Group Intervention Programs in Communication Disorders

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“Downunder”
Overview

• **Rationale** for group interventions in communication disorders (1.40–2.10)
  – Hearing impairment
  – Aphasia

• **Evidence** about the efficacy of group interventions (2.10–3.00)
  – Hearing impairment
  – Aphasia

• **BREAK** (3.00-3.15)

• **Nominal Group Technique** - what do you want to know about running successful group rehabilitation? (3.15-4.30)
Rationale for Group Intervention for Adults with Hearing Impairment
Why develop ACE?

- Current focus of rehabilitation of people with hearing impairment = fitting of hearing aids
WHO ICF Framework (2001)

Health condition
(disorder or disease)

Impairment

Activity
Limitations

Participation
Restrictions

Environmental factors

Personal factors

The University of Queensland
Australia
If hearing aids are worn the evidence is that they reduce the activity limitations and participation restrictions experienced in everyday life and improve quality of life (e.g., Newman et al., 1991; Mulrow et al., 1990; Stark & Hickson, 2004; Chisolm et al., 2007)
However……

• Majority of older people will not accept hearing aids
  – >50% of older people (e.g., Hogan et al., 2001; Stephens et al., 2001; van den Brink et al., 1996; Wilson et al., 1998)

• Many who accept hearing aids initially don’t continue to wear them long term
  – 10% to 36% using aids < 1 hour/day 3 months post-fitting (e.g., Dillon et al., 1999; Hickson et al., 1999; Mulrow et al., 1992)

• Many who successfully use hearing aids still need more help
  – almost all continue to report difficulties in everyday life (e.g., Newman et al., 1991; Stark & Hickson, 2004).
The focus on hearing aids alone as the predominant form of intervention is not meeting the needs of the majority of adults with hearing impairment.
What else can be done?

Shift the focus from interventions about hearing abilities to education about communication in everyday life, and the strategies and techniques necessary to optimise effective communication.
WHO ICF Framework

Health condition (disorder or disease)

Impairment

Activity Limitations

Participation Restrictions

Environmental factors

Personal factors
Evidence about Rehab Programs

What works?

• Interactive group programs (Abrams et al., 1992; Beynon et al., 1997; Worrall et al., 1998; Chisolm et al., 2004)

• Active problem solving approach (Kricos, Holmes & Doyle, 1992; Kricos & Holmes, 1996; Kramer et al., 2005)

• Focus on communication, not hearing impairment (Sweetow & Sabes, 2006)

What doesn’t work?

• Didactic programs – “chalk and talk”

• Lectures on hearing loss and hearing aids (Norman et al., 1994, 1995)

• Distribution of lists of hearing tactics (Wilson, Hickson & Worrall, 1998)

See chapter in “Adult Audiologic Rehabilitation” by Joe Montano and Jacqui Spitzer
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  – Hearing impairment
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• **Nominal Group Technique** - what do you want to know about running successful group rehabilitation? (3.15-4.30)
Rationale for group interventions in aphasia
“There was a time when I believed that group treatment was a useful adjunct to individual treatment for individuals with aphasia. I changed my mind – instead, I have come to believe that for many aphasic people, participation in groups is central to their being able to get on with their lives.”

Ch 14 of “Group treatment of neurogenic communication disorders: The expert clinician’s approach” edited by Roberta Elman (2007)
Results from these studies....

- Worrall, Linda, Sherratt, Sue, Rogers, Penny, Howe, Tami, Hersh, Deborah, Ferguson, Alison and Davidson, Bronwyn (2011) 'What people with aphasia want: Their goals according to the ICF', Aphasiology, 25: 3, 309 -322.
People with aphasia told us they want....... 

1. Return to pre-stroke life 
2. Communication 
3. Information 
4. Control and independence 
5. Dignity and respect 
6. Social, leisure and work 
7. Altruistic and contribution to society 
8. Physical function and health
B. What family members want for person with aphasia

1. Survival
2. Communication
3. Being independent/Handling emergencies
4. Social
5. Stimulation/meaningfulness
......three messages for speech pathologists

1. Tell them they have aphasia
2. Connect them to other people
3. Talk positively and with hope.

Can all be achieved through aphasia group therapy
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What is ACE?

• Group program for 5 weeks (2 hours/week)
• 6 to 8 people with hearing problems + significant others (≤ 10 participants per group)
• For older people living in the community
• For people who identify themselves as having hearing problems, with or without hearing aids
What is ACE?

