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A Doctors of BC Publication

Concussion and sleep in adolescents

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Mission: The *BCMJ* is a general medical journal that shares knowledge while building connections among BC physicians.

Vision: The *BCMJ* is an independent and inclusive forum to communicate ideas, inspiring excellent health care in British Columbia.

Values
Quality: Publishing content that is useful, current, and reliable.
Connections: Sharing diversity of thought and experiences from across the province and promoting communication between BC doctors.
Impact: Striving for healthier patients and communities by amplifying physicians' voices, opinions, research, and news.

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ON THE COVER
Sleep dysfunction is both a symptom of concussion and a risk factor for persisting postconcussion symptoms in adolescents. Article begins on page 168.

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A conceptual illustration of an Indigenous Clinical Care Circle gathering, capturing participants in discussion on "Why we do this work." "Building culturally safe care through connection and community" begins on page 178.

CLINICAL

ORIGINAL RESEARCH

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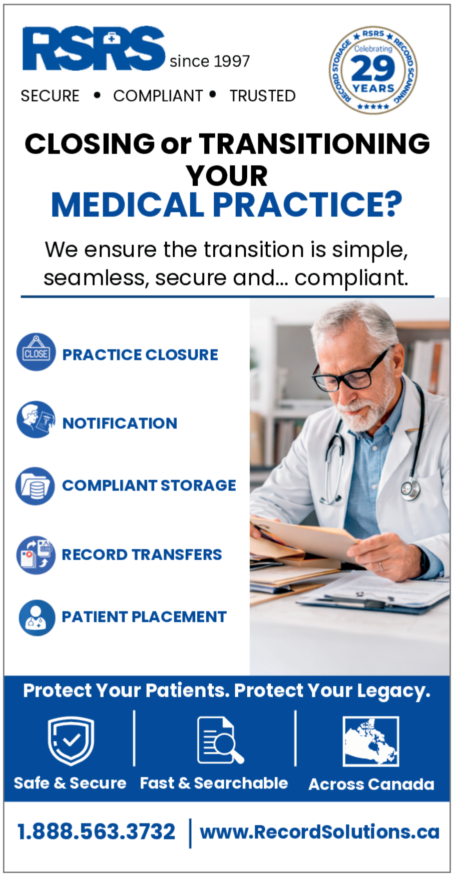
We humbly acknowledge the traditional territories of First Nations within British Columbia and that our offices are situated on the unceded territories of the xʷməθkʷəy̓əm (Musqueam), Sḵwx̱wú7mesh (Squamish), and səlilwətaɬ (Tsleil-Waututh) Nations. For Doctors of BC, acknowledging the traditional territories is an expression of cultural humility that involves recognizing our commitment to support the provision of culturally safe care to Indigenous Peoples in BC.

The hidden toll of longer evenings: BC's experiment with transitioning to permanent daylight saving time

British Columbia transitioned to permanent daylight saving time (DST) as of Sunday, 8 March 2026. This move has received some criticism, with one researcher calling it "scientifically not a good idea."[1] Similarly, OHS Canada indicated that "in its switch to permanent daylight time, BC got it wrong."[2]

The switch in BC was partly informed by a 2019 provincial survey in which over 90% of approximately 223 000 respondents supported adopting permanent DST.[3] However, permanent standard time (ST) was not offered as an option—respondents could choose between permanent DST or continuing with biannual clock changes. In its rationale, the Government of BC mentioned anticipated benefits including improved overall health; fewer disruptions to sleep patterns, daily routines, and schedules; and longer daylight in the evenings to support leisure and economic activity.[3] In a 2019 letter to then premier John Horgan, the BC Chamber of Commerce suggested that ending biannual changes would also be associated with reductions in workplace and traffic accidents.[4]



The Government of BC website links to a study from the Stanford University School of Medicine supporting its rationale to move to permanent DST.[3] The authors of the study suggest that biannual shifting results in the greatest burden on circadian rhythms, when compared with either permanent ST or permanent DST.[5] As indicated by Dr Schwandt in his May *BCMJ* editorial,[6] other studies have also shown an association between the transition to DST and a modest increase in acute myocardial infarction,[7] stroke,[8] poor sleep and mood disturbances,[9] and traffic accidents.[10]

The choice of which permanent time to adopt, DST or ST, is not to be taken lightly. For instance, the Stanford University study revealed that, when comparing the two options, permanent ST was more likely to result in a decrease in the prevalence of obesity (−0.78% [−0.06% to −1.49%]) and stroke (−0.09% [−0.04% to −0.14%]) compared with DST (−0.51% [−0.09% to −0.93%] and −0.07% [−0.04% to −0.09%], respectively).[5] While direct evidence on the long-term effects of permanent DST remains limited, there is growing recognition that misalignment between social and biological clocks, so-called social jet lag, can persist for several months beyond the initial transition period to DST.[11] Permanent DST effectively delays morning light exposure, particularly during winter months, when the sun may rise as late as 9 a.m. in cities such as Vancouver and Victoria. Alternatively, permanent ST allows for better alignment of our internal circadian clock with the social clock, reducing the risk of social jet lag.[12] Social jet lag has been associated with increased risk of elevated BMI, metabolic syndrome,[13,14] and mood deficits.[15] Professors in the UBC School of Nursing have published on this topic, indicating that "BC's switch to permanent DST adds to the 'perfect storm' for poorer adolescent sleep and mental health."[16] Multiple professional bodies, including the Canadian Sleep Society, American Academy of Sleep Medicine, European Biological Rhythms Society, European Sleep Research Society, and Society for Research on Biological Rhythms, support permanent ST as the best option in terms of public health and safety.[17-19]

However, potential benefits of permanent DST should not be dismissed. Extended evening daylight may promote physical activity, social engagement, and economic activity, particularly in areas such as tourism and retail. However, anticipated energy savings remain uncertain and may be offset by increased consumption related to extended evening activities.

