Clinician's Commentary on Hussey et al.¹

What facilitates or deters a Canadian physiotherapist's decision to choose a career in cardiorespiratory practice? To explore this question, Hussey and colleagues¹ conducted a cross-sectional, online survey of practising members of the cardiorespiratory and orthopaedic divisions of the Canadian Physiotherapy Association. This study built on a previous survey of the factors that influence physiotherapy students' opinions of cardiorespiratory physiotherapy as a career path. Hussey and colleagues found that a perceived narrow scope of practice was the most influential professional factor deterring students from choosing cardiorespiratory physiotherapy as a career choice, which leads to the following questions: What is the definition or concept of a cardiorespiratory physiotherapist? Is it based on the practice setting, the treatment techniques that are used, or the diagnoses of the clinical population being treated?

If cardiorespiratory physiotherapy is perceived solely as a hospital-based practice that incorporates a specific set of skills or interventions aimed at preventing or treating targeted impairments of the cardiorespiratory system, such as airway secretions, reduced gas exchange, and low lung volume, the scope is indeed narrow. However, if cardiorespiratory physiotherapy assessment, prevention, and intervention are seen as playing an integral role in managing the systemic consequences of cardiorespiratory disorders or diseases; multi-system, complex health conditions; surgery; prolonged bed rest; intensive care interventions; and medications to optimize an individual's activity, functioning, and participation,² the practice is ubiquitous, crossing clinical populations, the life span, and the continuum of care.

For example, individuals with chronic cardiorespiratory conditions or survivors of acute cardiorespiratory illnesses can benefit when treatment incorporates the knowledge and skills of all clinical physiotherapy practice domains, not just cardiorespiratory.³ The importance of muscle dysfunction as it relates to morbidity and mortality is increasingly being recognized in chronic conditions.⁴ Optimizing cardiorespiratory functioning and fitness ought not to be limited to maximizing ventilation and perfusion. Interventions to improve the structure and function of respiratory and peripheral skeletal muscles to subsequently improve muscular strength and endurance, aerobic capacity, balance, movement efficiency, functional ability, level of physical activity, and health-related quality of life are also important, and they may be remediable to rehabilitation when the underlying chronic cardiorespiratory condition is not.

Managing an acutely ill population requires a multitude of clinical skills, including early therapeutic interventions to optimize the transport of oxygen (positioning, mobilization, and oxygen administration),⁵ manage and mobilize soft tissue (wound care, splints, orthotics, physical handling, stretching, therapeutic massage), manage pain (transcutaneous electrical nerve stimulation, acupuncture), provide movement interventions and therapeutic exercise (postural and gait training; mobility devices; aerobic and resistance exercise; electrical stimulation; interventions targeting flexibility, balance, and coordination), and provide education.³ Such management requires extensive knowledge and skill to continually modify interventions to account for the stage of healing, medical stability, progression of the disease,

physiological reserve, surgical limitations, comorbidities, and effects of medications.

Individuals who have survived a critical illness and stayed in intensive care for a prolonged time have reported functional disability 5 years after their illness,⁶ particularly those who experience myopathies and neuropathies. Managing the physiotherapy of this population may be indicated long after discharge from a hospital or an inpatient rehabilitation facility. Comorbidities and an increased risk of additional health conditions associated with the side effects of medications and medical or surgical interventions can further compromise health status; these include obesity, metabolic syndrome, diabetes, hypertension, renal dysfunction, and cardiovascular disease.

How cardiorespiratory physiotherapy is taught and practised during professional training may affect students' perception of the opportunities for cardiorespiratory physiotherapists as well as their roles, skills, and professional development. Although overlap and integration is acknowledged, the traditional clinical practice areas of cardiorespiratory, neurological, and musculoskeletal physiotherapy are often taught, evaluated, and practised separately.³ This systems component approach to assessment, evaluation, and intervention in specific practice domains may not wholly facilitate managing complex health disorders involving multiple systems, especially in older adults and individuals with multiple morbidity.⁷ Fundamental to all physiotherapy clinical practice areas are preventive and rehabilitation strategies, including the prescription of exercise. Restoring function and physical capacity and minimizing disability in different practice environments and across different levels of ability and stability rely on therapeutic components that cross all areas of physiotherapy clinical practice.³

Looking forward, we need to strive to broaden our perception of the professional scope of practice for individuals at risk for, diagnosed with, or recovering from acute and chronic cardiorespiratory conditions, high-risk surgery, or complex medical interventions. This will enable us to fully use and build on our clinical and research knowledge base, regardless of our practice setting or how we define our professional specialty.

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