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Problems related to the initiation of breastfeeding: a systematic review of the prevention strategies implemented by nurses

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ABSTRACT

Introduction: exclusive breastfeeding is recommended from the first hour after birth until 6 months of age, so nurses should provide care to ensure that this recommendation is complied with and to avoid any possible problems that may occur.

Goals: to determine the problems that exist in breastfeeding and to define strategies to prevent them.

Material and methods: this literature review on breastfeeding used articles from the “Cinahl”, “Medline” and “Pubmed” databases, as well as “Google Scholar” and other sources such as the World Health Organisation (WHO), the Spanish Association of Paediatrics (AEP in Spanish) and other breastfeeding support groups.

Results and discussion: the lack of information available for mothers and the importance of being aware of the benefits and problems of breastfeeding are shown.

Conclusion: health personnel are a key tool in the prevention of early abandonment of exclusive breastfeeding, which is why it is necessary to carry out educational interventions from the outset to avoid any problems that may arise; the most common are breast pain and cracks.

INTRODUCTION

The World Health Organisation (WHO), UNICEF and the Spanish Association of Paediatrics (AEP) recommend exclusive breastfeeding (EBF) from the first hour of birth until 6 months of age, and thereafter the incorporation of complementary foods into the baby's diet, but without abandoning breastfeeding (BF) until 2 years of age or older (WHO, 2022; Vásquez, 2012 and Martín, 2012). However, despite the importance of breastfeeding, it has been found that globally only 35% of babies are breastfed during their first four months of life (Sáenz and Camacho, 2007, as cited in Borre, Cortina and Gónzalez, 2014).

Despite the proven benefits of BF, the latest data from the National Institute of Statistics (INE in Spanish), consulted in January 2022, in the self-governing region of Valencia shows that 69.65% of mothers maintain BF during the first 6 weeks of life, 47.74% do so after 3 months and only 24.61% reach 6 months of age.

In the past, people did not have the resources or sufficient advances and the only option was EBF. In the twentieth century the technique of breastfeeding and the affective bond that it generates between mother and child was lost, for three main reasons:

1. A number of modifications were made in the composition of cow's milk.
2. Women began to do paid work, and breastfeeding was an impediment to this.
3. The belief in scientific advances that everything artificial is better than natural products.

Thanks to appropriate information and training, it is possible to avoid the abandonment of BF, hence the importance of the midwife in primary care (PC), emphasising the importance of BF and informing and motivating pregnant women to choose to breastfeed for the first 6 months of life. In health centres, a series of workshops are held to explain birth preparation, types of birth, the postpartum period and BF itself. Among these solutions, meetings are organised with women who are in the last three months of pregnancy and women who have already given birth and have chosen BF, so that they can exchange experiences, anticipate problems and clear up any possible myths or false beliefs.

La Liga de la Leche (The Milk League) is a member of UNICEF's Council of Non-Governmental Organisations, has a working relationship with the WHO, and is a founding member of the World Alliance for Breastfeeding Action (WABA). La Liga de la Leche's goal is to provide information and support for all mothers who wish to breastfeed their children. This association claims that breastfeeding has numerous physical and psychological advantages that are important for both the baby and the mother (La Liga de la Leche, 2020).

Moreover, there are other BF support groups such as Amamanta, founded in 2000 in a village in the region of Valencia; Sina was founded in 1993 and is an association that promotes BF and attachment parenting, a member of FEDALMA (the Spanish Federation of Pro Breastfeeding Associations), IBFAN (International Baby Foods Action Network) and WABA (World Alliance for Breastfeeding Action), and finally, the Initiative for the Humanisation of Birth and Breastfeeding (IHAN in Spanish), a partnership that was launched by the WHO and UNICEF to motivate hospitals, health services and maternity wards to protect, promote and support EBF.

All these associations and support groups, together with the tools and possibilities we have in the health system, are key to making BF known and successful, and to getting the majority of women to choose it. We should not forget that there are right now relevant and “influential” women in the media and on the social networks who talk about breastfeeding and who, despite not being specialists in the subject, give their opinions, experiences and advice without any scientific basis. This could be misleading. The abundance of this digital information could have the opposite effect, and so combating this is of the utmost importance.

Breastfeeding

Definition

BF is the process by which a mother breastfeeds her newborn (NB) through her breasts, which secrete milk after birth. It is also the best method of infant feeding as it helps the baby’s sensory and cognitive development, protects them against infectious and chronic diseases, and reduces the incidence of sudden infant death syndrome. However, BF is also a good choice for economic, hygienic and affective reasons, as it strengthens the mother-child bond (Naranjo and Rodríguez, 2021).

According to the Breastfeeding Committee of the Spanish Association of Paediatrics (2017), breast milk is unique and necessary for the baby’s needs to be met, and it also provides defences against infection. These benefits are not obtained through artificial lactation (AL) (Ares et al. 2017).

The WHO and the Breastfeeding Committee of the Spanish Association of Paediatrics recommend EBF until 6 months of age, then introducing other foods but without abandoning BF until two years of age or more (Martín, 2012 and WHO, 2022).

Prevalence

According to Mínguez (2019), the estimated prevalence of BF in Spain is 71% in the first 6 weeks of life, 66.5% up to 3 months, 49.6% at 6 months and 20% up to one year of life. This data is not official, but we can compare it to other studies from other self-governing regions in Spain. In Guipúzcoa, the prevalence of EBF was 84.8% at hospital discharge, 53.7% at 4 months and 15.4% at 6 months of life (Oribe et al. 2015). In the self-governing region of Valencia, a study involving 1,338 women obtained the prevalence of BF up to 3 months of life from 2012 to 2017. They observed that in 2012 only 46.7% chose BF up to 3 months of life, while in 2017 the figure rose to 49.2% (Vila-Candel et al. 2019). In a study conducted in northern Spain, it was observed that only 53.4% continued BF after hospital discharge and that at 6 and 12 months 24.5% continued BF (Lechosa-Muñiz et al. 2021). According to the National Institute of Statistics, 69.65% of the population chooses EBF up to 6 weeks of age, 47.74% continue it up to 3 months and 25.61% up to 6 months (INE, 2022).

