Can a three-weeks program in a rehabilitation center improve symptoms and exercise frequency for rheumatic patients?

A quality management report

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Background:

- Rehabilitation for people with rheumatic disorders (15% of worldwide population) is a long-term project (1).
- Rheumatic patients do not exercise as often as recommended (2).
- Intensive multidisciplinary interventions (combining pharmacological treatment, physical therapy with supervised exercises education) in rehabilitation centers are in some countries an option – of which there is little evidence (3).
- Data from a quality-management report can shed some preliminary light on this subject.

Purpose:

- Primary objective: To observe short and long term effects (at discharge and after 3- and 12-months follow-up) of a three-weeks intensive multidisciplinary program for rheumatic patients.
- Secondary objective: To see if a correlation can be found between symptoms (pain, stiffness), level of self-rated health and training frequency.

Methods:

- Participants: 746 patients, aged 27 and older (mean age 62.0, S.D: 11.1, 84% women), followed a three-weeks multidisciplinary rehabilitation for people with rheumatic disorders (15% of worldwide population) is a long-term project (1).
- Program: 3-month follow-up: N=261 and 12-month follow-up: N=135.
- Training program: Activities (30 sessions): land or water based (45 min. average), focus on mobility, strength and endurance.
- Training individual program: (10 sessions): supervised by physiotherapist (25 min. average).
- Treatments: Contact with other health professionals (12 sessions): physician, nutritionist, occupational therapist, psychologist.
- Education (5 sessions): Lectures related to rheumatic disorders.

Outcomes/Instruments:

- Pain, stiffness, self-rated level of health, self-reported training frequency, of small effect size.
- Data from a quality-management report can shed some preliminary light on this subject.

Results:

- Pain, stiffness: NRS-11, at baseline (T1), at discharge (T2), and at 3- (T3) and 12-months follow up (T4).
- Self-rated level of health: Likert scale (1-6), at T1, T2, T3 and T4.
- Self-rated level of Quality Adjusted Life Years (QALY): EQ-5D-5L questionnaire at T1 and T2 – introduced medio-2016 (T1 and T2).
- Intensive multidisciplinary interventions (combining pharmacological treatment, physical therapy with supervised exercises education) in rehabilitation centers are in some countries an option – of which there is little evidence (3).

Baseline levels and outcome results at discharge, and at 3- and 12-month follow-up:

<table>
<thead>
<tr>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>6.1</td>
<td>4.7</td>
<td>5.0</td>
</tr>
<tr>
<td>Stiffness</td>
<td>4.0</td>
<td>4.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Self-rated health</td>
<td>4.5</td>
<td>4.4</td>
<td>4.3</td>
</tr>
<tr>
<td>Self-reported training frequency</td>
<td>6.50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusions:

- People with rheumatic disorders seem to have a very positive short-term effects on all aspects measured after a three-week multidisciplinary rehabilitation program: Pain, stiffness, self-rated level of health, self-reported training frequency.
- There might be a need for intensive multidisciplinary programs for rheumatic patients at intervals of less than a year to be able to better keep the general health and function gained.
- Another implication for short rehabilitation programs is to increase focus on the necessity for an active lifestyle - including regular exercises – rather than aiming at reducing symptoms, in order to maintain sense of general health.

Implications:

- Those effects gradually decline to a pre-rehab level during the following year. This is particularly true for pain and stiffness.
- At the same time, we observe a more sustained effect on self-rated level of health, especially for those who regularly exercise.
- This suggests that a higher training frequency after a rehabilitation program is associated with a higher sense of health – regardless of symptom levels.
- A significant QALY mean change after just 3 weeks intervention put a definite price-tag on those QALY changes.

Follow-up:

- Pain and stiffness: NRS-11, at baseline (T1), at discharge (T2), and at 3- (T3) and 12-months (T4) follow-up.
- Self-rated level of health: Likert scale (1-6), at T1, T2, T3 and T4.
- Self-rated level of Quality Adjusted Life Years (QALY): EQ-5D-5L, questionnaires at T1 and T2 – introduced medio-2016 (T1 and T2).

References:

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