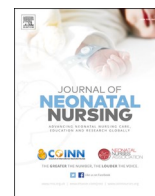




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## Breastfeeding in the context of the COVID-19 pandemic: A discussion paper

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### ABSTRACT

Breastfeeding offers one of the most fundamental global health benefits for babies. Breastmilk is lifesaving, providing not only nutrition but immunologic benefits and as such is strongly supported by the World Health Organization and leading healthcare associations worldwide. When the COVID-19 pandemic started in 2020, the impact of the restrictions to prevent the spread of the disease created challenges and questions about provision of safe, quality care, including breastfeeding practices, in a new 'normal' environment. Mothers were temporarily separated from their babies where infection was present or suspected, parents were prevented from being present on neonatal units and vital breastfeeding support was prevented. This discussion paper provides an overview of essential areas of knowledge related to practice for neonatal nurses and midwives who care for breastfeeding mothers and babies, in the context of the COVID-19 pandemic and the latest global guidance. Three areas will be discussed; the protective benefits of breastfeeding, keeping breastfeeding mothers and babies together and supporting mothers to breastfeed their babies. Finally, care recommendations are presented to serve as a summary of key points for application to practice for neonatal nurses and midwives.

### 1. Introduction

The known benefits of breastmilk and breastfeeding are unequivocal. The COVID-19 pandemic and the resultant restrictions put in place to prevent the spread of the virus has raised the need to reinforce the importance of breastfeeding and keeping mothers and babies together. The latest global guidance on COVID-19 and breastfeeding is essential knowledge for neonatal nurses and midwives who care for breastfeeding mothers and babies. The purpose of this discussion paper is to provide clarification on global recommendations and reinforce key facts for neonatal nurses and midwives relating to breastfeeding practice. For the purpose of this paper, the word 'baby' will be used throughout, as applied to both term and preterm babies. While there are specific differences in physical needs between these two groups, the benefits of breastfeeding and the principles of preventing parent/mother-baby separation are the same. Additionally, the focus will be on the mother and the mother-baby dyad. This relationship does not ignore the father,

partner or other caregiver(s) but since the mother and baby have a mutually embodied connection/relationship in the context of breastfeeding, it is appropriate for the paper to use this terminology. Moreover, the authors of this paper acknowledge and respect that women and their partners may decide not to breastfeed for individual reasons. However, this paper is written based on the perspective of those who have chosen breastfeeding as their preferred feeding method.

### 2. Background

Breastfeeding is one of the most effective ways to ensure child health and survival (World Health Organization (WHO), 2018). If breastfeeding was scaled up to near universal levels across the world, infant survival would drastically improve (Victoria et al., 2016). WHO and other global organizations such as UNICEF actively promote breastfeeding as the best source of nourishment for babies and infants. However, the last eighteen months have seen one of the most challenging public health

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crises in recent history, as experts and health professionals attempted to understand new knowledge specific to the COVID-19 virus and its impact on mothers and babies (Green et al., 2020a, 2020b). Indeed, the effect on breastfeeding was no exception, not just in terms of the concerns about potential virus transmission from mothers to babies, but also the restrictions put in place to prevent the spread, leading to a reduction in vital in-person breastfeeding support for mothers (Brown and Shenker, 2020). Moreover, hospitals have had limited visitors including mothers being temporarily separated from their babies when COVID-19 was confirmed or suspected (Gribble et al., 2020; WHO, 2021a); there have also been restrictions imposed on parental presence in neonatal units. The wearing of personal, protective equipment (PPE), particularly facemasks have presented other challenges in relation to communication barriers between health professionals and parents and indeed, between parents and their babies (Green et al., 2021a).

