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Do Social, Lifestyle and Cardiovascular Risk Factors Predict Dropout from Cardiac Rehabilitation Programs? A Longitudinal Cohort Study

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Background: While cardiac rehabilitation (CR) programs reduce the risk of further cardiac events and improve symptom management, many eligible people do not attend or do not complete these programs. Further, little is known about the characteristics of people who drop out compared to those who complete CR. Aims: To determine the prevalence, correlates and predictors of dropout from CR.

Methods: This is an administrative database of all participants consecutively enrolled in one outpatient CR program in Sydney between 2006-2017. Items assessed included demographics, diagnoses, co-morbidities, quality of life (MOS SF-36), psychological health (DASS-21), lifestyle factors and physical assessment. Dropout was defined as those who did not complete a 6 or 12-week outpatient CR program and did not complete post CR assessment.

Results: Of 3350 who entered CR, 784 (23%) dropped out of a 6 or 12-week CR program. Smoking (OR 2.487; 95% CI: 1.951–3.170) or being divorced or separated (OR 2.066; 95% CI: 1.511-2.824) doubled the risk of dropout from CR, while younger age (<55 years) increased the risk of non-completion by 1.8 times (95% CI: 1.457–2.357). Risk factors including depressive symptoms (OR 1.448, 95% CI: 1.136–1.847) diabetes (OR 1.455; 95% CI: 1.145-1.848), sedentary lifestyle (OR 1.334; 95% CI: 1.059–1.680) and obesity (OR 1.612; 95% CI: 1.284–2.023) also increased the risk of dropout from CR.

Conclusion: To improve CR program completion rates, clinicians need to consider the impact of social, lifestyle and cardiovascular risk factors on a person's ability to adhere to CR.

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