



Service Priorities and Programmes
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Self Empowerment Physiotherapy Program - A Cost Effective Model for Managing Type II DM Patients

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Introduction

Diabetes becomes a widespread epidemic, primarily because of the increasing prevalence of Type 2 Diabetes Mellitus (T2DM). Local research on obesity and cardiovascular risks supported that obesity has a strong link to glucose intolerance and other features of Metabolic Syndrome in Hong Kong Chinese (Lee et al., 2000 & 2002). Therefore, public health strategies aiming at obesity prevention will probably be more cost effective than managing the consequences such as diabetes. Evidence also proved that lifestyle modification through physical activity is effective in prevention of T2DM (Tuomilehto et al., 2001; Yoon, 2006). Structured program combining physical activity and weight control have been shown to lower T2DM risk by up to 58% in high-risk populations (ACSM, 2009 & 2010). Thus, collaborating with Endocrinologists, an exercise empowerment program led by physiotherapist aiming at provision of professional input and empowering T2DM patients for engaging in regular exercise for modification of risk factors and better diabetes control has been launched since February, 2011 in United Christian Hospital.

Objectives

1. To enhance DM patients' literacy in exercise through education and practice. 2. To empower DM patients on self-management of diabetic control through exercise training & lifestyle re-design. 3. To maintain an ideal body weight

Methodology

A 6-session weekly exercise program has been conducted since February 2011. The program included active lifestyle redesign; exercise program; home exercise prescription and self-management through empowerment. The Flinders University's self-management empowerment approach was adopted (Battersby et al., 2008 & Battersby et al., 2001) for behavioral modification. Assessment on clinical and physical outcomes was done before and 6 months after completion of the program.

Result

31 patients were recruited and 26 had completed the program. Significant

improvement revealed in post 6-month results ($P < 0.05$) with HbA1c from 8.04 to 6.53, BMI from 26.65 to 25.78, Waist circumference from 93.01cm to 90.09cm, Percentage body fat from 29.63 to 28.65, aerobic capacity from 38.01 ml/kg/min to 46.89 ml/kg/min and physical activity efficacy (through exercise efficacy questionnaire) Total cholesterol and LDL were also found noticeable changes from 5.31mmol/l to 4.94mmol/l and 3.11mmol/l to 2.84mmol/l respectively. Results of this study demonstrated that Self-Empowerment Program with education, exercise training and prescription through a partnership and self-management approach is cost effective in improving diabetic control of patients with T2DM.