For physicians and surgeons, many of whom start work early in the day, permanent DST can contribute to misalignment with the circadian clock. Delayed morning light exposure, combined with early start times and demanding schedules, may result in further sleep deprivation, fatigue, and impaired cognitive performance. At the same time, longer, brighter evenings may encourage later bedtimes, further contributing to sleep deficits.

On a personal note, I find permanent DST appealing in some ways. It allows the opportunity for many people, including physicians, to spend evening time outdoors in daylight and engage in social and recreational activities after work, which, in my opinion, contributes significantly to quality of life. As stated by Dr Schwandt in his editorial, these benefits, while difficult to quantify, are not trivial. Indeed, individual preferences, lifestyles, and chronotypes may influence how such a policy is experienced by everyone.

Ultimately, the decision to eliminate biannual clock changes appears reasonably supported from a public health and safety perspective. Whether BC selected the optimal approach, however, is to be determined as we embark on this natural experiment. ■

—Sepehr Khorasani, MD, MSc, FRCSC

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Feelings are tricky in medicine

Sharing an opinion is harder than it may seem.

I tend to shy away from sharing my opinion unless I have data to back it up. After all, scientific data is the cornerstone of truth and integrity in medicine. But data, among academics, can also be a defence mechanism. For example, it's usually less threatening when someone counters an argument with data than when someone questions your opinion.

Sharing an opinion exposes what we value, and it reveals our vulnerabilities. When someone questions our opinion, it can feel less like an academic debate and more like a personal attack. Data can be debated; feelings can be judged.

But here's my opinion: feelings are tricky in medicine, and I don't think we talk about them enough.

Of course, we inquire about our *patients'* feelings. We validate and document their emotions, and we empathize, grieve, and rejoice alongside them. We keep their confidence. In many cases, we can't help it—we absorb, reflect, and ruminate over these difficult interactions, and then we repeat the cycle.

But how often do we ask *each other* about our feelings?

In my position as editor-in-chief of the *BCMJ*, I have the privilege of hearing physicians' voices from across the province, and I believe our profession is hurting. The heavy mental, physical, and emotional load required to do our jobs is taking a toll. Physicians often write to the *BCMJ* about burnout in medicine. But what do we really mean by *burnout*?

Burnout has become an accepted placeholder word, one that conceals a spectrum of quieter, harder-to-name emotions. Burnout is less personal and implies that a systems issue, rather than an emotional one, is the root cause of one's failure to thrive at work. Underneath may lie guilt, shame, sadness, anger, fear, numbness, loneliness, or despair. Some of these feelings may be related to our careers—to the moral distress of working in a system that cannot meet our patients' needs or to the grief that accompanies inevitable poor outcomes in health care. But many feelings are deeply personal and unrelated to medicine. Physicians are human, after all. How can we normalize acknowledging that humanity?

Perhaps we keep silent because we don't want to burden each other, or we fear being penalized if getting the help we need interferes with our patients' needs, our complex schedules, or regulatory expectations. Perhaps burnout also conceals a slow erosion of connection to purpose and meaning.

Medicine has long rewarded stoicism. We value resilience, objectivity, and data. We are trained to recognize pathology . . . but not every feeling needs to be pathologized. Feeling is not at odds with being a good physician; it's often the reason we are here.

When I review authors' clinical submissions, one of the most common things I ask them to include is a list of resources that might help BC physicians with the subject matter. I wish I had a simple list of resources that would meaningfully address *this* problem. Of course, there's the Physician Health Program, and I hope you will write in and tell me about other resources. But what I believe would help the *most* is a broader, more open conversation around physician mental health—one that goes beyond burnout.

If you would like to share your feelings, experiences, or perspectives on mental health, please write to us at the *BCMJ*. We are listening. ■

—Caitlin Dunne, MD, FRCSC

Letters to the editor

We welcome original letters of less than 500 words; we may edit them for clarity and length. Email letters to journal@doctorsofbc.ca and include your city or town of residence, telephone number, and email address. Please disclose any competing interests.

Re: The triple burden experienced by incarcerated people in British Columbia

I read with interest the article "The triple burden experienced by incarcerated people in British Columbia: Mental illness, substance abuse, and poverty" in the April 2026 issue of the *BCMJ*.[1] As a physician, this subject has troubled me for years. The unrecognized elephant in the room is fetal alcohol spectrum disorder (FASD). The prevalence of FASD in the incarcerated adult population is disproportionately high, with estimates ranging from 17.5% to 46% depending on the setting and population studied, compared with general population estimates of 2% to 5% in Canada.[2]

An estimated 98% of individuals with FASD in Canada remain undiagnosed or misdiagnosed, and testing wait times range from 1 month to 4.5 years.[3] The barriers to diagnosis and treatment are overwhelming.