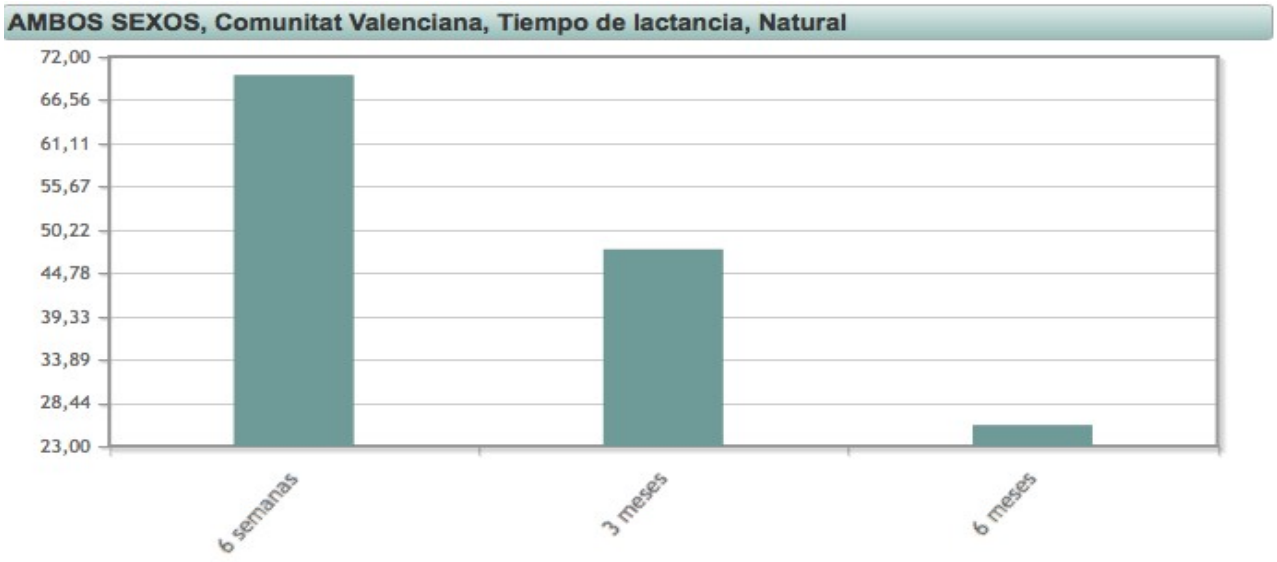

Figure 1: The evolution of BF in the first 6 months of life in the self-governing region of Valencia.

	6 semanas	3 meses	6 meses
	Natural	Natural	Natural
AMBOS SEXOS			
Comunitat Valenciana	69,65	47,74	25,61

Fuente: Instituto Nacional de Estadística, 2022

Types of breastfeeding

Exclusive breastfeeding (EBF): the NB receives only breast milk from the mother's breast or expressed breast milk. Furthermore, the baby does not ingest any type of liquid other than breast milk, with the exception of oral rehydration solutions, vitamin or mineral supplement drops or syrups, or medication (Casado et al. 2021).

Mixed/partial breastfeeding is a combination of BF and AL, alternating with each other. This kind of breastfeeding has three stages; the first stage occurs when BF and AL are given equally, the second stage when less than half the feeds are with BF and the rest with formula milk, and the third stage when one or two feeds are with BF and the rest with AL (Casado et al. 2021).

Artificial Lactation (AL) is milk obtained from milk formulas, so that it is as similar as possible to breast milk and provides the same nutrients for the newborn. This type of breastfeeding is chosen when BF is not possible or is insufficient (Rodríguez, 2017; Casado et al. 2021).

Ways to promote breastfeeding

To help new mothers with breastfeeding, it is important to place the breast in a C-shape with the thumb on top of the breast and the four fingers underneath, in order to help the infant to use all its mouth in the area of the areola, with good attachment and reducing the risk of nipple cracks (Liseth, 2017). In some cases this is not enough, so supplements are used in BF, such as the use of a finger-syringe, breast pump, sippy cup, starter cup, or a spoon and bottle. The finger-syringe method uses a 10ml syringe

with no needle and relactator, a device that has a deposit where the milk is stored and comes out through a tube, which is attached to the mother's breast. The tube is inserted into the baby's mouth together with the nipple; this technique is used when we want to switch from AL to EBF (Tringueros, 2019).

The breastfeeding process

The woman starts producing breast milk immediately after birth, known as colostrum. Colostrum is also known as the "first vaccine", as in the first 24 hours after birth the newborn receives about 300 mg of secretory IgA (De Antonio, 2015). According to Gigli (2020) colostrum is produced during the first 3 to 5 days postpartum while Álvarez et al. (2010) argue that colostrum is obtained in the first 2 to 4 days after giving birth. The colostrum produced by the mother is 20 to 50 ml per day and gradually increases production; it also contains the secretory immunoglobulin IgA that protects the newborn if the mother contracts any kind of disease. Colostrum and breast milk are considered by human biology as potential nutrients; they are rich in proteins, lipids, vitamins, minerals, oligosaccharides, immunoglobulins and contain stem cells (Leon, 2002 and Calvo, 2008, as cited in Rocano, 2016). As the days go by, the mammary gland goes through several phases, producing various different types of milk, such as the first milk known as colostrum, then transitional milk, mature milk and finally preterm milk (Galiano, 2015). In a study conducted in 2016 and 2017, in which 366 women took part, we observed that the prevalence of BF was 87.1% – 51.7% of them had chosen EBF – so only 1 in 5 children received EBF up to 6 months of life and BF up to one year of age (López et al. 2021). We can also see the study carried out by Rocano (2016) on 108 mothers who were subjected to two tests, a 23-question survey and a 19-item observation guide with questions to find out if they complied with the basic steps to achieve a good breastfeeding technique. 64.8% showed a high level of knowledge about BF and 79.6% of them had an appropriate level of breastfeeding practice at the time of postpartum. After reading this study, we can affirm that postpartum mothers with a higher level of knowledge enjoy successful BF. According to De Antonio (2015), to ensure effective and successful BF, 10 steps should be followed: breastfeed as soon as possible after birth, in the first 20 minutes of the newborn's life, offer the breast often, check the baby's posture and correct sucking, the more milk the baby drinks the more milk the mother will secrete, avoid supplements and water, avoid the dummy until BF is established, identify if the baby's crying is due to hunger, the mother should rest and if necessary a BF support group should be provided. We should not, however, ignore the warning signs, such as weight loss in the first 3-4 days or slow weight gain in the first 12-14 days, signs of dehydration, if the baby falls asleep after just a few sucks, if there is a low volume of diuresis and faeces and if we observe signs of poor positioning when breastfeeding.

Advantages of breastfeeding

For the NB

Breastmilk is the only food that contains all the nutrients for the growth of the newborn. It supports the nutritional and emotional needs of the infant up to six months of age, and the physiological and emotional health of the child during actual BF. It has positive effects years after weaning. Moreover, there are psychological benefits in BF thanks to the touch that the newborn enjoys with his or her mother, and the physical and visual contact that he or she gets during breastfeeding (Arana et al. 2017). By way of conclusion, EBF provides nutritional, immunological, evolutionary, psychological, social, economic and even environmental advantages (Mazo-Tomé and Suárez-Rodríguez, 2018).

According to De Antonio (2015), BF has numerous advantages for the infant, as it decreases the number and severity of infectious diseases such as lower respiratory tract infections (LRTIs), otitis, gastrointestinal tract infections and necrotising enterocolitis (NEC). It also stimulates specific enzymatic and metabolic systems, thus preventing the risk of suffering from different types of allergy, celiac disease, inflammatory bowel disease, obesity and diabetes, and reduces the incidence of sudden infant death syndrome (SIDS). It should be noted that it is very important for preterm infants to receive BF, and if the mother is unable to provide BF, the use of milk from human milk banks is recommended.

Several studies have shown that children fed on EBF have a lower possibility of contracting these diseases (Rosabal, 2004, cited in Entrada et al. 2010).

For the mother

BF has advantages for the mother, as it favours mother-child bonding, reduces postpartum haemorrhage, delays ovulation, reduces the risk of premenopausal breast and ovarian cancer, guarantees greater comfort, helps to lose weight after pregnancy and facilitates rapid postpartum recovery (WHO, 2022; De Antonio, 2015).

