Conversation training in aphasia rehabilitation: The challenges of measuring outcomes

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IARC 2016 workshop - City, University of London
Aims and objectives of workshop

We aim to bring together your expertise in clinical outcomes with ours in conversation training

• To present a brief overview of outcome measurement for conversation training
• To provide practical experience of devising measurable goals for conversation training
• To facilitate a group discussion of clinical practice around outcome measurement for conversation training

Please tweet about this workshop
@BCAphasia #aphasia #IARC2016
The evidence base for conversation training

- Training CPs has a positive effect on PWA  
  (Simmons-Mackie et al, 2010; 2016)
- Aphasia severity/type does not appear to influence outcomes of CP training – all PWA can benefit from CP training  
  (Simmons-Mackie et al, 2010; 2016)
- BCA results in significant decrease in barrier behaviours for both CPs and PWA, some dyads also learn to use facilitative strategies  
  (Best et al 2016)
- CPs need to understand impact/consequence of a behaviour on PWA in order to change their communication behaviour  
  (Johnson et al, 2016)
A taxonomy of conversation therapy

Simmons Mackie et al., INT J LANG COMMUN DISORD, 2014, VOL. 49, NO. 5, 511–526

Figure 1. Categories comprising a descriptive taxonomy of conversation therapy for aphasia.
What is happening in clinical practice?

- Functional communication?
- Strategy use?
- What about Conversation Analysis?

- Measuring outcomes
- Convincing others

- Who is it best for?
- What do I actually do with the clients?
- How do I feel about it?

Sirman, Beeke & Cruice (accepted, December 2016) IJLCD.
Examples of goals

• To initiate conversation at least x2 per day with my husband

• To be able to have a short conversation with my son at his birthday meal

• To use strategies for word finding in conversations with family members

• Conversational partner to give person with aphasia more time to contribute to conversation

Strategy use/
Total Communication (16)

Conversation partner (4)

Functional communication (10)

Conversation Analysis (10)
What does clinical practice tell us about measuring conversation outcomes?

• “…desire for an outcome measure to validate conversation therapy, but few respondents reported using published measures such as the observational measures (Kagan et al., 2004), and CAPPA (Whitworth et al., 1997).” (Sirman et al, accepted 2016)

• 84% of SLTs in Beckley et al’s (2016) survey used client/CP self-report to assess communication skills, and more than 80% never used formal assessments such as the Kagan scales, or SPPARC

• Lack of consensus within research around outcome measures reported by Simmons-Mackie et al (2010, 2016) contributes to lack of outcome measurement in practice
5.1 Is this therapy working?

What gets measured?
Click on each image below to learn more

Strategies: new or better, more or less?
Are you doing more things that help (facilitators)?
Are you doing less things that do not help (barriers)?

How does conversation feel?
Are you happier about conversations after therapy?
Are conversations easier?

Do you join in more after therapy?
Are you talking more?
Are you going out more?
Potential measures of change in strategy use

<table>
<thead>
<tr>
<th>Tools to measure change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better Conversations Checklist of Facilitators and Barriers</td>
</tr>
<tr>
<td>• Beeke, Beckley, Best, Edwards, Johnson, Maxim, Sirman &amp; Swinburn (2013, unpublished, copyright of University College London)</td>
</tr>
<tr>
<td>POWERS (Profile Of Word Errors and Retrieval in Speech)</td>
</tr>
<tr>
<td>• Herbert, Best, Hickin, Howard &amp; Osborne (2013), J &amp; R Press</td>
</tr>
<tr>
<td>Goal Attainment Scaling (GAS)</td>
</tr>
<tr>
<td>• Turner-Stokes (2003), <a href="http://www.bsrn.co.uk">www.bsrn.co.uk</a></td>
</tr>
</tbody>
</table>
Better Conversations with Aphasia Facilitators and Barriers Checklist  
(2013, unpublished, copyright of University College London)

Before therapy, with the SLT's help, a couple choose their own strategies (also called facilitators) to work on, based on barriers they want to change – these become the therapy goals. We recommend that people choose up to three strategies (facilitators) to work on. These facilitators and barriers are likely to be different for the person with aphasia and the conversation partner. For more information see BCA Module 3.3 What to target in therapy.

This checklist helps you to compare the number of facilitators and barriers occurring in one (or several) pre and post therapy conversation samples, for each person.

Firstly fill in the blank slots with a couple’s chosen facilitators (up to three), and also note the barriers that these are designed to help them change. The facilitators and barriers from the Better Conversations with Aphasia research project have been included as examples - you should delete/add more, as applicable for your couple. We don’t intend you to count everything that we have listed.

The columns may be subdivided if there are several pre or post therapy conversation samples to compare.

When you have counted the facilitators and barriers of each type, total these at the bottom of each section and transfer the totals into the summary table at the end of the checklist. This tool helps you to compare the numbers of behaviours pre- and post-therapy as a measure of therapy outcomes.

<table>
<thead>
<tr>
<th>FACILITATORS - PERSON WITH APHASIA (PWA)</th>
<th>PRE-THERAPY</th>
<th>POST-THERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Examples include...

