2-year review of Prediabetes Program in Primary Care Setting (Kowloon West Cluster)

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**Introduction:** Prediabetes (PreDM) is a condition defined as having blood glucose levels above normal but below the defined threshold of diabetes. In order to prevent impaired fasting glucose (IFG) patients progress to type 2 diabetes mellitus (T2DM), multidisciplinary PreDM Program targets non-pharmacological interventions at West Kowloon General Outpatient Clinic (WKGOPC) has been launched since 2015.

**Methodology:** PreDM patients (with criteria of either fasting blood glucose of 5.6-6.9 mmol/L or impaired glucose tolerance (IGT) with 2-hour plasma glucose of 7.8-11.0 mmol/L after ingestion of 75g of oral glucose load) were referred by GOPC physicians or nurses at Sham Shui Po District.

**PreDM Program:**
(1) Physiotherapy Exercise Program  
(2) Dietitian Advice  
(3) Nursing Education

**Objectives:** Review the effectiveness of PreDM Program on improving  
(1) Body Weight  
(2) Physical Activity Level
Outcome Measures:
(1) Body Mass Index
(2) 3 Physical Parameters
(3) Patient Engagement of Self-Exercise Compliance
(4) Behavioral Change in Physical Activity Level

Upper Limb (UL) Strength Number of dumbbell lifts by biceps curl in 30 seconds

Lower Limb (LL) Strength Number of sit to stand in 30 seconds

Aerobic Capacity Number of steps in 2 minutes

Chinese self-efficacy for exercise scale (SEE-C)

Chinese version of Self Efficacy of Exercise (SEE-C)

International Physical Activity Questionnaire (IPAQ)
**Results:** From December 2015 to September 2018, 172 PreDM patients (113 female; 59 male) with mean age 61±7, completed a 3-months, 3 sessions Physiotherapy exercise program (Fee $150)
(1) **BMI** was significantly dropped
(2) Significant improvements in 3 physical parameters
(3) **Self-exercise compliance** was improved
   (SEE-C mean score ±SD = 59.11±16.48 versus 56.21±18.74 as baseline)
(4) Patients were in High **Level of physical activity**
   (IPAQ mean score ±SD = 4863±2180)
**Conclusion:** T2DM is one of the growing demands and economic burdens in worldwide public health issue. Current multidisciplinary-program model under collaborations of Physiotherapist, Family Physician, Dietitian and Nurse in primary care setting is cost effective in improving PreDM patients' body weight, physical parameters, self-exercise compliance and activity level, as to reduce the risk for disease progression. This model also concurs with Hospital Authority plan in primary care service development.

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