Early in the pandemic, questions arose as to whether breastfeeding posed a risk to the baby from potential COVID-19 transmission (Hand and Noble, 2020; Stuebe, 2020; Bhatt, 2021). WHO (2020) highlighted health professionals' concerns that mothers with COVID-19 could transmit the virus to their baby through breastfeeding. Unfortunately, such concerns led to several COVID-19 policies and reports suggesting separation of babies and mothers, thus preventing or impeding breastfeeding (Pereira et al., 2020). This was despite no evidence for vertical transmission of the virus and any identified infection in the baby usually resulted in mild symptoms (Gribble et al., 2020). To mitigate the concerns raised, the WHO released guidance that the benefits of breastfeeding outweighed any risk to the baby (WHO, 2020; 2021b). Furthermore, they emphasised the importance of keeping mothers and babies together, with usual hand hygiene precautions, wearing a mask if the mother was symptomatic and reinforcing the importance of providing expressed breastmilk to the baby even if the mother was severely ill (WHO, 2021b). This guidance was supported by other international health organizations such as UNICEF (2020), the American Academy of Paediatrics (AAP, 2020) and the Australian Breastfeeding Association (ABA, 2021). In addition, there was a strong global 'zero separation' campaign launched by the Global Alliance for Newborn Care (GLANCE), further emphasising the importance of keeping parents and babies together and promoting breastfeeding in neonatal units (GLANCE, 2021).

Within this context, three essential areas of knowledge for practice will be discussed in the context of COVID-19:

- The protective benefits of breastfeeding; specifically, the immunological advantages of breastmilk including the importance of vaccination.
- Keeping breastfeeding mother and babies together, in line with the principle of 'zero separation'.
- Supporting mothers to breastfeed, leading to recommendations for practice relevant to neonatal nursing and midwifery care during the COVID-19 pandemic.

### 3. The protective benefits of breastfeeding

Aside from the clear nutritional advantages of breastmilk, protection from infection is a well-known benefit due to the presence of vital immunological properties. Breastfeeding and the provision of protection should commence as soon after birth as possible. Of course, the concept of 'protection', begins before pregnancy with the innate maternal process as the woman readies herself, her health and lifestyle, to ensure she is in the best preconceptional state possible to conceive, carry, give birth, and feed her baby. She and her partner may have decided and started to learn about breastfeeding and its benefits as part of antenatal care and education. The concept of protection then continues throughout pregnancy, as the woman's body goes through complexities of altered immunity, ensuring that there is an optimum in-utero environment for her baby (Krumholtz, 2018; Morelli et al., 2015; Nancy et al., 2012). How a

baby is born can potentially disrupt and alter which microbes colonise the skin and mucosa (Torow et al., 2017) and these can differ significantly between babies who are born vaginally compared to those born by Caesarean section, especially if the latter was performed before rupture of the foetal membranes and the commencement of labour (Duar et al., 2020; Dunn et al., 2018; Mueller et al., 2019). A pre-labour Caesarean section results in the removal of the 'bacterial baptism' as described by Mueller et al. (2019), said to be achieved by vaginal and bowel flora preparing and protecting the baby by colonising their skin and oral mucosa and consequently, leading to gut colonization. Early breastfeeding is therefore an essential task to facilitate this important process. Colonization of the infant gut by viruses after birth may be enhanced and modulated by breastfeeding as reported in a recent study by Liang et al. (2020). This research suggests that partial or exclusive breastfeeding and the influence on gut colonization may protect infants against some human viruses.

Regardless of the method of delivery, a healthy term baby is prepared for birth and life in an extrauterine environment. A baby born prematurely however, is not as physically prepared for life outside the uterus. Nonetheless, many unique and important physiological events occur at the birth of a baby at any gestation, as they leave the warm, gravitationless, relatively sterile interior body of their mother, and enter an exterior world that is cold, gravity-laden and teeming with microbes (Dunn et al., 2018). Healthy term babies will undertake normal adaptation processes at birth; be ready to feed and take to the breast and are able to moderate their own intake. While premature babies may be physiologically immature to feed orally, they will still reap the nutritional and immunological benefits of expressed breastmilk (Underwood, 2013; Hair et al., 2016) until such time that they can be put to the breast.