The estimated cost of a comprehensive FASD diagnostic assessment in Canada, as of 2013, was $3110 to $4570.[3] The cost of social welfare benefits for a person with a lifelong mental disability pension in BC is about $20 000 per year.[4,5]

The average cost per male prisoner in federal prison in 2020 was $126 000 per year; the average cost for women was 80% higher.[6]

One of my patients at a BC treatment centre was a pleasant, intelligent 35-year-old who had been in and out of prison since his mid-teens. He was an enforcer for a street gang. He thought he might have FASD, because he had trouble learning in school, he was illiterate, and his mother had alcohol use disorder. He asked me about FASD testing. He wanted to change his life, but the system was failing him. Upon release from prison, he attended Service BC as directed, where he was told to go to a computer and fill out forms for social assistance. He couldn't read, and he didn't know how to use a computer. Embarrassed, he left, and he again resorted to criminal behavior to survive and avoid homelessness. I explained to him that FASD testing was available but that it was expensive and not covered by the health care system. He didn't have the money. The cycle was destined to repeat itself indefinitely.

There are two reasons the federal and provincial governments need to provide FASD testing at no cost:

- Financial: Our governments are wasting taxpayers' money (i.e., spending $126 000 per prisoner for every year of incarceration versus approximately $5000 for a one-time FASD assessment and then $20 000 per year for social support).
- Legal: Universal access to health care in Canada is a fundamental tenet of our national and provincial health care systems. Citizens with FASD are being denied their rights.

What will change this unacceptable situation? Physicians putting strong pressure on politicians and our criminal justice system. There is no cure for FASD, but we can end the needless incarceration of citizens with FASD who have a lifelong disability through no fault of their own and who deserve timely assessment, kindness, and lifelong social support as first-line treatment, not incarceration.

—Murray Trusler, MD, MBA, FCFP, FRRMS
Peachland

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Re: Commemorating 2 centuries since the death of the inventor of the stethoscope

Thank you, Dr Amir Dolatabadi, for an interesting article about the inventor of the stethoscope, René-Théophile-Hyacinthe Laennec [*BCMJ* 2026;68:93-95,109].

In the article, Dr Dolatabadi noted that Laennec was inspired to invent the stethoscope after observing children playing in the Louvre; one child struck one end of a long wooden stick while another placed their ear at the opposite end, successfully perceiving the transmitted sound. In his *Illustrated History of Medicine*, Jean-Charles Sournia gave further information about the discovery of transmitted sound perception. He stated that Laennec observed a group of children whispering along pipes on a building site in the Tuileries Garden, next to the Louvre.

Evidently, the young people of Paris should be doubly credited for the medical potential of child's play, perceived by Laennec on his strolls around the city.

It is sad, but unsurprising, that Laennec died an early death from tuberculosis, given that he spent his professional years using his invention to auscultate the chests of patients with respiratory symptoms, many of whom would have been suffering from consumption. His device could be regarded as responsible for his demise.

—Anthony Walter, MB BCh
Coldstream

Thanks to Dr Amir Dolatabadi for the article "Commemorating 2 centuries since the death of the inventor of the stethoscope" [*BCMJ* 2026;68:93-95,109]. It was an interesting and informative description of René-Théophile-Hyacinthe Laennec's life and times.

Over my long career as a physician, there have been changes in stethoscope technology and use. First, I was taught that, ideally, a stethoscope should be placed directly on the skin for the most accurate assessment of heart and lung sounds. While listening through thin clothing is possible—especially if the examiner applies firm pressure to negate sound attenuation—it can introduce artifacts and hide subtle, crucial sounds, reducing diagnostic quality. However, it appears that standard practice is now to place a stethoscope over one or sometimes two layers of clothing and to pronounce with confidence: "Your chest is clear." Single or double layers of light clothing can attenuate sound by 5 to 18 decibels.

Second, in 2000, Dr David Littmann introduced the electronic stethoscope. Electronic stethoscopes are generally considered better for detecting subtle sounds like soft murmurs due to superior amplification and active noise cancellation, especially in loud environments. They offer higher diagnostic accuracy and are advantageous for clinicians with hearing loss, for telehealth, and when assessing obese patients. As an emergency physician, I found an electronic stethoscope very useful in my often noisy surroundings.

I have two questions: (1) Why are doctors not applying stethoscopes to bare skin to maximize diagnostic accuracy? (2) Why are doctors not using electronic stethoscopes for better auditory performance, when so many of them are aging and their personal acoustic apparatus is failing?

Better use of the simple tools of clinical examination might reduce the spiraling costs of unnecessary imaging, speed up patient throughput, and reduce health care costs.

—Murray Trusler, MD, MBA, FCFP, FRRMS
Peachland

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Young men's health in the age of the manosphere

As the father of two young men, I am acutely aware of the challenges they face today, particularly when it comes to health and well-being. I am fortunate that both of my sons manage their health responsibly and approach life with emotional balance, despite the pressures young men face in the current social and political environment.

As physicians, we are trained to look for patterns that shape health. Increasingly, one pattern emerging in clinical encounters with young men is the influence of online culture—particularly the rise of what has been termed the "manosphere." This loosely connected digital ecosystem spans social media platforms, podcasts, forums, and video channels, where influencers and communities present as guides for young men navigating uncertainty. While some content offers practical advice or a sense of belonging, much of its messaging promotes rigid models of masculinity that can undermine the very health men are seeking.

The health challenges facing young men today are both familiar and concerning. According to Statistics Canada, young men are less likely to access primary care, less likely to seek help for mental health concerns, and more likely to engage in risky behaviors. They experience higher rates of injury, substance use, and suicide than their female peers. While these patterns are long-standing, the social context in which young men are growing up is changing. Digital spaces now play a powerful role in shaping how young men understand masculinity and health.

Many of the young men we see are searching for direction. They face economic uncertainty, shifting expectations around gender roles, and fewer opportunities for community and mentorship. The manosphere capitalizes on this uncertainty by offering a sense of belonging and simple prescriptions for success: pursue dominance, suppress emotion, distrust others, and prioritize status. These narratives can resonate with young men who feel overlooked.

