P-1160 Outpatient cardiac rehabilitation: Patient pathological benefits.

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Introduction

Cardiac Rehabilitation (CR) has been associated with a reduction in all-cause mortality. No Australian studies have investigated the effects of a CR program on key pathological risk factors. The aims of this study included determining whether the CR program benefited the patient medically, including reductions to pathological risk factors, improvements to functional capacity, and improvements in mental health; and to what extent were the targets for blood pressure (BP) control in patients with hypertension (HT) and diabetes mellitus (DM) achieved.

Materials and methods

Data was collected from the 1st June 2014 until the 31st December 2015 (19 months). The collected participant data included: demographic information (age, gender, ethnicity), past medical history including cardiovascular diseases, diagnosis, physiological risk factors, height, weight, girth, blood pressure (BP), heart rate (HR), medications, and pathology consisting of lipid profile. Furthermore, data was collected on The Patient Health Questionnaire (PHQ-9) factors, and on the participants' 6 minute walk test (6MWT). Study participants were included if they attended 10 or more CR program sessions out of 12.

Pre- vs. post-CR median values of measurement

Dataset	Variables	N	Pre-CR	Post-CR	P - value
Clinical	Systolic blood pressure	79	130.2	126	0.037
	Diastolic blood pressure		71.3	68.8	0.029
	Heart rate		65.2	70.8	0.001
Pathology	Total cholesterol	26	4	3.7	0.166
	LDL		2.56	2.09	0.035
	HDL		1.08	1.14	0.557
	Triglyceride		1.46	1.24	0.228
PHQ-9	PHQ-9 total	79	4.8	2.42	0.001
	PHQ-9 anxiety & depression	20	5.9	3.8	0.011
6MWT		78	498	534	0.001

Results

Seventy nine (79) participants (58.1%) were included in the study, due to 57 participants (41.9%) attending less than 10 CR sessions. Significant improvements were associated with reductions in BP ($p < 0.05$), LDL cholesterol ($p < 0.05$), and improvements in participants PHQ-9 scores ($p < 0.001$), and their 6MWT ($p < 0.001$). Participants were able to better manage medication use ($p < 0.05$).

Patient medical history: patient reasons for hospital admission and program inclusion, prior diagnosis, and risk factors.

Conclusions

This study has demonstrated that a CR program can reduce patient pathology risk factors associated with CVD, while improving the mental health and physical fitness of the participants.