In summary thus far, at whatever stage of gestation birth occurs, breastmilk and breastfeeding offer many protective benefits that maximize the immunological protection of the baby in the transition from foetal to extra-uterine life. It must be remembered that babies do not have fully developed innate or adaptive immune responses (Strauss-Albee et al., 2015), putting them at a heightened risk of infection. The adaptive immunity in the baby consists of the presence of B cell and T cell lymphocytes (Basha et al., 2014). One of the major roles that B cells play in an immune response is the production of antibodies, that recognise and bind to proteins on the invading cells (Basha et al., 2014); however, neonatal B lymphocytes are naive and not as able to respond effectively (Basha et al., 2014). The activation of the complement system in the baby is critical for host defence and inflammation. Complement components facilitate opsonization, are chemo-attractants for cells, mediate cell lysis and influence antibody production (Merle et al., 2015). Babies are susceptible to infection because the concentrations of circulating immune components are 10–80% lower than in adults (McGreal et al., 2012). While complement levels increase after birth, and some reach adult concentrations within a month, others evolve more slowly (Merle et al., 2015). Low immunoglobulin concentrations, therefore, also make the baby susceptible to bacterial and viral infections (Simon et al., 2015).

This importance of this area of knowledge in relation to infection risk should be emphasised to neonatal nurses and midwives given how infection can lead to adverse outcomes (National Institute for Clinical Excellence (NICE), 2014), even further heightened in the context of the COVID-19 pandemic. However, it has been confirmed that babies are at a lower risk of COVID-19 than older children and adults due to the absence of the damaging cytokine 'storm' (Jose and Manuel, 2020; cited by Green et al., 2020a) which is in the baby's favour. Indeed, if breastfed, this has further favourable effects; a variety of soluble and cellular antimicrobial substances are found in human milk which facilitate immune development in early life (Field, 2005), and some of these substances are able to modulate the immune system (Cacho and Lawrence, 2017). Research has also shown that breastfeeding helps to mature the baby's immune response whereby molecules in the breastmilk destroy specific viruses, ensure optimal gut microbiota

colonization and enhance the gut barrier to infection (van den Elsen et al., 2019). Anti-microbial factors and IgA prevent pathogens from entering through the gut wall as well as inducing antigen specific long-term immune responses (Turfkruyer and Verhasselt, 2015).

It is useful to understand both passive and active immunity, in the baby but more specifically in relation to breastfeeding. Passive immunity occurs with the direct transfer of antibodies to a non-immune person and most commonly this is through the transfer of immunoglobulins across the placenta to the foetus during the third trimester and through the breastmilk after birth. This protection lasts long enough for the baby's own immune system to mature and develop antibodies to infection and disease. Passive immunity is also achieved through the direct administration of immunoglobulins in blood and blood product transfusion. The half-life of administered immunoglobulin G (IgG) is 3–4 weeks and therefore this immunity only lasts for a short time.

Currently much of the knowledge and understanding related to passive breastmilk protection for maternal viral infection comes from research into Human Immunodeficiency Virus (HIV); however it remains to be seen whether the same applies to COVID-19 infected mothers. A recent study has shown that milk from COVID-19 infected mothers does not cause infection in cells and that there is no evidence of transmission of the virus during breastfeeding (Chambers et al., 2020). In fact, there is evidence to suggest that in a COVID-19 positive mother, breastfeeding might have potential benefits for the baby (Dong et al., 2020). Researchers in Western Australia are embarking on a study exploring the benefits of breastmilk in protecting the baby against COVID-19 and whether antibodies in the milk of an infected mother may be beneficial to prevent infection (Australian Broadcasting Commission Radio, 2021).

Active immunity is achieved through the administration of a live or attenuated vaccine to an individual to induce an immune response in the body that is specific to the antigen or toxin. This type of immunity usually lasts for months or years. The only immunisations that have shown optimal vaccine response and are currently used in the newborn period are the Tuberculosis BCG, Hepatitis B and oral Poliomyelitis vaccines. The COVID-19 vaccination, now a vital and integral part of the global response to tackling the virus will most probably not be offered to babies as they are unlikely to develop optimal vaccine memory response due to insufficient immunogenicity associated with their immature innate and adaptive immunity (Saso and Kampmann, 2017).

