



## Service Priorities and Programmes Electronic Presentations

**Convention ID:** 211

**Submitting author:** Miss Tsz Lam CHOI

**Post title:** Physiotherapist I, North District Hospital

### **Group Exercise Therapy for Patients with Shoulder Pain: An Effective & Efficient Treatment Model to Improve Physiotherapy Service**

*Choi TL(1), Leung SM(1), To CW(1), Poon KH(1), Chui TK(1), Tam KL(1), Tang KL(1), Chow KC(1), Chung KL(2)*

*(1) Physiotherapy Department, North District Hospital*

*(2) Hospital Chief Executive, North District Hospital*

#### **Keywords:**

physiotherapy

shoulder pain

group exercise therapy

#### **Introduction**

A growing demand for physiotherapy service on chronic pain patients has been observed. In order to improve the waiting time of out-patient service in physiotherapy department for patients with shoulder pain, a structural group exercise therapy has been established since November 2015.

#### **Objectives**

1. To improve the waiting time for new patients with shoulder pain to cater for the growing demands
2. To empower patients' self-management skills on chronic disease through group exercise
3. To improve pain level, functional status and range of motions (ROMs) of patients with shoulder pain

#### **Methodology**

Patients referred for physiotherapy for shoulder pain were allocated to physiotherapists supervised group exercise therapy after individual assessment and screening by physiotherapists. A 5-session program was implemented with education on the disease, exercise therapy, pain relief modalities and self-management advice. Waiting time for first physiotherapy consultation, Numeric Pain Rating Score (NPRS) for pain level, the Quick Disabilities of the Arm, Shoulder and Hand (Quick DASH) Score for upper limb functional status and ROMs of affected shoulder were regarded as the outcome measurements.

#### **Result**

During November 2015 to November 2016, 92 patients with shoulder pain have been allocated to the group exercise classes after individual assessment and screening. Median waiting time for physiotherapy service for patients with chronic shoulder pain was improved from 50.8 to 16.7 weeks. Mean NPRS and Quick DASH Score were

improved from 6.10 to 3.76 (-38.4%) ( $p < 0.001$ ) and 46.51 to 25.42 (-45.3%) ( $p < 0.001$ ) respectively. The Mean ROMs of shoulder flexion, abduction and external rotation were improved from 129.45 to 145.78 (+12.6%), 126.13 to 142.58 (+13.0%), 41.31 to 49.69 (+20.3%) degrees respectively ( $p < 0.001$ ,  $p < 0.001$ ,  $p < 0.001$ ). The Hand Behind Back measurement showed significant improvement of mean 2.8 spinal level ( $p < 0.001$ ).

With this group exercise treatment model, patients with chronic shoulder pain can benefit from physiotherapy with shorter waiting time. The pain level, functional status and ROMs were all improved after the therapy. It enhanced the effectiveness and efficiency of out-patient physiotherapy service. This group exercise treatment model could be further explored and expanded to other disease group for continuous quality improvement.