

Promoting interaction between mothers and their young children with neurodisability – a phase I study



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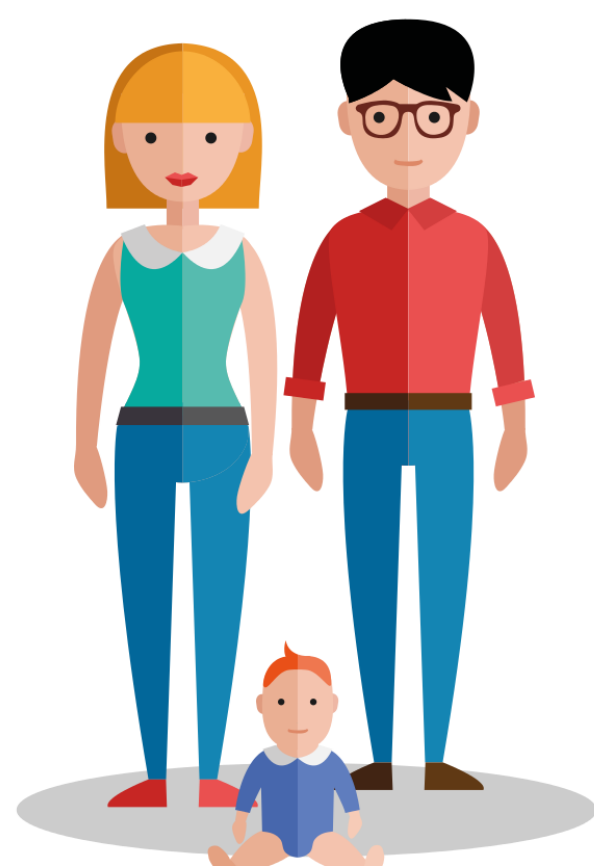


Background

Children with motor disorders often have difficulties producing intelligible speech and gestures. Parents can find their attempts to communicate difficult to interpret. Speech and language therapy for young children with motor disorders teaches parents to recognise children's communication signals. This project assessed the feasibility of supporting parents throughout therapy using a smartphone app.

Aims

To examine if parents produce more opportunities for communication following communication training and mobile app coaching.



Method

8 families were recruited from North East England by local speech and language therapists.