It is recommended that women planning pregnancy ensure their vaccinations are up to date to prevent maternal infection during pregnancy, increase maternal antibodies and passive immunity to the foetus during the latter part of pregnancy and to protect the baby from infection (Maertens et al., 2020). For instance, immunising women against diphtheria-tetanus-acellular pertussis (dTpa) during pregnancy reduces the risk of pertussis in these women and their babies by 90% (Amirthalingam et al., 2014). Live vaccines are not recommended during pregnancy, and women planning to conceive are advised to wait 28 days after a live vaccination before becoming pregnant. Breastfeeding is not a contraindication to vaccination (Centers for Disease Control and Prevention (CDC), 2016; National Health Service (NHS), 2019).

At the time of this review (June 2021) more than 2.8 billion doses of the COVID-19 vaccine have been administered across 179 countries (Bloomberg COVID-19 tracker <https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/>). Different guidelines for the administration of COVID-19 vaccines to pregnant and breastfeeding women are based on the benefits, risks and uncertainties in the context of the existing pandemic situation in each country. Decisions for immunising these groups of women have been difficult because pregnant and breast-feeding women were not included in COVID-19 vaccine trials due to concern of risks to the foetus and/or baby. As a result, limited evidence exists to guide health professionals in providing information to breastfeeding mothers about whether to have the vaccination. Differences of opinion regarding the vaccination of pregnant and breastfeeding women have emerged globally. In the United Kingdom,

the Medicines and Healthcare Products Regulatory Agency (MHRA) initially did not approve the vaccine for breastfeeding women. However, in December 2020 the MHRA updated the advice that breastfeeding women could receive the Pfizer BioNTech or the Oxford-AstraZeneca vaccine (Rimmer, 2021).

In January 2021, the WHO provided interim recommendations for Pfizer-bioNTech COVID-19 vaccine for use under emergency listing. It acknowledges the lack of trial data on the safety of COVID-19 vaccines in breastfeeding women but emphasises there is no mechanism by which the vaccine can be harmful for breastfeeding women. It states that:

“As the [Pfizer-bioNTech COVID-19] vaccine is not a live virus vaccine and the mRNA does not enter the nucleus of the cell and is degraded quickly, it is biologically and clinically unlikely to pose a risk to the breastfeeding child. On the basis of these considerations, a lactating woman who is part of a group recommended for vaccination, e.g. health workers, should be offered vaccination on an equivalent basis. WHO does not recommend discontinuing breastfeeding after vaccination” (WHO, 2021c).

Following this, various global organizations, for example from Australia, United States, Europe and the UK have stated that women who are breastfeeding, pregnant or who are planning pregnancy can receive the vaccine (Australian Technical Advisory Group, 2021; CDC, 2021; Health Europa, 2021; Public Health England, 2021).

Further positive research findings have emerged since. A pre-print study (Gilbert and Rudnick, 2021) has reported on the first known case of an infant born at term with COVID-19 antibodies detectable after the mother was vaccinated at 36 weeks gestation. The baby was born vigorous and healthy. The report emphasises that the duration of protection is unknown and recommends other investigators to create pregnancy and breastfeeding registries to contribute to the knowledge on efficacy and safety in the baby and the first six months (Gilbert and Rudnick, 2021); this study has since been supported by Paul and Chad (2021). In relation to breastfeeding, even more promising are the findings of studies that have indicated the presence of antibodies detected in human breast milk following maternal vaccination (Baird et al., 2021; Demers-Mathieu et al., 2020). A paper by Yeager (2020) also reports ongoing work to consider whether antibodies in breastmilk may be useful for more than protecting babies from the virus (Chambers et al., 2020), suggesting that antibodies extracted from breastmilk—as opposed to the current practice of using convalescent plasma, could potentially have therapeutic properties against COVID-19. These exciting possibilities pave the way for emerging and ongoing knowledge in this area specific to the benefits of breastmilk in the treatment of COVID-19.