Thanks to BF, we reduce postpartum bleeding, as from the moment the newborn latches on to the breast, the uterus contracts and bleeding is reduced. In addition, in the weeks after the first BF, the mother's metabolic and endocrine systems are regulated; blood pressure, heart function, weight loss, and general health, both physical and mental, are all regulated. During BF, the woman releases two hormones, oxytocin and prolactin, which contribute to mother-child bonding (Arana et al. 2017). It is important for pregnant women and their families to be well informed about the advantages of BF for the mother and her newborn, in order to apply EBF up to six months of life. It is advisable to ask pregnant women a series of questions in prenatal care (PNC) to resolve doubts or if necessary refer the pregnant woman to the paediatrician, so that she can be prepared for the birth of her baby and apply EBF (Urquizo, 2014).

Benefits for society

In addition to providing great benefits for the NB and the mother, BF also gives us economic, family and environmental benefits. BF is ecological in its production and consumption, which means that we reduce environmental pollution caused by waste from cans, bottles and disposable containers, and we contribute to reducing energy demand due to the production and transport of products needed in AL (Vera and Hess, 2007; Arana et al. 2017). Thanks to this, we also spend less on medicines and the use of health services, as babies get sick less and with less severity (Díaz, 2015).

Causes of early breastfeeding cessation

Today, due to the SARS-CoV-2 pandemic, many women are abandoning skin-to-skin contact and the early initiation of BF due to lack of knowledge about the contagion. Awareness campaigns became necessary for healthcare workers to show that separating the newborn from the mother was not favourable and that measures should be employed to reduce the risk of infection and thus make BF safe. If in some cases mother-child isolation was necessary, it was recommended to express breast milk (Lalaguna et al. 2020). Several studies agree that the main causes of BF abandonment are hypogalactia, which is low milk production and the mother's work activity (Ruiz and Martínez, 2014; Ruiz, 2019). In contrast, in the study by Giraldo et al. (2020) shows that there are other causes, such as hospitalisation of the baby and/or the mother after birth, low birth weight, incorrect breastfeeding posture and, in agreement with other studies, hypogalactia. Santacruz-Salas et al. (2020) state that starting work is not the main reason for not starting to breastfeed or for early abandonment of BF, but that the most common reason is when mothers are given AL bottles during their stay in hospital, and that there are socio-demographic and psychological factors such as insecurity and lack of support from the family environment.

Finally, a study by Navarro et al. (2021), states that the main reasons for early abandonment of EBF are lack of information from healthcare workers, mastalgia and the lack of time that some mothers report.

The most common problems of breastfeeding for postpartum mothers

According to De Antonio (2015), complications in BF are usually due to obstructions of the duct or insufficient emptying. The problems he explains are engorgement, milk duct obstruction and mastitis.

Engorgement

Engorgement occurs when the breasts secrete more milk than the infant takes in, resulting in overproduction (De Antonio, 2015). Another relevant aspect is that if there is engorgement after birth there may be mild or intense discomfort, it may make it difficult for the baby to latch on to the breast and make it difficult for milk to come out, this problem may increase and lead to an obstruction of the ducts and cause mastitis (Navarro, 2014).

Blocked milk duct

The milk duct may be obstructed due to defective or ineffective emptying, so when this occurs, the mother may present a series of symptoms such as the appearance of a painful lump and redness in the breast (De Antonio, 2015).

Mastitis

Mastitis is an inflammation affecting one or more lobules of the breast and that can lead to infection. The manifestations that can occur are intense pain and inflammatory signs; infection is not transmitted during breastfeeding, so BF should not be suspended. Other studies also state that the main breast problems are cracks, mastitis, nipple trauma/pain and engorgement (Galiano, 2015). However, according to Díaz-Gómez (2005), when the mother has mastitis, it is recommended to breastfeed the baby from the breast affected in order to improve the mother's condition (WHO, 2021, as cited in Díaz-Gómez, 2005). This condition often leads to the abandonment of BF, and most of the time it occurs in the second or third week after birth. It has been shown that the interruption and abandonment of BF does not favour the recovery of the mother and her symptoms, but on the contrary, the symptoms can be aggravated by inflammation, redness, swelling, heat in the area and above all, pain. Mastitis may be caused by an infection or not. If it is caused by an infection, it is usually produced by a pathogen. The most common is Staphylococcus aureus, although it can be produced by other bacteria such as Streptococcus, Haemophylus and Escherichia coli. If mastitis is not caused by an infection it may be due to an accumulation of myofunctional therapy where the sucking reflex of the NB can be stimulated by means of physiotherapy exercises (Ferrés et al. 2016, as cited in Orte-González, Alba-Giménez and Serrano-Alvar, 2017). When either treatment is performed, the main goal is to reduce maternal nipple pain, improve technique and increase the duration of BF (Gutiérrez and Burgos, 2013). In a study involving 58 infants under 30 days of age with ankyloglossia, participants were divided into two groups, 30 of them in the intervention group and 28 in the control group. When comparing the two groups, it was seen that the newborns who had undergone the surgical intervention showed improvement in terms of the mother's nipple pain levels and there were also favourable changes in the breastfeeding technique in contrast to the newborns in the control group, so it can be affirmed that this technique, called frenotomy, is effective. Furthermore, in this study, no NB had any complications (Gutiérrez and Burgos, 2013). According to Cuestas et al. (2014), frenotomy is a safe and effective procedure for the treatment of ankyloglossia or short lingual frenulum, however, it is necessary to systematically check neonates, infants and children for early detection of this anomaly in order to correct it as soon as possible.

Congenital malformations

Finally, another problem of the NB is the presence of congenital malformations; the most frequent are a cleft lip or palate. These anomalies prevent the complete closure of the unilateral, bilateral or medial lip, which is why newborns have difficulty feeding as they do not suckle properly. These newborns often present malnutrition problems. Another immediate complication is bronchoaspiration due to communication between the palate and nares (Lombardo-Aburto, 2017).

Methods that promote and reinforce breastfeeding

Education

In order to reinforce BF, education before birth is important in order to increase the number of women who initiate BF. It is important for nurses to look into why a certain number of pregnant women choose artificial lactation, as this may be due to misconceptions or previous bad personal or family experiences. Even so, an attitude of respect and cordiality should be shown at all times (Navarro, 2014). In many health centres, the midwife organises workshops where she explains the theoretical and practical aspects of BF in groups and individually. These workshops have been shown to improve BF rates in first-time mothers. It is therefore important for women who want to give birth and those who have doubts to attend these prenatal education workshops together with their partners. They can also turn to other professionals and learn about other opinions (Navarro, 2014). In prenatal education it is very important that they understand and become familiar with the initiation of breastfeeding, early contact, the baby's behaviour, schedule on demand, correct posture, colostrum and milk let-down, knowing that they should avoid supplements and dummies in the first two weeks of life or until BF is well established, as well as many other complications and how to solve them (Navarro, 2014).

Teaching the technique

It is important for mothers to adopt a good breastfeeding technique The first feeding should begin as early as possible, in the delivery room, with skin-to-skin contact. Skin-to-skin contact is necessary to create an affective bond between mother and baby. To perform this technique correctly, the mother should be comfortable and the NB should be in the right position. The NB should be in contact with the mother abdomen to abdomen, the baby's nose should be at the same height as the nipple, and both lips should be open and everted. The baby should not be too high and should not have to flex its neck or nose. We should identify the signs that indicate good sucking in order to confirm that breastfeeding is effective (Fernández and González, 2013).

Treatment for breastfeeding problems

On many occasions, BF is suspended due to nipple pain or certain complications that the mother may suffer at the start of BF. It is therefore important to prevent these complications and to treat them effectively if they occur (De Antonio, 2015).

