

Differentiating typical from atypical speech production using measures of intelligibility, speech rate and intelligible words per minute in 5 year old children with cerebral palsy: A comparative analysis

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We examined how well measures of functional speech production ability differentiated between children with typical development, children with cerebral palsy who had dysarthria, and children with cerebral palsy who did not have dysarthria. We examined 45 children with cerebral palsy, and 29 children with typical development on measures of intelligibility, speech rate, and intelligible words per minute at 5 years of age. Results showed that overall intelligibility differentiated between groups of children better than any other variable with very high sensitivity and specificity. Overall intelligibility was also the best predictor of group membership. Children with CP who did not have clinical evidence of dysarthria had clear differences from typically developing children on all functional speech measures, and were also distinct from children with dysarthria. Finally, at 5 years of age, intelligibility scores below 72% were indicative of dysarthria in children with CP.