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Reflections on COVID -19 and the potential impact on preterm infant feeding and speech, language and communication development

Journal of Neonatal Nursing

Dear Editor,

Infants needing the support of a neonatal unit have unique, individual needs that require a Synactive approach to enable effective management of both the environment and the infant themselves (Als, 1986). Parents working in partnership with neonatal colleagues play an essential role in developing competent skills to appraise an infant's function. For parents, learning to care and interact with their infant on a neonatal unit presents unexpected complications including learning to cope and be close to their baby in an unfamiliar setting (Cardin, 2020). The current COVID -19 pandemic has challenged all aspects of neonatal work causing anxiety and stress for all involved in infant care, both parents and neonatal staff. Neonatal teams have been working together to continue to provide excellent care, and to make adaptations in a difficult and unfamiliar situation. A major change to practice has been the need to limit parent visiting time and access to the cot -side. This is further complicated by the need for potentially prolonged periods of practitioner face - masks and personal protective equipment over and above the typical usage experienced when treating infants on neonatal units and this has inevitably altered the traditional developmental care approaches undertaken in the UK (Altimier et al, 2015). We have been deeply impressed with the actions and adaptations made by our neonatal colleagues to ameliorate many of the issues that can impact on the usual practice for infants at this time. Alterations have focused on sustaining infant and parent links through other means, such as using vCreate (2017), and the continued team involvement of parents in decision - making. However, as speech and language therapists, our particular area of concern along with our multi-disciplinary team colleagues is the effect of necessary adaptations in neonatal management on preparing infants for and establishing early feeding skills, and supporting and enabling parent – infant early bonding, communication and interaction (Baby Friendly Initiative, 2019).

It is, of course, not possible to predict the feeding and communication problems which may accrue as a consequence of changes in neonatal practice due to this pandemic, but it is felt important to highlight that preterm infants are already known to have an increased risk of feeding difficulties, as well as long term speech, language and communication problems (Harding et al, 2019; Kallionien et al, 2017). Aside from the current pandemic, infants already have to contend with significant exposure to a wide variety of sounds within the neonatal environment including electronic sounds, general unit noise, silence as well as language which potentially could impact on language development (Pineda et al, 2017).

For infants to develop and thrive, they need sustained opportunities to build relationships and experience interactions with familiar caregivers. This complex dyad involves many skills, but in particular it requires infant ability to demonstrate different states, parent responsiveness to infant signs, cues and states shown, stable infant health, stable parent mental health and parent consistency with use of relevant strategies (Als, 1986). Breast

feeding is important not just for developing oral feeding skills, but to facilitate early bonding and communication interpretation and interaction. Time on the breast through skin to skin time, or for early feeding experiences has been shown to increase maternal looking at and directed talking to an infant enabling vocal turn-taking to take place (Buil et al, 2020). Infants have a need to search for others to gain attention and interaction opportunities, and will seek out faces, body movement of others, voices (in particular the maternal voice), touch, familiar and calming smells as well as different visual stimuli when feeling safe (Gratier & Devouche, 2017). Newborn infants are specifically predisposed to look at a human face with a particular interest in the mother's face (Cecchini et al, 2011). Infants and parents are emotionally and biologically connected, and this important connection supports interaction, and then synchrony within daily communication exchanges (Kinreich et al, 2017).

Making predictions about the potential increase in infants who will need to be followed up post discharge is difficult to calculate. Mask wearing and use of personal protective equipment by both parents and staff might have impacted on the mental health of all adults involved. Stress can be exacerbated by loss of joint family time at the cot side as well as restrictions to typical infant care which naturally involve interaction to engage and to reassure. Mask wearing and use of personal protective equipment may reduce or inhibit skin to skin opportunities that support early parent – infant bonding, neuro-development, lactation and infant physiological stability. Face masks can also impair the infant's need to look and engage with others as part of early learning and exploration. A reduction in the functional experience of caring for the infant will possibly reduce learning to understand and respond to infant cues. This could interrupt understanding early feeding cues, or delay the learning required for developing communication strategies that engage, shape and sustain infant interaction, and it is currently unclear if critical periods for introducing oral feeding, or for developing a confident communication dynamic between the infant and its carers are being missed.

As speech and language therapists, we will undertake to be alert to potential early speech, language and communication problems that may be evident when following up infants in the community, along with close monitoring of any feeding problems that may persist or arise. We are well aware of the breadth and range of literature concerning preparation for and beginning of oral feeding for the preterm infants. However, what COVID -19 has highlighted for us as a profession is to outline the importance of how we define clearly what early communication is, and what we should be encouraging once bonding and skin to skin opportunities have been encouraged and established. These strategies are essential methods that provide a foundation for early communication alongside responsive parenting. However, these methods do not sufficiently address early communication development features and additional approaches need to be encouraged such as:

- Continuation of use of a Synactive approach (Als, 1986) to understanding and responding to the infant's intent and response to the environment. Using individualised, relational, and intentional management whilst being aware that the

challenges of prolonged mask wearing can impact on individual practitioner's communication styles.

- Interpretation, observation and responsiveness by carers of infant states, cues and responsiveness throughout the day, both infant initiated signs and infant responsiveness signs (e.g. eye gaze, vocalisations, etc.) shown through whole body movement, facial expression and vocalisation.
- Implementing use of voice towards the infant, in particular parent voices, to calm and to orientate the infant, and to enable attunement to familiar voices. Responding to vocalisations the infant may produce.
- Implementing and using variable intonation to facilitate infant responsiveness.
- Implementing observation of the development of and alterations in gaze, with opportunities to strengthen this skill through opportunities to focus on faces for learning.
- Implementing use of natural gestures when interacting to enable future infant development of deictic, referential and emphatic gestures, and to support early receptive language skills.
- Following simple everyday routines and using objects to indicate daily cares to develop anticipation and symbol understanding.
- Where possible, use of masks with clear windows to enable others to gain a better impression of facial expression, and to be able see a moving mouth accompanying directed speech.

Conclusion

Supporting and promoting pre-feeding, feeding and early communication into the neonatal environment remains crucial. Within a non - COVID -19 context, speech and language therapists have worked closely with their neonatal colleagues and parents and carers to try and enable positive communication and interaction experiences through use of gaze and eye contact; changing positioning to enable interaction through gesture and vocalisation; talking directly to the infant, and responding to vocalisations initiated; use of gestures during communication and understanding an infant's state through their own non-verbal signs where possible. However, this current pandemic has highlighted for us that we need to define and explain clearly what early communication actually is, and what could be supported, embedded and developed during functional every-day cares, or what can be done in the unusual context we find ourselves in. As speech and language therapists who work in neonatal care settings, changes in practice due to COVID -19 has taught us that we have to address this area more clearly, and consider how we can support and sustain these strategies in complex and challenging contexts. We look forward to working within our neonatal teams as we undertake this challenge.

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