Background

- Greater Newcastle Cluster sits within the Hunter New England Local Health District.

- The CAPAC service runs three programs: Hospital in the Home (HITH), Transitional Aged Care Program (TACP) and Healthy at Home (HAH).

- TACP is a 12 week slow-stream, in-home rehabilitation program which is based on achieving identified client goals.
Current Situation

- TACP provides in-home, slow stream rehabilitation to clients at risk of a premature admission to an aged care facility.

- TACP works with clients to achieve both client and discipline specific goals, through multidisciplinary inputs.

- TACP clients generally only receive one-on-one (at home) rehabilitation.
Literature Review

• Regular physical activity has been shown to improve strength, function and
  endurance in all age groups, including older people (Rubenstein et al 2000).

• Weekly group exercise sessions combined with home exercises have been
  shown to reduce fall rates by 40% (Barnett et al 2003).

• Conditioning training can represent a potent protective factor for cognitive
  decline and dementia in elderly persons (Laurin et al 2001).

• Group classes are advocated in those who have mental illnesses, such as
  depression (Mather et al 2002).
Problems

Consultation with the TACP team highlighted several client issues:

• Clients could benefit from group therapy, where their rehabilitation would be more intensive than in the home setting.

• Clients may be isolated, demonstrating low mood following their hospitalisation and in need of socialisation.

• Some clients were unwilling to participate in out-of-home rehabilitation, following their discharge from TACP. It was postulated, that this may be due to clients having become accustomed to receiving only in-home rehabilitation.
Aim

- To improve Transitional Aged Care Program client’s *physical condition* by more than 15% (from week 6 to 12 of the program), with group exercise and socialisation.
Intervention

Clients attended Newcastle Community Health Centre:
• Conditioning program in a group environment
• Socialisation through games and activities
• One on one sessions with members of multidisciplinary team (as required)

Staffing
• Physiotherapy
• Occupational Therapy
• Therapy Assistant
• Other disciplines as needed – Nursing / Case Coordinators / Dietician / SW
Intervention

Eligibility Criteria
• Walking independently on a variety of surfaces
• Willingness to participate in group program at 6/52
• Endurance to attend clinic (car/bus trip, exercise class)
• Living in Newcastle LGA
• Completion of handover form

Exclusion Criteria
• Unable to follow commands
• Unable to exercise independently with set up
Intervention

Assessment

• Physical Outcomes
  • TUG / Berg Balance / 6 min walk test

• SF 12 Quality of Life Questionnaire (QOL)
  • Physical Component Summary (PCS) & Mental Component Summary (MCS)

• Cost effectiveness
  • Staffing / travel costs / equipment

• Client and staff satisfaction

Transport

• Newcastle Community Transport
Intervention

- **Selection of clients**
  - Clinicians identified
  - Weekly case conference meetings
  - Transport eligibility
Group Format

- Refreshment and chat on arrival
- Warm up
- Exercises
- Games and morning tea
- Education
- Exercises
- Cool down
Exercises

Gait Retraining

Cycling

Balance Practice
Socialisation

Morning tea and games.

The group LOVED Jenga!
A short education session was conducted each week on a variety of topics:

- Medications
- Community Mobility
- Getting Up After A Fall
- Healthy Bones
- Safe Footwear
- Home Safety
- Vision and Ageing
- Walking Aides
**Outcomes**

- **Physical outcome measures and QOL** were assessed at both 6 weeks and 12 weeks for group and non-group TACP clients.

<table>
<thead>
<tr>
<th></th>
<th>Average at 6 weeks</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non Group</td>
<td>Group</td>
</tr>
<tr>
<td>QOL (PCS)</td>
<td>27.90</td>
<td>28.83</td>
</tr>
<tr>
<td>QOL (MCS)</td>
<td>49.54</td>
<td>50.38</td>
</tr>
<tr>
<td>TUG</td>
<td>19.98 seconds</td>
<td>19.34 seconds</td>
</tr>
<tr>
<td>Berg</td>
<td>41.08</td>
<td>44.90</td>
</tr>
<tr>
<td>6 min walk</td>
<td>157.60 metres</td>
<td>187.61 metres</td>
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</tbody>
</table>
# Outcomes: Changes in Group vs Literature

<table>
<thead>
<tr>
<th>Test</th>
<th>Group Results (12 weeks)</th>
<th>What’s clinically significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOL (PCS)</td>
<td>10.04</td>
<td>Not established</td>
</tr>
<tr>
<td>QOL (MCS)</td>
<td>6.95</td>
<td>Not established</td>
</tr>
<tr>
<td>TUG</td>
<td>7.12 seconds</td>
<td>Not established; 2.9 seconds was the minimal detectable change found in stroke patients (Flansbjer et al, 2005)</td>
</tr>
<tr>
<td>Berg</td>
<td>6.80</td>
<td>Not established; 3 was the minimal detectable change found in the elderly (Donoghue et al, 2009)</td>
</tr>
<tr>
<td>6 min walk</td>
<td>78.69 metres</td>
<td>50 metres (Perera et al, 2006)</td>
</tr>
</tbody>
</table>
### Outcomes

#### Outcome Measure Improvements (Weeks 6-12)

<table>
<thead>
<tr>
<th></th>
<th>Non Group</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOL (PCS)</td>
<td>24.93</td>
<td>34.82</td>
</tr>
<tr>
<td>QOL (MCS)</td>
<td>12.72</td>
<td>13.8</td>
</tr>
<tr>
<td>TUG</td>
<td>19.29</td>
<td>36.81</td>
</tr>
<tr>
<td>Berg</td>
<td>12.37</td>
<td>15.14</td>
</tr>
<tr>
<td>6 min walk</td>
<td>36.30</td>
<td>41.94</td>
</tr>
</tbody>
</table>

**Percentage Change**

The chart above illustrates the percentage improvements in various outcome measures for individuals in the Non Group and Group over the course of Weeks 6-12. The measures include QOL (PCS), QOL (MCS), TUG, Berg, and 6 min walk. The Non Group shows improvements ranging from 12.37% to 24.93%, while the Group demonstrates higher improvements ranging from 15.14% to 36.81%.
Outcomes

Client comments:
• Enjoyed the group lots
• Very beneficial
• I’m not the only one feeling unwell
• Loved socialising
• Group was supportive
• Different exercises help my recovery
Outcomes

Staff comments:

- Increased client's compliance with rehabilitation
- Reduced my workload
- Client's feedback very positive about group
- Can this be held at other community health centres?
Cost

- A cost analysis of group versus non-group was undertaken. A significant, favorable cost saving was seen when using group therapy.

- Costs associated with home visits for 6 clients were compared with the costs associated with seeing the same 6 clients in a group setting:
  - Staffing, travel and resource costs were included.
  - Preparation / clinical note time was not included as it was deemed similar in both groups.
Strategies for Sustaining Improvements

• The group sessions have been formalised and will continue at NCHC in 2012, as part of the TACP service.

• The next step will be to extend the group sessions to other TACP clients, across the Greater Newcastle Cluster. This will involve negotiating clinic space to run the program at other health sites.

• Last week we started a group at Nelson Bay community health centre.
Thank you Team Members

- Sue Ayre – Executive sponsor
- Sandy Ryan – CAPAC Service Manager
- Annette Buller – TACP Program Manager
- Nicole Murdoch – Group Facilitator
- Annabel Gazzoli – Group Facilitator
- Sheree Hibberd - Therapy Assistant
- Charlotte Gray – Therapy Assistant
- CAPAC Physiotherapy Team
- TACP Case coordinators


