Exploring exercise engagement after spontaneous coronary artery dissection: A qualitative study of survivor's perspectives

<u>Chloe Trevor</u>¹, Elizabeth Kells¹, Joseph Weddell¹, Barbara Murphy^{2,3}, Stephanie Hesselson⁴, Michelle Rogerson², Alun Jackson^{2,3}, Robert Graham⁴, Siiri Iismaa⁵, Lis Neubeck^{1,6,7}, Coral L Hanson⁶, Sarah Zaman^{1,8}, Andrew Maiorana⁹, Jodie Queenan¹⁰, Janice Kelly¹⁰, Jeanette Thom¹, Matthew Hollings¹

¹University of Sydney, Sydney, Australia. ²Australian Centre for Heart Health, Melbourne, Australia. ³University of Melbourne, Melbourne, Australia. ⁴Victor Chang Cardiac Research Institute, Sydney, Australia. ⁵Victor Chang Cardiac Research Institute,, Sydney, Australia. ⁶Edinburgh Napier University, Edingburgh, United Kingdom. ⁷Wroclaw Medical University, Wroclaw, Poland. ⁸Westmead Hospital, Sydney, Australia. ⁹Curtin University, Perth, Australia. ¹⁰SCAD Research Inc, Sydney, Australia

Abstract

Introduction: Spontaneous coronary artery dissection (SCAD) accounts for \sim 35% of myocardial infarctions in women aged <50 years. SCAD survivors often report high levels of psychological stress and have concerns with returning to exercise, yet exercise may be important for managing psychological and physical health after SCAD. This study explored individual experiences of exercise engagement before and after SCAD.

Methods: Participants were recruited from the VCCRI Arteriopathy-SCAD (VASC) study and were eligible if they had an angiographically confirmed SCAD within 36 months. Eight online, semi-structured focus groups were conducted, digitally recorded, transcribed verbatim and thematically analysed by 2 researchers with consensus in a team of 4.

Results: Participants (n=28) were 71% female, aged 54.8±9.1 years and 25% were exercising when SCAD occurred. Most participants engaged in exercise before (85%) and after SCAD (92%) and attended cardiac rehabilitation (86%). After SCAD, 79% changed their exercise patterns, and many acknowledged the positive benefits of exercise. Two overarching themes that influenced survivors' return to exercise were: (1) fear of SCAD recurrence during exercise, with apprehension when exercising alone that was heightened by physical symptoms and sensations, and (2) frustration, which stemmed from feeling slowed down or restricted during exercise – often linked to fatigue and medications. A key driver of both was limited SCAD awareness and guidance. Participants expressed a need for clearer information, specific exercise limits, and individualised exercise recommendations.

Conclusion: SCAD survivors report fear and frustration about returning to exercise, highlighting their need for more support, information, and individualised exercise recommendations.