



Bristol Speech and
Language Therapy
Research Unit

North Bristol 
NHS Trust

**A preliminary investigation into the effectiveness
and cost-effectiveness of speech & language
therapist led interventions for children with speech
sound disorder versus programmes delivered by
assistants**

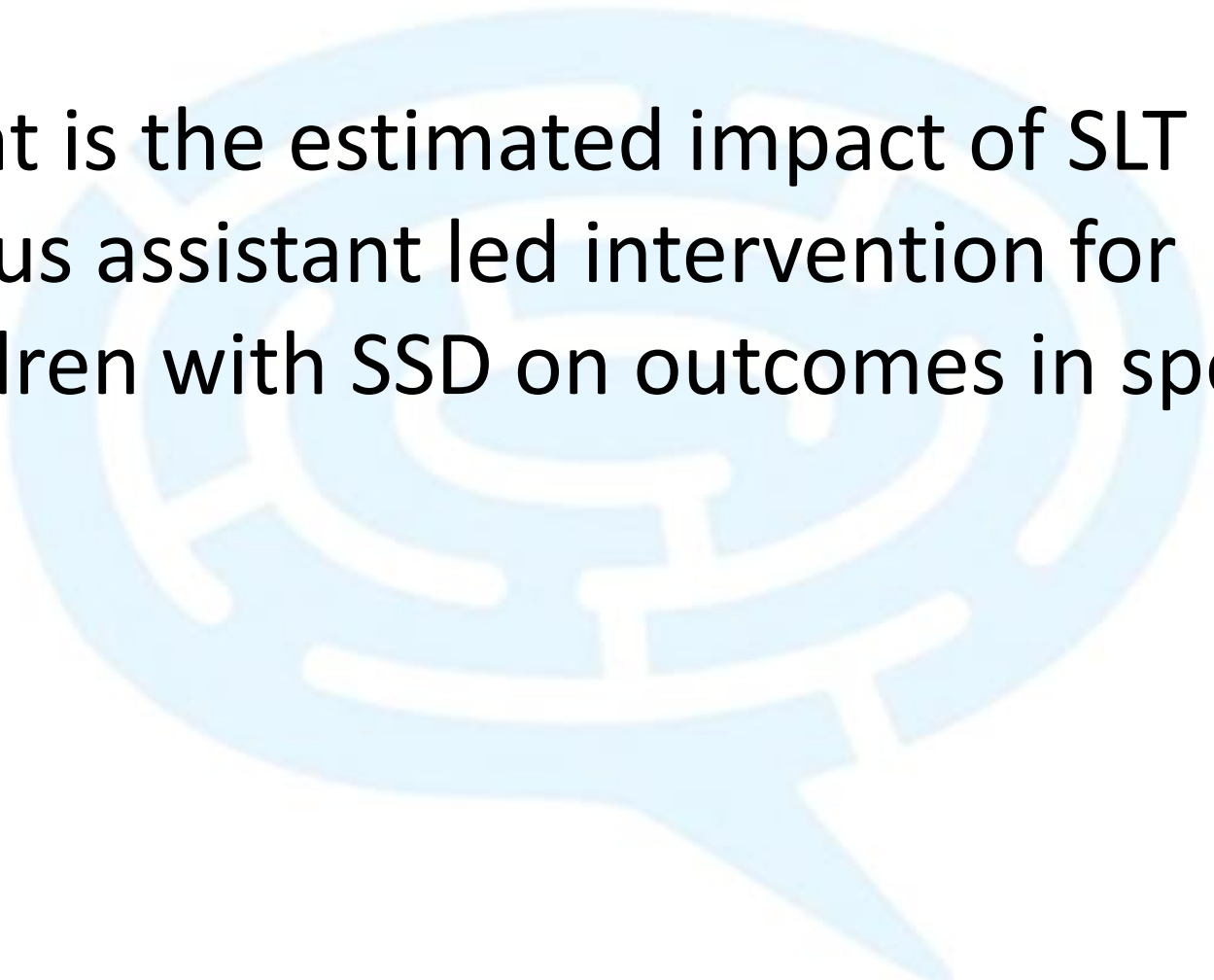
Lydia Morgan and Yvonne Wren

Children with speech sound disorder (SSD)

- Largest group referred to NHS speech and language therapy
- At risk for poor life outcomes in terms of education (*Anthony et al, 2011*) and employment (*Felsenfeld et al, 1992,1994*)
- Therapy for SSD sometimes delivered by SLTAs or TA's
- Unclear evidence for these approaches

Aim

What is the estimated impact of SLT led versus assistant led intervention for children with SSD on outcomes in speech?