In an era when digital voices present young men with simple yet damaging narratives about masculinity, physicians have an opportunity—and a responsibility—to offer a different message.

From a health perspective, however, these messages can be deeply problematic. In practice, they reinforce many of the barriers that prevent young men from accessing care. When emotional vulnerability is framed as weakness, young men may delay seeking help for depression or anxiety. When relationships are framed in terms of competition or control, opportunities for meaningful social connection—one of the strongest predictors of long-term health—are undermined. When masculinity is equated with toughness, it discourages the openness needed for honest conversations.

In clinical encounters, these dynamics often manifest subtly. A young man presenting with insomnia or fatigue may attribute it to stress, avoiding discussion of underlying anxiety. Another may dismiss symptoms of depression, believing he should simply push through. Others may focus on physical optimization—exercise, supplements, or body image—while neglecting emotional well-being.

As physicians, our role is to not dismiss the motivations that draw young men to these spaces. Many are genuinely seeking discipline, purpose, and self-improvement—goals that can support positive, healthy behaviors. Physical activity, goal setting, and personal responsibility are all valuable components of well-being. The challenge is to reframe these aspirations within a healthier understanding of masculinity.

Mental health also deserves greater attention in discussions of men's health. Young men often present late in the course of psychological distress. Encouraging emotional literacy is not merely a cultural exercise; it is a preventive health strategy. When young men develop the language and confidence to talk about stress, loneliness, or uncertainty, they are more likely to seek timely support.

In an era when digital voices often present young men with simple yet damaging narratives about masculinity, physicians have an opportunity—and a responsibility—to offer a different message. The federal government is developing a national Men and Boys' Health Strategy, a welcome step that supports this by offering an opportunity to engage young men more effectively and ensure they can access the care they need. ■

—Adam Thompson, MD
Doctors of BC President

"Talk with me about living": The case for person-centred care in BC

"We all die at the end of living." Alice said this to me in clinic over a decade ago, and it has never left me.

Frail people do not fare well in our acute care system.[1] Why, then, are so many in acute care? While we speak of cultural humility, our medical culture often asks a vulnerable person in their last chapters of life to accomplish the impossible—in so doing, denying them their dignity and mortality.

In BC, many people are told they are dying almost as they are about to die, often in acute care.[2] Our communication strategy leaves critical gaps, backing up our health care system at every level. "Early and always" conversations are anything but the norm in our health care system.[2,3] Rather, "late and difficult" conversations are commonplace. This means that a grandmother—a giver of hugs and a mentor in her family—is often made a patient and a system problem for significant periods in her final years.

Frailty and our path to death are seen and managed as failures. Our medical training often asks us to conspire with the dominant medical culture and its approach to frailty rather than with our shared mortality.

Let me take you back to the clinic visit from over a decade ago. Alice had lived for well over 80 years when we met. I planned to "educate" her and have an awkward conversation about what our health care system should do "if" her heart stopped—binary questions to satisfy our system's needs.

With double my lived experience, Alice insisted on a plan for before the "if." A plan for *now* and her best possible *next*. From her lips came the words that pivoted my life and my practice: "Dr Greg, talk with me about living. We all die at the end of living." She wanted me to hear what living meant for her. She wanted me to trust her to tell me.

Ask someone "What matters to you?" Then listen. It changes lives.

Alice redirected me, and, quietly, the work began. Work that joins that of many others—the work of including each other as time changes us. What happens when we simply ask each other about what we need to live? What if we include each other in the journey we are all on? What if we plan for the best possible evolving story? True person-centred care means listening as a means of honoring a human right. Curiosity about lived experiences creates a patient–physician relationship that is human and dynamic, offering an incredible opportunity to pivot medicine toward an upstream, transparent, person-centred model.[3]

"What Matters To You?" (WMTY) is a movement that encourages us to build this curiosity into our interactions.[4] It reframes the clinical encounter from "What is the matter with you?" to "What matters to you?"—shifting the balance of power toward the person who knows best.[4,5] Asking and listening to stories, life, and values inform how care evolves and how we accommodate each other's needs.

Many of us are already quietly doing this, but without a shared vision and an expectation of change, the crisis could deepen. WMTY should be part of our health care and community DNA, because everyone benefits when we share what keeps us alive.

"What Matters to You?" Day is celebrated internationally each year in June—a day dedicated to asking the question that should live in every encounter. I invite you and your community to mark it. Ask someone "What matters to you?" Then listen. It changes lives.

What matters to you about *your* path through life? Who are the Alices who can mentor you on your journey? ■

—Greg Andreas, MB ChB, B Pharm
Palliative Care Lead for Cranbrook
Project Lead, Listening About Living

—Katharine McKeen, MD, MBA, FCFP
Council on Health Promotion Chair

This article is based on the experiences of the primary author, Dr Greg Andreas. It was written with support from Dr Katharine McKeen. This article is not necessarily the opinion of the Council on Health Promotion or Doctors of BC. This article has not been peer reviewed by the BCMJ Editorial Board.