#### 4. Keeping breastfeeding mothers and babies together

Breastfeeding is more than just protection against infection and providing a baby with their nutritional requirements. It is also a way to enhance connection and emotional closeness between mother and baby. This section is an important reminder of the well-documented existing knowledge on this area, to be considered in the light of current COVID-19 restrictions, that may lead to, for example, potential separation.

Feeding is a social act that can be influenced by cultural beliefs and practices (Alghamdi et al., 2017) and is one of the first interactions mothers have with their babies after birth (Oxford and Findlay, 2015). Critically, this feeding relationship creates opportunities to enhance the maternal bond and provide a foundation for the baby's developing attachment. The relationship between a woman and her baby is characterised by a deep and shared connection. A woman's body is designed to conceive, grow and nurture a baby, to give birth and to feed. Subsequently, for a baby to survive, essential feeding and nurturing practices, with the resulting mutual reciprocity, are innately protective and keep them together (Bowlby, 1988). The relationship between a mother and her baby is more than physical; it involves all the senses, including a vital emotional element and is important for the growth, well-being,

protection of the baby and the development of nurturing.

Oxytocin plays a role in the developing relationship even though it is normally associated with milk ejection as it is released when a baby suckles, and during skin-to-skin contact (Moberg and Prime, 2013). These acts can enhance the maternal bond and the baby's attachment to their mother (Moberg and Prime, 2013). Skin-to-skin contact not only sets women on a path to bond with and be responsive to their infant (Gribble et al., 2020), it also facilitates breastfeeding. Skin-to-skin contact in both term and preterm babies has been shown to have key benefits and is globally an integral component of kangaroo mother care along with early breastfeeding (Feeley et al., 2016; Kearvell and Grant, 2010; Petty, 2017; Safari et al., 2018).

In addition, oxytocin is a neurotransmitter that can assist in maternal stress reduction (Moberg and Prime, 2013). Oxytocin has the potential to promote maternal caregiving and indirectly improve the maternal bonding and baby attachment (Linde et al., 2020). The release of oxytocin during breastfeeding has been found to have a positive effect on mood disturbances during the postpartum period (Niwayama et al., 2017).

Some mothers are unable to breastfeed or choose to use a bottle to feed their baby with expressed breastmilk or formula. The use of a bottle does not reduce the opportunities for relationship development or responsiveness during the feeding process (Kotowski et al., 2020). However, breastfeeding does enable mothers to be more attuned and responsive to the baby's behaviour (a baby-led approach) rather than the amount of milk in the bottle (a parent-led approach) (Brown and Arnott, 2014). Therefore, breastfeeding has been acknowledged as facilitating maternal sensitivity. Breastfeeding mothers and babies have been found to engage in more mutual gaze and more responsivity than bottle-feeding mother-baby dyads (Krol and Grossmann, 2018). Maternal responsiveness during breastfeeding goes beyond providing the baby with milk, requiring the mother to be contingent by reacting to the movements, vocalisations and other baby engagement and disengagement cues (for example, the baby smiles the mother smiles back) (Weaver et al., 2018). Having close physical contact is identified as resulting in more responsive parenting and feeding (Little et al., 2018). To enhance the maternal-child relationship during the feeding process, a mother needs to be sensitive to cues, alleviate the distress of the baby and provide growth-fostering situations. It is important that the baby provides clear cues and responses to the mother/caregiver's soothing behaviours and interactions. Other elements include positioning the baby during the feed so that there is a direct line between the mothers' and baby's eyes; and, encouraging the mother to touch and stroke the baby. Having a positive maternal affect is also important, for example, smiling at the baby, engaging in a mutual gaze and singing or talking using positive encouraging words and tone (Oxford and Findlay, 2015).

Maternal responsiveness also requires knowledge of the clustering of baby feeding cues. Hunger cues include a mixture of subtle and potent engaging and disengaging cues, which include crying, fussiness, mouthing, turning to the caregiver, arm flexing, sucking movements and sounds, putting hand-to-mouth, postural attention and reaching out. While satiation is also shown by a mixture of cues, some common cues include: falling asleep, lack of facial expression, arms relaxed and extended along the side of the baby's body, relaxed and extended fingers, decreased sucking, pushing away, and reduced muscle tone (Oxford and Findlay, 2015). Regardless of the baby feeding method, mothers can be supported to learn how to recognise and respond to these cues (Shloim et al., 2017).

