

**Final Report**

**Research study:** *Exploring neonatal nurses’ and parents’ understanding of the factors that enhance and hinder communication and early interaction between preterm infants and their parents.*

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**• Project outline and intentions**

The aim of the research project was to investigate nurses’ and parents’ understanding of factors that enhance or hinder communication and early interaction between preterm infants and their parents after experiencing care on a neonatal unit. Overall, the research team intended to have a greater insight into parent’s understanding of effective and sensitive interaction and communication with their preterm infants. In turn, we believe that this knowledge and enhanced understanding will link to improved knowledge about early attachment and bonding and the factors that influence this within the neonatal setting. Extended health professional knowledge is essential in the early stages of preterm infant care where parents may be less able to undertake direct practical care and require support from neonatal staff. Increased knowledge of communication and interaction can also provide scope for wider creative thinking for neonatal staff to guide parents and support use of communication and interaction strategies. A protocol and / or an educational resource to guide neonatal health professionals in this vital area will be produced using the information from parent participants.

**• Activities completed**

* Ethical approval was sought and obtained from University of Hertfordshire’s Ethical committee and the Health Research Authority (HRA).
* The research team obtained an approved research passport and appropriate permissions through local Trust Governance (to undertake the study within the Royal Free NHS Trust, London).
* Collaboration between the research team and key gatekeepers took place in setting up the study data collection tools.
* A parent advisory group was set up to further advise on the study materials, and to discuss progress of the project and findings, in line with the principles of public and patient involvement (PPI).
* Within a qualitative, narrative-based paradigm and methodological approach, we recruited 17 participants: 8 parents and 9 neonatal nurses. All parents had received care for their infant from a Level 2 neonatal unit and all neonatal nurses were working within one of two neonatal units within the identified Trust. Participant demographics are detailed in Tables 1 and 2 (parents and nurses respectively).
* Interviews were narrative in nature, and used open-ended questions supported by a topic guide to explore:
1. consideration about what was hard when learning to understand an infant’s early states and unique communication.
2. what has helped participants learn to adapt to understand how infants communicate.
3. any other reflections relevant to infant – carer communication.
* All interviews were transcribed, and all participants were assigned a code to ensure anonymity.
* The interview data were thematically analysed using a narrative approach.
* The themes are below:

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| PARENTS* **Being in the neonatal unit** *(*“*We were on a journey’’)*
* **Different communication strategies** (finding “*a way of communicating*’’)
* **Barriers to communication** (“*a bit of a hindrance’’)*
* **The transition from the neonatal unit** *(*“*going home’’)*
 | NURSES* **Neonatal care experiences** (“*Always I find it joyful’’)*
* ***Supporting parents*** *(i*ts“*difficult…. to find that time to give emotional support’’)*
* **Encouraging communication** (“*We've got to reiterate to the parents…. that you are there’’)*
* **The impact of COVID** *(*“*they couldn’t see their baby’’)*
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**• Challenges**

One challenge was the length of time it took to gain our research passports due to the necessity for many important but time-consuming requirements. These included DBS checks, references x2, GCP training updates, occupational health clearance, University and Trust Governance processes, etc. The other main challenge that presented to the research team was recruitment in the initial stages once ethical approval had been granted. We started with one neonatal unit within the Trust which did not yield many volunteers: in fact, only two neonatal nurses and one parent participant came forward in the first month. Therefore, we sought permissions to expand our participant pool to recruit within a second neonatal unit within the same Trust which presented us with a much-improved opportunity to recruit. This was therefore a successful amendment.

**• Outputs and outcomes**

Outputs from the study are in the form of pending publications (in progress) and conference presentations- see over the page under; ‘Dissemination’. The themes identified will now be used to develop an educational protocol / resource that can be used to guide staff and parents in cue-based, sensitive communication. This will lead to further evaluative enquiry into the effectiveness of this resource, paving the way for future research. In addition, further, follow-on research will include observing the communications between preterm infants and mothers when the situation permits.

Any resource / protocol that is developed will be in an online format to enable dissemination to a wider reach / audience, to neonatal units nationally and parent groups along with education institutions. One of the research team has experience with this method of dissemination to the wider neonatal networks across the UK as well as globally via the Council of International Neonatal Nurses and those related to speech and language therapy. To re-iterate from page 1 of this report, the intended outcome is to extend health professional knowledge about early stages of preterm infant care in relation to supporting parents who may be less able to undertake direct practical care. Increased knowledge of communication and interaction will provide scope for resource development for neonatal staff to guide parents and support use of communication and interaction strategies.

**• Impact and are the long-term consequences**

Firstly, it is envisaged that the project will benefit neonatal healthcare professionals (nurses, doctors and the allied health care team such as speech and language therapists) that care for preterm infants and their parents in neonatal care, by enhancing their knowledge and understanding of communication needs and strategies. This will include students/ learners / new staff who may be new to the neonatal field. Increased knowledge including the development of a tailored guide / educational resource will positively impact on practice and in turn, benefit the parents and infants as care will be sensitive and timely in relation to interaction that is appropriate, and cue based. Secondly, parents will also benefit as the knowledge and insight gained can also be used to support and inform them, not only by the staff caring for them having enhanced knowledge, but parents also being able to access the same resource. Thirdly of course, enabling greater support for parent interacting with their preterm infants in the early days will ultimately benefit the infants themselves. This links to the research cited earlier that pertains to the importance of early closeness and sensitive interaction and communication to develop secure attachments that can impact on later life. Finally, developing a resource that can be hosted on a digital platform has great scope for benefiting the wider field of neonatal care by enabling further reach nationally and globally.

**• Dissemination**

Findings from the project have been disseminated as follows:

* Publication(s) in peer-reviewed journal (s) – we have had one paper published in the Journal of Child Healthcare (parent data) https://journals.sagepub.com/doi/10.1177/13674935241302437
* We are also finalising a second paper submitted to the International Journal of communication and language disorders (nurse data). Both papers are open access and can be widely shared.
* Presentation at relevant conferences – via poster and / or oral concurrent sessions. Our study has been presented orally at the following external and internal events:
	+ The ‘REaSoN’ neonatal multi-disciplinary conference in June 2023.
	+ The University of Hertfordshire, School of Health & Social Work Research conference in July 2023.
	+ The Royal College of Speech and Language Therapists [RCSLT] National Conference: Nov 2024 *Embracing the future together*.
	+ The Royal College of Nursing National Education conference in April 2024 [oral poster]
	+ The Council of International Neonatal Nurses [COINN] conference in Denmark in May 2024.
	+ An online dissemination event was held within the School of Health and Social work in July 2024: this attracted over 300 participants nationally and was evaluated very positively.
	+ Presentation of an ePoster / audio at the International *Family Integrated Care* Conference Glasgow in October 2024.
* Development of a website named, ‘*Prematurity and Communication [PAC*]’ <https://pacstudy.co.uk/> which is used as a platform for the study findings and further resources aimed at supporting staff and parents in the area of communication.
* Networking and dissemination of the work / outcomes via social media platforms- Twitter and Facebook, linking with key accounts / followers and the Neonatal Operational Networks [ODNs] across the UK along with the UK Neonatal Nurses Association and Council of International Neonatal Nurses (CONN) comms and website platforms. Website and resource development will be disseminated across the UK Operational Delivery Networks [ODNs], the Neonatal Nurses Association and the Council of International Neonatal Nurses.
* Finally, presented our work in November 2024 for the *Supporting Early Minds* Research Network.
* We will now seek further impact funding to continue our work in resource development in this particular area of interest.