

Analysing early parent-child interaction in deafness.

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Infants and toddlers learn about the world mostly through social interactions and particularly through interactions with their parents [1]. Despite early identification and advancements in cochlear implant and hearing aid technology, delays in language skills in deaf children continue to exist [2-5]. Good quality parental interaction is a key predictor for the successful development of deaf children's language [6-10]. This work reports on the first steps of a four-phase, NIHR-funded study to co-produce a deaf-specific clinical assessment tool in parent-child interaction (PCI).

We carried out a systematic review on 61 studies; the protocol is available on PROSPERO [11]. We asked which parent behaviours are being assessed, how is PCI assessed, and which parent behaviours are associated with greater child language outcomes? We found that research on PCI behaviours concentrated on gaining attention, joint engagement, emotional sensitivity, and language input. PCI was mostly assessed using fine-grained coding systems, but no universal assessment tool was used. Some of the parent behaviours were found to be associated with higher scores in deaf children's language.

Following the review, we carried out an experimental comparison of PCI in 24 dyads. All children were deaf (aged from 11;0 to 65;0 months) and parents were deaf or hearing. We focused on parent contingent responses [12] and levels of facilitative language used by parents [13] as both are associated with better language development in deaf and hearing children. We asked how often parents responded contingently to their child's communicative attempts and what frequencies of high/low facilitative techniques did they use? Lastly, we asked how parent responsivity and language input correlated with child language as measured by the Communicative Development Inventories [14]. We will describe in detail the features of PCI seen to be most effective and related to higher scores in child language. Our next steps in the assessment tool's development will also be shared.

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