Treatment for breast engorgement

Firstly, as we mentioned in the previous section, engorgement occurs when a woman produces a quantity of milk that is not expressed and accumulates in the breast, causing a lot of pain. In this case, the treatment is to try and remove the milk from the breast. The baby should be fed more so that he/she takes in more milk, and if this is not enough, the milk can be expressed using a pump to empty the breast. The milk should then be frozen (De Antonio, 2015). There are also numerous effective methods for reducing breast pain caused by engorgement, such as the use of cold compresses that relieve symptoms by vasoconstriction, the use of non-steroidal anti-inflammatory drugs such as ibuprofen, acupuncture and breast pressure techniques (Ortega, 2015).

Treatment for milk duct obstruction

The treatment of a blocked milk duct is similar to that for engorgement; the frequency of feedings should be increased, although the breast that does not have a blocked duct should be offered first. It is also advisable to apply local heat to the area (De Antonio, 2015). It is important to massage the breast down to the nipple during breastfeeding to help drain the blocked duct (Rozas, 2006).

Treatment for mastitis

Current treatment for mastitis is based on effective milk extraction, analgesic and/or anti-inflammatory medication and antibiotics. First of all, it is important to carry out a microbiological analysis to find the causative agent and its sensitivity to antibiotics, in order to decide which antibiotic is most effective. It is necessary to know whether mastitis is caused by bacteria or by a fungus. In both cases it is necessary to know whether the antibiotic indicated for mastitis is contraindicated in BF (Vayas and Carrera, 2012).

Treatment for cracks or fissures

Cracks or fissures are lesions produced by the baby's gums on the mother's nipple. This can be avoided by prevention and treatment measures such as frequent breastfeeding, keeping the nipple dry, i.e. avoiding humidity, stimulating the nipple so that the baby latches on well and correcting the baby's position (Rozas, 2006). The application of creams rich in vitamins A and D, mild corticoids, butterfly bandage, dry heat, the application of expressed milk on the breast which dries in a few minutes, antibiotics or antifungals if the cracks become infected and silicone nipple shields are all recommended; the latter in certain cases only, as in others they have been shown to be ineffective and increase pain (Aguayo et al. 2004).

Inverted nipple

Nowadays neither flat nipples nor inverted nipples are obstacles to the choice of BF. Furthermore, Hoffman's exercises, which are based on nipple stretching and the use of nipple forming shells, are not currently recommended, but it is recommended to inform the mother that she should be patient in the initiation of BF. However, at the beginning of BF, the use of an electric or manual breast pump is recommended in order to favour the extraction of the nipple (Díaz-Gómez, 2005). In another study by Madrid and García (2013), they performed 6 corrections of inverted nipples, i.e. 6 women underwent a surgical technique under informed consent. They suffered no complications and 60 days after the intervention the nipple was still everted. Finally, there are two less frequent types of mastitis; chronic mastitis, which occurs when mastitis is treated incorrectly or late, and myococcal mastitis, which is caused by Candida albicans (Navarro, 2014).

Cracks or fissures

Cracks or fissures can be caused for several different reasons; poor attachment of the baby's mouth onto the mother's nipple, poor positioning at the breast, humidity and hypersensitivity of the skin (Rozas, 2006). This problem causes pain in the breast, which is why mothers often stop breastfeeding and decide to start AL. According to a study by Prieto and Baeza (2011), the prevalence of nipple cracks was 21.6%. Of the 343 women interviewed, 21.6% had cracks and 24.5% had fissures; however, 7.8% of the patients reported pain due to cracks and/or fissures, and even so, 9% of the mothers did not report any pain. 89% of the newborns were breastfed in the first hour of life. In addition, they reported that 64.34% of them had received information in PNC and 14.2% had not received any information at all. The conclusions of this research are that we should implement new actions to improve breastfeeding techniques and ensure successful breastfeeding in the early days of the baby and to improve the prognosis of EBF up to six months.

Inverted nipple

Finally, another fairly common complication is the inverted nipple, which is characterised by a complete nipple or a portion of it being inside the lactiferous ducts. It can also be described as a nipple that does not project outwards or is below the areolar level. In addition, the inverted nipple can be acquired or congenital, although it is more commonly acquired. Inverted nipples cause many problems such as poor hygiene, difficulty in breastfeeding, recurrent inflammation, psychological stress and feeling bad about your body. The inverted nipple is classified in 3 degrees; it is first degree when the nipple can be kept in position without pulling it and we can easily pull the nipple by hand, in the second degree the nipple can be pulled manually, but not as easily as in the first degree, and the nipple tends to retract, i.e. it presents moderate fibrosis, while in the third degree it is very difficult to pull the nipple manually, the fibrosis is significant and the lactiferous ducts are atrophied (Madrid and García, 2013). There are many reasons why mothers discontinue BF, but one of the most common causes is persistent nipple pain. In a 2015 study, which lasted 6 months and in which 264 patients were interviewed, 36% reported breast pain. The reasons for this pain were incorrect positioning and attachment, followed by tongue tie, infection, palatal abnormality, flat or inverted nipples, mastitis and vasospasm. The methods to correct these problems were the correction of position and attachment, the use of teat cups, teat rest and expression of breast milk, frenotomy, oral antibiotics, topical treatments and hot or cold compresses. After applying these methods, the pain subsided in 57% of cases. The findings show that it is important to manage BF effectively to prevent nipple soreness, and early diagnosis and effective treatment to avoid the interruption of EBF (Kent et al. 2015).

Main problems during breastfeeding caused by the newborn

Short lingual frenulum or ankyloglossia

Short lingual frenulum or ankyloglossia is a congenital anomaly characterised by an abnormally short and thick frenulum. Feeding is a complex activity, which means that there should be an efficient sucking, swallowing and breathing process. None of this is possible if the baby suffers from ankyloglossia, as this problem influences tongue movements in such a way that it prevents certain movements from being carried out, including correct sucking. However, this is more frequent in boys, and although in most NBs that present ankyloglossia there is no further pathology, in many cases it can be related to a rare syndrome, such as Ehlers-Danlos syndrome, Ellis-Van Creveld syndrome, Pierre Robin syndrome, digital orofacial syndrome, infantile hypertrophic pyloric stenosis or a cleft palate linked to the x chromosome. The most commonly used diagnostic method is the Hazelbaker method (Orte-González, Alba-Giménez and Serrano-Alvar, 2017). Ankyloglossia is a congenital malformation that has numerous consequences for BF. The most common is pain in the mother's breasts, longer feeds, frequent weight loss and choking, noises when breastfeeding, dental malocclusion, the appearance of otitis and, finally, language problems (Giménez and Serrano-Alvar, 2017). This problem affects 4.8% of all NBs and causes various different problems and difficulties for both the baby and the mother during breastfeeding. Poor attachment of the baby onto the breast, the appearance of pain and/or cracks in the nipple, breast engorgement and low milk production can be observed. When this problem exists, the NB should undergo a surgical operation called frenotomy (Gutiérrez and Burgos, 2013). The most common treatment for short lingual frenulum is frenotomy, which is a simple method of correction that consists of cutting a piece of the sublingual frenulum. After surgery, the baby may experience pain, bleeding, infection, damage to the sublingual gland duct and soft tissue injury (Cuestas et al. 2014). Other articles recommend that before performing frenotomy it is advisable to attend myofunctional therapy to stimulate the sucking and sucking reflex of the NB by means of physiotherapy exercises (Ferrés et al. 2016, as cited in Orte-González, Alba-Giménez and Serrano-Alvar, 2017). When either treatment is performed, the main goal is to reduce maternal nipple pain, improve technique and increase the duration of BF (Gutiérrez and Burgos, 2013). In a study involving 58 infants under 30 days of age with ankyloglossia, participants were divided into two groups, 30 of them in the intervention group and 28 in the control group. When comparing the two groups, it was seen that the newborns who had undergone the surgical intervention showed improvement in terms of the mother's nipple pain levels and there were also favourable changes in the breastfeeding technique