• Facilitated by health or education professional
• Run in community locations
• Uses a problem-solving interactive approach
• Each group begins with a communication needs analysis
Nominal Group Technique (NGT) with a group of older adults with hearing impairment
ACE structure

- Select 4 modules based on the particular group’s needs:
  - Conversation in background noise
  - Conversation around the house
  - Communication with difficult speakers
  - Listening to other signals
  - Listening to public address systems

- Each module = discussion of the situation, sources of difficulty, possible solutions, practical exercises, take-away exercises, and written information

- Framed within the problem-solving process
Learning objectives of ACE

• Learn individual problem-solving skills that can be applied in a range of situations

• Know about:
  – communication strategies
  – lipreading
  – how to request clarification
  – assistive technology
The problem-solving process

• What is involved in the communication activity? Who, what, when, where, why?
• What are the sources of difficulty in the activity?
• What are some possible solutions?
• What information is necessary to apply the solutions?
• What practical skills are necessary to apply the solutions?
Context

- Educational approach in ACE is in line with programs in other areas of health care for people with chronic conditions.
- “Self-management” approaches are used for people with diabetes, heart disease, respiratory conditions, arthritis, etc.
Benefits of groups

- Support from peers
- Opportunity for socialisation
- Conversational practice in group situations
- Cost-effectiveness
DVD excerpt

Problem-solving activity for the situation of hearing in noise
ACE handout #7

Open window with children playing outside

Table with lamp
Table with lamp

B C D

Coffee table

Stereo (on)

A G

Dining table

E F

Open door to kitchen

Adapted from Kaplan, Garretson, & Bally (1995)
How did we evaluate it?

- Comparing pre and post self-reports of participation restrictions, communicative function, and quality of life.
- Examining outcomes questionnaires post-ACE.
- Listening to the qualitative responses of the participants.

- Post assessments by researcher blind to pre-intervention results and group membership.
Selected references


Pre-post Measures

- **Hearing Handicap Questionnaire** (HHQ; Gatehouse & Noble, 2004)
- **Quantified Denver Scale of Communicative Function** (QDSCF; Alpiner et al., 1974; Tuley et al., 1990)
- **Self-Assessment of Communication** (SAC; Schow & Nerbonne, 1982)
- **Ryff Psychological Well-Being Scale** (Ryff, 1989)
- **Short-Form 36** (SF-36; Ware & Sherbourne, 1992)
RCT

**Randomized double-blind control trial**

<table>
<thead>
<tr>
<th>Test</th>
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<th>6 Month F/Up</th>
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<tbody>
<tr>
<td>ACE only Group (n = 100)</td>
<td>*</td>
<td>ACE</td>
<td>*</td>
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<tr>
<td>Social + ACE Group (n=78)</td>
<td>*</td>
<td>Social program</td>
<td>*</td>
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</table>

n = 97

n = 70
What was the social program?

- Introduction to communication
- Communication and technology
- Communication changes in ageing
- Communication and memory changes
- Communication and reading and writing
Post-ACE Outcomes Measures

- Modified version of the Client Oriented Scale of Improvement (COSI; Dillon et al., 1997)
- International Outcome Inventory – Alternative Interventions (IOI–AI; Noble, 2002)
1. Think about how much you used the ACE strategies over the past 2 weeks. On an average day, how many hours did you use them? **[Use]**

2. Think about the situation where you most wanted to hear better, before doing the ACE. Over the past 2 weeks, how much has the ACE helped in that situation? **[Benefit]**

3. Think again about the situation where you most wanted to hear better. When you use the strategies talked about in the ACE, how much difficulty do you STILL have in that situation? **[Residual activity limitations]**

4. Considering everything, do you think doing the ACE was worth the trouble? **[Satisfaction]**

5. Over the past 2 weeks using the ACE strategies how much have your hearing difficulties affected the things you can do? **[Residual participation restrictions]**

6. Over the past 2 weeks using the ACE strategies, how much were other people bothered by your hearing difficulties? **[Impact on others]**

7. Considering everything, how much has using the ACE strategies changed your enjoyment of life? **[Quality of life]**
Qualitative Questions

• What did you like about the ACE program?

• How can the program be improved?

• What action have you taken as a result of attending the ACE?
Who were the participants?

• 178 people aged 53 to 94 years (Mean = 74, SD = 8)
• 55% female, 45% male
• better ear PT average at .5, 1, 2, and 4 kHz from 13.75 to 87.5 dB HTL (Mean = 41; SD = 12)
• recruited via talks to seniors’ groups (48%) & retirement villages (19%), & from newspaper advertising (18%)
• 34% had SO who attended at least 1 session
Rehabilitation history

• 54% had been fitted with hearing aids
• 37% reported actually wearing aids >1 hour/day
• 30% fitted more than 5 years ago
• 13% unilateral & 41% bilateral
• majority of the aids (78%) were ITE/ITC
• 22% used an ALD
Results: HHQ (Participation Restrictions)

** p < .001
Results: COSI goal 1 (n = 133)
Results: COSI goal examples

- Improved communication with spouse
- Be able to hear clearly when in a crowd or talking to a single person in the crowd
- I want to avoid any hearing aid for as long as possible
- To find out how others have dealt with and are dealing with hearing loss
- Develop a way of saying "speak up you mumbler" but in an acceptable way that would bring results
Results: International Outcome Inventory – Alternative Interventions

Post-Ace (n = 171)  6 mth F/Up (n = 160)
Comparison of IOI-AI and IOI-HA

Different from the present study $p < .05$
Results: Qualitative Responses

The program was constructed in a friendly manner. It was very informative but had the attendees thinking i.e. working out better strategies than they had previously used.
Results: Qualitative Responses

It's hard to break old habits but I now know I have to concentrate harder which I am trying to do. I'm also aware of other strategies to employ when the occasion arises.

