The Effectiveness of Targeted Treatment Pathway of a Comprehensive Patient-empowered Active Back Program for Low Back Pain Patients in Tuen Mun Hospital

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Background

- A comprehensive patient-empowered active back program was designed to evaluate the effectiveness of targeted treatment on different subgroups of low back pain patients.

Triage low back pain patients (Hill et al, 2011)

Low/Medium/High-risk subgroup

Targeted treatment pathway

Better functional outcomes
Method: Workflow

1. Low back pain patients in the waiting list.

2. Triage patients with StartT Back Screening Tool.

3. Baseline outcome measures.

4. Intervention group:
   - Low-risk subgroup
   - Medium-risk subgroup
   - High-risk subgroup

   Individual assessment, education video & basic exercises.

   - Discharged
   - Short course of individual treatment
   - Individual treatment with psychosocial approach

5. Control group:
   - Low/Medium/High-risk subgroup

   Received individual treatment.

6. Outcome measures at 12 weeks.
Targeted Treatment Pathway for Active Back Program (intervention group) – Aug 2015 - Jan 2016

- Individual Assessment
- Back Care Video
- Group Exercises

Low-risk group: Discharge with exercise pamphlet

Medium-risk group: Short course of individual treatment

High-risk group: Individual treatment with psychosocial approach
## Results

<table>
<thead>
<tr>
<th>Intervention group</th>
<th>N</th>
<th>Age: 52.8 ± 9.8 years</th>
<th>24 male 46 female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td>N=50</td>
<td>Age: 48.2 ± 12.3 years</td>
<td>14 male 36 female</td>
</tr>
</tbody>
</table>

### Overall Adjusted Mean Change in Roland Morris Disability Questionnaire (RMDQ)

<table>
<thead>
<tr>
<th>Intervention group</th>
<th>3.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td>1.6</td>
</tr>
</tbody>
</table>

P=0.03
Results

Adjusted Mean Change in RMDQ in Subgroups

- Low Risk Subgroup
  - Intervention group: 3
  - Control group: 1
  - P = 0.02

- Medium Risk Subgroup
  - Intervention group: 3.6
  - Control group: 1.6

- High Risk Subgroup
  - Intervention group: 4.2
  - Control group: 2.1

Number of Treatment Sessions

- Low Risk Subgroup
  - Intervention group: 6.6
  - Control group: 3.9
  - P < 0.01

- Medium Risk Subgroup
  - Intervention group: 4.9
  - Control group: 2.3
  - P = 0.01

- High Risk Subgroup
  - Intervention group: 7.4
  - Control group: 4.9
  - P < 0.01
Conclusion

The comprehensive patient-empowered active back program together with targeted treatment pathway was effective in improving the functional disability with less treatment sessions for low back pain patients after being stratified into different risk subgroups.