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In order to reinforce BF, education before birth is important in order to increase the number of women who initiate BF. It is important for nurses to look into why a certain number of pregnant women choose artificial lactation, as this may be due to misconceptions or previous bad personal or family experiences. Even so, an attitude of respect and cordiality should be shown at all times (Navarro, 2014). In many health centres, the midwife organises workshops where she explains the theoretical and practical aspects of BF in groups and individually. These workshops have been shown to improve BF rates in first-time mothers. It is therefore important for women who want to give birth and those who have doubts to attend these prenatal education workshops together with their partners. They can also turn to other professionals and learn about other opinions (Navarro, 2014). In prenatal education it is very important that they understand and become familiar with the initiation of breastfeeding, early contact, the baby's behaviour, schedule on demand, correct posture, colostrum and milk let-down, knowing that they should avoid supplements and dummies in the first two weeks of life or until BF is well established, as well as many other complications and how to solve them (Navarro, 2014).

Teaching the technique

It is important for mothers to adopt a good breastfeeding technique The first feeding should begin as early as possible, in the delivery room, with skin-to-skin contact. Skin-to-skin contact is necessary to create an affective bond between mother and baby. To perform this technique correctly, the mother should be comfortable and the NB should be in the right position. The NB should be in contact with the mother abdomen to abdomen, the baby's nose should be at the same height as the nipple, and both lips should be open and everted. The baby should not be too high and should not have to flex its neck or nose. We should identify the signs that indicate good sucking in order to confirm that breastfeeding is effective (Fernández and González, 2013).

Treatment for breastfeeding problems

On many occasions, BF is suspended due to nipple pain or certain complications that the mother may suffer at the start of BF. It is therefore important to prevent these complications and to treat them effectively if they occur (De Antonio, 2015).

Treatment for breast engorgement

Firstly, as we mentioned in the previous section, engorgement occurs when a woman produces a quantity of milk that is not expressed and accumulates in the breast, causing a lot of pain. In this case, the treatment is to try and remove the milk from the breast. The baby should be fed more so that he/she

takes in more milk, and if this is not enough, the milk can be expressed using a pump to empty the breast. The milk should then be frozen (De Antonio, 2015). There are also numerous effective methods for reducing breast pain caused by engorgement, such as the use of cold compresses that relieve symptoms by vasoconstriction, the use of non-steroidal anti-inflammatory drugs such as ibuprofen, acupuncture and breast pressure techniques (Ortega, 2015).

Treatment for milk duct obstruction

The treatment of a blocked milk duct is similar to that for engorgement; the frequency of feedings should be increased, although the breast that does not have a blocked duct should be offered first. It is also advisable to apply local heat to the area (De Antonio, 2015). It is important to massage the breast down to the nipple during breastfeeding to help drain the blocked duct (Rozas, 2006).

Treatment for mastitis

Current treatment for mastitis is based on effective milk extraction, analgesic and/or anti-inflammatory medication and antibiotics. First of all, it is important to carry out a microbiological analysis to find the causative agent and its sensitivity to antibiotics, in order to decide which antibiotic is most effective. It is necessary to know whether mastitis is caused by bacteria or by a fungus. In both cases it is necessary to know whether the antibiotic indicated for mastitis is contraindicated in BF (Vayas and Carrera, 2012).

Treatment for cracks or fissures

Cracks or fissures are lesions produced by the baby's gums on the mother's nipple. This can be avoided by prevention and treatment measures such as frequent breastfeeding, keeping the nipple dry, i.e. avoiding humidity, stimulating the nipple so that the baby latches on well and correcting the baby's position (Rozas, 2006). The application of creams rich in vitamins A and D, mild corticoids, butterfly bandage, dry heat, the application of expressed milk on the breast which dries in a few minutes, antibiotics or antifungals if the cracks become infected and silicone nipple shields are all recommended; the latter in certain cases only, as in others they have been shown to be ineffective and increase pain (Aguayo et al. 2004).

Inverted nipple

Nowadays neither flat nipples nor inverted nipples are obstacles to the choice of BF. Furthermore, Hoffman's exercises, which are based on nipple stretching and the use of nipple forming shells, are not currently recommended, but it is recommended to inform the mother that she should be patient in the initiation of BF. However, at the beginning of BF it is advisable to use an electric or manual breast pump in order to favour the extraction of the nipple (Díaz-Gómez, 2005). In another study by Madrid and García (2013), they performed 6 corrections of inverted nipples, i.e. 6 women underwent a surgical technique under informed consent. They suffered no complications and 60 days after the intervention the nipple was still everted.

GOALS

To describe the problems related to breastfeeding in postpartum women and to identify strategies for prevention. Secondly, to be aware of the most frequent problems involved in breastfeeding in both the mother and the child, to define strategies for the prevention of problems that arise with breastfeeding and to determine nursing care in breastfeeding.

MATERIAL AND METHODS

Study design

A systematic literature review aimed at collecting and analysing relevant and updated literature on the benefits and complications of BF in order to establish nursing care.

Material

The selection of articles was carried out on the Pubmed and EBSCOhost databases via the "JOSÉ PLANAS" CRAI library and online at the European University of Valencia (UEV), where the CINAHL and MEDLINE databases are accessed. In addition, external sources were used, such as documentation of interest from the World Health Organisation (WHO), UNICEF and the Spanish Association of Paediatrics (AEP).

Selection criteria

Inclusion

- Documents published from 2014-2022.
- Articles in Spanish and English.

Exclusion

- Articles that did not match the research question.
- Articles that did not provide sufficient information.
- Opinion articles, readers' letters, anonymous articles and articles of low scientific quality.

Search strategies

Health Science descriptors used

Table 1: Search descriptors Designed in-house.

MesH	Decs
Breastfeeding	Breastfeeding
Complications	Complications
Education	Education
Newborn	Newborn
Benefits	Benefits
Exclusive Breastfeeding	Exclusive breastfeeding

The Boolean operator “AND” was used in this search. The following table details the keywords and terms used in the databases and the results obtained:

Table 2: Search equation. Designed in-house.

