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Integrating self-management with usual physiotherapy potentially improves exercise adherence and reduces healthcare utilisation for knee osteoarthritis at 1 year - a pilot control study

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Introduction

The prevalence rate of musculoskeletal knee pain in Hong Kong (HK) is 31% for people over 65. Knee osteoarthritis (OAK), the majority, associates with pain and disability. Great burden was incurred to the Hospital Authority for direct care of medical consultation and medication, in addition, the side effects associated. A recent systematic review of practice guidelines recommends core treatment to all patients suffering from OAK, including exercise and education on self-management for long-term adherence. ESCAPE-knee pain rehabilitation programme in the UK, integrating both, was found to have lower utilization of secondary care in the following year.

Objectives

- 1) To compare the clinical effect of ESCAPE-knee pain and usual physiotherapy for OAK patients in HK 1-year post-treatment;
- 2) To compare the medical consultation and exercise adherence at 1-year

Methodology

It was a pilot prospective control study. ESCAPE-pain was a physiotherapist-led group programme integrating exercise and interactive self-management education (10 sessions in five weeks). Individually supervised strengthening and aerobic exercises were gradually built up to near maximum level. The control intervention was usual physiotherapy of 6-session group strengthening and stretching exercise, with a video show for self-care education. OAK patients were put into the two groups in a physiotherapy clinic. The Knee injury and Osteoarthritis Outcome Score (KOOS) (pain, physical function and quality of life subscales) was the primary outcome. At one-year post-treatment, the patients were phoned to check KOOS and exercise adherence in the past week. Their medical consultations relating to knee pain was checked from the clinical management system.

Result

Forty-nine patients were recruited, 21 for ESCAPE-pain and 28 for usual intervention with similar baseline characteristics for both groups, overall mean age 64, 74% female and body mass index 25.9. Median attendance was 9 for ESCAPE-pain and 5 for control. Improvement in all KOOS subscales was shown for both groups with no significant statistical difference at immediate and 1-year post-treatment time-points. Meeting 15%-improvement criteria as responders to treatment, there were 72% post-treatment and 74% at 1 year in ESCAPE-pain while 44% post-treatment and 39% at 1 year for usual care. At one-year, ESCAPE-pain participants did 4 days of exercise in the past week whereas 2 days for usual care. ESCAPE-pain participants paid mean 0.5 medical consultation visit while control group 1.1 visits over the past 12 months.

ESCAPE-knee pain, integrating self-management with exercise, shows preliminary favourable clinical outcomes, exercise adherence and less healthcare utilization with 1-year effect, as compared to video education and low level exercise. A larger scale of randomized controlled trial is recommended to investigate cost-effectiveness.