Welcome to Allied Health Telehealth

TBI Express Partner Training

Please complete your online evaluation at
https://www.surveymonkey.com/s/TBIExpressEval

TBI Express Partner Training

Professor Leanne Togher
Speech Pathology, Faculty of Health Sciences,
The University of Sydney, Sydney, Australia

10 March 2015

Allied Health Telehealth Program
NSW Child Health Network
Overview

1. Communication training for people with TBI
2. The role of communication partners
3. Assessing communication partner contributions
4. TBI express: A communication partner training program
5. Summary

Traumatic brain injury

- Caused by a blow to the head or by the head being forced to move rapidly forward or backward, usually with some loss of consciousness
- Brain damage arises from being torn, stretched, penetrated, bruised and swelling can make the injury worse
- Alcohol associated with up to half of all adult cases of TBI
- Car accidents, falls, assaults, sporting accidents
Effects of a TBI

Consequences of TBI

- Medical difficulties
- Changes in physical and sensory abilities
- Changes in the ability to think and learn
- Changes in behaviour and personality
- Communication difficulties
  - Conversational skill difficulties
  - Cognitive communication deficits
- Slurred speech
- Word finding difficulties

(Images courtesy of Professor Erin D. Bigler and Trevor Wu)
Conversation

➢ Rewarding and important part of our social interactions
➢ Maintains and develops close relationships
➢ Solve problems
➢ Work out personal issues
➢ Share our history
➢ Make sense of the present
➢ Plan for the future

Communication training for people with TBI

• Conversational skill influences the ability of people to develop social relationships, return to work, maintain friendships and interact with their families

• Training the person with TBI in social communication skills is possible, although gains are often modest due to other cognitive and executive functioning deficits (e.g. poor memory) (Flanagan, McDonald & Togher, 1995, Medd & Tate, 2000, Tate, 1987, Cannizzaro & Coelho, 2002; Cramon et al, 1992, Hefftenstein & Wechsier, 1982, McDonald et al., 2008, Dahlberg et al., 2007).

• Communication is a dynamic exchange involving others so we need to look at Environment (ICF, WHO, 2001)
• **Communication partners can be a barrier:**
  - Overcompensating by speaking too slowly / quickly
  - Not giving TBI opportunity to communicate
  - Failing to provide natural consequences for communication successes / failures
  - Talking for the person
  - Questioning the accuracy of responses
  - Asking testing questions (*Togher, Hand, & Code, 1997*).

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- **Communication partners can be Facilitators:**
  - Different communication partners such as friends may provide a facilitative environment (*Bogart et al., 2012*, *Kilov et al., 2009*).
  - If trained, communication partners can enhance the communicative competence of people with severe TBI.
    - Police study (*Togher, McDonald, Code & Grant, 2004*)


Families of people with TBI

- Family strain, emotional distress, caregiver burden, and social isolation
- A study of 273 caregivers across six Traumatic Brain Injury Centers in the USA, found that one-third of caregivers are at risk for depression, anxiety, or other forms of psychological distress
- A main source of stress is difficulty communicating with the person with TBI (MAA, 1998)
- Training communication partners is more common in aphasia (e.g., Simmons-Mackie et al 2010), but there are few studies in TBI
- TBI Express- first of its kind to train everyday partners (i.e. family, friends, carers) and the person with TBI.

Assessment

- Adapted Kagan scales (Togher et al. 2010) – reliable scales adapted from work in aphasia

  **Measure of skill in Supported Conversation (MSC)**
  - Support in conversation requires the communication partner to:
    1. Acknowledge competence (adult, shared)
    2. Reveal competence (modify language so TBI can understand and express themselves)

  **Measure of Participation in Conversation (MPC)**
  - Participation in conversation requires appropriate:
    1. Interaction (feel)
    2. Transaction (content)

Rated on a reliable, 9 point likert scale (0-4)
### A. Interaction

<table>
<thead>
<tr>
<th>Vertical / Vocal</th>
<th>Nonverbal</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Does TBI share responsibility for maintaining flow of conversation (incl. appropriate affect)?</td>
<td></td>
</tr>
<tr>
<td>- Does TBI add information to maintain the topic?</td>
<td></td>
</tr>
<tr>
<td>- Does TBI ask questions of ECP which follow-up on the topic?</td>
<td></td>
</tr>
<tr>
<td>- Does TBI use appropriate turn-taking (taking their turn, passing turn to ECP appropriately)?</td>
<td></td>
</tr>
<tr>
<td>- Does TBI demonstrate active listening (e.g. acknowledging, backchanneling)?</td>
<td></td>
</tr>
<tr>
<td>- Does TBI choose appropriate topics and questions for the context?</td>
<td></td>
</tr>
<tr>
<td>- Does TBI show communicative intent even if content is poor?</td>
<td></td>
</tr>
</tbody>
</table>