	Search equation	Articles found	Articles used
CINAHL	Breastfeeding **and** problems	19	5
	Breastfeeding **and** newborn	15	1
	Breastfeeding **and** complications	15	3
MEDLINE	Breastfeeding **and** education	29	4
	Breastfeeding **and** newborn	38	1
PUBMED	Breastfeeding **and** problems	108	2
	Breastfeeding **and** education **and** benefits	251	2

RESULTS

Flow chart

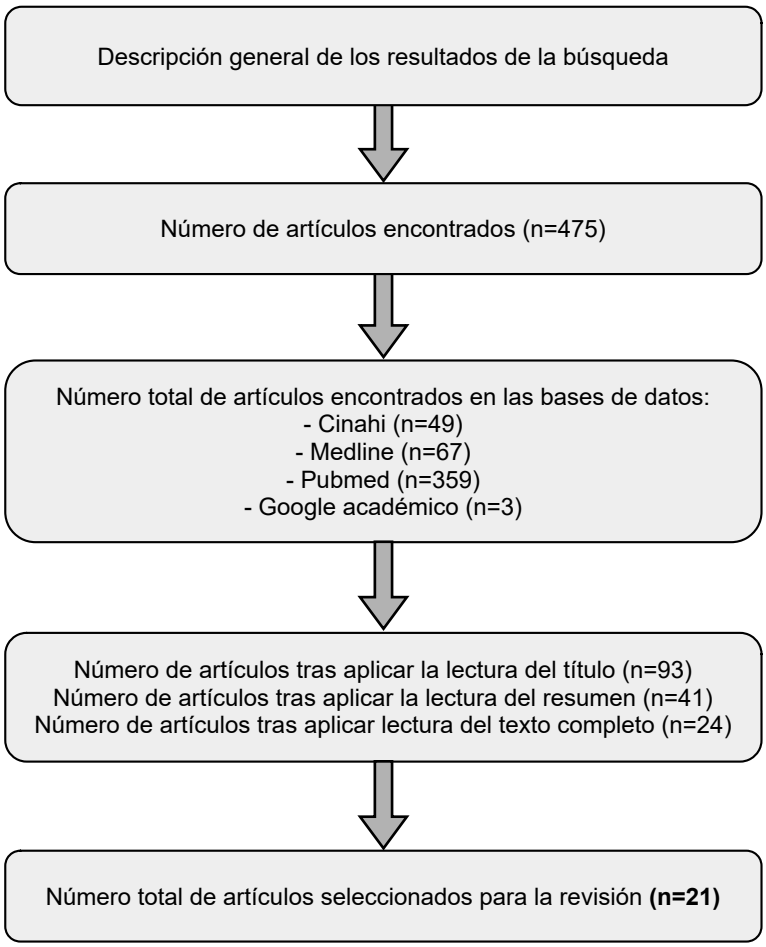

Figure 2: Search results. Designed in-house.

Table 3: Table of results

No. ARTICLE AUTHOR YEAR	SIZE OF SAMPLE	TYPE OF ARTICLE	RESULTS	CONCLUSION
1. Maternal factors and early weaning from exclusive breastfeeding. Arcain et al., 2021. Cinahl.	N= 94	Observational, analytical cohort study.	Study involving 94 mothers, 12 of whom had problems with BF in hospital. 9 of these were due to the attachment and sucking of the newborn and 3 due to the anatomy of their nipples. In contrast, of the 33 women who discontinued BF at home, 22 of them reported breast pain, 9 breast engorgement and 2 mastitis.	A large number of women in the study discontinued BF early; many agreed that they had not received information prenatally, in the delivery room or in the first hour of the baby's life. It is important for healthcare workers to implement the strategies drawn up by the Ministry of Health in order to achieve successful BF.
2. Pairs seen by lactation consultants and cessation of exclusive breastfeeding in the first month. Gasparin et al., 2019. Cinahl.	N= 121	Descriptive and analytical analysis.	It was observed that the main problems in BF were related to breastfeeding technique; 65% of the women reported that their breasts that were too full, 53.6% had breast pain and 46.4% had cracks in their breast. These problems led to the abandonment of EBF in the first month of the NB's life.	It shows that healthcare workers and the breastfeeding counsellor should provide information for pregnant women and families about BF in order to maintain it for the recommended time.
3. Breastfeeding and complications that contribute to early weaning. Sampaio et al., 2015. Cinahl.	n= 21	Descriptive and exploratory study with a qualitative approach.	Of 21 women, only 19.1% managed to remain on EBF for up to six months. The problem hindering BF is mastitis and inverted or flat nipples. Many mothers do not wish to breastfeed their child because they feel they do not have enough milk. Only 4.3% admitted to abandoning BF for no reason.	Healthcare workers should counsel women about BF and its duration throughout pregnancy, childbirth and up to six months of a baby's life. It is important for healthcare workers to be trained to be involved and prepared to identify when women are at risk of abandoning BF.
4. Cross-sectional study Manfré et al., 2018. Cinahl.	n= 73	Cross-sectional study	In this study of 73 mothers, 97.26% received PNC, 65.75% attended seven or more visits and 80.82% did not attend any PNC visits. In BF, 85.5% did not breastfeed in the first hour of life, 68.4% because of inability to grasp in the areola-mammillary region and 88% because of trauma to the nipple.	There is a 34.20% prevalence of nipple trauma in mothers. This is associated with the guidance given in primary care and the number of consultations attended by the mothers. It is important to initiate guidelines on proper BF technique in nursing consultations, in order to guide and teach mothers the correct technique and thus prevent nipple trauma in childbirth and promote BF.
5. Breastfeeding: factors affecting the early weaning between adolescent mothers. Andrade et al., 2016. Cinahl.	N= 12	Exploratory-descriptive study, with a qualitative approach.	In the adolescent mothers surveyed, there were several factors that influenced early weaning due to the influence of family members, the early introduction of food, the baby's refusal of the breast, breast problems and the fact that the mother was studying.	BF has numerous benefits, so healthcare workers should promote, support and guide adolescent girls to continue BF up to six months, as this group is more prone to early weaning.
6. A descriptive and qualitative study Coutinho et al., 2015. Cinahl.	n= 12	A descriptive and qualitative study.	After analysing 12 mothers in the nursing consultancy, the nurses used strategies for the problems that exist in BF, but many of them could not be scientifically proven. Even so, we found that the most frequent problems were the mother's going back to work, the use of bottles and dummies, the belief that there is insufficient milk production, influences from family members and breast problems.	Although nurses employ strategies to solve the most common problems in BF, it is still important for them to be supported by scientific evidence, so that successful BF does not only depend on the healthcare population, but also on the participation of society and the government.

