

Community Cardiac Rehabilitation Program- A novel way of health care delivery

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Introduction

Comprehensive Cardiac Rehabilitation Program (CRP) has been shown to have positive health benefits in particularly cardiopulmonary fitness. To cope with the increasing demand of CR and widen the service provision, a community based CRP through partnership with NGOs was set up to enhance patient's early community reintegration with positive health-related outcomes while decreasing the service demand of HA.

Purpose of the Project

To study the feasibility of a community based, high quality CRP in utilization of community resources and to evaluate the improvement of health parameters.

Methods / Program Outline

1. Eligible participants

- patients with coronary heart disease (CHD) or with multiple cardiovascular risk factors, most of them are discharged patients from acute hospital without prior rehabilitation training and all of them are belonged to low risk group

2. Format

- An initial multidisciplinary assessment with advices is performed in TWEH
- In addition to individualized home exercise program, six exercise sessions (once per week) were conducted in TSKHCACC with physiotherapy guidance. Nurse or physiotherapist of TWEH will provide on-site support as necessary

3. Outcome Measures (initial assessment and one week after the sixth training session)

- maximum aerobic capacity (measured by exercise stress testing)
- lipid profile

Results

From May to Nov 2007, 22 patients were recruited. 19 (86%) were male and the mean age was 57.6 +/- 11.3 (Range - 43 to 79). 18 patients had CHD and 4 had multiple cardiovascular risk factors. All of them completed the program uneventfully. No exercise related complications occurred.

Aerobic capacity and Lipid profile (mmol/L)

	Pre program	Post program	Mean change (+/-SD)
Mean METS	10.9	13.4	↑2.5 +/- 1.3 *
Total Cholesterol (TC)	4.94	4.02	↓0.92 +/- 1.02 *
Total Triglyceride (TG)	1.92	1.52	↓0.4 +/- 0.65 *
High Density Lipoprotein-Cholesterol (HDL-C)	0.97	1.00	↑0.03 +/- 0.12
Low Density Lipoprotein-Cholesterol (LDL-C)	3.05	2.29	↓0.76 +/- 0.91 *

*-statistically significant

There was a significant improvement in aerobic capacity (23% increases in METS) which was comparable to hospital based model and lipid profile after the program. Around 73% of patients achieved target LDL-C < 2.6 mmol/L after the program.

Conclusion

Community CRP is a feasible model in provision of rehabilitation in the community. It was shown to improve health outcomes which is comparable to hospital-based model, while the service demand of HA can be reduced.