothers. *PLOS ONE* 15(9), p.e0238735. [Ref.01 March 2021]. Available at: <https://doi.org/10.1371/journal.pone.0238735>
- Elo, S, Kääriäinen., M, Kanste.O, Pölkki. T, Utriainen. K. & Kyngäs, H. 2014. Qualitative content analysis: A focus on trustworthiness. [Online article]. *SAGE* 4(1). [Ref.02 February 2021]. Available at: <https://journals.sagepub.com/doi/pdf/10.1177/2158244014522633>
- Gholampour, F., Riem, M.M.E. and van den Heuvel, M.I. 2020. Maternal brain in the process of maternal-infant bonding: [Online articles]. Review of the literature, *Social Neuroscience* 15(4), 380-384. [Ref: 16 March 2021]. Available at: <https://doi.org/10.1080/17470919.2020.1764093>
- Gebremariam, K. T., Zelenko, O., Mulugeta, A., & Gallegos, D. 2021. A cross-sectional comparison of breastfeeding knowledge, attitudes, and perceived partners' support among expectant couples in Mekelle, Ethiopia. [Online article]. *International breastfeeding journal* 16(1), 3. [Ref. 03 March 2021]. Available at: <https://doi.org/10.1186/s13006-020-00355-z>

- Garner, D. Christine., Stephannie, L. Ratcliff., Carol, M. Devine., Lorelei L. Thornburg, and Kathleen M. 2014. Health Professionals' Experiences Providing Breastfeeding-Related Care for Obese Women. [Online article]. *Breastfeeding Medicine* 9(10), 503-509. [Ref.23 March 2021]. Available at: <http://doi.org/10.1089/bfm.2014.0104>
- Garg, R., Deepti, S., Padda, A. and Singh, T. 2010. Breastfeeding Knowledge and Practices Among Rural Women of Punjab, India: A Community-Based Study. [Online article]. *Breastfeeding Medicine* 5(6), 303–307. [Ref: 16 January 2021]. Available at: <https://doi.org/10.1089/bfm.2010.0005>
- Hallowell, S. G. & Spatz, D. L. 2012. The relationship of brain development and breastfeeding in the late-preterm infant. [Online article]. *Journal of pediatric nursing* 27(2), 154–162. [Ref: 16 February 2021]. Available in the ELSEVIER database. Registration required, paid article.
- Hannah Snyder.2019. Literature review as a research methodology: [Online publication]. An overview and guidelines. *Journal of Business Research* 104, 333-339. [Ref.02 November 2020]. Available at: <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Jama, A., Gebreyesus, H., Wubayehu, T., Gebregyorgis, T., Teweldemedhin, M., Berhe, T., & Berhe, N. 2020. Exclusive breastfeeding for the first six months of life and its associated factors among children aged 6-24 months in Burao district, Somaliland. [Online article]. *International breastfeeding journal* 15(1), 5. [Ref: 05 March 2021]. Available at: <https://doi.org/10.1186/s13006-020-0252-7>
- Lau Chantal. 2018. Breastfeeding Challenges and the Preterm Mother-Infant Dyad: [Online article]. A Conceptual Model. *Breastfeed Med* 13 (1), 8-17. [Ref.01 May 2021]. Available at: [doi: 10.1089/bfm.2016.0206](https://doi.org/10.1089/bfm.2016.0206). Epub 2017 Oct 19. PMID: 29048210; PMCID: PMC5770126.
- M'Liria, J. K., Kimiywe, J & Ochola, S. 2020. 'Impact of Mother-to-Mother Support Groups in Promoting Exclusive Breastfeeding in a Low-Resource Rural Community in Kenya'. [Online article] A Randomized Controlled Trial'. *Current Research in Nutrition & Food Science* 8(2), 609–621. [Ref.19 March 2021]. Available at: <http://dx.doi.org/10.12944/CRNFSJ.8.2.26>
- Mosca F & Gianni ML.2017. Human milk: composition and health benefits. [Online article]. *Pediatr Med Chir* 39(2), 155. [Ref 12 April 2021]. Available at: [doi: 10.4081/pmc.2017.155](https://doi.org/10.4081/pmc.2017.155). PMID: 28673076.
- Mbada, C.E., Olowookere, A.E., Faronbi, J.O., Faronbi, Folasade. C Oyinlola-Aromolaran, Funmilola, A. Faremi, Abiola, O. Ogundele, Taofeek, O. Awotidebe. Adepeju, A. Ojo & Oluwakemi A. Augustine. 2013. Knowledge, attitude, and techniques of breastfeeding among Nigerian mothers from a semi-urban community. [Online article] *BMC* 6, 552. [Ref. November 22, 2020]. Available at: <https://doi.org/10.1186/1756-0500-6-552>
- Manton, A., Wolf, L.A., Baker, K.M., Carman, M.J., Clark, P.R., Henderson, D., Zavotsky, K.E 2014. Ethical considerations in Human Subjects Research. [Online article]. *Journal of*

