

Taking the long view: Language seminar at Queen Margaret University

Professor Bruce Tomblin gave the Tom Ingram Trust Lecture in Edinburgh on 27 May 2009. His presentation was preceded by a forum at Queen Margaret University to share research in Scotland for children with communication disorders, in particular specific language impairment. Speech & Language Therapy in Practice editor Avril Nicoll reports.

The preschool children I worked with as a new graduate will now be in their mid-twenties. Not for the first time, this seminar made me wonder how life has treated them. I hope they are happy and fulfilled, although I can't help feeling that some never stood much of a chance...

As a practitioner, you need to know that what you are doing will make a positive difference to people's lives, now and in the future. Having an indication of the likely trajectory of a communication difficulty - and of the impact of different therapy methods - helps you promote informed choice, plan ahead and make priorities.

To provide us with this information, researchers need patience, persistence, a large number of participants and long-term funding. **Professor Bruce Tomblin** from the University of Iowa is one of a number of researchers undertaking this challenge.

Professor Tomblin's reflections reinforce the case for early intervention. He emphasised that early competence or incompetence not only persists but can cascade more widely later. Communication competence acquisition cascades into academic competence in childhood and can cascade into social independence in adolescence; the reverse is also true.

I appreciated his description of therapy as being as much a risk factor for poor outcome as a moderator – because (as you would hope) the children most in need are the ones who get the therapy.

But what kind of therapy will most benefit children? Professor Tomblin suggests that this depends – at least in part - on the child's socio economic background. His findings indicate that the income level of the home interacts with the effects of the language impairment, and so this should influence our service provision.

My interpretation of this is that direct intervention should be explicitly targeted at children from average and higher income homes, because they are most likely to benefit. Although economic circumstances may have moderating effects on communication, Professor Tomblin observes that the consequences of poor language skills seem to be felt more by children in average / above average income homes.

He explains that poor language skills have the weakest effect on children from poor homes because their peers aren't doing well either – and the language problems are

“just lost in a sea of other problems.” It seems we need to do better at finding different, more universal solutions such as Sure Start for these children who are unlikely to derive much benefit from a direct or traditional approach.

Professor James Law also reported on a longitudinal study into adult outcomes for children with developmental language difficulties at 5 years, specifically in terms of literacy, mental health and employment. The data is complex, and many of the risks examined - such as overcrowding, mother leaving school at minimum age, mother smoked or having a single parent - are beyond the immediate influence of speech and language therapy services. However, James emphasised the data indicates that getting parents to read with their child could be a very important part of our therapy. I would be interested to hear from therapists who have strategies for facilitating this.

Leila Mackie's pilot research with boys aged 7-11 years identified as having behavioural difficulties found a much lower level of maternal education in the referred group compared with the controls, in spite of similarities on other measures. She also found a very high level of association between *pragmatic* language difficulties and emotional/behavioural difficulties. This information signposts the direction of intervention research in the area, towards a multidisciplinary approach that addresses both the pragmatic language and the behavioural issues of the boys, while at the same time supporting their mothers.

In her presentation, **Elsbeth McCartney** called for more intervention research studies, while accepting that such trials are expensive and complex to organise and staff. Elspeth wants to see more high level randomised controlled trials, more pooling and updating of reviews and more case and low level cohort studies. She also said that we desperately need more outcome measures of activity and participation.

Encouragingly, Elspeth believes small scale evaluative cohort studies are within the grasp of local services and are likely to be where we get our new therapies.

Researcher **Cyril Pernet** joked that MRI (magnetic resonance imaging) can solve all the mysteries of specific language impairment. With refreshing honesty he explained that the technique has many false positives, and outcomes that aren't specific enough. He stressed that, as 1:1 mapping doesn't exist, it is important to look for larger findings. It seems that technology itself doesn't hold the answer but may be a useful tool as part of a large-scale investigation.

Gemma Wilson's research is firmly grounded in practice. She has been looking at what young people with specific language impairment aged 11-14 years think of the support they get in mainstream secondary schools:

“I'm good at Science but sometimes I don't understand the names of the chemicals and that. Usually the teacher just tells us like once but I forget. Maybe he could do

something like we did in English with the pictures and doing the words again and again. I'd like him to do something to help me remember."

Such "perceptive and powerful comments" in focus groups have helped Gemma develop her service in other schools, across the curriculum and incorporating visual support and information technology (ICT). The young people feel they benefit from explicit vocabulary instruction and visual supports including ICT. Importantly, they welcome additional support in class, not at an individual level.

Gemma has worked closely with **Marysia Nash**, who presented with **Gill Earl**. Similarly to Professor Tomblin, Marysia pointed out that deficits of vocabulary persist and may worsen, as poor vocabulary makes it more difficult to acquire new vocabulary. She suggests that for children with language impairment, vocabulary learning is poorer even when it is explicitly taught.

In a spirit essential for productive collaborative working, Marysia clearly understands the perspective of the teacher. She set out how you can improve explicit teaching of vocabulary across the curriculum, in a way that is inclusive and teacher-friendly because it addresses the needs of a range of learners, not just those with specific language impairment.

Lynne Bremner reported on the CIRCLE project, an exciting initiative in the City of Edinburgh, where the focus is also on joint working and joint expectations. The funder asked for a best practice framework for primary aged children, and the project has launched 'Intervention Descriptions' and 'Therapy Manuals' for occupational therapy, physiotherapy and speech and language therapy.

I was interested in Lynne's reflections on the limitations of the systematic review of best practice with children aged 4½ to 11 years which informed the project. She noted that:

- Outcomes are limited to body function / structures, not participation
- Therapy is individual rather than classroom-based
- The majority of studies used qualified healthcare staff only.

This means that the review couldn't reflect practice or tell us what should be done in different circumstances.

Lynne's brief taster of the CIRCLE materials, however, suggests they are highly practical tools. For example, options for therapy for grammar through scaffolding are described, including elicited imitation and enhancing salience. As the materials are only just being put into schools in Edinburgh, any dissemination will depend on how successful they are in practice over the next year.

Altogether this was a more practical day than I had anticipated, and a great opportunity to demonstrate that researchers are indeed addressing questions that

matter. It also provided plenty of food for thought from a policy and service management perspective.

Acknowledgement

There was no charge for this event, which was organised by Professor James Law, Professor Anne O'Hare, Dr Ann Clark, Dr Jocelyne Watson, Dr Elspeth McCartney, Dr Wendy Cohen and Mr James Boyle.

Further information

- Professor Bruce Tomblin is Director of the Child Language Research Centre at the University of Iowa.
- Professor James Law is Director of the Centre for Integrated Healthcare Research.
- Leila Mackie is a speech and language therapist at the Centre for Integrated Healthcare Research. Her research is reported in: Mackie, L. & Law, J. (2009) 'Pragmatic language and the child with emotional/behavioural difficulties (EBD): a pilot study exploring the interaction between behaviour and communication disability', *IJLCD* 99999:1.
- Dr Elspeth McCartney is a Reader at the University of Strathclyde.
- Dr Cyril Pernet is based at the Sfc Brain Imaging Research Centre, University of Edinburgh.
- Gemma Wilson is a speech and language therapist with NHS Fife.
- Dr Marysia Nash is a speech and language therapist with NHS Lothian. She contributed 'My Top Resources – secondary schools' to the Autumn 08 issue of *Speech & Language Therapy in Practice*.
- Lynne Bremner is a speech and language therapist with NHS Lothian.

- All presentations from the afternoon research forum are available here: <http://www.cihr.org.uk/newsandevents> (accessed 6 October 2009).

6 October 2009