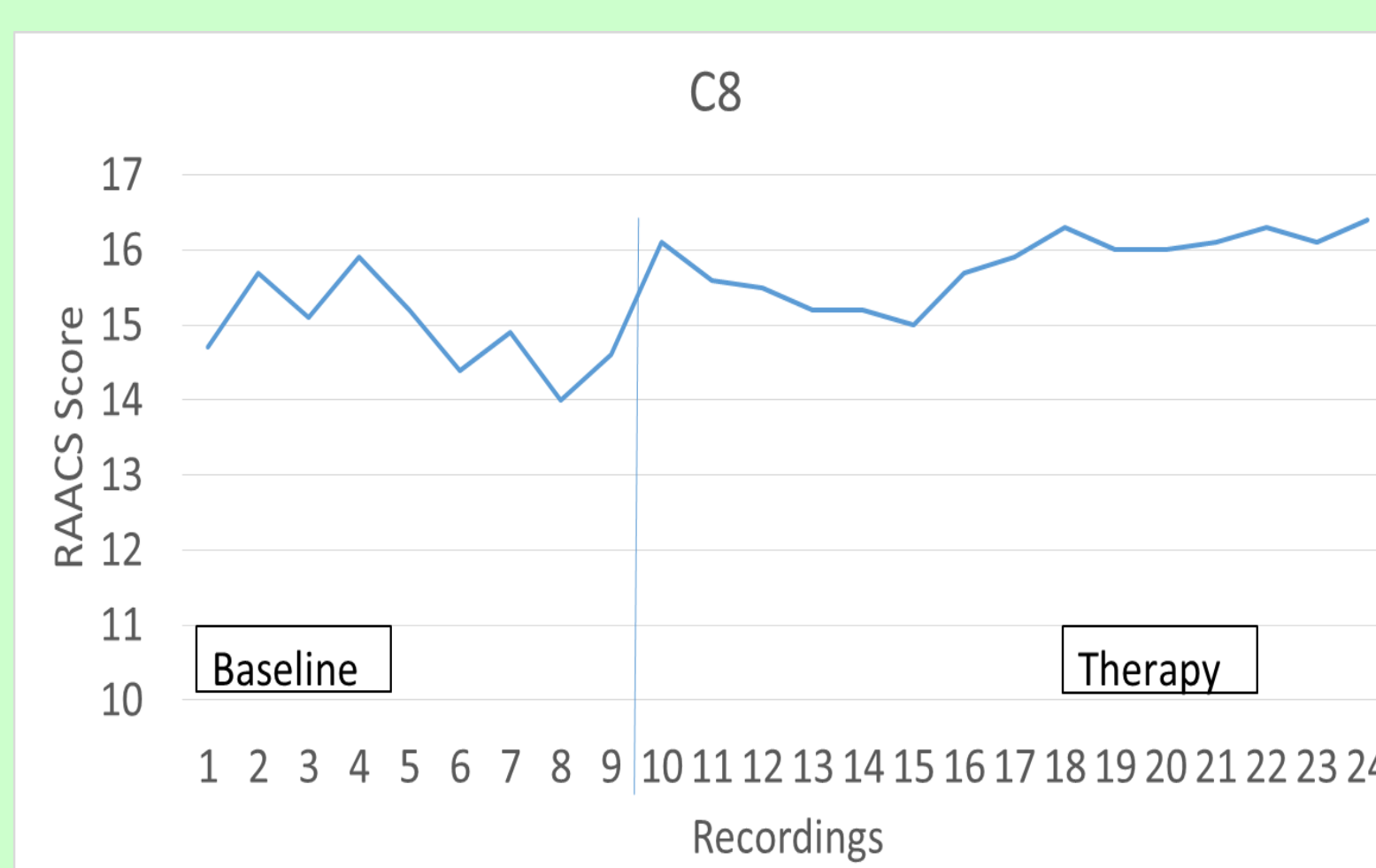
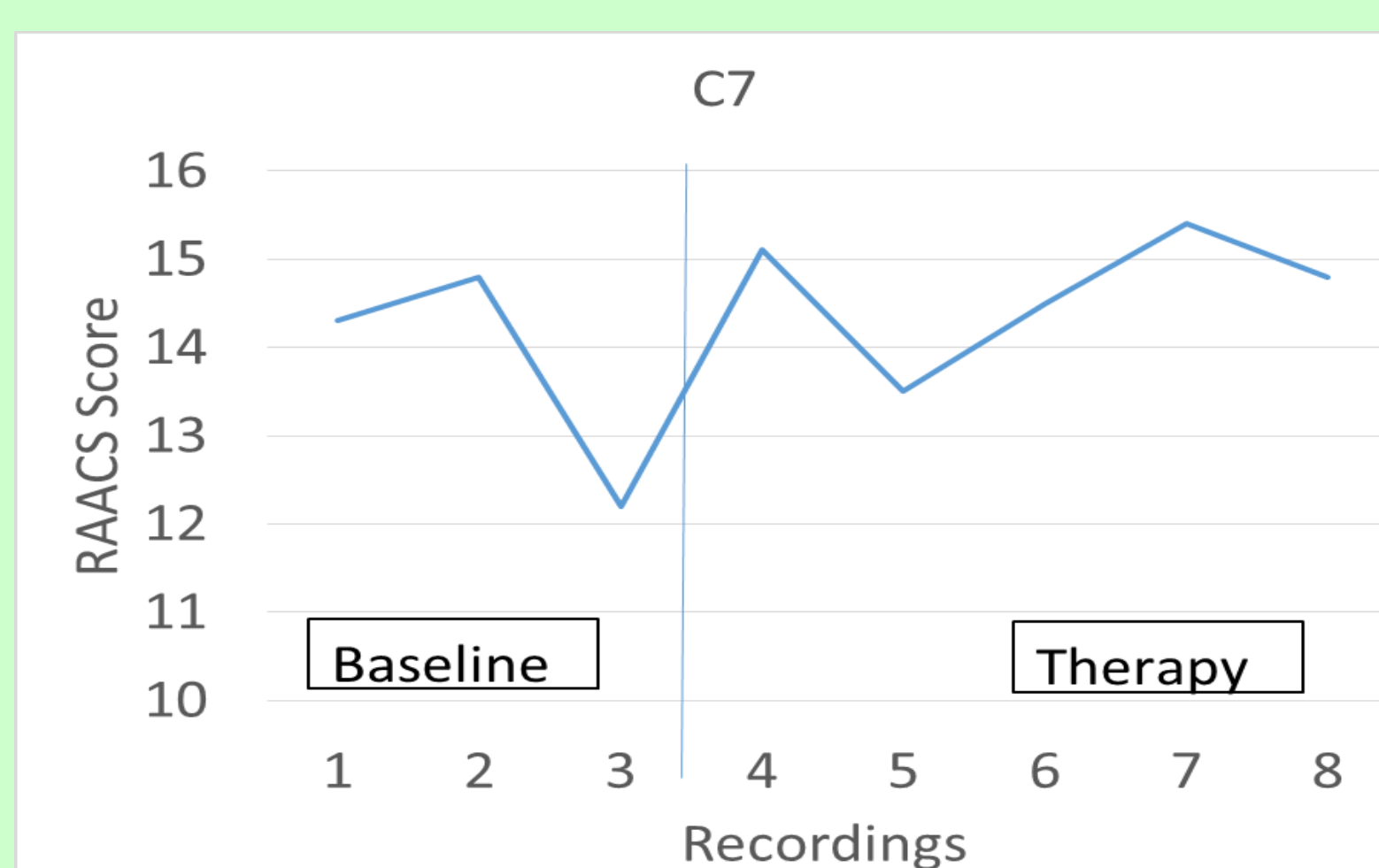
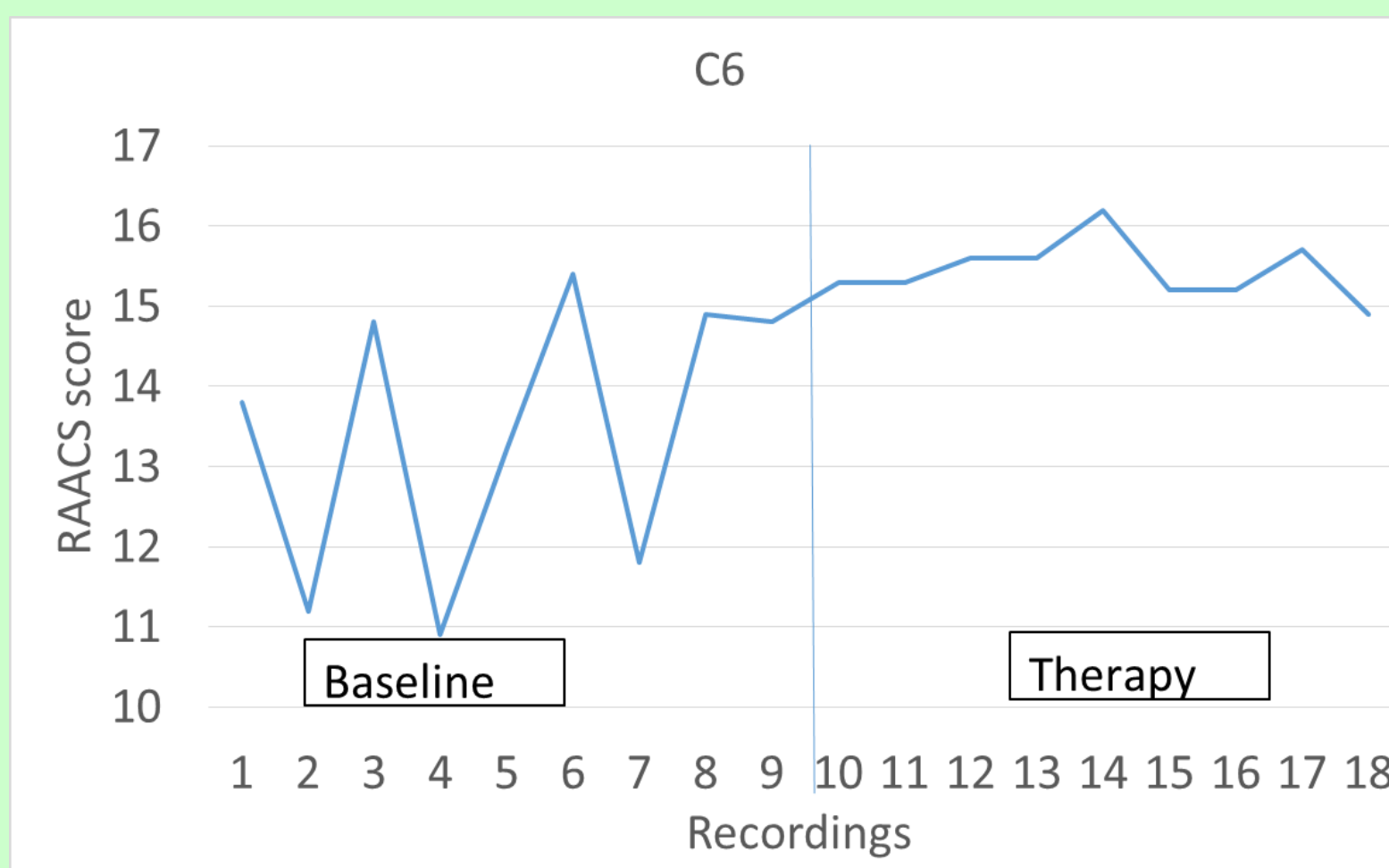
