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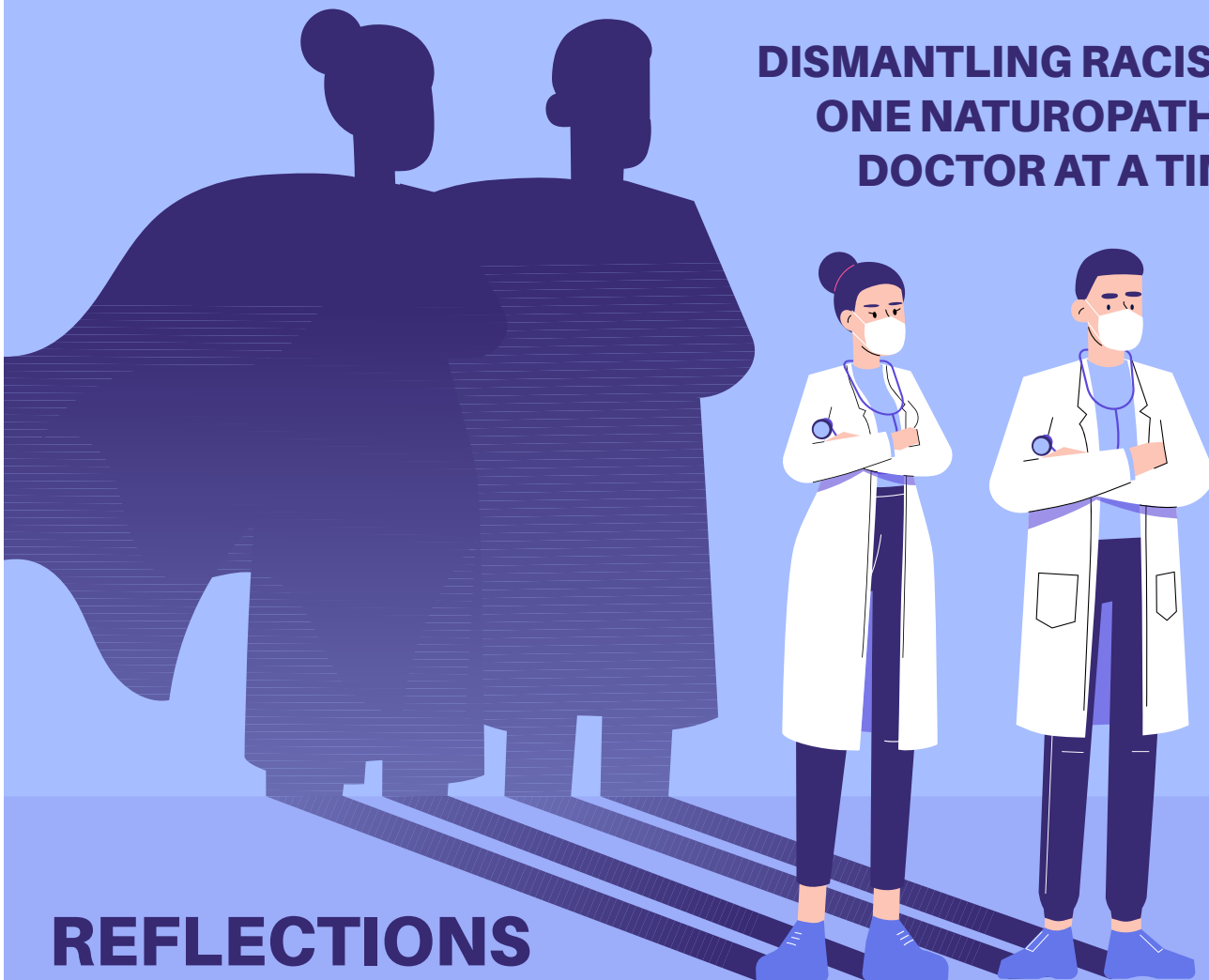
THE pulse

ONTARIO ASSOCIATION OF NATUROPATHIC DOCTORS

**LANGUAGE AND
INFORMED CONSENT**

**IMMUNE RESILIENCE
VITAMIN D AND
COVID-19**

**DISMANTLING RACISM:
ONE NATUROPATHIC
DOCTOR AT A TIME**



**REFLECTIONS
ON RESILIENCE**



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After teaching many courses at OCNM (now CCNM), she became the first clinic director in 1986 - with a budget of zero dollars. (Let's say we were very creative in getting patients on which to practice and we ended up hanging pink material, which must have been on sale, from dowelling on wires from the ceiling to create clinic rooms, smile.) In 1997 she purchased the land she would caretake as Carp Ridge EcoWellness Centre in rural Ottawa, a saga which continues to this day. www.ecowellness.com



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With a knack for making meaningful connections, Owen has had a long history of guiding and helping others transform their health. He is devoted to using the growing field of evidence supporting the clinical benefits of nature, helping patients incorporate these principles into their life and reconnect with the world around them. Check out his passion project: [Science & Nature](#).