- Does TBI initiate / maintain interaction with CP or make use of supports offered by CP to initiate / maintain interaction?
- Is TBI pragmatically appropriate?
- Does TBI ever acknowledge the frustration of the CP or acknowledge their competence/skill?
- Behaviours might include:
  - Appropriate eye contact, use of gesture, body posture and facial expression, use of writing or drawing in any form, use of resource materials

**Score MPC Interaction:**

<table>
<thead>
<tr>
<th>Score</th>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No participation at all</td>
</tr>
<tr>
<td>0.5</td>
<td>Some participation</td>
</tr>
<tr>
<td>1</td>
<td>Full participation</td>
</tr>
</tbody>
</table>

### A. Interaction Anchors

<table>
<thead>
<tr>
<th>NONE</th>
<th>0</th>
<th>No participation at all. No attempt to engage with communication partner or respond to their interactive attempts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOME</td>
<td>1</td>
<td>Person with TBI beginning to take occasional responsibility for sharing the conversational interaction, in order to achieve the purpose of the task.</td>
</tr>
<tr>
<td>SOME</td>
<td>2</td>
<td>Person with TBI making clear attempts to share the conversational interaction some of the time, in order to achieve the purpose of the task.</td>
</tr>
<tr>
<td>FULL</td>
<td>4</td>
<td>Person with TBI has full and appropriate participation. Takes responsibility for sharing the conversational interaction, in order to achieve the purpose of the task.</td>
</tr>
</tbody>
</table>

### B. Transaction

<table>
<thead>
<tr>
<th>Verbal / Vocal and Nonverbal</th>
<th>Score MPC Transaction:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Does TBI maintain exchange of information, opinions and feelings with CP, by sharing details or by inviting CP to share details (i.e. is there good content and more than intent alone)?</td>
<td></td>
</tr>
<tr>
<td>- Does TBI present information in an organised way?</td>
<td></td>
</tr>
<tr>
<td>- Does TBI provide an appropriate amount of information?</td>
<td></td>
</tr>
<tr>
<td>- Does TBI ask clarifying questions when necessary?</td>
<td></td>
</tr>
<tr>
<td>- Does TBI ever initiate transaction?</td>
<td></td>
</tr>
</tbody>
</table>
  - Introducing or referring back to a previous topic |
  - Spontaneously using a compensatory technique |
| - Does content of transaction appear to be accurate? (depending on context and purpose of rating, rater would have more/less access to means of verification of information) |
| - Does TBI use support offered by CP for purpose of transaction? Eg., Referring to a list/diary, using the organisation of the conversation provided by CP (e.g. responding to closed choice questions) |

**Score MPC Transaction:**

<table>
<thead>
<tr>
<th>Score</th>
<th>Transaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No participation at all</td>
</tr>
<tr>
<td>0.5</td>
<td>Some participation</td>
</tr>
<tr>
<td>1</td>
<td>Full participation</td>
</tr>
</tbody>
</table>

### B. Transaction Anchors

<table>
<thead>
<tr>
<th>NONE</th>
<th>0</th>
<th>No evidence of person with TBI conveying content, in order to achieve the purpose of the task.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOME</td>
<td>2</td>
<td>Person with TBI occasionally conveying content, in order to achieve the purpose of the task.</td>
</tr>
<tr>
<td>SOME</td>
<td>3</td>
<td>Person with TBI is conveying some content, in order to achieve the purpose of the task.</td>
</tr>
<tr>
<td>FULL</td>
<td>4</td>
<td>Person with TBI consistently conveys content in order to achieve the purpose of the task.</td>
</tr>
</tbody>
</table>
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B. Revealing Competence

<table>
<thead>
<tr>
<th>Score MSc 1</th>
</tr>
</thead>
</table>
| 1 | No response to communicative cues (e.g., giving enough time to respond)
| 2 | Establishes equal leadership roles in the conversation
| 3 | Allows partner to take appropriate conversational turns
| 4 | Maintains the topic by asking information
| 5 | Invites elaboration (e.g., uses open-ended questions, statements, links to experiences of TBI)
| 6 | Uses questions appropriate to person's ability (e.g., simple or closed questions when necessary)
| 7 | Helps partner express thoughts when struggle occurs

Score MSc 2:

<table>
<thead>
<tr>
<th>Score MSc 3</th>
</tr>
</thead>
</table>
| 1 | Response to communicative cues (e.g., infers intended message of the person with brain injury, based on all available cues)
| 2 | Confirms understanding of what has been said (paraphrasing, checking)
| 3 | Uses clarifying questions as appropriate
| 4 | Note: Verification often involves checking in a different way (e.g., using a yes/no question)

Score MSc 3:

B. Revealing Competence Anchors

NONE 0 No use of techniques to reveal competencies, inhibits the potential participation of the person with TBI.

