



**Service Priorities and Programmes**  
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**KWC weight management project in overweight and obese Type II DM Chinese patients pilot study in Lady Trench General Out Patient Clinic**

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**Introduction**

Risk Assessment and Management Program (RAMP) is one of the major projects of the Hospital Authority for the chronic disease management including diabetes mellitus. A study was carried out in overweight and obese type II DM patients with combined structural lifestyle intervention with goals of dietary control and increase physical activity to have intentional weight reduction, which, in turn, would improve the glycaemic control of the diabetes patient. The study involved multiple health care disciplines including dietitian, nurse, physiotherapist and doctor in primary care setting.

**Objectives**

The study objective is to examine the effects of a structural lifestyle intervention program to achieve and maintain weight loss by decreased caloric intake and increase physical activity. The efficacy of health status improvement would be compared including the body weight, the body mass index, the body fat composition and the waist circumference. Other outcomes would include the blood pressure, the haemoglobin A1c level and the lipid profile of the patient.

**Methodology**

The participants will be randomized to either structural lifestyle intervention group or a control group. The intervention group would include individual sessions with monthly dietitian counseling and family physician counseling. The type and intensity of the exercise would be chosen according to the caloric intake, physical health and preference of the participants with the use of energy equation. The control group would receive session of nutrition and physical activity education under RAMP program. Participants in both arms will receive comparable education in diabetes management. Participants will be recruited for 6months. The pre and post study physical parameters would be compared to assess the effectiveness of health status improvement by the lifestyle intervention with multidisciplinary approach. And the

effect of using energy equation with the structural lifestyle intervention would be assessed also.

### **Result**

From February 2012 to August 2012, 77 patients were recruited. 40 patients were randomized into the intervention group. And 37 patients were randomized into the control group. The male/female ratio of the subjects was 0.97. The average age was 54. Up to February 2013, 16 subjects were completed the project. The mean weight of pre/post study in the intervention group and control group were 72.1/69.9 (kg) and 66.7/64.8 (kg) respectively. The mean body fat composition of pre/post study in the intervention group and control group were 28.8/27.2 (%) and 31.8/30.5 (%) respectively. The mean HbA1c concentration of pre/post study in the intervention group and control group were 7.9/6.9 (%) and 7.5/6.7 (%) respectively. The mean body mass index of pre/post study in the intervention group and control group were 26.7/26 (kg/m<sup>2</sup>) and 26.3/25.2 (kg/m<sup>2</sup>) respectively. The mean blood pressure of pre/post study in the intervention group and the control group were 142/79 / 134/73 (mmHg) and 142/82 / 141/77 (mmHg) respectively. A structural lifestyle intervention program with multidisciplinary approach was effective in improving the health status of overweight and obese type II DM Chinese patients.