Emergency Nursing 40(1), 92-94. [Ref 03 April 2021]. Available at:  
<https://www.researchgate.net/publication/259566052>

McCorry, C & Murray, A. 2013, 'The Effect of Breastfeeding on Neuro-Development in Infancy'. [Online article]. Maternal & Child Health Journal 17(9), 1680–1688. [Ref.01 November 2020]. Available at: <https://doi.org/10.1007/s10995-012-1182-9>

Nguyen, P.H., Keithly, S.C., Nguyen, N.T, Tuan T Nguyen. LAN M Tran and Nemat Hajeebhoy. 2013. Prolactal feeding practices in Vietnam: challenges and associated factors. [Online article]. BMC Public Health 13, 932. [Ref.20 March 2021]. Available at: <https://doi.org/10.1186/1471-2458-13-932>

Noella, M. D Pereira. 2017. Benefits of breastfeeding for mother and child. [Online guidelines]. Parentcircle.[Ref 22 may 2021]. Available at:  
<https://www.parentcircle.com/article/benefits-of-breastfeeding-for-mother-and-child/>

Noble, H & Smith J. 2015. Issues of validity and reliability in qualitative research. [Online publication]. Evidence Based Nursing 18(2), 34–35. [Ref.05 november 2020]. Available at: <http://eprints.hud.ac.uk/id/eprint/23995/1/SmithIssues.pdf>

Pautasso, M. 2013. Ten Simple Rules for Writing a Literature Review. [Online Article]. PLoS Comput Biology 9(7). [Ref.18 December 2020]. Available at: <https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1003149>

Quigley, M. A., Carson, C., Sacker, A., & Kelly, Y. 2016. Exclusive breastfeeding duration and infant infection. [Online article]. European journal of clinical nutrition 70(12), 1420–1427. [Ref 22 April 2021]. Available at: <https://doi.org/10.1038/ejcn.2016.135>

Shukir S. Hasan & Ghareeba A. Hasan. 2020. Maternal and neonatal barriers of breast feeding. [Online article]. The Malaysian Journal of Nursing. [Ref 06 March 2021]. Available at: [doi: 10.31674/mjn.2020.V12i01.006](https://doi.org/10.31674/mjn.2020.V12i01.006)

Shommo S.and AL- Shubrumi H. 2014.Breastfeeding knowledge, attitude, and practice among mothers in Hali District, North-western Saudi Arabia. [Online article]. Journal of Nursing and Health Scienc 3(1), 49-56. [Ref. 08 March 2021]. Available at: [doi: .9790/1959-03154956](https://doi.org/10.9790/1959-03154956)

Schwarz, E. B., & Nothnagle, M. 2015. The maternal health benefits of breastfeeding. [Online article]. American Family Physician 91(9), 602-604. [Ref: 15 March 2021]. Available in the PubMed.gov, database, and registration required, paid article.

WHO. 2020. World Breastfeeding Week 2020 Message. [Online report]. [Ref: 28 March 2021]. Available at: <https://www.who.int/news/items/31-07-2020-world-breastfeeding-week-2020-message>

Winchester, L. Catherine & Salji, Mark.2016. Writing a literature review. [Online article]. Journal of Clinical Urology 9(5), 308-312. [Ref.18 December 2020]. Available at: <https://doi.org/10.1177/2051415816650133>

Yang, Y., Brandon, D & Lu, H. Xiaomei. 2019. Breastfeeding experiences and perspectives on support among Chinese mothers separated from their hospitalized preterm infants: a qualitative study. [Online article]. *Int Breastfeed Journal* 14 (45). [Ref 09 March 2021]. Available at: <https://doi.org/10.1186/s13006-019-0242-9>

Zielinska, M. A., Sobczak, A., & Hamulka, J. 2017. Breastfeeding knowledge and exclusive breastfeeding of infants in first six months of life. [Online article]. *Roczniki Państwowego Zakładu Higieny* 68(1). [Ref: 16 March 2021]. Available in the PubMed.gov, database, and registration required, paid article.

