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## Relationship between grammatical development and stuttering in young children

Background: Over the past decade, there has been increased interest in the effects of developing language skills on stuttering in young children. There has been particular interest in the relationship between stuttering and aspects of syntactic development (e.g., see Ratner, 1997, for a discussion). The purpose of this study is to examine the relationship over time between stuttering and syntax in young children. Method: Eleven children, ages 2 to 5 years, were recruited for the study. Each received a series of speech and language tests, and each demonstrated language performance within normal limits. In addition, each of the children was classified as a child who stuttered at the beginning of the study. Children then returned to the clinic for 10 monthly sessions in which each child produced spontaneous speech/language in the course of play. Samples were then transcribed and analyzed, using the language sample analysis program SALT, for grammatical content and the presence of stuttering. Language analyses included the average length of utterances, the longest utterance produced, and the presence of certain grammatical markers. The main fluency analysis was percent stuttered syllables. Results and Implications: The severity of stuttering differed among children in the study. In addition, for individual children, stuttering and grammatical performance showed changes across sessions. The relationship between stuttering and grammatical skills varied across children; some children appeared to show correspondence between the frequency of their stuttering and grammatical performance over the course of the year. For some of the children, although their standardized language test performance was within normal limits, the length of their utterances appeared below average relative to same-age peers. These findings may suggest that for some children, stuttering impacts their expressive/grammatical language skills, even though language test performance is within the normal range.