

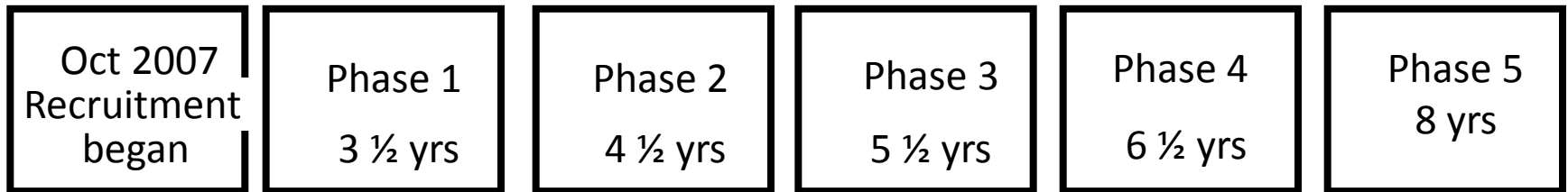
Children at Family-Risk of Dyslexia; Same or Different to Specific Language Impairment?



Centre for Reading and Language

wellcometrust

Language and Reading Project

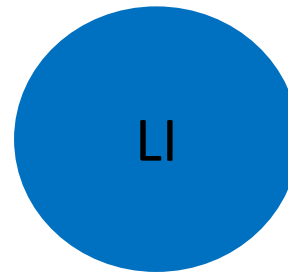
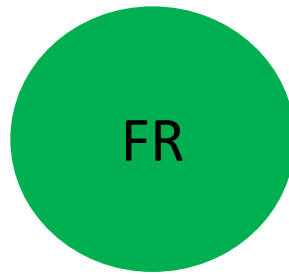
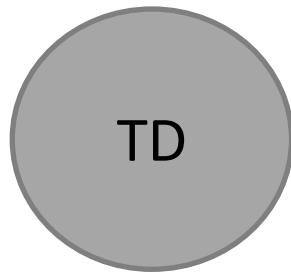


Family Risk of Dyslexia
Pre-school SLI
Children at low-risk of RD

Pennington (2006)

- Etiology of complex disorders is multifactorial
 - interaction of multiple risk and protective factors (genetic or environmental)
- Risk and protective factors alter the development of cognitive function -> the behavioural symptoms that define disorders
- No single deficit is sufficient for a disorder
- Co-morbidity between disorders is to be expected because of shared risk factors

Recruitment



Family risk of dyslexia?

Combined self-report and objective assessment

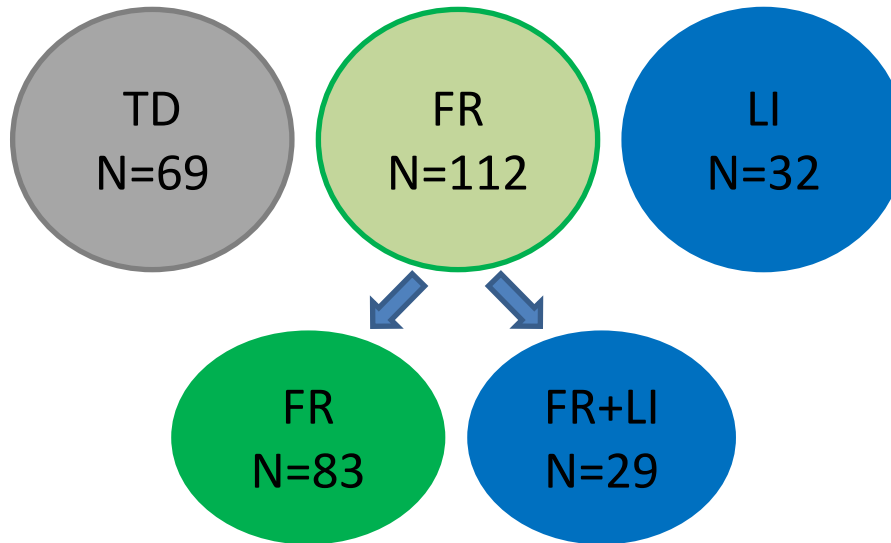
YES

NO

Language Impaired?