Case note audit

- Children aged 4;0-8;11
- SSD; who meet the threshold for requiring speech and language therapy
- Children with no known neurological deficit, sensori-neural hearing loss, structural anomaly
- Who had received at least one block of SLT

Case notes reviewed

| | Site A (%) | Site B (%) |
|--------------------------|------------|------------|
| Case notes | 12 | 41 |
| Blocks of SLT | 31 | 109 |
| Blocks delivered by SLT | 11 (35) | 107 (98) |
| Blocks delivered by SLTA | 15(48) | 0 (0) |
| Blocks delivered by TA | 5 (16) | 2 (1.8) |

Data collection

| | | Site A (%) | Site B (%) |
|---|-----------------------------|---------------|---------------|
| Baseline and outcome Ax: | - within one month | 1 (3.2) | 16 (15) |
| | - within three months | 5 (16) | 30 (28) |

Findings

- SITE A The majority of the therapy blocks used 'targets met' as outcomes, rather than formal assessments.
- SITE B When a child was discharged from SLT services, they were seen for review, but rarely for formal assessment.

SITE A

| Baseline | Episode Aim[s] | SMART Objectives | Intervention | Achieved? | Actual Outcome |
|---|------------------------------------|---|--|----------------------------|--|
| <p>Tod can copy 's' and 'f' words but is not yet consistent. He uses 'h' instead of these sounds in his speech.</p> <p>Todd omits many final sounds in his speech</p> | To develop speech sound production | <ol style="list-style-type: none"> Todd will copy 's' initial words in sentences Todd will copy 'f' initial words in sentences Todd will say 'sh', 's', 'f', 'k' sounds after vowel sounds | <p>1:1 therapy sessions x1 weekly in clinic with the Speech Therapist May-June</p> <p>Naming 's' vs 'h' picture pairs.</p> <p>Naming 's' words and building these into sentences</p> <p>Naming 'f' words and building these into sentences</p> <p>naming 'f' vs 'h' picture pairs</p> <p>Vowels – ar, ee, ai, ie, ou, oo, er, oi Consonants – sh, s, f, k</p> | <p>✓</p> <p>✓</p> <p>✓</p> | <p>Todd has benefitted hugely from the 1:1 therapy block. He has met all of his targets and more!</p> <p>Todd can generate his own sentences using up to 4 's' words!</p> <p>Todd can generate his own sentences using up to 4 'f' words!</p> <p>Todd is also beginning to use the sound 'k' at the beginning of words and will benefit from more practise with this – see new programme plan.</p> |

