

Rehabilitation for the management of Rotator Cuff Related Shoulder Pain (RCRSP)

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Introduction

Shoulder pain is the 3rd most common cause for musculoskeletal consultations in the UK and affects 1 in 3 adults at some point in their lifetime.

RCRSP can cause severe pain and functional impairment impacting on the ability to self-care and work posing a significant socioeconomic burden, estimated at £310 million per annum in the UK.

From 2017-2018, there has been 644 sub-acromial decompression procedures performed on patients with RCRSP at University Hospital Crosshouse which can cost up to £3500 per patient.

Recently the benefit of surgery has been labelled an expensive placebo with exercise shown to compare favourably with surgery and provide long term relief from pain and disability in comparison to surgery alone.

Current research consistently shows that exercise therapy can relieve the symptoms of RCRSP, however rehabilitation can often be hindered by waiting list demands and poor patient expectations.

Group exercise has been found to be a beneficial method of treatment that is more cost effective than traditional multi-modal physiotherapy treatment.

AIM

This project aimed to evaluate if an evidenced based shoulder class could be successfully implemented in NHS Ayrshire & Arran without compromising patient outcomes.



Methods

Patients were referred into the class by qualified physiotherapy staff and signed consent. 29 participants have completed the shoulder class programme to date.

Inclusion criteria

- Adults > 18 years old
- Shoulder >3 months
- Full passive shoulder Range of Motion (ROM) therefore excluding frozen shoulder or Osteoarthritis
- Pain/weakness on resisted testing of external rotation and/or abduction and/or positive Hawkins Kennedy Test or Empty Can Test, thereby suggesting a diagnosis of Rotator Cuff related pain
- Post-operative Shoulder patients once ROM has been restored
- Post dislocation after ROM has been restored or long term history of instability

Exclusion criteria

- Symptoms suggestive of Cervical spine radiculopathy
- Diagnosed with an inflammatory disorder or widespread pain disorder
- Positive drop test +/- external rotation lag sign suggestive of rotator cuff rupture

8 week long circuit-based class, 3 sets of 1 minute at each station

Exercises consist of Scaption, External rotation strengthening, Press ups, Rows and Serratus punches

Patients recorded repetitions and load

Patients were reassured they could exercise into pain when completing the circuit

Exercises were individually adjusted and progressed depending on the patient's level of progress

Outcome measures consisted of: pre and post-intervention pain and Oxford Grade strength measurement; the Shoulder Pain and Disability Index (SPADI); and patient feedback questionnaire

Outcomes/Results

29 patients have completed the shoulder class to date.

The results of the project show improvements in both mean pain and function sub scales as well as, total SPADI scores following the intervention. (Figure 1)

The mean total SPADI score dropped from 45% pre intervention to 25% post intervention.

The lowest meaningful clinically important change (MCIC) score for the SPADI, is reported as 8 points, however 19 out of 29 patients scored above this threshold.

Qualitative data highlighted every patient felt an improvement in their function from attending the class and felt it was a positive experience. (Figure 2)

Moreover all participants reported that they would recommend the shoulder class to a friend or family member with a similar problem.

Mean SPADI scores pre and post shoulder class (Figure 1)



Qualitative feedback (Figure 2)

“Thanks for getting me back to golf”

“Great to have others to share experiences with”

“Huge improvement”

“Good management, loading and variation of exercises. My shoulder feels so much better”

“Perfect for my rehab and motivation”

Conclusion

The results yielded from the shoulder class correlate with previous studies and reflect the consensus that exercise can significantly reduce pain and improve function in patients with RCRSP.

This development project has laid the foundations for improving the way RCRSP is managed and has challenged our current practices. The growth of group exercise for the management of RCRSP has the potential to reduce healthcare costs without negatively affecting patient care. Patient outcomes have continued to be monitored for participants who have completed the class and results continue to be positive in terms of SPADI scores and qualitative data. However further work needs to be completed in order to make meaningful changes in service delivery within the health board.

References

- BARRETT, E., et al. 2017. Exploring patient experiences of participating in a group exercise class for the management of nonspecific shoulder pain: A qualitative study. *Physiotherapy Theory and Practice. An International Journal of Physiotherapy*
- BEARD, D.J., et al. 2017. Arthroscopic subacromial decompression for subacromial shoulder pain (CSAW): a multicentre, pragmatic, parallel group, placebo-controlled, three-group, randomised surgical trial.
- BOORMAN, R. S., et al. 2018. What happens to patients when we do not repair their cuff tears? Five year rotator cuff quality of life index outcomes following nonoperative treatment of patients with full thickness rotator cuff tears. *J Shoulder Elbow Surg.* 2018 Mar; 27(3):444-448.
- LEWIS, J., 2016. Rotator cuff related shoulder pain: Assessment, management and uncertainties. *Manual therapy*, 23, pp. 57-68.
- SALTYCHEV, M., AARIMAA, V., VIROLAINEN, P., and LAIMI, K. 2015. Conservative treatment or surgery for shoulder impingement: systematic review and meta-analysis, *Disability and Rehabilitation*, 37:1, 1-8

