Physical Therapy Management For a Patient with Low Back Pain Utilizing Medical Exercise Therapy

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Background
- Low back pain (LBP) is one of the most common and costly musculoskeletal diagnosis in America.
- Approximately 50% of individuals with LBP have recurrent episodes by 1 year, 60% by 2 years and 70% by 5 years.
- Multiple studies have been inclusive determining a gold standard for cost effective long term outcomes.
- MET therapy focuses on early functional activity to relieve pain and restore normal movement.
- Early functional activity is made possible by using counter weights to obtain required range of motion. This system of unloading gives the patient the opportunity to perform exercises in a functional manner.
- The first phase involves graded exercises to normalize a pathological condition as well as getting rid of pain.
- In phase two the patient is symptom free.
- Generally treatment lasts for an hour and, exercise are done at 3 sets of 30 repetitions.
- Low weight is used to compliment the high sets and low reps as a way to condition the muscles and joints in a functional way.

Case Description
- 52 year old male presented to physical therapy with persistent right hip pain.
- Pain started 2 years ago when he dove for a softball and landed hard on his hip.
- Pain was the worst when bending forward and transferring from sit to stand.
- Walking was alleviatory for his hip pain.
- Examination revealed impaired right side, lumbar flexion by 10% and normal hip ROM bilaterally.
- Functional examination revealed increased time and effort to transfer sit to stand displaying decreased weight bearing on R lower extremity.

Outcome Measures

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>Initial Evaluation</th>
<th>Progress Note</th>
<th>Discharge</th>
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</thead>
<tbody>
<tr>
<td>ROM</td>
<td>10%</td>
<td>2%</td>
<td>10%</td>
</tr>
<tr>
<td>Impairment</td>
<td>5%</td>
<td>1%</td>
<td>10%</td>
</tr>
<tr>
<td>Impaired</td>
<td>100%</td>
<td>95%</td>
<td>100%</td>
</tr>
<tr>
<td>ODI</td>
<td>40%</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>PSFS</td>
<td>30%</td>
<td>20%</td>
<td>10%</td>
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<tr>
<td>Global Rating of Change Scale</td>
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</tbody>
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Sample Interventions
- Close Grip Pulldowns
- Wide Grip Pulldowns
- Chops
- Flexion Rotation
- Straight Bar Stabilization
- Hooklying Dumbell Hammer

Discussion
- In 10 visits the patient improved across all measures including pain, ROM, ODI, PSFS and GROC outcome measures during care.
- Factors that may have positively influence JB’s outcomes included MET, increase in activity, ergonomic set up, increased awareness of body mechanics, manual therapy, and confidence in moving.
- As with any case report, a cause and effect relationship is difficult to infer, therefore additional experimental designs are warranted exploring the cost, as well as effectiveness of MET along with other procedural interventions for patients with LBP who present in a similar subgroup.

A very great deal worse (-7) About the same (0) A very great deal better (7)
A great deal worse (-6) A great deal better (6)
Quite a bit worse (-5) Quite a bit better (5)
Moderately worse (-4) Moderately better (4)
Somewhat worse (-3) Somewhat better (3)
A little bit worse (-2) A little bit better (2)
A tiny bit worse (-1) A tiny bit better (1)