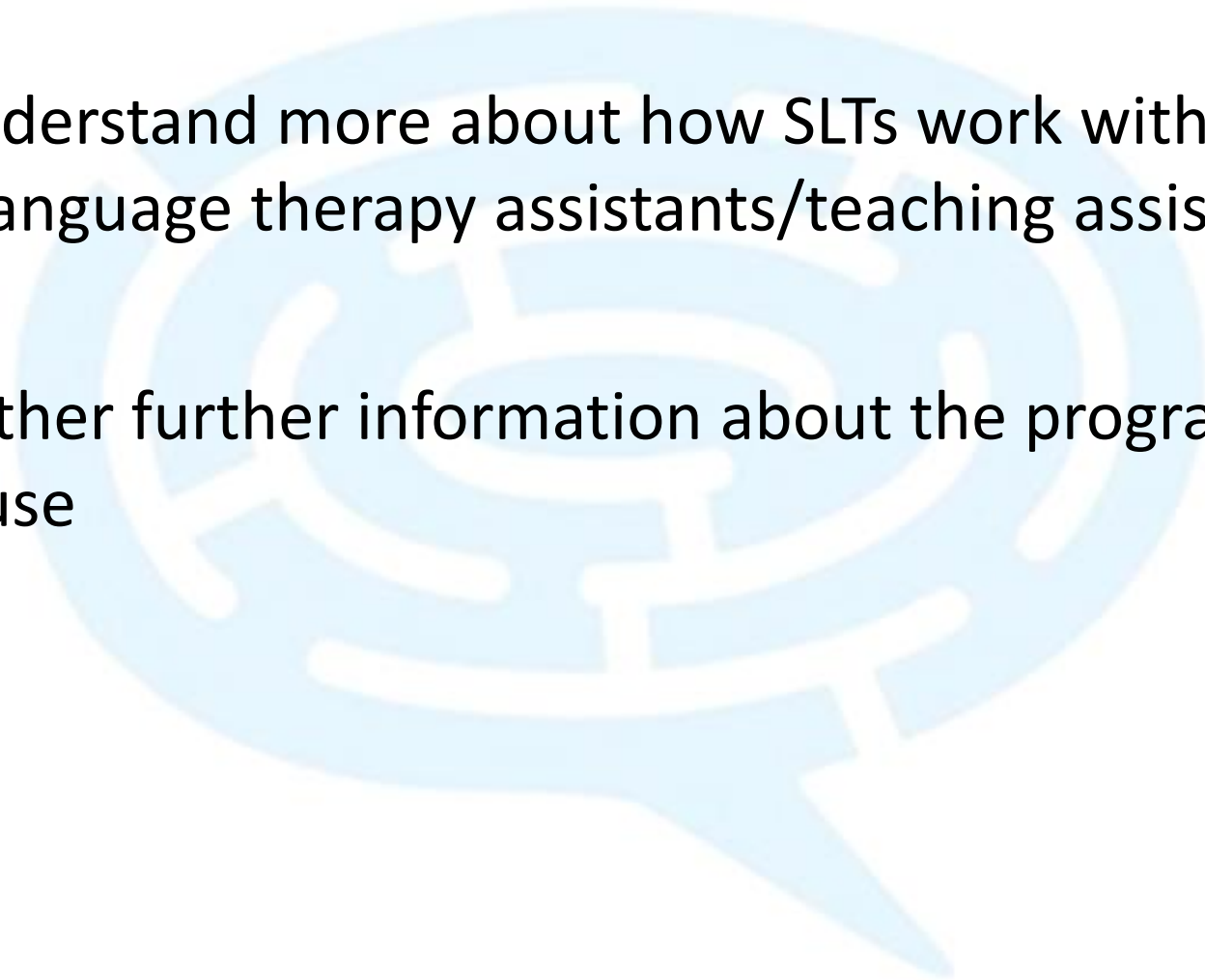
Findings

- Phonetic and Phonological Systems Analysis (PPSA)
- PCC as primary outcome measure
- 7 case notes analysed, all except one saw an increase in PCC
- Mean change was 16 (SD 27.7)
- Different assessments used pre and post
- Impossible to compare SLT vs SLTA/TA from this data

Survey

To understand more about how SLTs work with speech and language therapy assistants/teaching assistants

To gather further information about the programmes SLTs use



Survey

- One hundred and ninety three SLTs responded
- All working in the UK, with SSD population
- 97.9% reported that they worked with TAs or SLTAs
- SLTs frequently reported multiple ways in which they delivered their service, i.e. seeing some children frequently, others infrequently or for assessment only.

| | Category | n | % |
|--|----------|-----|------|
| I see children frequently (once a fortnight or more often) and demonstrate activities for the SLTA or teaching assistant to carry out in between my visits. | 1 | 128 | 66.3 |
| I see children infrequently for intervention (less than once a fortnight) but provide a written programme for the SLTA or teaching assistant to use until my next visit | 2 | 85 | 44 |
| I see children for assessment only and SLTAs and teaching assistants provide intervention using a programme | 3 | 46 | 23.8 |
| I provide a different type of service but also use programmes for SLTAs or teaching assistants to follow | 4 | 29 | 15 |
| I provide a different type of service and do not use programmes for SLTAs and teaching assistants to follow | 5 | 4 | 2 |

Summary

- Assistants play an important role in SLT
- We are still not sure how effective they are in practice
- The case note audit indicates we are not as a profession routinely keeping enough data
- Scope for further study

Questions

With thanks to...

The two sites

Collaborators - Dr Sally Bates and Dr Jill Titterington

As well as our funders Avon Primary Care Research Collaborative

