



Service Priorities and Programmes
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Active Video Games for MOVE to Health

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Introduction

Physical Exercise is a crucial component for management of Hypertension, Diabetes and Obesity. Proper exercise technique and exercise compliance are important to gain healthful effects. Therefore, the Wii Fit Exercise Video Games are introduced in our empowerment Physical Fitness Exercise Program for these patient groups. The Wii Fit system provides interesting and entertaining exercise experience to patients, through accelerometry and video camera-mediated motion detection technologies to encourage body to MOVE to fulfill game commands.

Objectives

- (1) To promote physical fitness and minimize health risk of cardiovascular and metabolic diseases
- (2) To empower patients with knowledge and exercise skill for management of HT, DM and Obesity
- (3) To encourage patients to develop proper and regular exercise habit

Methodology

Patients from General Out-patient Clinics in HKEC with HT, DM and Body Mass Index ≥ 25 were recruited into the 'Physical Fitness Exercise Program for HT, DM and Obesity patients'. Four sessions were provided in 2-months' time, focusing on education of weight management and dietary concepts by dietitian; disease specific exercise prescription, precautions and progression by physiotherapist. Muscle strengthening exercises and suitable Wii Fit Exercise Video Games such as, virtual reality jogging, pop music modern dancing, kick boxing, were selected for patients during exercise practice each session. Clinical assessment and questionnaire were

conducted for evaluation.

Result

53 patients completed the program from Nov 2016 to Oct 2017. There were improvements in 2-minute step test (90->98 steps), resting systolic BP (133->128mmHg) and diastolic BP (80->76mmHg). 60% of patients showed reduction in body weight by 1.3kg in average.

For those patients without exercise habit, 85% developed regular exercise habit after the program. Patients with exercise compliance ≥ 150 minutes per week increased from 32% to 68%. Proper exercise habit with weekly duration of aerobic exercise increased from 100 to 144 minutes and muscle strengthening exercise increased from 12 to 34 minutes.

98% of patients agreed that Wii Fit Video Exercise Games could arouse their interest to perform exercise.

Conclusion:

The Physical Fitness Exercise Program with Wii Fit Exercise Video Games aroused patients' motivation for developing regular exercise habit and improved exercise performances. Joint efforts by the primary health care team in sustaining the behavioral change would be synergizing.