Clinician's Commentary on Doebling et al.¹

I read this article with great interest from three perspectives—those of a physiotherapist, a certified diabetes educator (CDE), and an academic lecturer. The study results are both encouraging and sobering, and they provide an opportunity for the physiotherapy profession to answer the call to significantly contribute to preventing behaviour leading to death, disability, and rising health care costs.

In their practice, physiotherapists encounter patients and clients every day who have unhealthy behaviour. Lack of physical activity, poor nutrition, smoking, excessive drinking, stress, and inadequate sleep have all been linked to the majority of non-communicable chronic diseases around the world, and they are the major causes of morbidity and mortality.² Diabetes, cardiovascular disease, lung disease, and cancers are strongly associated with lifestyle risk factors and are largely preventable.²

Exercise and movement form the basis of physiotherapy practice. Physiotherapists provide holistic, patient-centred care with advanced clinical reasoning. They also have advanced knowledge of and skills in the anatomical, physiological, and psychological mechanisms of health and disease; assessment and diagnosis; behavioural change; biomechanics; and exercise prescription and therapeutic exercise. Physiotherapists are therefore ideally suited to address lifestyle risk factors, particularly lack of physical activity and exercise, and they routinely provide therapeutic exercise programmes as part of their treatment plans. A well-designed therapeutic exercise program can provide the healing stimulus that restores joint range of motion, neuromuscular strength, and power as well as aerobic and anaerobic metabolic system integrity.

Physical activity and exercise are acknowledged as being one of the primary modifiable risk factors in preventing and treating type 2 diabetes,^{3,4} and they are a key component of diabetes self-management.^{3,4} Specifically, regular physical activity has been shown to prevent the development of complications resulting from diabetes; reduce the need for hypoglycemic agents;³ and reduce premature, all-cause mortality in individuals with diabetes.⁴

Considering the exponential increase in the prevalence of type 2 diabetes, it is very likely that physiotherapists working in all settings, particularly in private and home care, will be confronted more frequently with patients with this disease in the near future. Approximately 80% of all patients visiting physiotherapists in outpatient settings have diabetes, prediabetes, or risk factors associated with diabetes.⁵ These patients are at elevated risk for microvascular and macrovascular complications, retinopathy, nephropathy, and neuropathy.⁶ As a result, physiotherapists working in community settings need to be aware of medical safety and the impact of exercise modalities on these patients because these settings are where the majority of physiotherapy graduates find employment.

Physiotherapists have many patients and clients whose unhealthy behaviour is not directly related to the reason for their visit. In these cases especially, we need to follow the example of many of our health care colleagues and include assessment and counselling in the health and wellness status of our patients and clients. Physiotherapists can effectively educate and train persons at risk for diabetes or who already have the disease to

modify their habits and routines and develop new ones, thereby achieving a healthier lifestyle and minimizing the progression of the disease.

As a CDE, I can attest to the limited practical training and self-efficacy that many CDEs have in physical activity and exercise counselling. In addition, a 2010 study⁷ revealed that diabetes educators in Atlantic Canada lacked the confidence in their own ability to counsel their patients about, prescribe, and make referrals for physical activity and exercise. Individuals with diabetes have traditionally reported receiving less support, education, and encouragement for physical activity than for other lifestyle management issues, and progress in this area appears limited.⁸ Providing effective physical activity and exercise counselling for those with diabetes can require resources and expertise beyond those typically available to diabetes educators. Physiotherapists, however, are some of the most important practitioners in the management of diabetes and its comorbid conditions because they can prescribe exercise to prevent and treat the disease. In an encouraging vein, Doebling and colleagues¹ reported that most respondents believed that preventing and managing diabetes was within their scope of practice. An amazing opportunity awaits those physiotherapists who embrace their role in promoting health and wellness, treating past symptoms, and addressing the pathophysiology of disease.

From an academic perspective, it was sobering to read that most respondents believed that their entry-level physiotherapy education had left them inadequately prepared to assess and treat persons with diabetes. Although I cannot attest to the content of all physiotherapy curricula in Canada, I do know that the topic of exercise counselling and prescription usually comes early in the curriculum and is not necessarily revisited, and this situation perhaps unintentionally downplays the important role that the profession can play in managing chronic diseases and promoting health and wellness. As a result, physiotherapy programs and organizations need to rise to the challenge and provide resources and professional development opportunities so that physiotherapists can gain the knowledge they need in these areas.

Physiotherapists have a role to play in preventing and managing chronic diseases, many of which affect how their patients engage in physical activity. The primary goal of treating diabetes is to achieve and maintain optimal glycemic levels, but making lifestyle changes, such as increasing physical activity and exercise, remains central to the long-term clinical management of diabetes. Incremental increases in physical activity levels, following physiotherapists' recommendations, can have a dramatic impact on the health of society and will ensure the relevance of the physiotherapy profession in health care for years to come.

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