Below criterion (oral) language tests

Sample



Family risk of dyslexia

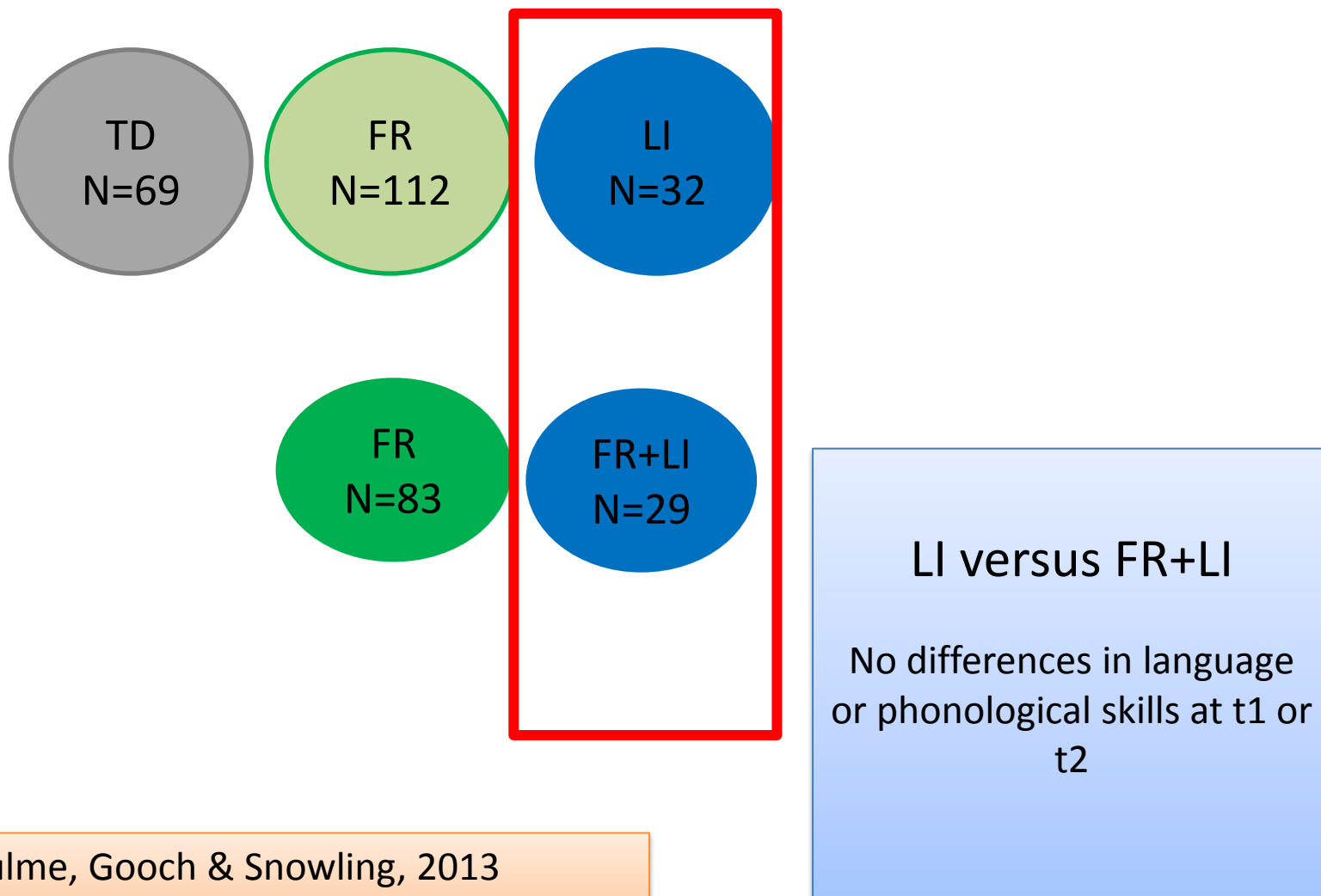
Parental self-report
Parent poor literacy
Sibling professional diagnosis

LI classification

Below criterion 2/4 tests
(<85 CELF or fail TEGI
screener)

CELF basic concepts
CELF expressive vocabulary
CELF sentence structure
TEGI screener

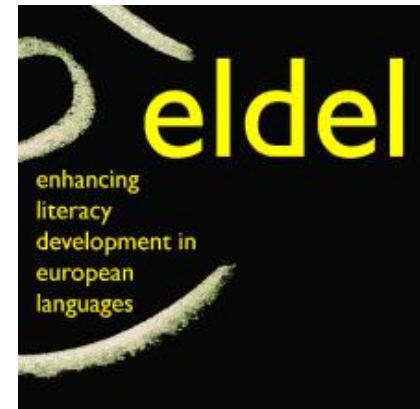
Preschool language profile



Nash, Hulme, Gooch & Snowling, 2013
JCPP

Endophenotypes

- An endophenotype mediates the association between candidate genes and the disorder
 - Reliably measured; stable over time
 - Associated with the disorder
 - Expressed at a higher rate in unaffected relatives of probands than in the general population (Beardon & Freimer, 2006)
- Older siblings of children in the Wellcome Reading & Language Study
 - 87 siblings [65 at family risk and 22 TD controls]
 - Of these 33 were dyslexic



Children, Families and Schools – thank you!

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- Debbie Gooch
- Lorna Hamilton
- Ruth Leavett
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