Measuring outcomes of conversation partner training of health care professionals:

How do we evaluate outcomes with feasible, valid and reliable methods?

Lise Randrup Jensen (randrup@hum.ku.dk)
Jytte Isaksen (jisa@sdu.dk)
Acknowledgements

Thanks to collaborators at
• Rigshospitalet-Glostrup
• Institut for Kommunikation og Handicap, Århus
• Center for Kommunikation og Velfærdsteknologi, Odense
• Odense Universitetshospital, Svendborg
• Regionshospital Hammel Neurocenter

Thanks to Aphasia Institute for permission to translate KAQ and CAMS2.
Aims

The overall purpose of this round table is to:

• provide an overview of outcome measures used in research studies of conversation partner training (CPT) in health care settings
• present results from three different questionnaires used with health care professionals in Denmark before and after CPT in order to compare their sensitivity to change
• discuss and brainstorm, how we may design outcome measures for use in both research and clinical practice?
Plan for the round table

• 5 min. presentation of participants (name, workplace)
• Approx. 20 min. (LRJ & JI presents) together with 30 min. joint discussions
• 5 min. summing up
Question 1

A. What do you think is the single most important outcome after CPT in health care settings?

B. How do you think one might best measure this outcome/what type of approach?
How to measure CPT?

Model based on Coster, 2013
Outcome measures in CPT

The outcome reported in the 56 articles included in the two systematic reviews (Simmons-Mackie et al., 2010+2016) show many different types of measures.

The outcomes measures were coded in:

- Language functions/impairment (PwA)
- Activity/participation (PwA, CP)
- Psychosocial well being (PwA, CP)
- Knowledge of aphasia (PwA, CP)
- Quality of life (PwA, CP)

From your post it: Where does your preferred outcome fit in? And how is it measured?
Examples of how CPT of HCP is measured

<table>
<thead>
<tr>
<th>Study</th>
<th>Health professional</th>
<th>Outcome measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legg, Young &amp; Bryer, 2005¹</td>
<td>Medical students</td>
<td>Modified Calgary Cambridge Observation Guide (evaluates medical interviews) (CP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Modified Supported Conversation analysis (CP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interview rating (CP)</td>
</tr>
<tr>
<td>Simmons-Mackie et al., 2007¹</td>
<td>Mixed staff in three settings (acute, rehab, nursing home)</td>
<td>Analysis of interviews and focus groups (CP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Knowledge of Aphasia Questionnaire (KAQ) (CP)</td>
</tr>
<tr>
<td>McGilton et al., 2011² Sorin-Peters et al., 2010² (reporting on the same group)</td>
<td>Nurses</td>
<td>Interaction Rating Form (rating of comm. between CP/PwA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PwA outcomes: SAQOL, ASHA FACS plus others</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nurses outcomes: communication impairment questionnaire, knowledge on communication impairment scale plus others</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analysis of focus groups interview (CP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Informal rating scale of nurses perception of training components (CP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Knowledge of Aphasia Questionnaire (KAQ) (CP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Questionnaire of nurses’ perception of part of the intervention (communication plans) (CP)</td>
</tr>
<tr>
<td>Welsh &amp; Szabo, 2011²</td>
<td>Nursing ass. students</td>
<td>Questionnaire about knowledge and training content(CP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Questionnaire to trainers w. aphasia (trainers)</td>
</tr>
<tr>
<td>Cameron et al., 2015²</td>
<td>OT+PT students</td>
<td>Customized mixed-methods questionnaire adapted from the self-report questionnaire developed by ‘Connect’ (CP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feedback from PwA as trainers (not reported in study)</td>
</tr>
<tr>
<td>Jensen et al., 2015²</td>
<td>Nursing staff</td>
<td>Knowledge of Aphasia Questionnaire (KAQ) (CP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analysis of interviews (CP)</td>
</tr>
</tbody>
</table>
Question 2

What are your requirements to outcomes measures after communication partner training in professional contexts, regarding validity, reliability but also sensitivity and feasibility?
Why chose a questionnaire as your outcome measure?

Background

• Project for adapting and implementing the SCA-method in a large neurological department at Rigshospitalet-Glostrup in Copenhagen, Denmark.