BASIC 2 Basic level of skill: Uses techniques to maintain the potential participation of the person with TBI. Aims to get some information from the person with TBI.

HIGHLY 4 Technically outstanding. Uses techniques to maximize the potential participation of the person with TBI. May not always increase the explicit techniques, but is an elaboration where not necessary.

A. Acknowledging Competence

<table>
<thead>
<tr>
<th>Score MSc 1</th>
</tr>
</thead>
</table>
| 1 | Feat and flow of natural adult conversation appropriate to context,
| 2 | e.g., social chat vs. interview; respectful approach to verification (verifying that the conversation partner has understood rather than verifying that adult with brain injury knows what they want to say; not over-verifying)
| 3 | Not patronizing (bordness, tone of voice, rate, enunciation)
| 4 | Appropriate emotional tone / use of humour
| 5 | Uses collaborative talk (rather than teaching / testing)
| 6 | Establishes equal leadership roles in the conversation
| 7 | Uses true questions rather than testing questions

Score MSc 1:

A. Acknowledging Competence Anchors

NONE 0 Competence of person with TBI not acknowledged: Patronizing.

BASIC 2 Minimally acknowledges competence of person with TBI.

HIGHLY 4 Interactively outstanding. Full acknowledgement of the competence of the person with TBI.

If you experience connection problems 10 mins prior or during the session please ring HNE Telehealth Helpdesk 4985 5400 Option 1
TBI Express
http://sydney.edu.au/health-sciences/tbi-express/

Group + individual training for TBI JOINT group
- Group of 4-5 people with TBI & their communication partners
- 2 therapists
- 2.5 hr weekly group sessions (+ morning tea/social break)
- 1 hour weekly individual sessions
- 10 week program, divided into 7 modules

Manualised approach (Togher et al., 2004; Ylvisaker, et al., 1998)
- **Aim:** more enjoyable and productive conversations
- Targeting common communication problems observed in interactions
- Collaborative and elaborative conversational strategies
- Enhancing / supporting communication of person with TBI

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Principles of TBI Express training

- Practice in conversations and role plays
- Use of immediate audio feedback
- Use of observation sheets to guide self monitoring of performance
- Daily homework practice expected between sessions, including regular recordings of conversation at home
- Practice encouraged in every day communication activities
- Homework was reviewed at the beginning of each individual and group session
- Principles of neuroplasticity used – intensive practice, repetition, salient, meaningful communication environments

Three ways to have a good conversation

- Collaboration
- Elaboration
- Question asking
Training Program

- **Session 1: Introduction.**
  Aims of training, group guidelines, home practice expectations established

- **Session 2: TBI and communication.**
  Educational on TBI, cognition & communication.
  [http://www.tbistafftraining.info/Presenters/Module2/2Intro.htm](http://www.tbistafftraining.info/Presenters/Module2/2Intro.htm)

- **Sessions 3, 4: Effective communication 1 and 2.**
  Explores communication roles and rules in society as well as general communication strategies.

- **Session 5: Collaborative conversation.** *‘we are doing this together as a co-operative project’*
  Training collaboration where both the ‘feel’ and information exchange are more equal, shared and organised.

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Collaborative style

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**Example from the manual: Collaboration**

- Collaboration means working together to help communication to happen effectively.

**Aims**
- To provide you with an overview of collaborative style and highlight collaboration styles for speakers and listeners
- To practise identifying and using positive collaborative styles

**Objectives - at the end of the session you will be able to:**
- Define what is meant by collaborative communication style
- Contrast non collaborative communication styles with more positive alternatives
- Use a positive collaborative style in interactions with your communication partner

**Resources to bring**
- Equipment: DVD player Digital video tape recorders
- Handouts: ECP A4-1, ECP H4-1 to 4-7, ECP R4-1, ECP HW 4-1
- Other: List of DVD titles, DVD of the Mythbusters

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**Collaboration session plan**

- Review home practice and troubleshoot any issues (15 mins)
- Outline session overview and aims (5 mins)
- **Collaborative style**: role play collaborative and non collaborative styles using handout (20 mins)
- **Collaborative intent**: handout discussion and practice conversation (20 mins)
- **Cognitive support**: handout discussion and conversation practice (15 mins)
- **Emotional support**: handout discussion and practice conversation (15 mins)
- BREAK
Session plan: continued

