Clinical Question [patient/problem, intervention, (comparison), outcome]: In a child with severe and persisting speech difficulties, will a psycholinguistically-based phonological intervention result in specific and generalised improvements in speech production?


Design/Method: Single subject research design.

Participants: Katy, aged 6 yrs: 5 months, no hearing difficulties, from monolingual English speaking background, attends mainstream school (yr 2) with special educational needs (learning support assistant within the classroom, additional one-to-one support). IQ results indicate low average verbal ability, borderline performance IQ. History of receptive and expressive language delays. Highly unintelligible to unfamiliar listeners - her predominate phonological processes were CR, FCD, Pre-vocalic voicing, stopping of fricatives and affricates, gliding and vowel distortions. Syllable structure typically open (CV, CVCV).

Experimental Group: Pre- and post-intervention assessment (assessment took place at macro and micro levels). Three phases of intervention with a total of 30 hours of Rx. Three phases of therapy included 1) increased awareness of final consonants and production of CVC 2) encourage generalisation of CVC to a broader range of words 3) facilitate the production of CVC within sentences and connected speech level. Intervention carried out at school, twice-weekly visits for one hour each in a quiet room with child and therapist, 10 hours of therapy at each phase. Follow up assessment 7 months post therapy.

Control Group: None

Results: Micro evaluation Significant changes in single word level and connected speech production as well as other areas such as spelling and speech perception of closely related real word pairs. Macro evaluation significant improvement in speech severity indices (PCC, PPC) and gains in her ability to discriminate between closely related real word pairs. All changes were maintained at 7 month follow up assessment.

Comments – Strengths/Weaknesses
Strengths: Clinically applicable, provides evidence for the value of direct and specific intervention for children with severe and persisting speech difficulties, consideration is given to dosage and the nature of therapy given and efficacy was shown when intervention was specific and intensive.
Weaknesses: The authors noted limitations including the study being limited to one child with results not being able to be generalised to other similar children and that the design does not allow for comparison with other approaches to intervention.

Level of Evidence (NH&MRC): IV

Appraised By: Paediatric Speech group

Date: September 2011

May 2002

Form based on Worrall & Bennett, Evidence based Practice: Barriers & Facilitators for Speech-Language Pathologists. Journal of Medical Speech-Language Pathology 2:9, xi – xvi

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