## LITERATURE REVIEW RESOURCES

Britt, K. L., Cuzick, J., & Phillips, K. A. 2020. Key steps for effective breast cancer prevention. [Online article]. *Nature Reviews Cancer* 20, 417-436. [Ref 06 March 2021]. Available at: <https://doi.org/10.1038/s41568-020-0266-x>

Brahm, P & Valdés, V. 2017. The benefits of breastfeeding and associated risks of replacement with baby formulas. [Online article]. *Rev Chil Pediatr* 88(1), 15–21. [Ref. 04 February 2021]. Available at: <https://doi.org/10.4067/S0370-41062017000100001>

Couto G., Dias V & Oliveira I. 2020. Benefits of exclusive breastfeeding. An integrative review. [Online article]. *Nursing practice Today* 7(4), 245-254. [Ref.04 April 2021]. Available at: <https://npt.tums.ac.ir/index.php/npt/article/view/951>

Dieterich CM, Felice JP, O'Sullivan E, Rasmussen KM. 2013. "Breastfeeding and health outcomes for the mother-infant dyad." [Online article]. *Pediatric clinics of North America* 60(1) 31-48. [Ref.01 November 2020]. Available at: [doi: 10.1016/j.pcl.2012.09.010](https://doi.org/10.1016/j.pcl.2012.09.010). Epub 2012 Nov 3. PMID: 23178059; PMCID: PMC3508512

Gholampour, F., Riem, M.M.E. and van den Heuvel, M.I. 2020. Maternal brain in the process of maternal-infant bonding: [Online articles]. *Review of the literature, Social Neuroscience* 15(4), 380-384. [Ref: 16 March 2021]. Available at: <https://doi.org/10.1080/17470919.2020.1764093>

Hallowell, S. G., & Spatz, D. L. 2012. The relationship of brain development and breastfeeding in the late-preterm infant. [Online article]. *Journal of pediatric nursing* 27(2), 154–162. [Ref: 16 February 2021]. Available in the elsevier database. Registration required, paid article.

Lau Chantal. 2018. Breastfeeding Challenges and the Preterm Mother-Infant Dyad: [Online article]. *A Conceptual Model. Breastfeed Med.* 13 (1), 8-17. [Ref.01 May 2021]. Available At: [doi: 10.1089/bfm.2016.0206](https://doi.org/10.1089/bfm.2016.0206). Epub 2017 Oct 19. PMID 29048210; PMCID: PMC5770126.

- McCrary, C & Murray, A .2013. 'The Effect of Breastfeeding on Neuro-Development in Infancy', [Online article]. *Maternal & Child Health Journal* 17(9), 1680–1688. [Ref.01 November 2020). Available at: <https://doi.org/10.1007/s10995-012-1182-9>
- Schwarz, E. B., & Nothnagle, M. 2015. The maternal health benefits of breastfeeding. [Online article]. *American Family Physician*, 91(9), 602-604. [Ref: 15 March 2021]. Available in the PubMed.gov, database, registration required, paid article.
- Zielinska, M. A., Sobczak, A., & Hamulka, J. 2017. Breastfeeding knowledge and exclusive breastfeeding of infants in first six months of life. [Online article]. *Roczniki Państwowego Zakładu Higieny* 68(1). [Ref: 16 March 2021]. Available in the PubMed.gov, database, and registration required, paid article.



## **APPENDICES**

APPENDIX1. Articles, Sources and Finding Extraction

## APPENDIX1. Articles, Sources and Finding Extraction

Number	Author	year	Database	Publication	Title	Theme extracted for our thesis
1	Brahm & Valdes	2017	Google Search	Rev Chil Pediatr	Benefits of breastfeeding and	Antibody, immune system and against disease
2	Britt, Cuzick & Phillips	2020	Google search	Nature review cancer	Key steps for effective breast cancer prevention. Nature Reviews Cancer	Hormones, ovulation, and cancer prevention
3	Couto, Dias & Oliveira.	2020	Google scholar	Nursing practice Today	Benefits of exclusive breastfeeding	Skin to skin contact
4	McCroy, C & Murray	2013	CHINAL	Maternal & Child Health Journal	The Effect of Breastfeeding on Neurodevelopment in Infancy	Physical wellbeing of infants.
5	Dieterich et al	2013	SeAMK FINNA	Paediatric clinics of North America 60	Breastfeeding and health outcomes for the mother-infant dyad."	Development of child
6	Gholampour, Riem and van	2020	PubMed	Neuroscience	Maternal brain in the process of maternal-infant bonding:	Mother and child relationship and bonding
7	Hallowell & Spatz	2012	Seamk Finna	Journal of pediatric nursing	The relationship of brain development and breastfeeding	Psychological behaviour

8	Schwarz & Nothnagle,	2015	PubMed	American family physician	The maternal health benefits of breastfeeding	Benefits of breastfeeding for mothers
9	Lau Chantal	2018	PubMed	Breastfeed Med.	The challenges of breastfeeding	Mothers and child relationship
10	Zielinska, Sobczak & Hamulka	2017	PubMed	National library of medicine	Breastfeeding knowledge and exclusive breastfeeding of infants in first six months of life	Breastfeeding Knowledge of mothers