

# Children who screen positive for language delay but not autism: from 2.5 to 6 years of age

Akademisk avhandling

Som för avläggande av medicine doktorsexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentligen försvaras i hörsal Arvid Carlsson, Medicinargatan 3, den 19 januari, klockan 09.00.

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## Avhandlingen baseras på följande delarbeten

- I. Schachinger Lorentzon, U., Kadesjö, B., Gillberg, C., & Miniscalco, C. Children screening positive for language delay at 2.5 years: language disorder and developmental profiles. *Neuropsychiatric Disease and Treatment* 2018, 3267-3277.
- II. Schachinger Lorentzon, U., Carlsson, E., Billstedt E., Gillberg, C., & Miniscalco, C. Developmental language disorder: similarities and differences between 6-year-old mono- and multilingual children. *Submitterat*.
- III. Schachinger Lorentzon, U., Billstedt E., Gillberg, C., & Miniscalco, C. Neurodevelopmental Disorders and Interventions in Children with Developmental Language Disorder -a Longitudinal Paediatric Record Study. *Manuskript*.
- IV. Ottosson, S., Schachinger Lorentzon, U., Kadesjö, B., Gillberg, C., & Miniscalco, C. Neurodevelopmental problems and quality of life in 6-year-olds with a history of developmental language disorder. *Acta Paediatrica* 2022, 111(1), 115–122.

**SAHLGRENKA AKADEMIN  
INSTITUTIONEN FÖR NEUROVETENSKAP OCH  
FYSIOLOGI**



# Children who screen positive for language delay but not autism: from 2.5 to 6 years of age

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## Abstract

**Background:** Language disorders (LDs) are prevalent, affecting approximately 10% of children. In Sweden, nearly all children undergo language screening through the Child Health Services (CHS) between 2.5 and 3 years of age. In Gothenburg, autism screening is also conducted at 2.5 years. **Aims:** To clinically describe and longitudinally follow the language and neurodevelopmental trajectories of children referred to the Speech and Language Pathology (SLP) Clinic after screening positive for language but not for autism at the 2.5-year screening at CHS.

**Methods:** In 2016, at a mean age of 2.9 years, 100 mono- or multilingual children, referred to the SLP Clinic, participated in a language assessment. Parents completed a questionnaire (2-5) concerning their child's development (motor, language, memory, attention, impulsivity, learning, social skills and behaviour). At age 6, 85 of the 100 children participated in a follow-up language assessment. Parents completed questionnaires about child development (same areas as above) and quality of life (QoL) to which the children also responded. A review of paediatric records was conducted after the SLP assessment to obtain information about language interventions and other possible diagnoses. **Results:** At 2.9 years, 87 children met developmental language disorder (DLD) criteria and parent-reported concerns were mainly related to the child's language, communication and social skills. At age 6 years, 68 children had diagnosis of DLD, 6 had speech sound disorder and 11 had no language disorder diagnosis. Half of the parents of children with DLD reported concerns about child development, predominantly related to language, but some also reported other concerns e.g. executive functions. Parents reported no impaired QoL, although some children reported certain impairments in school and social functioning. At both 2.9 years and 6 years, the multilingual children in the DLD group performed significantly worse than the monolingual children on most language tests. The review of paediatric records revealed that families only participated in half of the offered intervention sessions. In agreement with the family, the SLP completed contact with monolingual families at a significantly higher rate than multilingual ones. Out of the 85 6-year-old children, 20 had received an additional ESSENCE (Early Symptomatic Syndromes Eliciting Neurodevelopmental Clinical Examinations) diagnosis, 5 of whom had autism. **Conclusions:** DLD was persistent in both monolingual and multilingual children, with multilingual children having greater language difficulties as early as 2.9 years, based on the test results. At age 6 years, some children perceived their QoL as partially impaired, which was not confirmed by their parents. The presence of additional neurodevelopmental diagnoses at age 6, underscores the significance of following these children from an ESSENCE perspective.

**Keywords:** Language Disorder, Multilingualism, ESSENCE, Neurodevelopmental Disorder, Screening, Autism