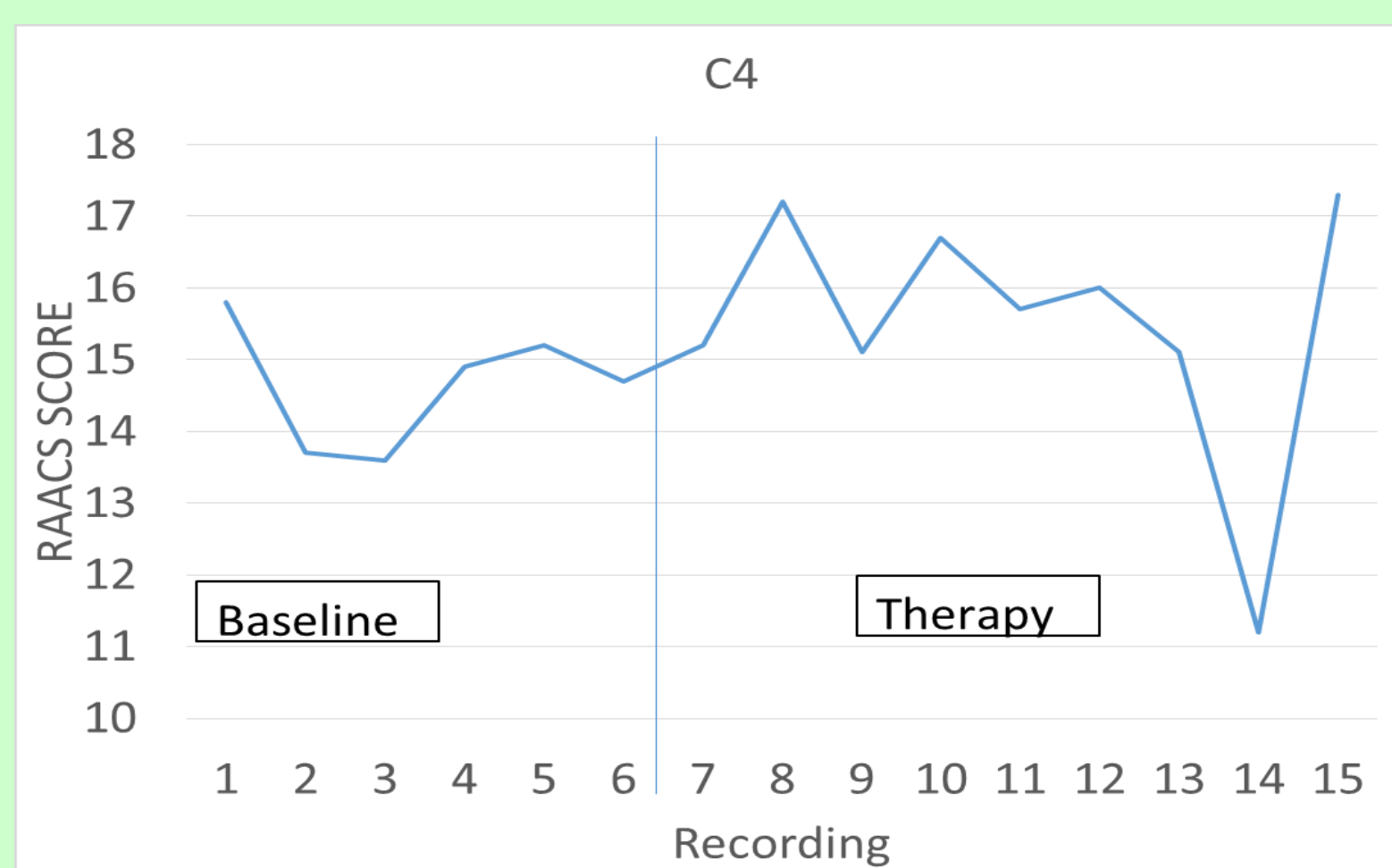
Families videoed 10 minute interactions with their children three times per week during baseline (3 weeks), therapy (6 weeks) and follow-up (three weeks) as well as a follow up at 10 weeks.

