Clinician's Commentary on Maddocks and Cobbing¹

Noncommunicable diseases (NCDs), such as cardiovascular disease (CVD), cancer, chronic lung disease, and diabetes, are responsible for 70% of deaths around the world.² The burden of these diseases is rising disproportionately among lower income countries and populations. The leading cause of NCD morbidity and mortality in 2015 was CVD (representing 45% of all NCD deaths).² More people are now living longer with symptomatic CVD, and the effectiveness and accessibility of health services for people with CVD have thus never been more important. Cardiac rehabilitation (CR) programmes are now recognized as an essential component of the comprehensive care of patients with CVD. In fact, both the Canadian Cardiovascular Society and the American College of Cardiology have given CR a Class I recommendation, and both organizations have also consistently identified exercise therapy as a central element.^{3–5} Although exercise training remains a cornerstone intervention, national and international guidelines consistently recommend that physicians provide comprehensive rehabilitation, which includes education and psychological input focusing on health and lifestyle behavioural change, risk factor modification, and psychosocial well-being.^{3–5}

In health care, physiotherapists are continually being challenged to do more with fewer resources and less time to do it in. Maddocks and Cobbing¹ describe for their readers the traditional phases of CR, although much has changed in the acute care landscape in North America over the past decades. Shorter hospital stays for uncomplicated cardiovascular surgeries and events are commonplace, effectively eliminating phase 1 CR programmes in Canada. The few postoperative days that are spent in hospital are focused on early mobility, risk factor and medication management, education, and discharge planning, including referral to CR. Competing priorities often surface between health care providers and patients during this recovery period. Patients need information and self-confidence so that they feel empowered to perform chronic disease self-management, especially when dealing with new, ill-defined, and unknown situations. Patient-centred care and consultation with a multidisciplinary team are important to determine any areas of low self-efficacy and to tailor education to meet patients' immediate needs. The communication challenges that arose between health care workers and the participants in the Maddocks and Cobbing study are similar to those that CR providers hear from new patients, particularly after an inpatient stay. For many patients, this is an overwhelming time for both them and their families, and "inadequate information," whether real or perceived, influences the services they seek out of hospital. Providing the right information at the right time can be a challenge in the inpatient setting.

Access to CR and equality of access to programmes have been areas of research interest in the CR literature for well over a decade. Despite the established benefits and recommendations, CR enrolment rates remain low, and only a small percentage of patients who would benefit from CR are actually serviced by these programmes. The uptake of CR varies around the world and by patient group, with participation rates ranging from 20% to 50%.⁶ There are many reasons for low referral and enrolment rates, including physicians' reluctance to refer some

patients, particularly women, ethnic minorities, and those of lower socioeconomic classes and lack of resources, capacity, and funding.⁶ Referral strategies such as systematic referral have been advocated to increase the number of patients who take advantage of CR.³ Various models of CR delivery have been shown to be effective and improve adherence, including home-based CR and CR delivered using telemedicine. The most effective way to increase uptake and optimize adherence and secondary prevention is for clinicians to endorse CR.^{3–6} Inviting patients who are still in hospital after a recent CVD diagnosis, event, or surgery to participate in CR is an essential intervention to improve access.

It is disappointing that Maddocks and Cobbing's study¹ incorporated limited female perspectives. Women continue to be underrepresented in CR programmes and related research—they are less likely to be referred, less likely to enrol, and more likely to drop out than their male counterparts. This gap in health service delivery has been attributed to several sex-related factors experienced by women, including lower rates of physician referral, travel-related barriers, competing work and caregiving responsibilities, greater severity of CVD, less psychological well-being, and several comorbid health conditions.^{6–8} Programmes specifically designed for women can address these barriers and facilitate women's participation.^{7,8}

It appears that more research needs to be done to determine the best time for physicians and multidisciplinary teams to discuss with patients the importance of CR after surgery and of what that message should consist. All CVD patients require core aspects of CR services, and given the proven efficacy and cost effectiveness of CR, patients who would benefit from formal CR programmes be given the opportunity to enrol in them.

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