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FIFA World Cup 2026: Ensuring the BC health care system puts its best foot forward

In June and July 2026, the Musqueam, Squamish, and Tsleil-Waututh Nations; the Province of British Columbia; and the City of Vancouver will host seven FIFA World Cup 2026 (FWC26) matches at BC Place in Vancouver, with Vancouver Coastal Health (VCH) serving as the host health jurisdiction.[1] With an estimated 350 000 spectators expected and international visitors from many regions over a concentrated period, the matches will take place alongside a large fan festival at the Pacific National Exhibition and related events across the city.[1] For health care workers, FWC26 presents familiar health care and public health risks, similar to those posed by other large international events that regularly take place in BC. The foundation of health security is the ability to detect early clinical signals in emergency departments, urgent care settings, and laboratories well before they are visible through formal surveillance systems.[2,3]

Provincial risk assessment and preparedness

Mass gatherings rarely introduce exotic health threats; rather, they increase the potential for familiar health risks at a different frequency, scale, and impact.[4-6] The BC Centre for Disease Control (BCCDC) completed a provincial public health risk assessment for FWC26, considering increased population density, close contact in indoor and outdoor venues, higher demands on food services, summer heat, wildfire season, and changes in social behavior and transportation.

Examining the risks of health events using a World Health Organization mass gathering framework[7] alongside a health impact risk assessment matrix based on probability and population health impact,[8,9] BCCDC categorized most public health risks as low, with the following assessed as moderate:

- Enteric infections related to food handling and high-volume food service.
- Respiratory viruses, including SARS-CoV-2 and seasonal influenza, with the potential for off-season or imported strains.
- Substance use–related harms, including toxic drug overdose and alcohol-associated injury.
- Environmental exposures, including heat events.

Other conditions, such as measles, sexually transmitted and bloodborne infections, vector-borne diseases, and zoonoses, were assessed as lower risk, with existing public health capacity expected to be sufficient. The communicable disease risk assessment findings were consistent with those shared earlier this year by Public Health Ontario,[10] the other host health jurisdiction in Canada.

A small number of scenarios were classified as low likelihood but high consequence, including exposure to high-threat pathogens and deliberate biological or chemical exposure events. While unlikely, these scenarios reinforce the importance of clear reporting pathways and early escalation of clinical concerns.

Local and provincial planning for FWC26 has focused on strengthening existing systems and on response planning proportional to risk. VCH, BCCDC, and the Office of the Provincial Health Officer have worked together closely on enhanced surveillance and coordination, including with provincial, national, and international partners.

Be prepared for a variety of health risks

As FWC26 begins, health care workers are asked to apply their most valuable everyday skills—point-of-care risk assessment, clinical judgment, and timely communication—to protect patients, colleagues, and the broader community during FWC26 and year-round. Such clinical vigilance can be summarized in four familiar principles.

Identify

Maintain a heightened index of suspicion, including unusual presentations, unexpected seasonality, disproportionate severity of illness, and clusters of similar symptoms. A history of recent travel or attendance at mass events is important, but the absence of a "classic" exposure should not be falsely reassuring.

Isolate

Early infection prevention and control measures remain essential when a communicable disease is suspected. Timely isolation protects other patients and health care workers and preserves system capacity.

Inform

Early reporting is critical. Health care workers should report unusual cases or clusters through established pathways to their regional health authority, which remains the primary point of contact for public health notification. Diagnostic certainty is not required to initiate a discussion; clinical concern alone is sufficient. Early notification enables rapid risk assessment, access to specialized testing, and coordination across the health care system, if needed.

This article is the opinion of the BC Centre for Disease Control and has not been peer reviewed by the BCMJ *Editorial Board.*

Respond

Health care workers may also play a key role in treating noncommunicable conditions—for example, heat-related illness, respiratory conditions related to poor air quality, and mechanical injuries.

Ultimately, preparedness for FWC26 rests on strong everyday systems and the skilled health care workers who sustain them. Although only communicable diseases require public health reporting, early recognition and appropriate clinical management of both infectious and noninfectious conditions, paired with timely communication of unusual or concerning presentations, will support an effective health care system response during FWC26 and year-round. ■

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Generative artificial intelligence use

Microsoft Copilot was used to generate an early draft of this article based on an outline the authors provided and to generate text based on Microsoft PowerPoint slides that one author (J.V.) created.

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Access to medication abortion through community pharmacies in BC: Two-thirds offer timely dispensing

Dr Caitlin Dunne, *BCMJ* editor-in-chief, spoke with Drs Elizabeth Nethery, Wendy V. Norman, and Laura Schummers, three of the authors of the recently published *JAMA Network Open* article “Mifepristone access through community pharmacies when regulated as a routine prescription medication,” to discuss their research and the impact on patients and physicians.

Caitlin Dunne, MD, with Elizabeth Nethery, PhD, Wendy V. Norman, MD, MHSc, FCFP, and Laura Schummers, ScD

Elizabeth Nethery, PhD

Wendy V. Norman, MD, MHSc, FCFP

Laura Schummers, ScD

Dr Dunne: Congratulations on publishing your article in *JAMA Network Open* in November 2025, and thank you for telling us about your research. What were the main findings from your study?

Dr Nethery: In our team’s research, we found that two-thirds of BC pharmacies can provide the mifepristone-misoprostol medication abortion regimen, also known as the abortion pill, within 3 days. However, when pharmacies were unable to provide the abortion pill, the information provided to patients about where to obtain the medication was often inadequate, potentially creating barriers for patients seeking access to this essential and time-sensitive health service.

Dr Dunne: Could you give us a brief history of medication abortion in Canada?

Dr Norman: Since 2017, any physician or nurse practitioner in BC can prescribe the mifepristone-misoprostol pill combination for medication abortion as a standard prescription without restrictions. Previous research has demonstrated that Canada’s approach to medication abortion, which was globally unique at the time, has been safe, has not substantially increased abortion rates, and has shifted more than half of abortions from procedural to medication. In Ontario, the number of practitioners who provide abortion care has increased, although access issues remain in Alberta, with few pharmacies stocking the abortion pill. Access to mifepristone-misoprostol in BC has not yet been reported.