No. ARTICLE AUTHOR YEAR	SIZE OF SAMPLE	TYPE OF ARTICLE	RESULTS	CONCLUSION
7. Impact of a prenatal education intervention in pregnant women to prevent overweight in infants. Ortiz-Félix et al., 2021. Medline.	n= 60	Quasi-experimental study.	A study was carried out on 60 pregnant women, who were divided up into two groups – the intervention group (IG) and the control group (CG). The IG group practised BF more frequently because they had received more information about BF than the CG group. On the other hand, the CG overestimated their children's weight more and did not detect hunger-satiety signals in comparison to the IG.	In this study, comparing the two groups, we can affirm that prenatal care is effective and improves the nutritional status of infants. It is also important to look into how much pregnant women know, in order to improve the nutritional status of the infants.
8. Exclusive breastfeeding: adhesion and difficulties. Guedes et al., 2018. Cinahl.	N= 102	An observational and quantitative study.	102 women were interviewed after hospital discharge. The adherence rate at the start of EBF was 100%. At day 30 post-discharge 64 women were still on EBF, at 90 days 41 women and at 180 days post-discharge 24 women were still on EBF. The final adherence rate was 23.53%.	In conclusion, only 24 women (23.53%) maintained EBF up to six months, which according to the WHO is below the recommended rate. The difficulties mentioned by the mothers were insufficient milk, the introduction of supplementary milk, the length of maternity leave, incorrect attachment and positioning, cracked nipples, breast engorgement and pain.
9. Prevalence and determinants of breastfeeding; the Zorrotzaurre study. López de Aberasturi et al., 2021. Medline.	n= 64	An observational, descriptive, longitudinal and prospective study.	Of 64 women, 51.7% chose BF after birth, 77.1% after hospital discharge and 21.6% up to six months. The main reasons for abandoning BF were mothers' return to work, poor infant weight gain and self-initiated abandonment.	It is important to promote EBF and avoid certain attitudes that do not favour breastfeeding, as well as to initiate complementary feeding from six months onwards.
10. ECoLaE: Validation of a questionnaire on breastfeeding knowledge and skills for Nursing. Lechosa et al., 2020. Medline.	n= 90	Validation study.	The ECoLa questionnaire was administered to 112 nurses. It assesses knowledge and skills in BF. 90.9% of midwives had received more training than 46.7% of paediatric specialist nurses and 56.7% of general nurses. 28.6% reported that the information received was deficient and 17.9% reported being unprepared to diagnose and solve BF problems.	The ECoLA questionnaire was adapted for nurses. It is important for nurses to be competent, as they are the first to care for the mother and child, and to promote, advise and support BF, so it is necessary to validate their training and skills. Some mothers attend breastfeeding support groups, so nurses should be trained to be able to solve problems and doubts and avoid the interruption of BF.
11. Breastfeeding problems and interventions performed on problems: systematic review based on studies made in Turkey. Karaçam y Sağlık, 2018. Pubmed.	n= 34	Systematic review.	In this review they used 34 studies. 24.5% described problems with BF, 17.8% said it was due to lack of knowledge, 15.7% felt that they did not produce enough milk and that the baby was not satisfied, 28.8% had redness and temperature changes, 26.1% had cracks/watering/bleeding, 10.8% had engorgement, 3.9% had pain and 5.6% had mastitis.	By applying various different methods these problems were reduced. They observed that the application of heat, olive oil and the use of nipple shields improved breast problems, so that mothers could keep on giving EBF. It is also important to take preventive measures, and for healthcare workers to support and inform mothers. Qualitative and observational studies are necessary in order to have more complete and up-to-date data.
12. Ankyloglossia in breastfeeding infants. Costa-Romero et al., 2021. Pubmed.		Scientific review article.	A short frenulum or ankyloglossia can cause problems in breastfeeding such as cracks, nipple pain and the early abandonment of breastfeeding. In 50% of cases it does not interfere with breastfeeding, and in cases where it does interfere, most can be resolved with no surgical intervention. When ankyloglossia cannot be resolved by stimulation exercises, frenotomy is used.	It is important to assess the breastfeeding technique using validated scales and to provide expert professional support to explain strategies to help correct attachment. Most cases are, however, easily resolved without causing problems in breastfeeding.

No. ARTICLE AUTHOR YEAR	SIZE OF SAMPLE	TYPE OF ARTICLE	RESULTS	CONCLUSION
13. COVID-19 in pregnant women: breastfeeding and vertical transmission. Montero-López and Caparros-González, 2020. Medline.	N= 53	Observational study	In this study we found that, when testing umbilical cord blood, amniotic fluid and breast milk from a Covid-19 positive mother, all the results were negative, i.e. SARS-CoV-2 was not detected.	The infection caused by the SARS-CoV-2 virus was not transmitted from the pregnant woman to the foetus, so we found that it is not transmitted vertically. In addition, it is recommended, whenever possible, to breastfeed the baby, and if this is not possible, to express milk or use a milk bank if possible.
14. Manejo del parto, el puerperio y la lactancia en mujeres positivas para SARS-CoV-2. Estudio multicéntrico en la Comunidad Valenciana. Vila-Candel et al., 2021. Cinahl.	n= 13	An observational, descriptive, retrospective, multicentre, retrospective study.	In a study of 13 women, 16.6% had their labour induced because of SARS-CoV-2. Of these, 23.1% did not choose BF and 53.8% of the babies were isolated from the mother after birth, although all were negative for SARS-CoV.2	It has been shown that SARS-CoV-2 is not transmitted vertically, although the lack of information on this virus has negatively affected birth, puerperium and BF. Covid-19 has had a significant impact on BF because after delivery the NB was isolated from the Covid-19 positive mother, preventing BF and skin-to-skin contact.
15. Which factors influence women in the decision to breastfeed? Canicali et al., 2016. Medline.	N= 30	Integrative review.	According to several studies, 73.8% of mothers give BF for the benefit of the baby, in mothers over 20 years of age the probability of choosing BF increased by 1.9% each year, and in mothers attending PNC it increased by 25%.	Studies show that the main motivating factors for choosing to breastfeed are due to the benefits of BF for both the baby and the mother. We note that it is important to carry out health education programmes to inform about the advantages and benefits of BF and to provide society with greater knowledge and promote BF.
16. Breastfeeding and the Benefits of Lactation for Women's Health. Del Ciampo and Del Ciampo, 2018. Pubmed.		Narrative review.	It has been shown that women who breastfeed have a lower prevalence of respiratory, circulatory and gastrointestinal diseases and a lower risk of postpartum haemorrhage. In addition, BF results in faster weight loss.	It is important to be aware of the benefits for breastfeeding mothers, as the benefits for children have been known for a long time. On the other hand, there has been a great advance and improvement in the results of BF, as well as in early starting and duration of 6 months.
17. The benefits of breastfeeding and associated risks of replacement with baby formulas. Brahm, and Valdés, 2017. Pubmed.		Narrative review.	BF protects against infectious diseases, cardiovascular diseases, acute otitis media, leukaemia, necrotising enterocolitis, coeliac disease and inflammatory bowel disease. Breastfeeding reduces the likelihood of SIDS by 36%. It is extremely significant that BF can prevent more than one million infant deaths per year, reducing global infant mortality by 13%.	It is necessary to promote BF in an empathetic and respectful way as it is extremely important in the prevention of infant mortality; in addition to these benefits, it is also environmentally friendly and economically beneficial compared to other types of feeding.
18. Impacto de estrategia educativa sobre lactancia materna a futuras madres. Guerra et al., 2017. Google academic.	N= 1343	Quasi-experimental study.	An educational strategy was applied to 1,343 mothers, who were informed about the importance of BF, correct breastfeeding technique, preparation and care of the breasts during the breastfeeding period.	More than 90% of the mothers who benefited from the educational strategy breastfed their children exclusively with breast milk up to 6 months of age. The educational strategy was effective as a high level of knowledge was achieved in most of the mothers.

No. ARTICLE AUTHOR YEAR	SIZE OF SAMPLE	TYPE OF ARTICLE	RESULTS	CONCLUSION
19. Interfering Factors of the Breastfeeding Process in Children Bearing Various Health Needs: Contributions to Nursing Fernández et al., 2019. Cinahl.	N= 30	Descriptive study with a qualitative approach.	In this study, 30 women were surveyed, 96.7% of whom enjoyed PNC. After interviewing these mothers, it was found that 19.8% were not counselled after discharge from hospital, 9.9% had no parental control and 3.3% had no maternity care.	Almost all mothers believed that no pathology the NB may have should prevent breastfeeding. Many women had negative experiences but did not discontinue BF. Even so, we can note that the ongoing education and improved counselling of mothers is necessary to ensure successful and long-lasting BF.
20. Evaluación en el nivel de conocimiento de las madres después de aplicada una estrategia educativa. Venezuela 2015 Rojas et al., 2019. Google academic.	n= 25	Evaluative, cross-sectional research.	Mothers were given a test to assess their knowledge of BF, which revealed a general lack of knowledge of the contents. After educational workshops on topics such as the benefits of BF and the correct breastfeeding technique, the test was repeated and an increase in the level of knowledge was observed.	The educational strategy on BF proved to be effective for mothers and pregnant women, as there was an increase in the number of correct answers in the knowledge test.
21. Breastfeeding: prevention of early breast problems through effective breastfeeding technique. Fernández and González, 2013. Google academic.		Systematic search.	It was observed that in order to prevent nipple pain and cracks, engorgement and mastitis, a good nipple-mouth attachment and a good breastfeeding technique are necessary. Treatment that is effective and improves the condition is massage between feedings, the application of cold and the frequent emptying of milk.	The intervention and follow-up of healthcare workers in the initiation of BF has been seen as an indicator in the reduction of early abandonment of BF. Breast problems arise due to poor breast attachment and inappropriate technique, so prenatal education is the best preventive treatment for these complications.

