Title

Construction and validation of the Early Language Scale (ELS) for the identification of developmental language disorder

Authors

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Background

Developmental language disorders (DLD) have major impact on the child, the child's family, and the society as a whole. Identification of children with DLD could benefit from a quick, parent administered instrument that is applicable for children of one to six years of age.

Aims

The aim was to construct a scale for the identification of DLD in children (1 to 6), and to evaluate its psychometric properties.

Methods & Procedure

A total of 1231 parents of children aged 1 to 6 years were recruited via kindergartens, well-child clinics, and primary schools. Parents responded on a questionnaire with items regarding the language development of their child. We administered extended language tests to a subsample of 290 children, providing a golden standard. The scale, denoted as 'Early Language Scale' (ELS) was constructed and evaluated using nonparametric Item Response Theory. Sensitivity and specificity of the scale was determined via a ROC analysis.

Results

We developed a hierarchical scale of 26 items with Item H coefficients between 0.62 and 0.90, indicating strong scalability. The total scale H coefficient was 0.83 (SE=0.01), which indicated a strong scale. Items mean scores ranged from 0.36 to 0.99, i.e. 36 to 99% of the children had acquired the language ability involved.

Conclusions & Implications

The ELS is a short questionnaire to identify DLD in children (1 to 6), with good psychometric properties. The ELS may support the early identification of DLD in well-child care and early educational settings.