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To our knowledge, VIP is the first pediatric primary care based program to address parentchild interaction through child development specialists working with videotaped interactions. In this study, VIP was found to result in improved cognitive and language outcomes in Latino toddlers at risk for developmental delay on the basis of low maternal education. The impact was stronger for children whose mothers had 7th to 11th grade education than for children whose mothers had 6th grade or less education. We conclude that VIP has promise and merits further study.

References

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Phonological Impairment's Relation to Phonological Awareness, Working Memory, and Literacy

Monica Gordon Pershey, Patricia A. Clickner

PRESENTER: Monica Gordon Pershey

A phonological impairment (PI) is a systematic disturbance in speech-sound production. PI affects 10% of children. Half of these children experience difficulties with reading and spelling. Adequate representation of speech sounds contributes to phonological awareness (PA)—the ability to manipulate speech sounds in words to read and spell. PI may hamper the accurate manipulation that PA entails.

A double-deficit hypothesis contends that some children exhibit a concurrent, cumulative deficit in PA and rapid naming of letters (RN; Lovett, Steinbach, & Frijters, 2000). RN reveals deficits in verbal working memory (VWM), in either encoding, retrieval, or both, that prevent retaining letters "on screen" long enough to perform manipulations.

We conducted this study because there is scant research on double deficit in children with PI. The purpose was to sample whether PI coexisted with deficits in PA and RN and observe the combined impact on reading and spelling.

Participants were 23 English-speaking children with Pl (Group 1) and 23 unimpaired peers (Group 2). In each group, there were 12 children in first grade, 8 in second grade, and 3 in third grade matched for race, gender, age (range 6.4–9.1), free-lunch status, and IQ (average).

Research questions involved six comparisons: whether children with PI would perform more poorly than peers on physiologically based functions of speech, on tasks of VWM, RN, PA, reading, and spelling. Six additional research questions explored whether PI could be associated with lesser performance in these six areas.

Procedures involved administration of standardized and observational measures in randomized order over three individual testing sessions per child. To assess physiologically based functions, we scored speech for quality and oral motor rate. We tested VWM via the Clinical Evaluation of Language Fundamentals 3 (Semel, Wiig, & Secord, 1996) subtests for word forms (hold a sentence in mind and fill in a blank), following directions, and sentence repetition and the Comprehensive Test of Phonological Processing (CTOPP; Wagner, Torgesen, & Rashotte, 1999) nonword repetition test. We administered CTOPP RN and PA subtests and the reading and spelling subtests from the Kaufman Test of Educational Achievement (Kaufman & Kaufman, 1985). Mean scores were computed for each group on all measures.

ANOVAs confirmed that children with PI performed significantly poorer than peers on physiologically based functions, VWM, RN. PA, reading, and spelling. A MANOVA based on all variables confirmed that the difference between groups was significant. A MANOVA based on just reading and spelling showed the difference between groups was significant.

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Pearson Product Moment correlations associated PI with physiologically based functions. VWM, and RN. Stepwise regression analyses determined that PA performance accounted for 41% of the variance in reading and 64% of the variance in spelling; 69% of the variance in reading was accounted for by performance on PA and RN as a combined independent variable.

To explore the double deficit, regression revealed that 66% of the variance in reading and spelling as a combined dependent variable was accounted for by performance on PA and RN as a combined independent variable. Since variance in reading and spelling could be accounted for by performance on PA and RN, we conclude that a double deficit coexisted in this sample of children with PI.

References

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