IMPACT OF FREE ANNUAL HEALTH ASSESSMENT TO IMPROVE HEALTH OUTCOMES, HEALTH-RELATED QUALITY OF LIFE AND FILL THE PREVENTIVE CARE SERVICE GAP OF WORKING HKU Med **Contact Information**: POOR IN HONG KONG

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oorer access to & quality of health

care, esp. preventive health

Low SES

1. BACKGROUND

I. HEALTH AMONG LOW SES INDIVIDUALS IN HK

In Hong Kong:

- Gini coefficient = 0.539
- 1.37 million (14.7% of population) in poverty

II. THE HEALTH EMPOWERMENT PROGRAM

In 2012, the Kerry Group Kuok Foundation established the Trekkers Family Enhancement Scheme (TFES) to empower low-income families to achieve their full potentials by providing support and opportunities in health, education, employment and environmental harmony.

Poor Health

The HEP was conducted in Tung Chung, a developing satellite residential area on an outlying island where healthcare services are limited.



Free Health Assessments Health Literacy Seminars



Control Group

2. OBJECTIVES

To determine whether a community-based health empowerment programme (HEP) could improve self-care and health outcomes among low SES families.

Outco	nes Measured	Measured By
Primary Outcome	Self-care enablement	Patient Enablement Instrument (PEI)
Secondary Outcomes	Health-Related QoL	SF-12v2
	Diet	Daily fruit and vegetable consumption
	Physical Activity	International Physical Activity Questionnaire (IPAQ) MET-min/week
	Physical Health Parameters	WHR, TC+HDL ratio, trialycerides, RP

3. METHODOLOGY **5-YEAR PROSPECTIVE COHORT STUDY**

Intervention Group

Inclusion criteria: 1) Resident in Tung Chung 2) ≥ 1 working family mem 3) Monthly household of < monthly household income; 4) ≥ 1 child in grade 1-3; 5) ≥ 1 family member willi follow-up.	; ber; 75% Hong Kong's median ng to participate in long-term	Inclusion criteria: 1) Resident in Hong Kong; 2) Monthly household of <75% Hong Kong's median monthly household income; 3) ≥ 1 child in grade 1-3; 4) ≥ 1 family member willing to participate in long-term follow-up
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Baseline Survey & Health Assessment (2012-16)



4. RESULTS

I. PRIMARY OUTCOME: SELF-CARE ENABLEMENT

Patient Enablement	Intervention ($N = 171$)		Control (N = 123)		Difference hetween
Instrument (PEI-2)	Baseline	Follow-up	Baseline	Follow-up	differences
1. Able to cope with life	2.81±0.99	3.93±0.90*	4.00±0.90	3.98±0.90	< 0.001
2. Able to understand your illness	2.98±0.95	3.69±0.92*	3.67±0.94	3.76±0.85	< 0.001
3. Able to cope with your illness	2.84±1.02	3.78±0.90*	3.78±0.89	3.73±0.83	< 0.001
4. Able to keep yourself healthy	2.83±0.99	3.74±0.88*	3.60±0.78	3.61±0.85	< 0.001
5. Confident about your health	2.76±0.97	3.65±0.97*	3.54±0.80	3.63±0.83	< 0.001
6. Able to help yourself	2.62±1.0tw3	4.05±0.82*	4.20±0.77	4.02±0.74*	< 0.001
Total PEI-2 Score	16.88±4.86	22.87±4.60*	22.86±3.67	22.78±3.81	< 0.001
* Statistically significant change between baseline and follow-up (n-value <0.05)					

Intervention group reported significant improvements in self-care enablement when compared with control group.

II. SECONDARY OUTCOMES







INTERVENTION (N = 194) CONTROL (N = 127) Change in mean SF-12v2 mental component scores were also significantly greater for the intervention group

INTERVENTION (N = 121) CONTROL (N = 96) INTERVENTION (N = 221) CONTROL (N = 111) Improvements for both groups were found for reported fruit and vegetable intake and physical activity. However, the intervention group had significantly greater improvements in fruit intake when compared to the controls.

D. Physical Health Parameters

Physiological	Representative biomarkers	Paired Differences (<i>Follow-up - Baseline</i>) % with clinical increased risk cut-off		
system	(clinical increased fisk col-oll)	Intervention (N $=$ 197)	Control (N = 154)	
Anthropometric	1. Waist-to-hip-ratio (≥0.90 men; ≥0.80 women)	+11.2%*	+11.7%*	
Metabolic (lipids)	 TC:HDL ratio (≥4.5 men; ≥4.0 women) Triglycerides (≥1.7mmol/L) 	-2.5%* +2.5%*	+2.8% +2.8%*	
Cardiovascular	 Systolic blood pressure (≥ 130mmHg) Diastolic blood pressure (≥ 80mmHg) 	-6.0%* -6.5%*	+1.9%* +10.1%*	

For physical health, significantly greater proportion of participants in the intervention group achieved satisfactory BP and TC:HDL ratio.

5. CONCLUSION

Our findings support the implementation of community-based health empowerment programs to build self-care capacity among individuals of low SES and ultimately improve health outcomes. This approach could be particularly important given the expected widening of income inequalities.

6. STRENGTHS AND WEAKNESSES

	Strengths	Limitations
•	Majority of community-based intervention	Non-randomized study
	studies conducted in Europe and North	• Volunteer bias - limited generalizability
	America	Majority of participants female
•	Designed as participatory-action research	Inclusion of self-report measures could
•	Longitudinal study	have introduced bias
•	Broad spectrum of outcomes included —	• Control group improvement in a number of
	multimethod assessment	outcomes warrants further investigation

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Sociodemographic Characteristics : t-tests (continuous), Pearson's χ^2 test (categorical).

Baseline, Follow-up Comparison : paired t-tests/Wilcoxon signed ranked (continuous), χ^2 test (categorical).

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