Mother-baby interactions in the hospital environment, however, may potentially be impacted by separation of mother and baby when COVID-19 is confirmed or suspected, as reported at the start of this paper. Clearly, for the vital processes described above to take place naturally and successfully, mother and baby must have continual and regular physical and emotional closeness. With the latest WHO guidance, the hope is that unnecessary separation is now avoided, even in women with actual or suspected COVID-19, worldwide (WHO 2021a). Premature

babies, however, are faced with separation due to prolonged hospitalisation and being nursed in the neonatal unit.

There is also a growing use of face masks, which may further impact on the processes described. The evidence that face coverings limit COVID-19 transmission, has resulted in more than one hundred countries issuing nationwide mask mandates (Felter and Bussemaker, 2020). Green et al. (2021a) have outlined the potential impact on the baby's social development when those around them wear masks. From the minute of birth, faces are important to babies, and they are adept, at a very early stage, at differentiating their mother's face from that of a stranger (LoBue, 2016), preferring their mother's face to other people's (Simion and Giorgio, 2015). Babies use all their senses to explore and discover their social world and being able to see faces is a fundamental way in which they learn how to discriminate between differing emotional facial expressions, such as happy, sad and surprised (Farroni et al., 2007; Palama et al., 2018). By 5 months of age, they can match the emotional expression such as a sad face, with the corresponding sad vocal expression (Rigato et al., 2011). Breastfeeding is an optimum time for this social interaction and reciprocity to occur; therefore, anything that can hinder such vital behaviours should be avoided as much as possible. Masks can affect the baby's ability to visualise facial expressions and develop facial processing and orientating skills (Katz and Hadani, 2020). Babies rely on their parents' emotional cues and facial expressions to help them regulate their responses, and if this social referencing does not occur, the baby can feel anxious and unsure of their environment. Overall, face masks could affect the reciprocity that is often captured during breastfeeding, which, in turn, could interfere with the parent-baby bond and longer-term attachment (Katz and Hadani, 2020). An awareness of these important factors raised by the COVID-19 pandemic is vital for neonatal nurses and midwives as well as the need to integrate this knowledge into practice, particularly in supporting mothers to initiate and continue breastfeeding.

## 5. Supporting mothers to breastfeed

Breastfeeding support has inevitably changed as a result of COVID-19. Brown and Shenker (2021) conducted a United Kingdom [UK] online survey with 1219 mothers of babies aged 0–12 months to gain insight into their breastfeeding experiences during the pandemic. Positive findings were reported related to breastfeeding being 'protected' during lockdown in 41.8% of mothers. However, the findings also revealed that unfortunately, 27% of mothers felt that they were unable to get the support that they needed and those from a black and minority ethnic (BAME) background were more likely to discontinue breastfeeding. Studies such as this enable neonatal nurses and midwives to understand the maternal perspective so that relevant practical and emotional advice can be provided, especially in the early stages when breastfeeding is being established.

In terms of the promotion of breastfeeding, there is no doubt that the building of a trusting and therapeutic relationship is crucial; however this has been severely disrupted, potentially leaving neonatal nursing/midwifery staff feeling emotionally distressed that they are not able to wholly fulfil their professional role. By not providing the customary breastfeeding support, nurses/midwives may find themselves in an ethically challenging position as they may be going against recommended practice, albeit to protect themselves and those in their care. The emotional turmoil that this can pose should not be underestimated and employer-led strategies may need to be implemented to enable nurses/midwives to deal with these dilemmas. Examples include well-being rooms where staff can quietly reflect (away from the work environment), peer support programs (Greenberg et al., 2020) and Schwartz rounds (Flanagan et al., 2020) – the latter providing the opportunity for staff to discuss the emotional challenges that they have faced.

