Rethinking one-size-fits-all exercise prescriptions

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Most Canadians struggle to get the recommended 150 minutes of moderate physical activity a week, and people with disabilities say one-size-fits-all advice is part of the problem.

One in five people in Canada and roughly half of those older than 60 have at least one disability. Yet, until recently, research and guidelines have rarely acknowledged that physical activity needs may differ depending on a person's abilities.

Although the Canadian Society for Exercise Physiology has released some specific guidance for people with multiple sclerosis and spinal cord injury, people with varying abilities interviewed by *CMAJ* say clinicians seldom offer advice tailored to their realities.

Alison Purdy has spina bifida, uses a wheelchair, and is a regular member of her local YMCA's Abilities in Motion program in Dartmouth, Nova Scotia. She enjoys Tai Chi, lifting weights, balloon badminton, and exercising with resistance bands.

But when it comes to discussing exercise with doctors, Purdy says it sometimes feels like they "simply don't understand or have the knowledge or enough research on our disabilities" to give meaningful advice.

Joana Valamootoo of Regina, Saskatchewan, says she felt misunderstood by her doctor when she started experiencing intense fatigue and pain after delivering a child in 2015.

Previously, Valamootoo went to the gym every day, but after her pregnancy, her energy levels dropped and the pain she experienced during activity became so overwhelming that even caring for her baby felt impossible.

Valamootoo says her doctor dismissed the pain as being related to postpartum depression. She eventually stopped seeing him because it felt like she was bothering him. "The way he was talking to me, it was as if everything I was going through was in my head," she says.

Years later, Valamootoo was diagnosed with fibromyalgia, endometriosis and adenomyosis. She now manages her pain with restorative yoga and is back in the gym a few days a week.

Able-bodied clinicians can be quick to dismiss patients' limitations, or assume they preclude an active life.

Too often, people with disabilities "aren't actually expected to do physical activity," says Sam Unrau, acting manager of community inclusion and support services at Manitoba Possible, an organization for people with disabilities.

Unrau has spina bifida and enjoys sledge hockey, but growing up he was often sidelined while other children played sports. "We need to normalize physical activity," he says. "And if challenges come about… treat it. Don't just dismiss it as 'Well, this is going to be your life.'"

Many people struggle to start or increase activity because they have "energy limited days," says Linda Li, a professor in the department of physical therapy at the University of British Columbia who holds a Canada Research Chair in patient-oriented knowledge translation.

Boilerplate recommendations leave "no room" for people to adjust to their own ability to exercise, Li says.

Some experts say the 150 minutes recommendation should be seen as an "optimal goal," rather than a starting point, especially in light of evidence suggesting that half as much activity still provides health benefits.

"When we talk about tailoring activities, it's not just about how much to do or how to do it," says Li. "It's more about what is feasible at the time, and sometimes people have to build up to it."

Li recommends clinicians start by asking patients about how they spend a typical weekday and weekend, since their capacity might vary over the week.

For Eileen Davidson, a rheumatoid arthritis advocate in Vancouver, adaptation is key. Davidson has different exercises for "the bad days and the good times." These range from using resistance bands or an elliptical machine to modified push-ups and swimming, depending on whatever is accessible during the pandemic.

Even if the intensity or amount of activity fluctuates, "these exercises are important to do just to keep me able to have good balance," Davidson says. "Exercise significantly reduces a lot of my symptoms, like pain and fatigue, and it helps me sleep better at night."

Julia Chayko, a member of the arthritis community CreakyJoints Canada, plans her activity based on how her body feels every morning.

"I usually choose a 20-minute yoga routine, and 20 minutes can be a lot sometimes," she says. "If I don't feel as stiff or swollen and I'm feeling ambitious, I might do 30 or 40 minutes."

Financial limitations often pose a greater barrier to activity than physical ones.

For Verna Mang, who has primary progressive multiple sclerosis, regular yoga or fitness classes became harder to attend as her physical abilities deteriorated.

Mang prefers one-on-one classes because exercise therapists can focus on what she needs to stay mobile. However, "there aren't a lot of options, and one-on-one is very expensive," she says.

For people with fixed or lower incomes, prioritizing fitness is complicated by daily struggles for survival.

Many gyms aren't set up for varying ability levels, and adapted fitness equipment can be prohibitively expensive, several sources said. In the winter, even simple things like finding accessible parking can become an issue, says Darrin Luke, a wheelchair tennis and sledge hockey player based in Winnipeg, Manitoba.

"If you can't get those disabled spots then you're trying to push through like three or four inches of snow with a hockey bag on your back and carrying your sledge," says Luke. "When you're having a record season of snow, it's really difficult to get to the places that you need to get to."

Ryan Van Praet, sports program lead for the Canadian National Institute for the Blind, is a "big believer that any sport can be played or adapted" — whether that means arranging for a gym companion to navigate facilities or modifying touch screens on fitness equipment.

"Help your patients find alternatives," he says. "Look at their whole picture, not just their disability."

Studies show that health professionals often lack the time, skills and confidence to counsel patients on physical activity. Some don't believe that patients are motivated or interested to hear their advice, while others feel it's hypocritical to raise the subject if they're sedentary themselves.

As such, American data suggest, most patients don't receive any exercise counselling from clinicians.

However, the recent movement toward prescribing exercise as medicine shows promise for increasing the frequency and confidence of physicians counselling patients about physical activity.

With just minutes to discuss health issues, "it's challenging to balance other priorities," says Jasmin Ma, an assistant professor of kinesiology at the University of British Columbia and clinician investigator at Arthritis Research Canada. "What can be helpful is to reframe how physical activity has implications for those other priorities."

Ma recommends the United Kingdom's Moving Medicine consultation guides as a helpful resource. The guides cover a range of conditions and breaks down conversations into one-minute, five-minute and "more minutes." Most of the guides recommend starting by asking if the patient is open to talking about physical activity, and ending by arranging a follow-up appointment or referral.

Some evidence-based resources include the Canadian Disability Participation Project, which Ma calls "a worldwide leader in sport and physical activity participation for people with disabilities." The National Center on Health, Physical Activity, and Disability also has an extensive set of free exercise videos that may be helpful.

Ultimately, patients want their doctors to understand that exercise isn't one-size-fits-all.

"Doctors need to know that we're not all the same," says Aiden Young, a Saskatoon-based fitness influencer and self-advocate at Inclusion Saskatchewan, an organization that supports individuals with intellectual disabilities. "Even people with the same diagnosis can be different."

Diana Duong, *CMAJ*