- **Questions**: Positive style: handout and discussion (15 mins)
- **Collaborative turn taking**: handout and discussion (15 mins)
- **Putting it all together**: handout and discussion (40 mins)
- **Home practice for this week** (5 mins)

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**COLLABORATION**

- **“We are doing this together, as a cooperative project”**

  When in conversation, this means that we intend to convey this message to the other person. That is, we take turns, each having a go and helping the other person. Conversation is more about shared meaning than whether content is right or wrong alone. Collaboration is a way of ‘sharing the floor’ in a conversation, making sure that each person contributes as much as they can in the situation, supporting the person with brain injury to participate as much as possible.
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Collaborative
- Shares information
- Confirms partner’s contributions
- Shows enthusiasm
- Communicates respect
- Questions in a non demanding, supportive way

X Non collaborative
- Demands information
- Talks like a teacher
- Lack of enthusiasm
- Corrects the person
- Fails to acknowledge difficulties
- Quiz like questions

Example

<table>
<thead>
<tr>
<th>For real collaboration we need:</th>
<th>This means we need to convey:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative intent</td>
<td>“We’re doing this together”</td>
</tr>
<tr>
<td>Cognitive support</td>
<td>“What can help make this easier”</td>
</tr>
<tr>
<td>Emotional support</td>
<td>“I’m with you, it’s OK”</td>
</tr>
<tr>
<td>Positive question style</td>
<td>“I’m interested in what you have to say”</td>
</tr>
<tr>
<td>Collaborative turn taking</td>
<td>“I’m interested in sharing conversation”</td>
</tr>
</tbody>
</table>

E.g., collaborative methods could be used to plan a barbecue

<table>
<thead>
<tr>
<th>Person with TBI says:</th>
<th>“I want to have my BBQ at home”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less collaborative CP:</td>
<td>“No. We can’t have a big barbecue in our unit, we’ll have it at a community centre”.</td>
</tr>
<tr>
<td>More collaborative CP:</td>
<td>It would be nice to have the BBQ at home. I was thinking though, we’ve got lots of people coming and our place is pretty small...<em>(see if this cues an alternative)</em>... “Let’s think of bigger places we could have it”</td>
</tr>
</tbody>
</table>

If you experience connection problems 10 mins prior or during the session please ring HNE Telehealth Helpdesk 4985 5400  Option 1
Collaborative intent

- **Shares information**
  - Provides information rather than asking lots of questions
  - Gives own opinions

- **Uses collaborative talk → a team effort**
  - “So what options do we have?”
  - “What do you think is the best way to do this?”
  - “Let’s think about the advantages of doing that.”

Types of collaboration

- **COGNITIVE SUPPORT**
  - Gives information when needed
  - Uses memory, organization supports (*calendars, photos, diaries, books, notes*)
  - Gives cues in a conversational manner
  - Responds to errors by giving correct information in a non-punitive manner

- **LACK OF COGNITIVE SUPPORT**
  - Doesn’t give info when needed; instead quizzes
  - Fails to use or encourage cognitive supports at appropriate times
  - Fails to give cues
  - Corrects in a punishing manner and considers accuracy more important than the message
Gives cues in a conversational manner

- There are different kinds of questions that can be used to cue recall in conversation:
  - **Cast your mind back** – Create an image of the scene you are going to talk about.
  - **Think about the parts** – Break the situation down into its parts (e.g. places, people, time) and discuss the different parts individually.
  - **Use a different method** – Draw a picture of the scene, tell it as a story focussing on the perspectives of the different people involved.
  - **Asking a specific question** – Asking a question that provides some specific detail to prompt recall (e.g. Where was that place we went which had the really delicious chocolate cake?)
  - **Build up the picture** – Creating a detailed account of the event or scene by extending upon the information provided by the other person.

Types of collaboration

- **EMOTIONAL SUPPORT**
  - Communicates respect for other’s concerns, perspectives and abilities.
  - Acknowledges difficulties (*It’s hard to get all these things in order isn’t it?*)

- **LACK OF EMOTIONAL SUPPORT**
  - Fails to communicate respect for other’s concerns, perspectives and abilities.
  - Fails to acknowledge difficulty of the task and continues despite difficulties.

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What are ways you could use EMOTIONAL SUPPORTS in these cases?

- Trouble getting conversation started
- Trouble finding the right word?
- Difficulty remembering details?
- Getting muddled or confused?
- When person with TBI is frustrated?
- When communication partner is frustrated?

