A physical exercise programme for palliative care patients in a clinical setting: Observations and preliminary findings

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Why?
Why rehabilitate in palliative care?

Why promote exercise in palliative care?

Background

• Loss of physical function and increased dependency have significant negative impact on the quality of life of the terminally ill

• Evidence that exercise & rehabilitation can:
  – Reduce fatigue
  – Improve quality of life
  – Improve physical performance

• Evidence that palliative patients are interested in participating
Why Not?

The Programme

• Marie Curie Hospice in Belfast with additional financial support from Sport NI
• Outpatient rehabilitation & exercise programme specifically designed for patients with a palliative diagnosis
• 10 weeks of one-2-one supervised exercise
The programme

- Initial in-depth assessment
- Individualised programme devised and agreed with patient
- 10 weekly gym sessions:
  - Warm up
  - Cardiovascular exercises
  - Strengthening exercises
  - Balance exercises
  - Cool down and stretching

Borg Perceived Rate of Exertion Scale (PRE)

<table>
<thead>
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<th>Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>6</td>
<td>Extremely Light</td>
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<tr>
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<tr>
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</tr>
<tr>
<td>9</td>
<td>Very Light</td>
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<tr>
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<tr>
<td>11</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Somewhat Hard</td>
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<tr>
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<td>18</td>
<td>Extremely Hard</td>
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<tr>
<td>19</td>
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<td>20</td>
<td>Maximum Effort</td>
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Target range: 7 to 11
Home based programme

• Strengthening exercises and walking
• Target:
  “...at least 150 minutes of moderate intensity aerobic physical activity a week and muscle strengthening targeting all the major muscle groups on 2 or more days of the week”

ACSM and DOH 2010

Evaluation Design

• Outcome measures administered at the initial assessment and on discharge from the exercise programme
  – Timed repetitive sit – stand
  – 6 minute walk test
  – FACIT – Fatigue
  – McGill QoL questionnaire
Results

Referrals Received  
$n=73$

- Inappropriate referral or deteriorated prior to initial assessment  
  $n=21$

- Unable to complete due to deteriorating condition or death  
  $n=15$

- Initial assessment completed and started exercise programme  
  $n=42$

- Completed exercise programme  
  $n=19$

- Completed exercise programme and attended for final assessment  
  $n=14$

- Currently attending  
  $n=9$

- Did not attend for final assessment  
  $n=4$
Participants characteristics

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>%</th>
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<tbody>
<tr>
<td>Male</td>
<td>12</td>
<td>85.7</td>
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<td>Female</td>
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<th>Primary Diagnosis</th>
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<tr>
<td>Cancer*</td>
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<tr>
<td>Myeloma</td>
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<tr>
<td>MND</td>
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* Oesophageal (1) Kidney (1) Breast (1) Colon (1) Brain (2) Head & Neck (1)

Timed repetitive Sit – Stand

Statistically significant change in score post programme
\( p < 0.05 \)
6 minute walk test

Statistically significant change in score post programme
\( p < 0.05 \)

FACIT - Fatigue

Higher FACIT score indicates lesser fatigue (maximum score: 52)

Statistically significant change in score post programme
\( p < 0.05 \)
McGill QoL Questionnaire

- Indicates statistically significant change in score post programme p< 0.05

Positive patient feedback

“I gained in confidence and self-esteem”

“I cant believe how much I am able to do now”

“I feel I have got my life back… Thank you”
Conclusions

• The results contribute to the growing evidence that structured exercise programmes can improve physical functioning and quality of life, while reducing fatigue among patients receiving palliative care.

Key Challenges

• High proportion of patients who completed baseline assessment were lost to follow-up (45%)
• While a higher level of attrition is inevitable in this population, patients may benefit from earlier referral to such services to allow realisation of maximum benefit from the effects of physical exercise.
What Next?

- We are continuing to develop the service
- Planning a re-launch & marketing campaign
- EDUCATION
  - Improve patient and health care professionals understanding and knowledge on the potential benefits of rehabilitation in palliative care
  - Raise awareness
  - Promote early referral

Full article publication

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References