

***HOSPITAL AUTHORITY CONVENTION 2014:
KWC WEIGHT MANAGEMENT PROJECT IN
OVERWEIGHT AND OBESE TYPE II DM
CHINESE PATIENTS
-PILOT STUDY IN LAY TRENCH GENERAL
OUT PATIENT CLINIC***

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Introduction

- Risk Assessment and Management Program(RAMP)
- To improve the diabetic control of diabetes mellitus patients
- No energy estimation and exercise prescription component

Objectives

- To examine the efficacy of a structural RAMP with and without energy estimation & exercise prescription to achieve weight loss by comparing the efficacy of health status improvement





Methodology

- Participants randomly assigned to either structural RAMP(RAMP) group or structural RAMP with energy estimation and exercise prescription(RAMP+E) group
- Both groups received individual monthly dietitian counseling, physiotherapist counseling and nursing support
- RAMP+E group emphasized energy estimation with negative energy balance and exercise prescription
- RAMP+E group with tailored-made lifestyle modification



Table Structural RAMP with energy estimation and exercise prescription (RAMP+E) group



Group Objective	Mean loss $\geq 10\%$ of initial weight
Objectives for participant behavior	Intake of <i>1200-1800kcal/day</i> , depending on baseline weight, regular physical activity with <i>negative balance of 500kcal/day</i> according to the METS calculation
Content	
Knowledge	Proper diabetes management, caloric control, sound nutrition, methods to increase activity, exercise precautions
Motivation	Self-efficacy, outcome expectations, importance of lifestyle modification
Self-Regulatory Skills	Self monitoring, goal setting, self-reinforcement, social support, cognitive restructuring, relapse prevention
Environmental	Practical assistance in overcoming barriers to adherence
Contact Schedule	Monthly follow up for <i>dietitian</i> counseling and <i>family physician/physiotherapist</i> counseling
Monitoring and Adherence	Individual counselors will collect data on attendance, weight and self-monitoring of diet and exercise; data will be entered into a computer-based tracking system; feedback will be given to participants



RESULTS



Table Comparison of clinical variables before and after the study

Clinical variables	RAMP Group(n=19)		RAMP+E Group(n=18)		p-value
	Mean at baseline	Mean at sixth month	Mean at baseline	Mean at sixth month	
HbA1c (%)	7.44	6.86	7.36	6.73	.568
Total Cholesterol (mmol/L)	4.76	4.42	4.94	4.42	.526
Triglyceride (mmol/L)	1.64	1.57	1.52	1.47	.854
High Density Lipoprotein(HDL) (mmol/L)	1.16	1.21	1.22	1.34	.086
Low Density Lipoprotein(LDL) (mmol/L)	2.85	2.52	3.05	2.54	.478
Systolic blood pressure(mmHg)	138	136	134	133	.115
Diastolic blood pressure(mmHg)	82	76	78	74	.331

Table Comparison of weight loss and body fat change before and after the study

Clinical variable	RAMP Group Mean Difference(n=19)	RAMP+E Group Mean Difference(n=18)	p-value
Overall Weight loss(kg)	-1.963	-0.672	.769
Overall Body Fat % Change (%)	-0.184	0.606	.878



RESULTS



**Table Comparison of clinical variables before and after the study
(including both RAMP group and RAMP+E group as a group)**

Clinical variables	Mean at baseline	Mean at sixth month	p-value
HbA1c (%)	7.443	6.910	.000*
Total Cholesterol (mmol/L)	4.845	4.425	.004*
Triglyceride (mmol/L)	1.588	1.512	.536
High Density Lipoprotein(HDL) (mmol/L)	1.175	1.262	.000*
Low Density Lipoprotein(LDL) (mmol/L)	2.960	2.543	.001*
Systolic blood pressure(mmHg)	135.78	134.51	.615
Diastolic blood pressure(mmHg)	80.08	75.00	.002*

**Table Comparison of weight loss and body fat change before and after the study
(including both RAMP group and RAMP+E group)**

Clinical variable	Mean Difference	p-value
Overall Weight loss(kg)	-1.3154	.001*
Overall Body Fat % Change(%)	.2179	.533

*Statistically significant





CONCLUSIONS

- The effect of the structural RAMP with component of energy balance calculation and exercise prescription could be **as effective as** the structural RAMP with diabetes support and education for improvement in the health status among overweight or obese Chinese patients with type 2 diabetes





Thanks