Dr Dunne: Describe the mystery caller survey you used for your study.

Dr Schummers: To understand abortion pill access in BC, our team conducted a province-wide mystery caller survey, for which we contacted all BC pharmacies listed on the College of Pharmacists of British Columbia’s website between July and August 2024. Callers posed as patients with a prescription for mifepristone and asked if they could pick up the medication within 3 days. We successfully contacted 98.5% of pharmacies listed (n = 1460). Using publicly available information, we mapped pharmacy locations against locations where females 15–49 years of age live.

Dr Nethery is a postdoctoral research fellow in the Collaboration for Outcomes Research and Evaluation, Faculty of Pharmaceutical Sciences, University of British Columbia, and the lead author of the study. Dr Norman is a professor in the Department of Family Practice, Faculty of Medicine, UBC. Dr Schummers is an assistant professor in the Collaboration for Outcomes Research and Evaluation, Faculty of Pharmaceutical Sciences, UBC.

Dr Dunne: What were your findings about the availability of the abortion pill?

Dr Nethery: In BC, 66% (*n* = 962) of pharmacies said they could provide the abortion pill within 3 days; of those that could not, 12% (*n* = 169) provided a valid referral. This left more than one in five pharmacies (23%, *n* = 329) that were unable to provide the abortion pill in a timely way and gave a poor or inadequate referral.

While most (99%) reproductive-age females in BC lived within a reasonable travel time of at least one pharmacy that would provide the abortion pill, this was not universal. In some areas—especially Vancouver and Victoria—less than half of local pharmacies reported that they could provide the abortion pill within 3 days. We also found that when pharmacies could not provide the abortion pill, most (66%) gave inaccurate or poor information about where to go next.

This confirms what patients have reported—access is not always good or easy. In many cases, patients might first approach nondispensing pharmacies and, thus, bear the burden of calling around—potentially adding stress, worsening inequities, and delaying access to care.

Dr Dunne: What advice do you have for physicians or others who prescribe mifepristone-misoprostol?

Dr Schummers: There are several things prescribers should consider incorporating into their practice:

- Identify local pharmacies that regularly have the mifepristone-misoprostol abortion pill regimen and communicate with patients about where to best access this medication in their community.
- When unsure of local pharmacy access (e.g., if prescribing by telehealth), advise patients to call first to make sure the pharmacy they contact can dispense the medication.
- Counsel patients that this medication is fully covered through PharmaCare Plan Z with a BC Personal Health Number or under Exceptional Plan Z during the Medical Services Plan enrolment waiting period.
- Advise patients that they may confirm with the pharmacist that no private insurance will be billed, particularly if they have confidentiality concerns related to a shared private drug plan.
- Let patients know they should expect respectful care from pharmacies for abortion pill dispensation. Any patient who experiences negative interactions at a pharmacy (which has been described in other regions in Canada) can report this to the College of Pharmacists of British Columbia.

Canada's approach to medication abortion . . . has been safe, has not substantially increased abortion rates, and has shifted more than half of abortions from procedural to medication.

Dr Dunne: Are there any clinical updates that physicians should be aware of?

Dr Norman: Medication abortion is indicated by Health Canada up to 63 days from the last menstrual period but is safe to use up to 70 days after the last menstrual period. Ultrasound before medication abortion is no longer mandatory. Gestational age can be estimated from last menstrual period and clinical history or with physical examination; ultrasound is recommended when uncertainty exists. Evidence also supports mifepristone-misoprostol for medical management of first-trimester miscarriage, so these practice considerations are important for both miscarriage management and medication abortion. Up-to-date information on medication abortion can be found at https://caps.sogc.org. ■

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Burnout isn't personal—It's structural

Change comes from eliminating inefficient work systems and introducing tools to better manage those systems.

Sarah Baldwin, MD, CCFP

All through medical school, we were warned about burnout. There were lectures on resilience; mindfulness workshops; and the occasional wellness session reminding us to take breaks, breathe deeply, and remember our purpose.

During residency, those messages felt oddly detached from reality. On long call shifts, my colleagues and I survived on caffeine and whatever snacks we could fit into our pockets. We were told to take better care of ourselves, to be more mindful, to breathe through it. But something felt off. We were being given tools to manage ourselves, not the work.

I promised myself that things would be different once I was in independent practice. They weren't.

When I finished training, I assumed that overseeing my own practice would make things easier. I thought autonomy would translate into fewer headaches. Instead, I found myself just as tired, if not more so. Not from clinical work, but from a steady drip of small administrative tasks that filled every gap in every day.

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As physicians, endurance is built into us. It is how we get into medical school. It is how we survive long days and nights, physical discomfort, and the emotional weight of caring for other people. We learn early how to push through exhaustion and keep going. That ability serves us well in many parts of medicine.

But once I was in practice, I realized I was using that same endurance to tolerate something else entirely. Instead of questioning why the work felt so heavy, I pushed through. I told myself this was just the cost of the job. That this was what I had signed up for. The low-grade fatigue from scheduling problems, missing forms, repeated phone calls, and fragmented workflows became background noise. It felt normal. It felt inevitable.

That assumption is powerful. It allows poorly designed systems to persist without being questioned. We compensate. We adapt. We keep going. In the process, we absorb inefficiencies that do not need to exist.

Measuring the invisible workload

A few years into practice, I noticed how much administrative work had crept into my clinical time. Charting, scheduling, and follow-up coordination routinely spilled into evenings and weekends. Even on days when clinic ran smoothly, I felt behind. My MOA was equally stretched, juggling phones, documents, and interruptions that never quite stopped.

