

Research Snapshot

Summarising findings and their implications



NUMBER 7 OCTOBER 2016

Taking the 'Specific' out of Language Impairment

The way language difficulties are diagnosed and labelled needs to be informed by the best current scientific knowledge. The term 'specific language impairment' ('SLI') has been in use since the 1980s, but has recently been challenged. It is important to revisit the diagnosis of SLI as it may actually be disadvantaging children and families.

'Specific language impairment' or 'SLI' describes a difficulty with learning language in a child whose cognitive (intellectual) skills are within the typical range and who has no other identifiable reason for their language impairment. The 'specific' language impairment therefore occurs in the absence of other difficulties and where environmental factors, such as limited language input, are not present.

Aims

"Specific Language Impairment: a convenient label for whom?" is a study investigating the origins and validity of SLI through a review of the literature and new analyses of population data.

Key findings

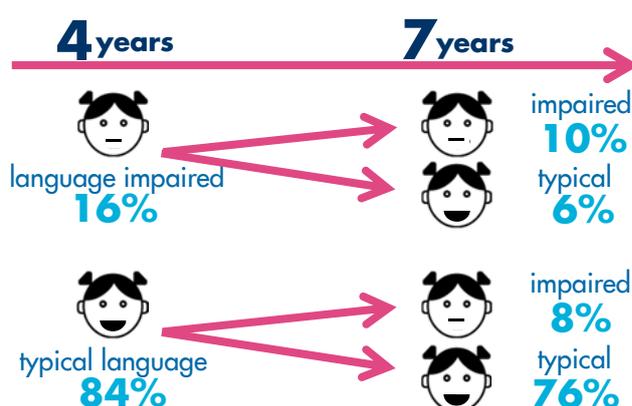
Findings from the literature

The term SLI emerged in the 1980s. Before this, there were many other labels for child language difficulties such as 'congenital aphasia' (1866), 'congenital word deafness' (1911), 'congenital verbal auditory agnosia' (1954), 'developmental language disorder' (1975) and 'specific language deficit' (1981).

There are many definitions of SLI but common to them all is the application of a number of exclusionary criteria; therefore SLI is largely defined by *what it is not* rather than by what it is. These exclusionary criteria were primarily devised for use of SLI in research studies to test theories about language development. How to apply them in the 'real world' for clinical purposes has never been well defined or tested.

The criteria for SLI used in the review of the literature varied considerably. There was a lack of consensus about the level of language ability that constituted an impairment; and the level of non-verbal intelligence that would exclude another problem such as a global learning disability.

Language pathways between four and seven years



'Girl' graphic courtesy of Peacock Dream, The Noun Project

Theories and methods in the field of child language development and disorders have moved forward since the 1980s when SLI was first coined. There is now a greater awareness of the range of individual differences in child development, the degree to which children's language profiles can change over time, and the role of environmental factors in a child's developmental pathway.

It's important to note that the leading international diagnostic manual for behavioural and developmental disorders (the Fifth Edition (2013) of the *Diagnostic and Statistical Manual of Mental Disorders*, or the *DSM-5*) removed the term SLI. Despite this, eligibility for specialist support often still rests on a child meeting the criteria for SLI.

Evidence from population studies

- Data from three population-based cohorts showed that the distribution of language abilities follows a clear social gradient. Although children with high and low language skills were seen across the socio-economic spectrum, still median language scores increased as social advantage increased. Similarly, prevalence of low language increased in more disadvantaged groups. It is therefore more informative to consider social disadvantage as a risk factor rather than an exclusionary criteria.
- Language abilities fluctuate over development, not only in the pre-school years but also into formal schooling (see Figure above). Developmental variation should therefore be considered in any diagnosis of Language Impairment.

“There is no empirical evidence to support the continued use of the term SLI, and there is limited evidence that it has provided any real benefits for children and their families.”



- The evidence does not support the continued use of a discrepancy between language and non-verbal intelligence for an SLI diagnosis. This distinction did not predict long-term outcomes and was difficult to implement reliably in clinical practice.
- Lower non-verbal abilities did not predict poorer response to language interventions: findings from intervention studies suggest that non-verbal IQ does not moderate the effect of intervention for language difficulties.
- Environmental factors such as social disadvantage and a multi-lingual background should not exclude children from receiving a diagnosis of language impairment.

Overall there was no empirical evidence to support the continued use of the exclusionary criteria or the term SLI.

Implications

For policy and practice

Based on rigorous testing in existing population studies, the current SLI criteria should not be supported.

In the longer term the development of a functional classification system for Language Impairment is recommended.

In the short term it is recommended that clinicians and researchers:

- Abandon the use of exclusionary criteria
- Adopt the label ‘language impairment’ (and so removing the term ‘specific’)
- Consider the fluid nature of language development in the preschool and early school years. Language Impairment should potentially be considered only after individual children have been impaired at two time-points a minimum of 12 months apart. This is particularly important in the preschool years where developmental trajectories are more likely to be fluid.

Although diagnostic labels can be important to children and families, the application of strict exclusionary criteria for SLI could feasibly narrow access to speech and language services. Children may be deemed ineligible because their language impairment is not ‘specific’ enough.

For future research

Epidemiological studies that include populations of children with co-existing problems should be analysed to better understand the relationship between language impairment and other difficulties that are usually excluded within SLI such as hearing loss and autism.

It will be important for further research to try and accurately identify those children whose language is likely to fluctuate compared to children whose language trajectories appear stable to ensure the “right” children receive timely intervention.

Study details

Data were analysed from four population cohorts: the *Early Language in Victoria Study* (ELVS), a longitudinal study of 1,556 four-year-olds and 1,197 seven-year-olds recruited in infancy; the *Iowa* study, a cross-sectional epidemiological study of 603 eight-year-olds in Iowa, USA; the *Millennium Cohort Study* (MCS), a multi-disciplinary longitudinal study following the lives of around 19,000 children born in the UK in 2000-01; and *Growing up in Scotland* (GUS), a longitudinal study following 5,000 babies born in Scotland between May 2004 and February 2005.

Suggested citation

Reilly, S., Roseby, C., McKean, C., Goldfeld, S., Law, J., Mensah, F., & Levickis, P. (2016) Taking the ‘specific’ out of language impairment, Centre of Research Excellence in Child Language, Research Snapshot 6.

Published article details

Reilly, S., Tomblin, B., Law, J., McKean, C., Mensah, F.K., Morgan, A., Goldfeld, S., Nicholson, J.M., and Wake, 2014. Specific language impairment: a convenient label for whom? *International Journal of Language and Communication Disorders*, 49, 416–451

About us

The Centre of Research Excellence in Child Language is a collaboration of child language experts from the Murdoch Childrens Research Institute and Griffith, Newcastle (UK), Deakin and La Trobe Universities. It uses the latest approaches in molecular genetics, neuro-imaging, epidemiology, biostatistics and health economics to investigate factors that affect and improve child language and development.

The Centre is funded by the National Health and Medical Research Council.

Centre of Research Excellence in Language

Murdoch Childrens Research Institute
50 Flemington Road, Parkville VIC 3052 Australia
cre.cl@mcri.edu.au
www.mcri.edu.au/CREchildlanguage