As a result of attending the program I have spoken out more about my hearing difficulties and encouraged other hearing impaired people to do the same.
Summary of Results

• ACE reduced participation restrictions and activity limitations and improved well-being
• Improvements maintained 6 months later
• 74% of participants reported improvement on their first stated goal
• IOI outcomes more positive than studies of hearing aid fitting for satisfaction, impact on others and residual participation restriction
• Positive qualitative responses
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Evidence for group therapy in aphasia

Cochrane review (Kelly, Brady & Enderby, 2010)

- **No data** for functional communication, psychosocial, economic or compliance outcomes
- **No evidence of a difference** for receptive language, expressive language, drop-outs
- **Evidence for group SLT** at three month follow up ($P < 0.0001$) on severity of impairment

Summary of evidence

• “Taken together, these studies support the conclusion that group treatment is efficacious and effective for individuals with aphasia”

• We must overcome the assumption that group therapy has been fully investigated. Further research includes:
  – SLP led vs volunteer led.
  – Conversational groups vs structured language task groups

  (Elman, 2007)
Marshall (1999) describes various types of groups

- Communication-focused groups
- Psychosocial focused groups
- Transition groups (providing support and guidance as people move through the various stages of the rehabilitation process)
Types of groups

• Open versus closed groups
• Homogeneous versus heterogeneous
• Modules of therapy
• A focus on impairment, and/or communication activities and/or participation in life
• Centred on individual client goals or project goals
Group therapy within a group
UQ Aphasia LIFT

Linda Worrall
Dave Copland
Eril McKinnon
Petrea Cornwell
Caitlin Brandenburg
Kyla Brown
Elizabeth Cardell
Tracey Roxbury
Brooke Grohn
Lucy Lyons
Bronwyn Davidson
Anthony Angwin
Charlene Pearson
Anna Holmes
Sophie van Hees
Shiree Heath
Language Impairment and Functioning Therapy (LIFT) 10 Principles

1. Participants with aphasia, their family and friends will be partners in the program
2. There is a focus on goal setting before establishing therapy
3. Family and friends’ needs will be directly addressed in the program
4. Intervention will focus on individual’s own goals
5. There will be continual quality improvement during the program with daily feedback provided by the participants
6. Education about stroke and aphasia will be a key feature
7. Each participant will be asked to identify and work towards a challenge over the course of the program
8. A positive approach will pervade the program
9. LIFT will be aphasia friendly except when therapy needs to challenge or promote verbal language
10. Principles of neuroplasticity will be incorporated into therapy
Service delivery model

- 10 day (2 week) program for people with aphasia living in the community and their families (soon to be 4 weeks)
- 9.30am -3.30pm
- More than 40 hours of intervention per participant
- Individual impairment-based therapy, individual functional therapy and **group sessions** for information sharing and discussion of topics related to living with aphasia and topics requested by participants.
Phase I – II trial

- Phase I trial - a means of selecting a therapeutic effect, identifying it if present, and estimating its magnitude.

- Phase II trials - exploring the dimensions of the therapeutic effect and making the necessary preparations for conducting a clinical trial.

  Robey (2004)
Aims

• To conduct a Phase I-II small group pre-test post-test trial of the UQ Aphasia LIFT program

• To evaluate current outcome measures as measures of change in comprehensive therapy programs.
Outcome measures

- Goal Attainment Scaling
- Comprehensive Aphasia Test (CAT)
- Knowledge about aphasia questionnaire
- Boston Naming Test (BNT)
- ASHA Quality of Communication Life Scale (QCL)
- Communicative Effectiveness Index (CETI)
- Assessment for Living with Aphasia (ALA)
- Discourse analysis
- Satisfaction
Goal Attainment Scale example

**Travel**

-2 Requires full assistance to develop travel plans for a holiday using the internet and brochures.

-1 Requires moderate assistance to develop travel plans for a holiday using the internet and brochures.

0 Requires minimal assistance to develop a travel plan for a holiday using the internet and brochures.

+1 Independently develops a travel plan, & contacts a travel agent to book with a written script.

