



Service Priorities and Programmes
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Physiotherapy prescribed home-program improves physical fitness and self-exercise efficacy in Hypertension and Diabetic patients

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Introduction

Hypertension (HT) and Type 2 Diabetes Mellitus (Type 2 DM) are major non-communicable diseases in Hong Kong. Regular exercise and healthy exercise lifestyle are distinctive elements in HT and Type 2 DM management; and Physiotherapy has an important role in screening, assessments, exercise prescriptions and lifestyle re-designing education. Physiotherapy intervention for improving physical inactivity and weight management to HT and DM patients has been commenced in Kowloon West Cluster, Family Medicine and Primary Health Care (KWC-FM&PHC), Enhanced Public Primary Services (EPPS) of West Kowloon General Out-Patient Clinic (WK-GOPC) since January 2013.

Objectives

To review the effectiveness of individualized physiotherapy interventions to HT and DM patients

Methodology

HT and DM patients were referred from GOPC doctors and nurses in KWC. Individual Physiotherapy screening, assessment, home exercise prescriptions and goal setting were done in initial consultation. Exercise monitoring, modification and progression were done in subsequent consultations. Self-exercise compliance was monitored by self-administered exercise logbook. Clinical outcomes were (1) Body Mass Index (BMI) (2) physical fitness comprised of aerobic endurance and limbs strength (3) change of exercise habit and lifestyles. 2 minutes-stepping test was used to measure the aerobic endurance. To evaluate the upper limb and lower limbs strength, repetition of biceps curl in 30 seconds and number of sit-to-stand in 30 seconds were measured respectively. Self-administered Chinese version of Self-Efficacy for Exercise Scale (SEE-C) was used to evaluate the change of exercise habit and lifestyles. The data were collected at baseline and after completion of physiotherapy consultations.

Result

Total of 66, in which 37 of them were female and 29 were male patients with mean age of 57 (SD \pm 8), median BMI 30.3 (interquartile range: 28.6-31.7Kg/m²) completed both physiotherapy consultations (mean = 5 sessions/patient) and clinical outcome measurements. 76% (n=50) were diagnosed as Hypertension; whereas 24% (n=16) were diagnosed as Type 2-DM. It was shown that BMI was significantly improved (P=0.000). For physical fitness, there were significant improvements in aerobic endurance (p=0.000), and both upper limb strength (p=0.000) and lower limb strength (p=0.000). There was also a significant improvement in clients' self-efficacy on exercise habit and lifestyles (p=0.001). Conclusion The present review signifies the essential role and effect of physiotherapy home-program on improving BMI and physical fitness of patients with Hypertension and Type 2-DM respectively.