A Model for Evaluating the Impact of Speech and Language on Social Inclusion for Young Children with Hearing Loss

Gabriella Constantinescu, Aleisha Davis, Rebecca Phillips and Dimity Dornan

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First Voice: Who are we?

- Established in 2010 in Australia
- The National Voice for member Centres whose primary focus is the provision of listening and spoken language to children with hearing loss (HL)

- 5 Centres in Australia
- 1 Centre in New Zealand

First Voice: Who are we?

Aims:

- To improve the speech, language, social, cognitive and academic development of children with HL

- To improve the support families receive

- To raise awareness of early childhood HL

- To advocate for evidence-based early intervention listening and spoken language services for children with HL

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First Voice: Who are we?

First Voice Centres

- Have the largest cohort of children with HL in the world, supporting more than 1,000 children with HL
    - About 720 children are in early intervention
    - About 40% of children have a cochlear implant
- Are actively involved in a wide range of research relating to HL

Background: Why social inclusion?

- Social inclusion is a common focus of pediatric early intervention and for First Voice

- It is identified as a desired outcome in key policy documents:

  - The Australian National Disability Agreement

  - United Nations Convention on the Rights of Persons with Disabilities

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Background: Why social inclusion?

- Social inclusion (SI) may be influenced by the child's communication mode, speech and language skills

- Percy-Smith et al. (2008); 167 children with CI

  - Higher level of SI = exposed to spoken language alone than spoken language & supportive signs or spoken language & sign language

  - Association between higher level of SI and clear speech production, good speech understanding & a large vocabulary.

Background: Why social inclusion?

- Hadjikakou et al. (2008); 69 children HA & CI
  - Oral communication skills suggested as causal factors in academic inclusion of children with HL exposed to spoken language
- Further large scale studies needed to quantify these findings and look at the impact of early intervention on SI for children with HL.

Background: Why social inclusion?

- Barriers to measuring SI
  - Varying indicators of social inclusion are used across diverse fields, such as economics, education and health
  - There isn't a common understanding of the conceptual underpinnings of SI and approaches to measurement
  - Without a common understanding it is difficult for organisations to benchmark and monitor the efficacy of their services in relation to this outcome.

Literature review

Aims:

- To develop a model for defining and evaluating social inclusion.

Method:

- Searched electronic databases and websites
- Search terms: social inclusion, participation, children, disabilities.

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New Social Inclusion Definition

- SI refers to the connectedness of the individual with their social setting rather than their 'presence' (Phillips, Hogan & Dornan, submitted)

Literature review findings

The 5 Faces of social inclusion:

- Personal independence and self-determination

- Health and access to services

- Education

- Interacting with society and fulfilling social roles

- Economic participation of the parent

- Choice
- Wellbeing
- Independence

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Literature review findings

The 5 Faces of social inclusion:

- Personal independence and self-determination
- Health and access to services
- Education
- Interacting with society and fulfilling social roles
- Economic participation of the parent

- Health and disability
- Community resources
- Housing
- Social accommodation

Literature review findings

The 5 Faces of social inclusion:

- Personal independence and self-determination
- Health and access to services
- **Education**
- Interacting with society and fulfilling social roles
- Economic participation of the parent

- **Education participation**
- **Education and skills**

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Literature review findings

The 5 Faces of social inclusion:

- Personal independence and self-determination

- Health and access to services

- Education

- Interacting with society and fulfilling social roles

- Economic participation of the parent

- Social networks
- Social participation
- Acceptance
- Role functioning and acceptance
- Behaviour
- Social resources

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Literature review findings

The 5 Faces of social inclusion:

- Personal independence and self-determination

- Health and access to services

- Education

- Interacting with society and fulfilling social roles

- Economic participation of the parent

- Work participation
- Material/ economic resources

Applying the 5 Faces model

- The 5 Faces can be used as a model to guide the selection and development of surveys to address the breadth of social inclusion

Example

- First Voice wanted to benchmark the social inclusion of their children to provide evidence for listening and spoken language service delivery

- Focused on 2 Faces: Education; and Interacting with society and fulfilling social roles

Applying the 5 Faces model

Example

- Developed an online survey for parents to complete about their child's social inclusion

    - Questions addressing the 2 Faces were selected from a national survey – the Longitudinal Study of Australian Children (LSAC)

    - This allowed benchmarking of the findings against this national dataset

Preliminary findings

78 parents of children aged 4-5 years completed the survey

- Mean age = 4.9 years
- Male (n= 43), Female (n=35)
- All children had a permanent bilateral HL, were optimally aided (hearing aids and/or cochlear implants) and were enrolled in a listening and spoken language program for a minimum of 6 months.

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Preliminary findings

Education

- Parents of children with HL were less likely to be 'very satisfied' with their child's education program, and more likely to be 'satisfied' (p=0.05)
  - It is quite likely that this is due to parents being less satisfied in communication they receive from the teacher about their child's progress (p=0.05)
- Children with HL were less likely than their peers to spend 10+ hours/week in an education program (p=0.00)
  - This may be because parents are instead spending time with their child in a language enriched environment (in keeping with the FV philosophy)

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Preliminary findings

Interacting with Society and Fulfilling Social Roles

- Children with HL had a similar level of SI as their hearing peers, if not better,
  - e.g. children with HL were more likely to have been involved in recreation and leisure activities at home over the previous week, such as reading a book, $(p=0.004)$, or playing with toys or games $(p=0.02)$.
  - These outcomes may be seen due to guidance parents receive in early intervention and parents encouraging participation in these activities to improve speech and language

Take home messages

- Need to consider more than just the activities the child is involved in and their friendships

- The 5 Faces model can be used to guide the development of surveys to benchmark social inclusion

- Findings from the First Voice Social Inclusion study will be made available in early 2014.

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