Impact of Video Interaction Guidance on early communication with pre-linguistic profoundly deaf and hard-of-hearing children

Christa Lam-Cassettari[1], Meghana Wadnerkar Kamble*[2], and Deborah M James[3]

1. Western Sydney University, MARCS Institute for Brain, Behaviour & Development; 2. **Principal Investigator,* School of Health Sciences, University of East Anglia; 3. Faculty of Education, Manchester Metropolitan University

INTRODUCTION: Communicative input is key to child language development. Studies show video-feedback enhances the quality of parent-child social interactions (e.g., Juffer, Bakermans-Kranenburg, & van IJzendoorn, 2005; Lam-Cassettari, Wadnerkar-Kamble, James, 2015). This study assessed whether Video Interaction Guidance (VIG) increases communication and communicative autonomy in children with hearing loss.

METHOD: Sixteen families with a prelingual child (<50 signed/spoken words) were recruited by self-selection from the Nottingham paediatric audiological services. Child mean age was 2.05 yrs (SD= 1.77; Range 0.6-6.10yrs), see Table 1 for more detail.

Figure 1: A family plays at a lab visit

Table 1: Participant details

Primary parent participant	15 mothers	1 father
Infant Sex	11 male	5 female
Hearing Loss	14 profound	2 moderate-severe
Protheses	9 CI	7 HA
Developmental Needs	10 no additional	6 complex needs

PROCEDURE: A 20-minute play session was video-recorded at all pre and post visits. The Vineland Scale was completed at first and last visits.

OUTCOME MEASURE: The Tait (1993) scale measured the *child's communicative autonomy, no-responses* and *communicative turns* in the free-play recording.

Correspondence: m.kamble@uea.ac.uk, c.lam-cassettari@westernsydney.edu.au

RESULTS: Paired t-tests indicated no difference between the pre/post Vineland Adaptive Behaviour Scale for both the groups. The intervention and waiting group did not differ at pre and post, thus grouped for main analysis. Tait analysis revealed a statistically significant difference between pre and post sessions for Communicative Autonomy *(*-3.517, p< .0001, d=0.62*)* and for No-Response (Z -3.111, p< .005, d=0.55) but not for Communicative Turns. See Fig 2.

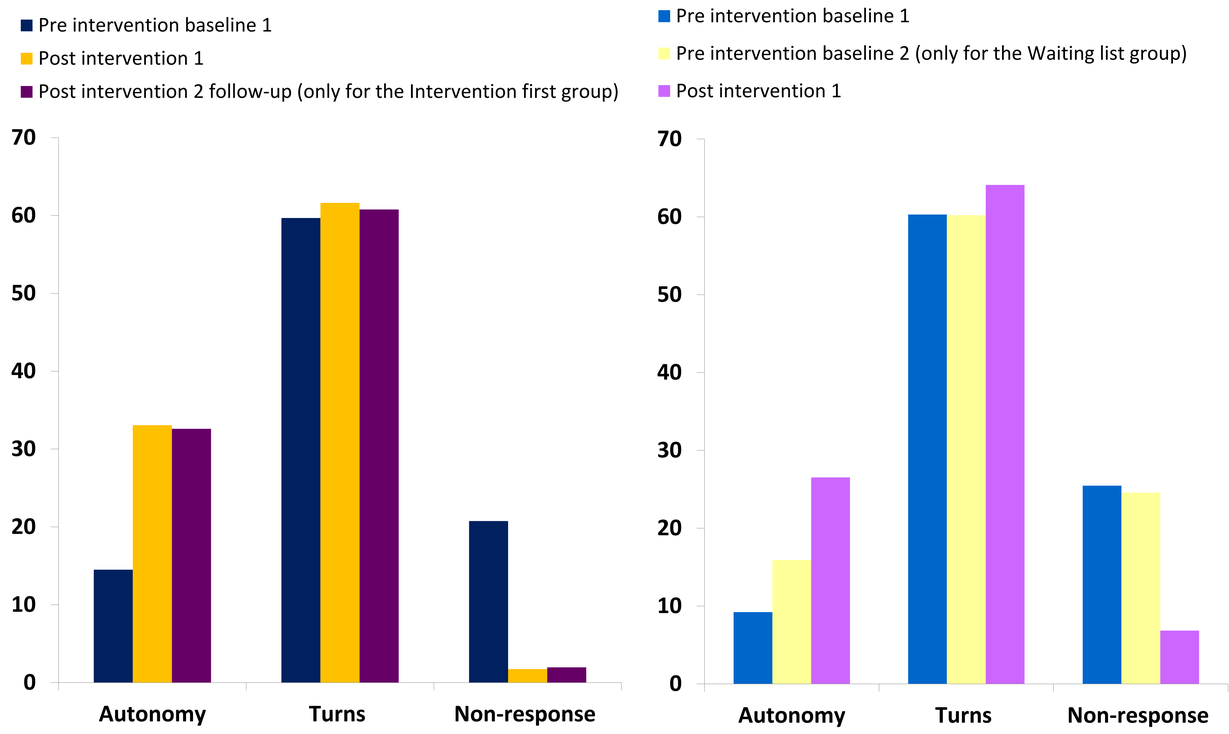

Figure 2: Results from the Tait analysis, the greatest difference between pre- and post-intervention was shown for child autonomy and no-response for the intervention group (top) and waiting group (bottom).

DISCUSSION: Results support the hypothesis that VIG supports parent-child communication. The Tait analysis showed increased child *communicative autonomy* and reduced *no-responses*. VIG intervention appears to support enhanced child communicative ability in the pre-linguistic period.

REFERENCES: Juffer, Bakermans-Kranenburg, & van IJzendoorn, (2005).The importance of parenting in the development of disorganized attachment:evidence from a preventive intervention study in adoptive families. J. Child Psychol. Psychiatry 46, 263–274.; Lam-Cassettari, Wadnerkar-Kamble, & James (2015). Enhancing parent–child communication and parental self-esteem with a video-feedback intervention: outcomes with prelingual deaf and hard-of-hearing children, *JDSDE, 20*(3), 266-274; Tait, M. (1993). Video analysis: a method of assessing changes in preverbal and early linguistic communication after cochlear implantation. *Ear Hear, 14*(6): 378–389

This study is forthcoming: Wadnerkar Kamble, Lam-Cassettari & James (2020). Communication Skills and Communicative Autonomy of Prelinguistic Deaf and Hard-of-Hearing Children: Application of a Video Feedback Intervention**,** ***Front. Psychol.***