The delivery of an aphasia group via telerehabilitation: perceptions of people with aphasia and their communication partners

Introduction – Aphasia

A chronic communication difficulty caused by stroke or brain injury

Speaking
Reading
Listening
Writing

Aphasia can impact the processing and use of language

Introduction – Aphasia group therapy

Benefits of group therapy for aphasia

Practice of a variety of speech acts
Support for living with aphasia
Learning and practice a range of communication strategies
Opportunity to participate in natural conversation

PWA need long term access to aphasia groups

Barriers to accessing & providing aphasia groups

Telerehabilitation – a potential solution

Telerehabilitation refers to the delivery of rehabilitation services via information and communication technologies. (Brennan et al., 2011)

Reduced travel
Saves money
Saves time
Improved access

Wide geographical area
Improved timeliness
Increased intensity

Successes and Failures in Telehealth 2017
Evidence for telerehabilitation

• Promising results for synchronous (real-time) & asynchronous (remotely monitored) aphasia management
• Current evidence primarily in assessment of aphasia
• Intervention studies typically asynchronous, limited by small sample sizes or combine treatment approaches
• No evidence for group therapy approach only
• Limited information about experience of synchronous telerehabilitation for people with aphasia & their communication partners

Aims

1. To explore the satisfaction of people with aphasia with an online aphasia group therapy intervention, TeleGAIN
2. To describe the perspectives of people with aphasia & their communication partners on the impact of TeleGAIN on their life

Methods - Participants

n = 19
10 females, 9 males
7 communication partners supported participants in using technology
Age range 21 - 74 (mean = 56.78, SD = 13.91)
Months post onset (MPO) range 13 – 223 (mean = 66.61, SD = 61.61)
7 Mild, 5 Moderate, 6 Moderate/Severe, 1 Severe
Inclusion criteria: > 18 years, > 12 months post-stroke, adequate hearing and vision to operate computer equipment, English speaking
Exclusion criteria: Concomitant neurological or cognitive disorder

Methods - Telerehabilitation

• Platform – Adobe Connect (HTML 5)
• Internet – ADSL or 4G Mobile Broadband
• Features of Adobe Connect used included
  • Share My Screen
  • Whiteboard
  • Text
  • Drawing
  • Webcamera & Microphone
  • Share Document

Methods - TeleGAIN

• Twelve, 1.5 hour therapy sessions
• Seven groups with 3-5 people with aphasia in each group
• Specifically developed aphasia group intervention – TeleGAIN
• Goals of intervention
  1. Create opportunities for communicative success
  2. Share personal life history
  3. Provide support for living with aphasia through networking with others

Methods – Data collection and analysis

• 5 Point Likert Satisfaction scale
  • No – definitely not
  • No – I don’t think so
  • Neutral
  • Yes – I think so
  • Yes – definitely so
• Explored topics related to
  • Benefits of telehabilitation
  • Video and audio quality
  • Efficiency and ease of interaction
  • Overall satisfaction
• Responses analysed descriptively
Methods – Data collection and analysis

- Semi-structured in-depth interviews conducted with people with aphasia and their communication partners
- Explored topics related to
  - Expectations of therapy
  - Experience of therapy
  - Technology breakdowns
  - Design of intervention
  - Recommendations for future
- All interviews analysed in full and read through several times
- Analysed using qualitative content analysis

Results – Participant Satisfaction

- Communication improved
- Gained new skills
- Easily see SLP
- Easily hear SLP
- Felt comfortable
- Therapy at home is easier
- Therapy online is good
- Saved travel time
- Saved money
- Would have TeleGAIN again
- TeleGAIN ran smoothly
- TeleGAIN met expectations
- Would recommend to others

Discussion - Satisfaction

- High satisfaction with TeleGAIN
- All participants would recommend to others
- Participants would have TeleGAIN again
- Satisfaction is an indicator for efficacy and motivation for rehabilitation
- Telerehabilitation can provide a motivating and engaging environment to promote change in functioning

Discussion – Key outcomes of TeleGAIN

Connections with others

“Because when you look at therapy, you think about what you’re doing, the material, all the rest, but it was more about the connection with people. It was huge.”

Sharing the experience of aphasia

“It was good hearing what other people were going through and what I, what I was going through. Even though it wasn’t good, but it was good talking about it.”

Engagement in meaningful conversation

“But by the end of it all it’s “How are you going?” “Good thank you.” “What did you do last weekend?” Before everyone comes in, you just did that anyway. “Did you go to the shops,” or “What did you do last weekend?” “Went to the football last weekend.” “Oh really? Broncos versus who?” and just kept, just chatting about it, you know? It’s really good (…) That is a huge difference for most of us, because before you just “Hello,” and that’s about it.”

Discussion – Factors impacting satisfaction

Contextual Factors

“Were there any topics that you didn’t like?”

“Yep. Family. That was my fault. Because I didn’t have a family.”

People Factors

“Again it goes back to the feeling that it was kind of one sided with this one particular woman, you know. Nobody else seemed to get much of a word in, you know.”

Tele- Factors

“Some of the technology issues – often there was a delay between what we were saying and you’re hearing it, and that made it very complex.”
Discussion – Benefits of Telerehabilitation

• Agreed with benefits of telerehabilitation – saved time and money
• Telerehabilitation easier than face-to-face
• Participants were geographically isolated, experienced transport issues or co-morbidities or had limited services in their area
• Telerehabilitation provided access to services

Conclusion

• People with aphasia who participated in online aphasia group therapy overwhelmingly perceived this experience to be positive, resulted in a number of changes to communication functioning & quality of life & offered benefits in access that face-to-face therapy does not

• Future research
  • Address technology breakdowns
  • Consider more advanced videoconferencing technology
  • Larger efficacy trial
  • Implementation trial
  • Cost-effectiveness

Acknowledgements

• This project was funded by the National Stroke Foundation Australia
• Thank you to the participants for their involvement in this project and willingness to try something new.
• Thank you to Dr Kyla Brown, Erin McKinnon, Dr Joanne Folker, Alexia Rhode and Megan Swales for assisting with data collection

References