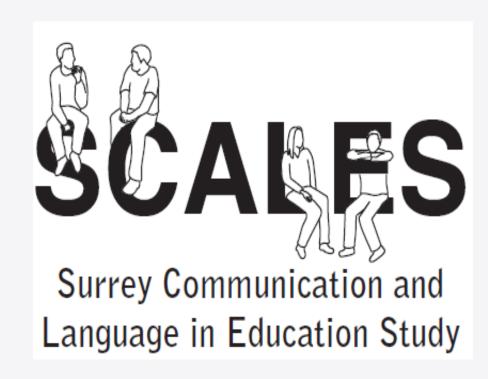
LUCL

Prevalence and persistence of language disorder in a population study

Professor Courtenay Norbury
Psychology and Language Sciences, UCL
2 November 2016



Developmental Language Disorder *UCL

- child's language abilities are below chronological age expectations
- language deficits are not explained by other developmental concerns such as sensory impairment, autism, extreme deprivation, head injury, intellectual impairment

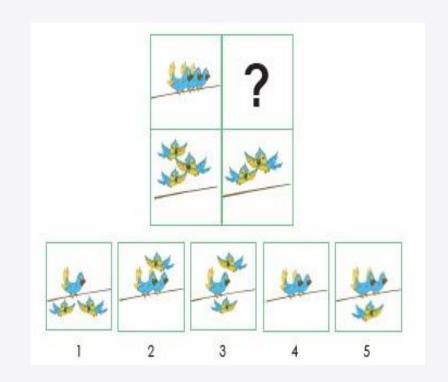
 language impairments interfere with everyday life at home or at school

role of non-verbal ability



 children with non-verbal IQs below 85 typically excluded from research and clinical diagnosis

 non-verbal IQ most common exclusion criteria for clinical services (speech-language therapy, language unit placement) (Dockrell et al 2010)



SCALES: a population study



Supported by wellcometrust



How many children start school with language disorder?

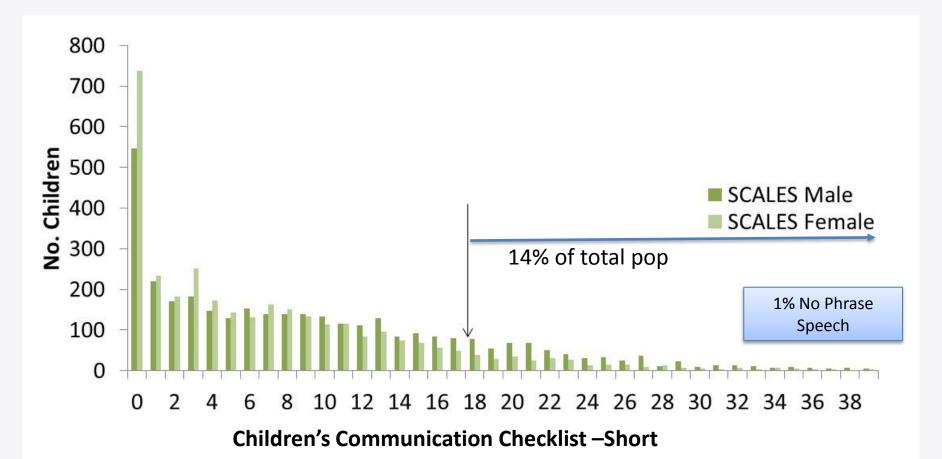
What other developmental concerns are present?

How do these co-occurring deficits change over time?

- Population: 7267 children starting mainstream school in 2011 (59% of total)
- *Gender*: 51% boys and 49% girls
- Ethnicity: 5959 children (82%) of white British ethnic origin (83% England; 83% Surrey)
- English as additional language: 797 (11%) were rated as having English as an additional language (17% UK total; 10% Surrey)
- Socio-economic status: Income Deprivation Affecting Children Index (IDACI)

teacher report of language





Younger children experience lower levels of language competence and academic progress in the first year of school: evidence from a population study

Courtenay Frazier Norbury, Debbie Gooch, Gillian Baird, Tony Charman, Emily Simonoff, and Andrew Pickles

¹Department of Psychology, Royal Holloway, University of London, Egham, UK; ²Newcomen Centre, St Thomas' Hospital, London, UK; ³Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, UK

- younger children rated as having more language difficulties, behaviour problems and poorer academic progress
 - mismatch between language abilities of 4-year-olds and curriculum demands
- fewer than 5% of those with teacher-rated language difficulties achieved "Good Level of Development" on the EYFSP
- language best predictor of academic attainment

in-depth assessment of language ucl

 529 children assessed in Year 1 (83% in 150 schools)

 499 children assessed in Year 3 (94% of Year 1 cohort, in 180 schools)