Types of collaboration

**QUESTIONS: POSITIVE STYLE**
- Questions in a non-demanding manner
- Questions that share information rather than test memory
- Questions in a supportive manner *(e.g. Did we go swimming after that? vs. What did we do yesterday?)*

**QUESTIONS: NEGATIVE STYLE**
- Questions in a demanding manner *(quiz like)*
- Questions in a non-supportive manner *(How are you going to do that?)*
Types of Collaboration

- **COLLABORATIVE TURN TAKING**
  - Takes appropriate conversational turns
  - Helps partner express thoughts when struggle occurs (*word finding difficulties*)

- **NON-COLLABORATIVE TURN TAKING**
  - Interrupts in a way that disrupts the partner’s thought processes and statements
  - Fails to help partner when struggling occurs

Elaboration and question asking
Training Program


‘I am going to help you organise and extend your thoughts’.

Training on helping person with TBI to ‘keep conversations going’ and to widen topic repertoire. Also learn how to organise and link simple and more complex topics together.

e.g., encourages CP to use scaffolds for person with TBI assuming you need to give info: “We went to dinner on Friday……Saturday was a bit different…..Sunday was pretty lazy…”


Using helpful questions, how avoid using negative, or ‘testing’ questions.

▶ Sessions 8-10. Improving skills and confidence.

Revision sessions to refresh and reinforce information learnt along with actual practice of each technique. Session 10 also celebrates group members’ achievements with lunch.

✓ Elaborative

▶ Introduce topics of interest
▶ Add information to help develop topics
▶ Organises information
▶ Makes connections when topics change
▶ Reviews what has been said

✗ Non elaborative

▶ Introduces topics which are not interesting to the person
▶ Changes topic frequently
▶ Fails to make connections from one day to the next
Question asking

**Good questions**
- Open ended
- True questions
  - About events where you were not present
  - Feelings
  - Opinions

**Poor questions**
- Closed
- Testing, quiz like
  - Question asker already knows the answer
  - Testing performance, memory

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Did the treatment work?

- Yes!!
- After treatment there were significant treatment effects found for those who attended communication partner training
- Person with TBI was judged to have better interactional skills
- Communication partners improved in their ability to help the person with TBI communicate effectively
- Conversations were rated as being more rewarding, less effortful and more interesting
And was it maintained over time?

- Yes !!

- Effect was maintained at 6 month follow up

- i.e., The communication partner training group improved relative to the other two groups
Research translation: manual, DVD, website

Collaboration Videos

1a "Collaboration don’ts"
This video shows a conversation between a mother and her son with a brain injury. It provides an example of how not to collaborate in conversation.

1b "Collaboration reflections"
In this video the mother reflects on how she has been speaking with her son and describes how she is going to change her talking to help him communicate better and to have more enjoyable conversations.

1c "Collaboration dos"
This video shows the same conversation between a mother and her son with brain injury. It provides examples of how to collaborate well in conversation.

Elaboration videos

Elaboration Videos

2a "Elaboration don’ts"
This video shows a conversation between a wife and her husband with a brain injury. It provides an example of how not to elaborate in conversation.

2b "Elaboration reflections"
In this video the wife reflects on how she has been speaking with her husband and describes how she is going to change her talking to help them enjoy better conversations.

2c "Elaboration dos"
This video shows the same conversation between the wife and her husband. However in this video we show examples of how to elaborate well in conversation to keep the conversation going.

Main Menu
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<table>
<thead>
<tr>
<th>Where to from here?</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Telehealth – Assessment and treatment using Skype (Rachael Rietdijk)</td>
</tr>
<tr>
<td>➢ Trialing the use of TBI Express with people in outer urban, rural and remote areas</td>
</tr>
</tbody>
</table>

_Seeding funding from the Institute of Safety Compensation and Recovery Research (VIC)_
Summary

- Training communication partners was more efficacious than training the person with TBI alone.
- Communication training for families led to improved engagement in social activities, increased independence for some people with brain injury.
- Provided the first link in re-establishing the social network of the person with TBI.
- Training everyday communication partners is an important complementary treatment for people with TBI and their families to facilitate and promote improved communication outcome.

Acknowledgements
References / further reading

1. For more on the NH& MRC training study called TBI express see:

2. For more info on the rating scales see:

3. For more info on communication partner training in TBI / aphasia see:

4. For more information on Collaboration and elaboration techniques see:
   - For some video and additional information on Dr Ylvisaker’s techniques see:
     - [http://www.bianys.org/learnet/tutorials/conversation_and_cognition.html](http://www.bianys.org/learnet/tutorials/conversation_and_cognition.html)