- PWA produces key word(s) during turn
- PWA produces mime during turn
- PWA produces gesture during turn
- PWA produces drawing during turn
- PWA produces (sky)writing during turn
- PWA indicates a new topic by raising index finger, saying ‘oh’ (or similar)

Total PWA Facilitators
Using the BC checklist of facilitators and barriers

<table>
<thead>
<tr>
<th>Facilitators targeted in therapy</th>
<th>Barriers targeted in therapy</th>
<th>Impact on conversation</th>
<th>Pre-therapy - count of facilitators/barriers (each conversation sample is 5 mins long)</th>
<th>Post-therapy - count of facilitators/barriers (each conversation sample is 5 mins long)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alex: comment</td>
<td></td>
<td>Commenting reinforces Graham’s talk, Alex not leading conversation</td>
<td>1 1 0 4 9 12</td>
<td>3 7 5 2 5 5</td>
</tr>
<tr>
<td>Alex: test question (TQ)</td>
<td></td>
<td>TQs put Graham on the spot to recall specific word</td>
<td>7 1 0 10 1 16</td>
<td>2 1 0 0 2 0</td>
</tr>
<tr>
<td>Graham: key word</td>
<td></td>
<td>Key words set the topic Graham wants to talk about</td>
<td>3 0 2 1 0 3</td>
<td>8 5 5 2 4 2</td>
</tr>
<tr>
<td>Graham: writing</td>
<td></td>
<td>Writing can circumvent Graham’s word finding difficulty/dyspraxia</td>
<td>0 0 0 0 0 0</td>
<td>0 0 0 0 7 1</td>
</tr>
</tbody>
</table>

Therapy outcomes at a glance:
• CP has almost stopped asking test questions (35 pre, 5 post) but comments unchanged (27, 27)
• PWA adopts new strategy of writing (0 pre, 8 post), and increases key words (9 pre, 26 post)
5.2 How to measure change in strategy use in conversation

Goal Attainment Scaling

How can GAS be used to measure strategy change in conversation?

A worked example

Giles (PWA) and Linda (CP) have, in discussion with the SLT, chosen THREE facilitators each to work on in therapy, based on barriers they want to change – these become goals.

Each goal (measurable outcome) is given two weightings:
1. PWA and CP score each goal for IMPORTANCE – How important is it to achieve the goal on a scale of 1-3
   - less important = 1, important = 2, very important = 3
2. PWA and CP score each goal for ACHIEVEMENT – How likely do they think it will be for them to achieve their goal
   - 1 if a goal involves increased use or more consistent use of a strategy that is already in use

To read about Giles’ and Linda’s therapy, click on the image.
<table>
<thead>
<tr>
<th>GOALS for Linda</th>
<th>Related measurable outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linda sometimes checks with Giles if she has understood him correctly. Linda could check she has understood more often</td>
<td>More understanding checks</td>
</tr>
<tr>
<td>Date set:</td>
<td>Increase from 1 to 3</td>
</tr>
<tr>
<td>Importance: 2</td>
<td>Baseline: X</td>
</tr>
<tr>
<td>Score: 1</td>
<td>Baseline: IMPORTANT score = 2 because Linda already checks with Giles. BASELINE = -1 because Linda just has to increase her strategy use.</td>
</tr>
<tr>
<td>X</td>
<td>Linda achieved this goal</td>
</tr>
<tr>
<td>Date scored:</td>
<td></td>
</tr>
<tr>
<td>Sometimes Linda becomes a therapist and cues correct word production, even though she understands what Giles means</td>
<td>Linda to carry on conversation if understood – word does not need to be said correctly</td>
</tr>
<tr>
<td>Date set:</td>
<td>Increase from 0 to 3</td>
</tr>
<tr>
<td>Importance: 3</td>
<td>Baseline: X</td>
</tr>
<tr>
<td>Score: 3</td>
<td>Baseline: IMPORTANT score = 3 because Linda disrupts conversation flow by requesting correct production. BASELINE = -1 because strategy not seen pre therapy.</td>
</tr>
<tr>
<td>X</td>
<td>Linda achieved more than expected</td>
</tr>
<tr>
<td>Date scored:</td>
<td></td>
</tr>
<tr>
<td>Sometimes Linda asks Giles a ‘test’ question (one she already knows the answer to). Linda could comment or give her opinion on topics instead</td>
<td>Linda to comment and give her opinion</td>
</tr>
<tr>
<td>Date set:</td>
<td>Increase from 0 to 3</td>
</tr>
<tr>
<td>Importance: 3</td>
<td>Baseline: X</td>
</tr>
<tr>
<td>Score: 3</td>
<td>Baseline: IMPORTANT score = 3 because Linda disrupts conversation flow by asking test questions. BASELINE = -1 because strategy not seen pre therapy.</td>
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<tr>
<td>X</td>
<td>Linda achieved more than expected</td>
</tr>
<tr>
<td>Date scored:</td>
<td></td>
</tr>
</tbody>
</table>
Potential measures of change in feelings and participation

What tools do we have to measure change in feelings and participation in conversation?
The following screens will look briefly at each in turn.

- **Communication Disability Profile (CPD)**
  - Swinburn & Byng (2006), Connect Press

- **Conversation Analysis Profile of People with Aphasia (CAPPA)**
  - Whitworth, Perkins & Lesser (1997), Whurr

- **Aphasia Impact Questionnaire (AIQ)**
  - Swinburn (forthcoming), Connect Press

- **Better Conversations Rating Scales (BCRS)**
  - Johnson (2011, unpublished, copyright of University College London)

*as of 2013
Tell me about your conversations now, before we start this therapy.

1  2  3  4  5

Frustrating  Enjoyable

Did your conversations change after therapy?

They got much harder  They got a bit harder  No change  They got a bit easier  They got much easier
Activity 1: Goals and outcomes for Giles and Linda

- Read the background information about Giles and Linda
- Choose an outcome measure
  - One we have spoken about or one you currently use
- Write some SMART goals for Giles that serve as measurable outcomes for the chosen measure
Activity 2: Discussion of clinical practice

What is the reality for you?

How do you decide what outcomes to measure?

Do policies or guidelines influence what you measure?

What are managers asking for?

What do you use?

What are your reflections on current tools?

Your ideal outcome measure would be/do what?
Workshop reflections

- What have I learned?
- What action will I take?