This did not feel like a personal failing. It felt like something was wrong with how the work was set up.

What made it harder to name was how invisible the problem was. The schedule could run on time. Patients could be seen. And still, the day would end in exhaustion. It was not one big thing. It was the accumulation of many small, preventable frictions that had quietly become part of the job.

I began paying attention to a very specific signal. Whenever I felt a particular kind of irritation, the buzzing frustration that comes from redundancy rather than complexity, I wrote down what I had just been doing. It was not the irritation of a complex diagnosis or a difficult conversation. It was a physical feeling that built up quietly over the day, and if it went on long enough, it would tip into a dry cough. My staff eventually started calling it my "paperwork allergy" cough.

That buzzing feeling showed up in the same situations again and again. Re-entering information that already existed. Manually creating files for referrals that had already arrived. Discovering eligibility issues only after a visit had happened. Over time, the pattern became obvious. This was not the irritation of medicine being hard. It was the irritation of work that did not need to exist.

Once I started writing these moments down, I could not unsee them.

Rather than treating these frustrations as personal weaknesses, I approached the clinic deliberately as a quality improvement exercise, loosely following a plan–do–study–act approach. Over several weeks, my MOA and I tracked how administrative time was spent during the clinic day. We recorded how long common tasks took, noted when work was interrupted or repeated, and logged follow-up tasks that arose because information was missing or incomplete. In parallel, I kept a simple running list of moments that triggered that "paperwork allergy," treating it as a signal of redundancy or unnecessary effort. Working together, this gave us a practical map of where administrative time accumulated and which steps generated the most rework.

Redesigning instead of coping

We did not set out to overhaul the clinic. The goal was simply to stop carrying work that did not need to be carried.

Wherever possible, we stopped manually overseeing tasks that could happen reliably without us. Information was entered once instead of being gathered and re-entered. Appointments were booked and confirmed without phone calls. Eligibility was checked automatically instead of being discovered late. Referrals and faxes triggered patient files in the background instead of sitting in an inbox waiting for someone to download, name, and upload each document by hand.

None of this changed the clinical work. It changed how much clerical supervision the day required.

Visits no longer began with a scramble for missing information. The day was interrupted less often by problems that could have been prevented. Each change was small. Together, they made the work feel different.

What changed was not just a handful of tasks. It was the constant background work of searching, reminding, resending, and compensating. The quiet mental effort of remembering what was missing, who needed what, and which loose ends were still floating around. The small acts of administrative heroism that made the day run but left no trace once they were done. When those things disappeared, the work felt lighter in a way that was hard to measure but impossible to miss.

Not all of this work needs to be done by clinicians or their staff. Some of it is simply work that should not be manual in the first place. There are systems designed to handle scheduling, intake, documentation, and verification more reliably than humans can, especially at scale. Using them thoughtfully does not replace clinical judgment. It removes the need for constant supervision of clerical steps that add no clinical value.

Within weeks, clinic days stopped bleeding into evenings. Interruptions dropped. The work felt more contained. For the first time in years, I could close my laptop at the end of the day and actually feel done.

What this changed

The exhaustion I had been calling burnout felt different once the background noise quieted. It was not that medicine had become easy. It was that it no longer felt unnecessarily hard.

I do not think this is about resilience. Physicians already have plenty of that. I think it is about design.

In health care, it has become normal for a substantial portion of physicians' working time, often estimated at about one-third, to be consumed by clerical and administrative work rather than patient care.[1] Much of that work exists to compensate for fragmented systems, not to deliver medicine.

In most fields, a system that routinely consumed this much professional time through duplication and rework would be questioned. In health care, it often is not.

Reclaiming that time is not just about physician well-being. It is about patient access. Every hour spent clicking boxes or chasing missing information is an hour that is not spent seeing patients.

How this can be replicated

This approach does not require specialized tools. It can begin with a defined observation period of 1 to 2 weeks, during which the goal is not to fix anything but simply to notice it. During that time, track how administrative work enters the day. Write down each recurring task, how often it appears, and whether it interrupts clinical work or generates follow-up.

Next, group these tasks into broad categories such as scheduling, intake, document handling, eligibility issues, and postvisit follow-up. Pay particular attention to tasks that involve duplication, re-entry of information, or repeated back-and-forth, as these are often the highest-yield targets.

From there, choose one or two processes to redesign. Make small changes rather than sweeping ones. Test them, observe what improves or breaks, and adjust. The goal is not to eliminate work but to reduce rework, interruptions, and unnecessary supervision. Revisit the system regularly, as workflows tend to drift back toward complexity over time.

A shift in perspective

I did not set out to optimize workflows. I set out to survive. What started as self-defence became a different way of looking at my work.

Making the system quieter changed how I showed up. I listened better. I felt less rushed. My patients noticed.

The work did not become meaningful because it was more efficient. It became sustainable enough to keep doing.

I am not advocating for a single solution. Every clinic's reality is different. But the mindset is transferable. Notice what creates that buzzing sense of pointless effort. Write it down. Look for patterns. Ask whether the work is necessary, or whether it is compensating for something that could be redesigned.

We cannot meditate our way out of structural problems. If we want healthier clinicians and better access for patients, we need systems that work with us, not ones that rely on our endurance to hold them together. ■

Competing interests

Dr Baldwin is a physician advisor for Cortico Health Technologies. The views expressed in this article are her own.