DISCUSSION

The vast majority of the articles found show that interventions by healthcare staff are favourable and necessary for promoting BF (Arcain et al. 2021; Gasparin et al. 2019; Andrade et al. 2016; Sampaio et al. 2015 and Manfré et al. 2018). It is therefore of great importance for healthcare providers to provide appropriate information for mothers. Several studies agree that most women abandon BF early because they have not received sufficient information in the prenatal stage, in the delivery room or in the first hour of the baby's life, and that the number of consultations attended in prenatal care by mothers is not sufficient (Arcain et al. 2021; Andrade et al. 2016 and Manfré et al. 2018). It is therefore important to highlight the role of nursing in BF and the influence it has on breastfeeding women. In the study by Gasparin et al. (2019), women report that they do not feel supported and in some cases had not received any information about the breastfeeding technique, so this created concerns and insecurities in the initiation of BF and had a negative effect on it (Sampaio et al. 2015). Along the same lines, it was noted that strategies for providing information and guidance for pregnant women and their families are needed to prevent them from abandoning BF before six months have gone by (Arcain et al. 2921; Gasparin et al. 2019; Fernández et al. 2019 and Manfré et al. 2018). Andrade et al. (2016) assert that healthcare workers should promote, support and guide adolescent girls to continue BF up to six months of age. On the other hand, Arcain et al. (2021) and Coutinho et al. (2015) agree that it is necessary to implement the strategies put forward by the Ministry of Health to promote BF. However, Coutinho et al. (2015) state that they still lack the support of scientific evidence. Ortiz-Félix et al. (2021), in their study comparing two groups of mothers, one of whom had received more information than the other group, observed that parental control is effective and improves the nutritional status of infants and that those who have received more information are more likely to initiate BF and maintain it for longer. Women who have not received appropriate information regarding BF are less likely to initiate BF, as many of them who start BF end it before six months of age. Three different studies show the same percentages of women reaching six months with BF, in the first study 23.53%, the second 19.1% and the third 21.6%, which according to the WHO is below the recommended rate (Guedes et al. 2018; Sampaio et al. 2015 and López de Aberasturi et al. 2021). It should be noted that it is not only important for women to be given appropriate information, but also for the information to be effective, which is why, in the study by Lechosa et al. (2020), a questionnaire adapted for nurses was implemented, assessing the knowledge and skills in BF of several midwives, paediatric nurses and general nurses. The study found that midwives had received more information than nurses, so they see the need to validate the training and skills of nurses as they are the first to care for the mother and child, and to promote, advise and support mothers in initiating BF. Being able to identify the factors that may lead to early weaning from BF is a strategy that would facilitate the work of nurses in order to ensure successful breastfeeding. The most common causes of weaning from BF are breast pain, breast fissures or cracks, breast engorgement and mastitis. Although less frequently they also report having difficulty in breastfeeding technique, which is related to poor attachment and sucking of the newborn (Gasparin et al. 2019; Arcain et al. 2021; Karaçam and Sağlık, 2018). In contrast, four authors in their studies agree on the same problem - breast pain (Arcain et al. 2021; Gasparin et al. 2019; Karaçam and Sağlık, 2018 and Costa-Romero et al. 2021). According to Costa-Romero et al. (2021) short frenulum or ankyloglossia is a problem that also causes cracks, sore nipples and can also lead to the early abandonment of BF, although in 50% of cases it does not interfere with breastfeeding. In the cases in which it does interfere, the majority are resolved without any surgical intervention. To avoid these breast problems, it is not only necessary to have a good education in BF, but it is also necessary to know how to apply solutions if these problems do appear. Authors such as Karaçam and Sağlık (2018) observed that the application of heat, olive oil and the use of nipple shields improved the problems in the breasts and it was possible to continue giving EBF without interrupting it. Another factor to take into account, according to Andrade et al. (2016), is the age of the mother. In their study they

point out that teenage mothers are more predisposed to early weaning due to the influence of society and the family, the belief that they do not produce enough milk and the fact that they are still students. On the other hand, there are several studies that mention the existence of other frequent problems, such as the use of dummies and bottles, the influence of family members and the feeling of not producing enough milk, as they refer to the baby not being sufficiently satisfied (Coutinho et al. 2015 and Andrade, 2016). Another less common problem, but mentioned by two authors, is when mothers go back to work (López de Aberasturi et al. 2021 and Coutinho et al. 2015). Covid-19 is another cause that has affected BF. Many Covid-19 positive women decided not to initiate BF after delivery and others were isolated from their NBs and were therefore unable to initiate BF in the first days of the baby's life. After several studies, it was shown that breast milk did not contain the SARS-CoV-2 virus and that it was not transmitted vertically, i.e. from mother to foetus (Montero-López and Caparros-González, 2020 and Vila-Candel et al. 2021). According to Canicali et al. (2016), we see a high percentage of women choosing BF because of the benefits it brings. They state that women over the age of 20 are more likely to choose EBF. This shows that the most important reason for mothers to choose BF is the benefits it brings. Both mother and baby are protected from infectious and cardiovascular diseases through BF (Del Ciampo and Del Ciampo, 2018 and Brahm, and Valdés, 2017). In terms of the benefits for the baby, according to Brahm and Valdés (2017), it reduces the likelihood of SIDS by 36% and reduces infant mortality by 13% worldwide. Finally, BF helps mothers lose weight more easily, feel better emotionally and suffer less from stress (Del Ciampo and Del Ciampo, 2018). Prevention strategies implemented by nurses are necessary to prevent the occurrence of BF complications and to decrease the rate of early abandonment of BF. It is therefore important for healthcare workers to organise educational workshops related to the benefits of BF, the correct breastfeeding technique and the problems that may occur, in order to prevent them. In the study by Guerra et al. (2017), it was shown that the application of educational strategies is effective, as their article shows that after application more than 90% of mothers continued breastfeeding up to 6 months of age. Karaçam and Sağlık (2018) state that the application of heat, olive oil and the use of nipple shields improve breast problems, while the study by Fernández and González (2013) states that the most effective methods for improving breast problems are massages between feedings and the application of cold. They discourage the use of nipple shields, as they can irritate the affected area even more.

CONCLUSIONS

Breast problems are frequent and are associated with poor breastfeeding technique, so it is important for nurses to implement strategies in order to prevent the early abandonment of BF. Health personnel have knowledge about BF, but not enough to carry out strategies for prenatal education. Healthcare workers' interventions aimed at protecting, promoting and supporting BF have so far not been sufficient, as the rate of duration of BF up to six months is below the rate recommended by the WHO. The two most important causes of early abandonment of BF are breast pain and cracks. The treatment for breast problems is not described and there are contradictory methods, so more scientific research is needed.

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