Responsive Augmentative and Alternative Communication Style Scale - RAACS (Broberg, Ferm & Thunberg 2012) was used to measure how parents communicate with their children by scoring the 9 statements below for the first 10 minutes of each video.

- attends to and confirms the child's communication,
- adjusts physically to the child,
- gives the child space to communicate,
- clarifies his or her own communication,
- communicates according to the child's focus of interest or conversational topic,
- expands on the child's communication,
- uses augmentative and alternative communication (AAC).
- adapts and is engaged,
- adjusts to the communicative level of the child.



Results



2 (C1 & C5) participants withdrew after the baseline.

2 (C2 & C3) participants withdrew and submitted no videos.

Participant	No. of baseline videos	No. of therapy videos	Baseline mean RAACS score	Therapy mean RAACS score	Percentage increase/decrease of mean scores
C4	9	6	15	17.2	+14.6%
C6	9	9	13.4	15.4	+14.9%
C7	3	5	13.8	14.7	+6.9%
C8	9	12	14.9	16.1	+8.1%

Discussion

The 4 participants who used the app and shared videos increased their RAACS scores during therapy. However it became apparent that elements within the RAACS often were not relevant. Only one child used AAC. Points were often lost for not expanding on child's communication, children were vocalising as opposed to speaking and therefore expansion was difficult for the parents. All participating parents used techniques taught during therapy. However this was not captured by RAACS. The participants all worked on different techniques in therapy, therefore using this outcome measure did not necessarily reflect the behaviour changes for every participant. Due to time restraints post-therapy data was unable to be coded, this will need to be carried out to observe if any post-therapy changes have been maintained.



Conclusion

Participating parents provided more opportunities after coaching. Alternative measures should be explored to capture changes in parents' communication style.

What next?

This project is part of a larger investigation into vocalisations in children with cerebral palsy. The follow up data will be coded looking at parents interactions and children's communication