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[Dr. Bulaong, ND](#), is a Toronto-based Naturopathic Doctor and educator whose practice has focused on fertility and reproductive health since 2007. Prior to graduating from CCNM, she obtained a specialist degree in human biology from the University of Toronto in 2001 and certification in Workplace Wellness and Health Promotion. She is passionate about teaching people how the human body works, whether it's during patient visits, online or as an instructor at a private college where she has taught prenatal and pediatric nutrition, anatomy, and physiology since 2012. She is committed to supporting social justice in our profession as a member of NDDR.



BEATRICE HAI

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Nature Rx For Humanity: Rediscovering Our Wild Side During COVID-19

DR. OWEN WISEMAN, ND

The spread of the novel coronavirus and the inevitable changes it brought was unprecedented in current memory. The restrictions and mandates implemented meant access to urban centres, social interaction, and engaging in activities was limited.

Not all changes were detrimental though. Nature, with its bountiful diversity, was there to support both physical and mental health. Without the daily distractions of shopping and eating out, we turned our gaze upwards and around.⁸ Many of us were reminded, as poet and environmental activist Gary Snyder so eloquently states, “Nature is not a place to visit. It is home.”

Despite technological leaps and the increasing digitization of humanity, there is that innate connection to nature that supersedes this new dependency. E.O. Wilson is credited with birthing the term *biophilia*, humankind’s primal tendency to seek connections with other living things, including nature.

The pandemic pushed people to re-engage with green and blue spaces around them. Near the University of Vermont, 69% of park users had increased the frequency of visits while 80.6% conveyed how significant these spaces were during the pandemic. More interestingly though, 25.8% of respondents had never, or very rarely, accessed local nature prior to the pandemic. Respondents also felt that natural outdoor areas provided safe spaces to socialize.⁶

Multiple studies reflect the benefits of having nature nearby. Recent systematic reviews have shown that having nature within 500 m and 2 km are the most predictive of good physical health.³ The benefits are easier to achieve if you have green or blue spaces close to home. Consider that the likelihood of reporting high well-being or good health is also significantly greater with nature contact greater than 120 minutes throughout the week.¹⁸

These studies raise important questions regarding access to nature and should embolden us to acknowledge our own privilege. For many, especially in larger cities, travelling to a green space can involve an extensive commute. This simple fact makes nature less accessible for those combatting mobility or financial concerns. Even a balcony or terrace can add thousands to rental or property fees because of the premium placed on outdoor access. These limitations speak to the value of having windows that provide views and natural light.

With some regions implementing restrictions on how far people could travel from home, views of green space proved to be critical for supporting mental health. Whether a nearby park or a babbling brook, seeing green is positively linked to self-esteem, life satisfaction and subjective happiness.¹⁴ In one of the pioneering papers on the impact of green views, Ulrich (1984) demonstrated enhanced recovery rates of post-appendectomy patients with a view of the garden as opposed to those with views of a brick wall.¹⁵ A green view extends well beyond what is seen, interwoven with auditory, olfactory and tactile sensations. For example, the trilling of nearby birds actually helps to improve mental health and support recovery from stress.^{1,10}

The positive influence of ecotherapy on mental health continues to garner strong support throughout the literature.⁴ Types of ecotherapy range from nature-related crafts and animal-assisted interventions to horticulture and care farming. Social and therapeutic horticulture has been shown to be applicable in the treatment of substance abuse,¹¹ reducing isolation experienced by the elderly,⁵ reducing stress^{9,19} and even modifying the progression of coronary heart disease.¹⁹ The pandemic forced many to reevaluate the space they occupied and the garden

"Nature is not a place to visit. It is home."
— Gary Snyder



industry saw revenues skyrocket. Toilet paper wasn't the only thing flying off the shelf as soil, filter cloth and seeds spawned vegetables and herb gardens across the nation.⁹

