



## Service Priorities and Programmes Electronic Presentations

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### **An Integrated Programme of Exercise, Self-management and Active Coping Strategies for Patients with Knee Osteoarthritis – a Proof-of-Concept Study for a Hong Kong Chinese Speaking Population**

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#### **Introduction**

Knee osteoarthritis (KOA) is associated with long-term pain and disability, and is ranked as 11th highest contributor to global disability. Practice guidelines recommend exercise, education for self-management, and weight loss if required. An integrated programme of exercise, self-management and active coping strategies (ESCAPE-knee pain) has proved effective and cost-effective in the UK for KOA patients, addressing both physical and psychological needs. This Proof-of-Concept (POC) study aimed to explore whether this programme could be delivered to a Hong Kong Chinese (HKC) speaking population.

#### **Objectives**

To deliver the ESCAPE-knee pain programme to a small cohort of KOA patients in a physiotherapy clinic, and to explore their satisfaction.

#### **Methodology**

Ambulatory Chinese speaking KOA patients were recruited from the waiting list in the physiotherapy clinic, Prince of Wales Hospital. Exclusions were knee physiotherapy in the previous 12-months or joint replacement surgery. ESCAPE-knee pain, a 10-session group programme was delivered over 5 weeks by a physiotherapist. Each session consisted of 25-minutes discussion on self-management, followed by 50-minutes strengthening and aerobic exercise according to the individual patient's capability.

HKC outcome measures consisted of the Knee injury and Osteoarthritis Outcome Score (KOOS-HKC); Numeric Pain Rating (NPR); Patient Specific Functional Scale (PSFS); Chinese Self-efficacy for Exercise (SEE-C); Hospital Anxiety and Depression Scale (HADS) and Global Improvement Rating (GIR). Performance tests were

40-meter fast-speed walk test, 30-second chair-stand test and 12-step stair-climb test. Data were analysed descriptively.

### **Result**

21 patients (two groups) completed the programme, median age 62, 79% female, BMI 28.0. Median attendance was 9 sessions; two patients dropped out. One adverse event of a hypoglycaemic attack occurred. KOOS-HKC improved significantly on Pain 17.3, PS 10.1 and QoL 14.5 points. Individual functions (PSFS) improved 2.5, self-efficacy (SEE-C) 1, psychologically (HADS) 4.6, pain (NPR) 0.8 and overall (GIR) 5.2 points. The chair-stand, walk and step tests improved by 14.5% to 18.4%. The satisfaction demonstrated of exercise benefits, learned self-management and a willingness to continue exercising independently.

ESCAPE-knee pain was translatable, feasible and effective for KOA patients in HK. Patients were satisfied with the programme, and stated they would continue to exercise. A future large scale trial will test the clinical and cost-effectiveness of ESCAPE-pain (HK).