+2 Independently develops a travel plan and contacts a travel agent to book flights, tours, accommodation etc.
Living with Aphasia. From the ALA Manual, 2006, reprinted with the permission of the Aphasia Institute.
Leisure and Recreation

My hobbies
Exercising
Sports
Watching t.v.
Reading / writing
Something else

Are you **doing** as much as **you** want?

Never

Always

© 2006 The Aphasia Institute
People in Your Life

Are you happy with the number of relationships and friends?

Not happy

Very happy
Group Therapy (1.5 - 2.5 hours per day)

- Understanding stroke and aphasia (Tanya Rose)
- Discussions about ‘successfully living with aphasia’ on topics such as ‘doing things’, ‘relationships’ and ‘hope’ (Kyla Brown)
- Presentations by invited motivational speakers who had overcome aphasia
- Sharing knowledge about services and things that helped
- Friends group session after hours
Help them understand aphasia

• More than this…
A/Prof Dave Copland explaining paraphasic errors
Connect them to other people with aphasia and the community

Australian Aphasia Association website
www.aphasia.org.au
Create positive wellbeing

- Mood most linked to quality of life
- Depression is common – let’s prevent it and identify it
- Social connection is important
- Strength’s perspective
- A “can do” attitude – self efficacy
- Challenges
Challenge Presentations

- Each participant was asked to identify and work towards a challenge over the course of the program.
- They were to present their challenge at the final session of the Aphasia LIFT program to a live audience.
- Over 50 people attended the function.
Challenge tasks included...

• To present in front of a live audience a training demonstration used in his profession
• To be an advocate about aphasia, preferably talking on television
• To record a you tube video on aphasia
• To practice a presentation to a local aphasia group on the LIFT program
• To tell a joke and sing a song, preferably at the Sydney Opera House.
You Tube videos

• Wendy Corp [Wendy's Talk My Aphasia.wmv.flv]

• Jack Hurley
  [Young People can have Aphasia ( Broca's) - Jack Hurley.flv]
  [Young people can have Aphasia ( Broca's) - Jack Hurley Update 2011.flv]
Satisfaction

What were the strengths of the Aphasia LIFT program?

The staff were very patient with their listening and communication
Being involved in non stop talking
Being pushed
Being free
Meeting others with aphasia
Education about aphasia
General information sharing and discussion
Family attendance
Doing activities with others with aphasia
Coming every day
Research team - patient, helpful
Satisfaction

What parts of Aphasia LIFT could be improved?

- Perhaps there could have been discussion about the side effects of strokes i.e., seizures etc
- More 'real life' therapy integrated into sessions where possible
- More 'return to work' or return to 'normal duties' focus
- Longer time i.e., more weeks
- More structured activities
## Test scores

<table>
<thead>
<tr>
<th>Test</th>
<th>Pre-LIFT</th>
<th>Post LIFT</th>
<th>Follow up</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT Naming</td>
<td>40.4</td>
<td>45.2</td>
<td>37.5</td>
</tr>
<tr>
<td>BNT (/60)</td>
<td>32.6</td>
<td>35.8</td>
<td>31.3</td>
</tr>
<tr>
<td>CETI (/160)</td>
<td>86.2</td>
<td>103.4</td>
<td>109.0</td>
</tr>
<tr>
<td>QCL</td>
<td>66.4</td>
<td>67.6</td>
<td>75.3</td>
</tr>
<tr>
<td>GAS</td>
<td></td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>ALA</td>
<td>108.0</td>
<td></td>
<td>122.5</td>
</tr>
</tbody>
</table>
Discourse - Dysfluencies

Pre-LIFT  Post-LIFT

- PETER
- WANDA
- JOEL
- HEATHER
- DON
Discourse – words per minute

Pre-LIFT

Post-LIFT

PETER

WANDA

JOEL

HEATHER

DON
Conclusions

• Some participants benefited more than others on different outcomes.
• No maintained changes on impairment measures (CAT, BNT) for the group or are the measures too insensitive to change, particularly for participants with mild aphasia?
• Most changes were in measures of communicative functioning (discourse, ASHA QCL, CETI).
• ALA and GAS showing good changes
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• **Nominal Group Technique** - what do you want to know about running successful group rehabilitation? (3.15-4.30)
NGT: Your turn!

• Step 1: Think about the question: *What would you like to learn in this session?*
• Step 2: Facilitator asks each of you in turn and then writes responses on whiteboard
• Step 3: Facilitator puts common themes together
• Step 4: Give each participant “sticky notes” labeled 1, 2, & 3
NGT: Your turn!

- Step 5: Tally “sticky note” scores:
  - Most important (1) is given a score of 3
  - Next most important (2) is given a score of 2
  - Next most important (3) is given a score of 1
- Top 2-3 items will be the focus of the workshop – depending on time!
What you want to know…
Next steps…

• Write down 3 things you have learned today.

• Write down 1 action you will take as a result of today’s workshop.

• Share these with the person next to you.