Gardening helps to keep the mind occupied and has been associated with the concept of flow, when an individual becomes engrossed in an activity. As a clinical intervention, horticulture therapy is young, but quickly establishing itself as a useful approach for a variety of populations. HIV-positive men involved in a community gardening program had better general health and fewer symptoms of distress.¹³ Exposure to the soil helps the immune system develop memory for harmless microbes, nurturing the host-microbiota relationship.¹² For children of low-income elementary school, garden-based classes led to more significant academic growth as opposed to those taught in the classroom.¹⁷ Finally, it's been shown that community gardens improve food security and nutrition, increase physical activity and foster a sense of community.^{2,16}

Practitioners should also consider the value of prescribing nature to nurture those from challenged childhoods. This could range across homelessness, domestic abuse and addiction in the family. Outdoor activities can be designed for sensory experiences and exploratory play. A program doing exactly this fostered resilient personality traits in the children including empathy, a positive self-concept, positive social relationships and persistence.⁷

With all of the benefits of green views, ecotherapy and gardening, is there any merit to bringing nature indoors? The nature of the pandemic meant that many were tending to their indoor greenery. The large question on most practitioners' minds is, "What plants should I recommend?" There are so many choices, but common house plants like Devil's Ivy, Lady Palm, Rubber plant and Boston Ferns all contribute to moderately cleaner air. They can contribute to lower levels of volatile organic compounds, ozone, benzenes and formaldehydes in the air.

Healthcare professionals have a duty to be mindful of their language and the impact it has on fashioning a safe space for patients. Creating a prescription for nature therapy needs to go beyond, 'get outside'. The benefit of a nature prescription is that it can be tailored to meet the needs of the individual, reflecting naturopathic values. As with exercise, consider the FITT framework, conceptualized around the same principle as S.M.A.R.T. goals that has come to define modern exercise prescriptions.

The FITT Framework
How Frequent?
How Intense?
What is the Timing?
What Type?

To best highlight how we can use this guiding principle, I present an example of one of my own patients. The individual was a middle-aged male with moderate depression based on a score of 12 using the PHQ-9. Other lab work of note was total cholesterol elevated at 5.83 mmol/L, HbA1c at 5.9, and a HOMA score of 3.9 suggesting significant insulin resistance. We determined what trails were nearby and as a person without physical disabilities, he chose a few with more rugged terrain. After discussion, I prescribed a 30-minute walk through a 2.5 km forested loop trail with mild elevation gains three times a week, twice during the week and once on the weekend. During our

2-month momentum appointment, his PHQ-9 score had decreased to 8, indicating mild depression. Repeat bloodwork showed a decrease in total cholesterol at 5.47 mmol/L, HbA1c at 5.6 and a HOMA score of 2.4. The benefits of nature therapy are evident here in the significant improvements he made over the course of eight weeks.

The six principles of naturopathic medicine are interwoven throughout this composition, but above all, I firmly believe nature therapy prescriptions to epitomize *Vis medicatrix naturae*. For how much closer can you get to the healing power of nature than encouraging your patients to reconnect with the land around them?

Resources:

Science & Nature: There has been an explosion in nature-based research in the past decade. We have begun to recognize and harness the power of green and blue spaces. My passion project known as Science & Nature is meant to distill some of the incredible research in an easy-to-share format. Every Monday, I highlight the benefits of incorporating nature in various sectors from education and exercise to neighbourhoods and workplaces. On Fridays, I highlight some of the amazing organizations that support conservation and equitable access to nature in various parts of the world.

Nature Therapy Course (in development): Building off of the success of Science & Nature, I am excited to announce that I have a Nature Therapy Course in development. I will be working diligently to provide colleagues with the opportunity to become competent and confident when integrating nature-based therapies into their own clinical practice.

Park Prescriptions: I am a proud member of Canada's first national, evidence-based nature prescription initiative endorsed by fellow organizations including the Ontario College of Family Physicians, the RN Association of Ontario and the Ontario Parks Association. The program provides you with a unique practitioner code and allows you and your patients to log your prescription. I encourage all of you reading to consider registering with the program at the link provided.

Gardening for Wildlife: When I prescribe horticulture or garden-based therapy, this resource from the Canadian Wildlife Federation (CWF) is helpful to consult. Rather than the sterile and desolate green lawns of suburbia, the CWF helps individuals curate a garden blooming with biodiversity that can support pollinators throughout the year. Their programs also provide resources spanning those planting their first seed to those familiar with *Dracaena's* sensitivity to fluoride.

AllTrails: This is one of my most often consulted resources when writing a prescription. With over 200,000 kilometres of trails, it gives you the ability to filter trails in a more individualized fashion. With the patient, you can select trail length, elevation gain, difficulty, route type (e.g., loop, point to point), accessibility and more. 🌿

[Check out some of Dr. Wiseman, ND's interview here!](#)

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