Given these circumstances, it is essential that neonatal nurses and midwives are aware of recommended guidance from global organizations and current research to be able to support mothers in a sensitive,

person-centred but also pragmatic way (Ng et al., 2020). These recommendations are as follows:

- WHO (2018) advocates exclusive breastfeeding for the first 6 months of life, followed by continued breastfeeding with appropriate complementary foods for up to 2 years and beyond, along with early and uninterrupted skin-to-skin contact, rooming-in and kangaroo mother care.
- More recently, WHO (2020) recommends decisions on mother-baby contact and breastfeeding must be based on the potential risks of COVID-19 infection to the baby, the risks of morbidity and mortality associated with not breastfeeding and the protective effects of skin-to-skin contact.
- For those mothers who are not breastfeeding, the protective benefits of skin to skin should be encouraged (Petty, 2017).
- WHO (2021a) recommends that mothers with suspected or confirmed COVID-19 should be encouraged to initiate, or continue, to breastfeed and counselled that the benefits of breastfeeding strongly outweigh the potential risks for transmission, particularly given that there is no evidence of transmission of COVID-19 through breastfeeding.
- Staff caring for breastfeeding mothers and babies, or premature babies in neonatal care, should be fully aware that the risk of COVID-19 infection is low at such a young age and is typically mild or asymptomatic. However, the consequences of not breastfeeding and separation between mother and child can have a negative and long-lasting impact (Krol and Grossmann, 2018).
- The principles of zero separation are essential to ensure families can continue to be present with their babies in the neonatal unit (GLANCE, 2021) when for example, they are born premature or sick; it is important that emotional closeness is facilitated, and breastfeeding encouraged when the baby is mature enough.
- Importantly, in the context of this paper, the benefits of breastfeeding and nurturing mother-baby interaction, to prevent infection and promote health and development, are particularly important when healthcare services are themselves disrupted or limited. Restrictions must be adhered to in line with national and local policies on infection prevention and control measures, all essential to prevent contact transmission between COVID-19 suspected or confirmed mothers and their babies. However, at the same time, staff must be mindful of the benefits, and strive to support and promote breastfeeding in an adaptable, inclusive and balanced way.
- Face-to-face support for breastfeeding must be available where it is safe to offer it. If not possible, then online or telehealth support must be available, to reach all families, not only those who can afford it (Brown and Shenker, 2020). Support must include groups that have been highlighted as needing extra input, such as BAME mothers (Brown and Shenker, 2021).
- Mothers should be signposted to breastfeeding support groups (once they re-open), relevant health professionals, volunteers or private lactation consultants. The support platforms may vary between groups, individual, face-to-face, online (video), telephone or home visits.
- Mothers can also be referred to recommended books and trusted websites such as the National Breastfeeding Helpline, La Leche League and the National Childbirth Trust (NCT). The Association of Breastfeeding Mothers have collated vetted resources including videos and fact sheets.
- Policymakers should develop guidance that considers the risks of disease transmission, the critical importance of skin-to-skin contact, breastfeeding, and maternal proximity to short- and long-term infant physical and mental health and development.
- Staff need to be aware of the impact of COVID-19 on babies and mothers and how it may influence care. Current and evidence-based knowledge is essential for best practice (Green et al., 2020a, 2021b, 2021c). Particular papers provide excellent overviews of the current

issues relating to breastfeeding in the context of COVID-19 and are strongly recommended for further reading on this topic; namely, Brown and Shenker (2020; 2021), WHO (2020) and Gribble et al. (2020).

## 6. Conclusion

The global benefits of ensuring mothers and babies are not separated along with the essential support for breastfeeding mothers and/or the provision of breastmilk to the baby are clear, based on sound science. It is also apparent that the provision of nursing and midwifery care, including breastfeeding support, during the COVID-19 pandemic presents difficulties. However neonatal nurses and midwives need to acknowledge that while the pandemic has presented them with unprecedented circumstances that have, in some instances, had a temporary impact on the quality of care that they provide, at every opportunity they need to continue to advocate and ensure that the best evidenced-based practice is provided in order to keep mothers and babies together and to nurture breastfeeding success.

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