• No research funding: a questionnaire was most feasible tool to give to health care staff:
  – Before they attended a 1-day SCA course
  – 3-6 months afterwards
2 different questionnaires

Study 1:
- Participants: Nurses and nursing assistants from stroke unit

Study 2:
- Participants: All staff (medical doctors, OTs, PTs, nurses, nursing assistants etc) mostly from general neurology units
- Constructed a 6-item *Short New Questionnaire (GLO1)*, retaining only 2 items from KAQ
2 types of quantitative questions in Knowledge of Aphasia Questionnaire (KAQ/GLO1)

1 question with response on visual analogue scale

– How well do you think you understand aphasia on a scale of 100? Place a vertical mark through the line below at the point you feel best reflects your knowledge of “aphasia”:

0 100

7 questions with response on 5-point likert scale

– Fx I find communicating with patients with aphasia to be frustrating/difficult

Response options:

<table>
<thead>
<tr>
<th>Response options</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>1</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Undecided</td>
<td>3</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>5</td>
</tr>
</tbody>
</table>
VA-scaled question: ’Understanding aphasia’

Study 1: Knowledge of Aphasia Questionnaire (KAQ/GLO1)

Results (study 1):

• A significant difference from pre- to post SCA-course (P=0.0004, 95%CI of difference [5.8-17.6]), see Jensen et al (2015)).
• n= 31  (15 nurses and 16 nursing assistants)
• KAQ given just before course and 3-6 months after course
Results (study 2):

- A significant difference from pre- to post SCA-course (P=0.0004, 95%CI of difference [5.8-17.6]), see Jensen et al (2015)).
- n= 93 (15 nurses and 16 nursing assistants)
7 likert scaled questions
Study 1: Knowledge of Aphasia Questionnaire (KAQ/GLO1)

• I avoid communicating with patients with aphasia, unless it is absolutely necessary
• I feel the patients with aphasia are socially isolated on the stroke unit
• I have confidence in my ability to support the conversation, when communicating with a patient with aphasia’
• I find communicating with patients with aphasia to be ... time-consuming
  frustrating/ difficult
  distressing/ difficult for the person with aphasia
  rewarding
Construction of Short New Questionnaire
GLO-2 developed at Rigshopitalet-Glostrup

• Questions retained from KAQ/GLO1:
  – How well do you think you understand aphasia on a scale of 100? (visual analogue scale)
  – I find communicating with patients with aphasia to be distressing/difficult for the person with aphasia (5-point likert scale)

• New questions in GLO2:
  – 1 free text and 1 tick-off question
  – 2 new likert scale questions
Quantitative questions
in Short New Questionnaire (GLO2) in Study 2

Retained from KAQ (GLO1)

- I myself often find it distressing/difficult, when I try to communicate with a person with severe aphasia
- If my communication with a patient with aphasia is not immediately successful, I know what do, so that we may understand each other

New

- I myself often find it distressing/difficult, when I try to communicate with a person with severe aphasia
- If my communication with a patient with aphasia is not immediately successful, I know what do, so that we may understand each other
I myself often find it distressing/difficult, when I try to communicate with a person with severe aphasia

Short New Questionnaire in Study 2

Z = -4,271; p<.0001; (Wilcoxon Signed Ranks test) (n=93)
Latest exploration of new questionnaire

Our latest initiative are an exploration of *Communicative Access Measures for Stroke* (CAMS) for staff (CAMS2, in Danish KTA) at some Danish hospitals.

(Aphasia Institute, 2010; https://cams.aphasia.ca/howto)

There is also a CAMS1 (for managers) and CAMS3 (for PwA).
Example of CAMS2 item

12. When interacting with people with aphasia, how often do you use the following?

<table>
<thead>
<tr>
<th>Communication technique/strategy</th>
<th>Always</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Talking/speaking differently so they understand</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Gesturing/Pointing/Facial expressions</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c) Marker/pen and paper/pictures/drawings</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d) Finding another staff member who is skilled at communicating with persons with aphasia</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Why CAMS2?
(Isaksen, Jensen, Petersen, Sørensen, Blüdnikow & Enemark (2014))

<table>
<thead>
<tr>
<th>Components of professional competence</th>
<th>SCA training modules</th>
<th>Example of question/phrase to be assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Conceptual/motivational module</td>
<td>How well do you think you understand aphasia on a scale of 0-100? (GLO1, GLO2)</td>
</tr>
<tr>
<td>Attitude</td>
<td>Conceptual/motivational module</td>
<td>What is your understanding of the competence of people with aphasia? (GLO1)</td>
</tr>
<tr>
<td>Skill</td>
<td>Technical module</td>
<td>If my communication with a PWA is not successful I know what to do so that we eventually will understand each other. (GLO2)</td>
</tr>
<tr>
<td>(Action)</td>
<td>Integrative role-play</td>
<td>I change the way that I communicate with PWA. (KTA)</td>
</tr>
</tbody>
</table>

Questions better reflects SCA-training content.

However original questionnarie too long and content to broad.

Collecting pre-post answers from Danish hospitals’ implementation of SCA to enable us to judge if some questions are suitable to go into another questionnaire.
Question 3

How do we best measure the changed behaviors we hope/expect to see in the HCP after receiving CPT?
Flaws and challenges

• Asking only the HCP – how to involve PwA?

• Many types of CPT – many types of measures

• Feasible and yet valid and reliable
Where do we go from here?

What tools do we need to develop to cover existing need when training HCP to be better CP for PwA?

Is it possible to have a generic tool across different methods?

Do clinicians and researchers have different needs?
References


