

Speech Characteristic of French-Speaking Children with Dysarthria

Although cerebral palsy (CP) is a common cause of disability among children, few studies exist on the speech abilities of these children, particularly in languages other than English. In French, for example, there are few published studies describe speech sound or prosodic characteristics of children with dysarthria. Furthermore, there are few studies that examine speech intervention for children with this disorder (Pennington, Miller, & Robson, 2009). As a result, speech-language pathologists (SLPs) have a weak research-base to guide their assessment and intervention strategies for improving the children's communication. Clearly, in languages such as French, efficacy of intervention could be assessed only with further understanding of this population's speech characteristics.

The goal of this presentation is to report on a pilot study of the speech characteristics of French-speaking children with dysarthria due to CP. Specifically, we sought to describe speech characteristics of these children on speech production tasks and their perceived intelligibility.

For this pilot study, four children with dysarthria due to CP participated: two boys and two girls ranging in age from 9 to 12 years. The children lived in Belgium and spoke Belgian French and had received speech-language pathology treatment. They were presented with French clinical speech assessment tools and parents completed a questionnaire on their child's intelligibility. Children were assessed using three types of tasks:

- (1) **Speech production tasks:** evaluation of speech sound accuracy, inventory, and error patterns using a standardised assessment tool (Maillart & MacLeod, 2014).
- (2) **Questionnaire:** Parents completed the Intelligibility in Context Scale (McLeod et al., 2012)

For the speech production tasks, the children's productions were phonetically transcribed by 3 French-speaking SLPs, and a detailed analysis of the children's phoneme accuracy and inventory was conducted. Reliability was also examined. The children's perceived intelligibility was assessed through the results from the parent questionnaire. These results will be compared to examine the relationships between speech sound accuracy, non-linguistic abilities, and perceived intelligibility. We hypothesize that a relationship will be observed such that children with more difficulty on non-linguistic and speech production tasks will have lower perceived intelligibility. We will examine the particular speech sounds that are in error to suggest potential clinical implications. In addition, similarities to and differences from research on English-speaking children will be highlighted.

References

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McLeod, S., Harrison, L. J., & McCormack, J. (2012). The intelligibility in context scale: Validity and reliability of a subjective rating measure. *Journal of Speech, Language, and Hearing Research, 55*(2), 648-656.

Pennington, L., Miller, N., & Robson, S. (2009). Speech therapy for children with dysarthria acquired before three years of age. *The Cochrane Library*.