StarT Back Approach of Group Rehabilitation Program for Medium and High Psychosocial Risk in Chronic Low Back pain

Chan SM, Ip ML, Yeung KC, Lau SY, Wong NC
Physiotherapy Department, PWH, NTEC

The Keele STAR Back Screening Tool

The STAR Back Tool Scoring System

Total score
3 or less
4 or more

Sub score Q5-9
3 or less
4 or more

Low risk
Medium risk
High risk

Chan SM, Ip ML, Yeung KC, Lau SY, Wong NC
Physiotherapy Department, PWH, NTEC

17 May, 2017 HA Convention
Methodology

**First evaluation**
1st physiotherapy evaluation to patient with chronic low back pain: Physical examination + STarT Back

**Patient invitation**
Invitation to patient who are ready, suitable and willing to participate in group therapy + Base line outcome measurement

**Group allocation**
- **High Risk Group** (STGRP-HR)
- **Moderate Risk Group** (STGRP-MR)

**Group Intervention**
- High Risk Group:
  - 5 weekly group intervention for 75min
  - Group discussion + therapeutic exercise
  - Strategies for enhancing functional self-efficacy beliefs
  - Focus on:
    - handling emotions
    - explore values and meaningful living
    - individual goal setting and action plan
    - problem-solving & coping skills

- Moderate Risk Group:
  - 5 weekly group intervention for 60min
  - Group discussion + therapeutic exercise
  - Strategies for enhancing functional self-efficacy beliefs
  - Focus on:
    - functional restoration
    - task oriented practice

**Post evaluation**
Re-evaluation of outcome measures
## Class Interventions

<table>
<thead>
<tr>
<th>Psychological Informed Practice (PIP)</th>
<th>Physical Training (PT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Explore unhelpful beliefs</td>
<td>- Specific PT intervention (from physical findings)</td>
</tr>
<tr>
<td>- Education on influential predictors of chronicity</td>
<td>- Tailored for specific needs</td>
</tr>
<tr>
<td>- Fear, anxiety, low mood</td>
<td>- Translate into functional improvements &amp; reduced disability and have an end of time</td>
</tr>
<tr>
<td>- Handle emotions</td>
<td></td>
</tr>
<tr>
<td>- Explore value and goal setting</td>
<td></td>
</tr>
<tr>
<td>- Problem-solving skills</td>
<td></td>
</tr>
<tr>
<td>- Management for flare up</td>
<td></td>
</tr>
</tbody>
</table>

STarTback - **High Risk Group** (STGRP-HR) : PIP + PT
STarTback - **Moderate Risk Group** (STGRP-MR) : PT
**Results**

**Outcome measures pre- and post- STGRP (HR) (N=90)**

- **PSFS**
  - Pre STGRP: 3.8
  - Post STGRP: 4.4
  - * = significant improvement

- **RMDQ**
  - Pre STGRP: 5.7
  - Post STGRP: 9.8

- **NPRS**
  - Pre STGRP: 6
  - Post STGRP: 9.5
  - * = significant improvement

- **PSEQ**
  - Pre STGRP: 27.6
  - Post STGRP: 35.5

**Outcome measures pre- and post-STGRP (MR) (N=56)**

- **PSFS**
  - Pre STGRP: 4.4
  - Post STGRP: 5.8
  - * = significant improvement

- **RMDQ**
  - Pre STGRP: 9.8
  - Post STGRP: 7.3
  - * = significant improvement

- **NPRS**
  - Pre STGRP: 5.5
  - Post STGRP: 4.1
  - * = significant improvement

- **PSEQ**
  - Pre STGRP: 33.6
  - Post STGRP: 39.5

**Notes:**
- Pioneer rehab program
- Need long-term follow-up on exercise compliance

**Summary:**
- No. of session: 4.6
- Mean age: 54.8
- No. of session: 4.78
- Mean age: 54.21

*PSFS – Patient-specific functional Scale*

*NPRS – Numeric Pain Rating Scale*

*RMDQ – Roland Morris Disability Questionnaire*

*PSEQ – Pain Self Efficacy Questionnaire*
Conclusion

• It was feasible to use STarT Back screening tool to identify psychological risk and allocate for appropriate treatment for chronic low back pain patients.

• In this cohort, group therapy is effective in managing high and moderate risk groups who were willing to participate

• Enhancement of physiotherapy program with psychological informed practice demonstrated promising outcomes (subjective pain intensity, physical disability and pain self-efficacy).

• It is advisable for physiotherapists to equip with psychological informed practice approach in managing complex low back pain patients.
**Results**

Outcome measures pre- and post-STGRP (HR) (N=90)

- Pioneer rehab program
- Need long-term follow-up on exercise compliance

Outcome measures pre- and post-STGRP (MR) (N=56)

- Not significant as compared with HR group
- Need more tailored-made training
- Non-specific CLBP not homogeneous

<table>
<thead>
<tr>
<th></th>
<th>Pre STGRP</th>
<th>Post STGRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSFS</td>
<td>3.8</td>
<td>5.7</td>
</tr>
<tr>
<td>RMDQ</td>
<td>13.6</td>
<td>9.5</td>
</tr>
<tr>
<td>NPRS</td>
<td>6</td>
<td>4.7</td>
</tr>
<tr>
<td>PSEQ</td>
<td>27.6</td>
<td>35.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Pre STGRP</th>
<th>Post STGRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSFS</td>
<td>4.4</td>
<td>5.8</td>
</tr>
<tr>
<td>RMDQ</td>
<td>9.8</td>
<td>7.3</td>
</tr>
<tr>
<td>NPRS</td>
<td>5.5</td>
<td>4.1</td>
</tr>
<tr>
<td>PSEQ</td>
<td>33.6</td>
<td>39.5</td>
</tr>
</tbody>
</table>

No. of session: 4.6
Mean age: 54.8

No. of session: 4.78
Mean age: 54.21

PSFS – Patient-specific functional Scale
NPRS – Numeric Pain Rating Scale
RMDQ – Roland Morris Disability Questionnaire
PSEQ – Pain Self Efficacy Questionnaire

* = significant improvement