Prevalence Year 1	% of population
Language Disorder (cause unknown)	7.58%
higher NVIQ	4.80%
lower NVIQ	2.78%
Gender (boys:girls)	1.22:1
Language Disorder (known cause and/or intellectual impairment)	2.34%



Journal of Child Psychology and Psychiatry 57:11 (2016), pp 1247-1257

doi:10.1111/jcpp.12573

The impact of nonverbal ability on prevalence and clinical presentation of language disorder: evidence from a population study

Courtenay Frazier Norbury, 1,2 Debbie Gooch, 1,2 Charlotte Wray, Gillian Baird, Tony Charman, Emily Simonoff, George Vamvakas, and Andrew Pickles

¹Psychology and Language Sciences, University College London, London; ²Department of Psychology, Royal Holloway, University of London, London; ³Newcomen Centre, St Thomas' Hospital, London; ²Department of Psychology, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London; ⁵Department of Child and Adolescent Psychiatry, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London; ⁵Department of Biostatistics, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Biostatistics, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Biostatistics, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Biostatistics, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Psychiatry, Psychology and Neuroscience, King's College London, London; 'Department of Ps

- Language Disorder (cause unknown):
 - Only 11% achieve 'good level of development'
 - 9.68% clinical levels of social, emotional and behavioural deficit
- Language Disorder (known diagnosis):
 - More severe deficits
 - 50% clinical levels of social, emotional and behavioural deficit

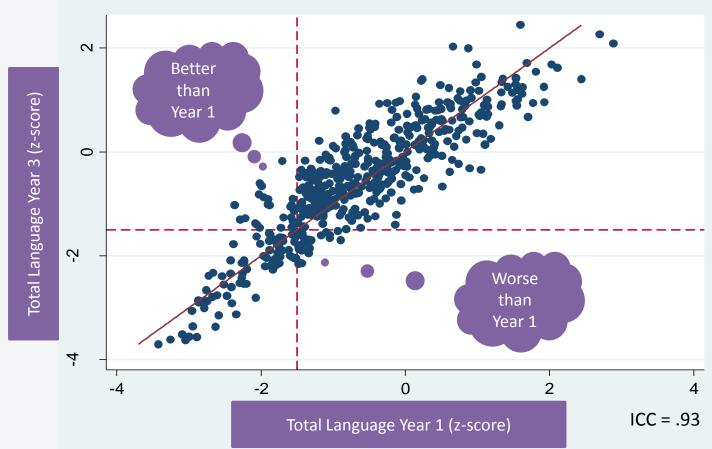
access to speech-language therapy



- ~50% of children with language disorder referred to SLT by Year 3
- predictors of referral:
 - Severity of language impairment
 - Severity of articulation deficit
 - Female sex (!)

stability in language function to YEAR 3





key implications



- Easy fixes
 - Focus on oral language development in initial teacher training and National Curriculum
- Medium term considerations

UK are world outliers for age at which we start literacy instruction...

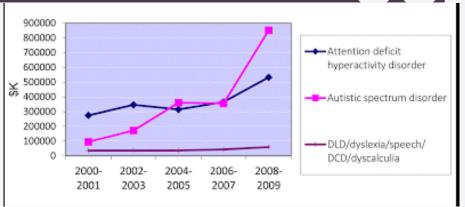
- Early years foundation stage focus on developing oral language competence
 - Reasoning
 - Managing own behaviour
 - Developing social relationships
 - Experiencing early school success

key implications: taking a longer view...

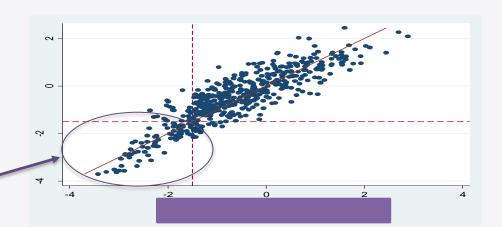


- high-quality intervention trials with longer term follow-up
 - non-verbal ability in response to treatment
 - outcome measures including SEMH

Can we 'narrow the gap'?



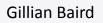
Bishop (2010). PLoS One



thanks to the SCALES team

L







Tony Charman



Debbie Gooch



Andrew Pickles



Emily Simonoff





PhD students: Charlotte Wray & Katie Whiteside; Grad RAs: Harriet Maydew & Claire Sears; Student RAs: Caroline, Natalie, Hayley, Charlotte, Naomi & Tanya; Becca Lucus

and HUGE thanks to everyone in **SURREY** for their continuing support and friendly school welcomes!

thank you for listening!





https://www.youtube.com/RALLIcampaign

find out more about language impairment and the impact of language impairment on children and young people!

c.norbury@ucl.ac.uk