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Concussion and sleep in adolescents

Identifying and appropriately managing sleep disturbances is a critical aspect of care for adolescents suffering from persisting postconcussion symptoms.

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ABSTRACT

Background: Concussions are common among adolescents, and disordered sleep may influence symptom severity and recovery. We explored how sleep–wake symptoms present in adolescents with persisting postconcussion symptoms and how sleep disturbances affect their recovery.

Methods: We conducted an exploratory study at the Adolescent Complex Concussion Clinic (G.F. Strong Rehabilitation Centre) to examine sleep-related issues in adolescents aged 12 to 18 years who had been treated at the clinic for persisting postconcussion symptoms. We reviewed the charts of 49 adolescent patients and conducted semi-structured interviews with 12 patients. The patients who were interviewed were from the same clinic but not specifically from the 49 chart-review patients.

Results: Seventy-one percent of patients reported moderate to severe tiredness/fatigue at intake. Sleep disturbances on the Rivermead Post Concussion Symptoms Questionnaire were positively correlated with restlessness, fatigue, and bedtime worrying. Three key themes were identified from the semi-structured interviews: persistent sleep disturbances, challenges related to restricted daily activities, and a desire for clearer explanations of care plans. In both the chart review and the interviews, difficulty initiating sleep, restlessness, and daytime impairment were prominent.

Conclusions: Our findings highlight the need for targeted assessment and management of sleep disturbances as an essential component of care for adolescents experiencing prolonged postconcussion symptoms.

Background

In Canada, pediatric mild traumatic brain injuries, commonly referred to as concussions, are highly prevalent—an estimated 35 000 children and adolescents aged 5 to 19 years sustained a concussion in 2022, and emergency department visits for these injuries have doubled in recent decades.[1,2] These numbers likely do not fully represent the true incidence, because many concussions are not reported. While most adolescents make a full recovery by 1 month, symptoms that persist beyond 28 days are referred to as persisting postconcussion symptoms. They affect 33% of pediatric patients at 1 month and approximately 15% to 20% at 3 months.[3] The high prevalence of persisting postconcussion symptoms among adolescents highlights the need for standardized protocols in concussion

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care[4] and a harmonized multidisciplinary approach. Adolescents and children respond differently to concussion than adults do, and they often have prolonged recoveries. Well-recognized risk factors for the development of persisting postconcussion symptoms include adolescence, female sex, anxiety or depression, history of migraines, headache as an initial symptom, fatigue, sensitivity to noise, and previous concussion with symptoms lasting longer than 1 week.[3,5] More recently, pre-existing sleep disorders have also been recognized as an independent predictor of persisting symptoms following concussion.[6]

Emerging research has identified sleep as a factor that influences symptom severity and the trajectory of concussion recovery; adolescents who suffer from sleep disturbances are more likely to have reduced quality of life, exacerbated symptoms, and prolonged recovery times.[7-10] Therefore, identifying and appropriately managing sleep disturbances is a critical aspect of care for adolescents with persisting postconcussion symptoms. However, in the community setting, sleep disturbances are often overlooked or not systematically evaluated due to limited access to sleep specialists and sleep testing; thus, they become a cause of systemic bias in clinical practice.[11] Despite many years of clinical reporting, it remains unclear whether postconcussion sleep disturbances are due to an underlying sleep disorder, poor sleep health (e.g., reduced duration of sleep, nonrestorative sleep) secondary to abrupt lifestyle changes after concussion,[12] or direct disruption of neural networks.

Our primary objective in this study was to explore the presentation and personal experiences of adolescents with persisting postconcussion symptoms who were referred to a quaternary-level interdisciplinary provincial concussion clinic based on a sleep–wake behaviors perspective. Our goals were (1) to explore how sleep–wake symptoms in adolescents with persisting postconcussion symptoms present in clinical practice and (2) to recognize the negative impact of sleep disturbances on postconcussion symptoms and patient perceptions of recovery. Although empiric evidence for the management of persisting postconcussion symptoms in adolescents remains limited, our qualitative exploratory study may provide information about the type of sleep challenges pediatric patients face after a concussion and thus reinforce the need for tailored management of sleep symptoms.

Sleep dysfunction is both a symptom of concussion and a risk factor for persisting postconcussion symptoms in adolescents.

Methods

We conducted our study at the Adolescent Complex Concussion Clinic (AC3) at the G.F. Strong Rehabilitation Centre, the only interdisciplinary provincial pediatric program that targets adolescents between the ages of 12 and 18 years who suffer from prolonged concussion symptoms and live in British Columbia, a province with approximately 1 million children and adolescents **[Box 1]**. We reviewed the charts of adolescent patients who had been treated at the AC3 for persisting postconcussion symptoms (University of British Columbia Behavioural Research Ethics Board ID H19-01186). We then conducted semi-structured interviews with AC3 patients to capture their lived experience with persisting postconcussion symptoms (University of British Columbia Behavioural Research Ethics Board ID H21-02911). The patients who were interviewed were from the AC3 clinic but not specifically from the chart-review patients.

BOX 1. **Adolescent Complex Concussion Clinic (AC3), G.F. Strong Rehabilitation Centre.**

The AC3 at the G.F. Strong Rehabilitation Centre was created in 2012 to provide provincewide interdisciplinary outpatient concussion treatment for youth 12 to 18 years of age with persisting postconcussion symptoms, coexisting risk factors or conditions, and complex presentations, which often prolong and complicate recovery.

Follow-up is provided for return to learning, sports, and social activities.

The AC3 team consists of occupational therapists, G.F. Strong School Program teachers, a pediatric and adolescent physical medicine and rehabilitation specialist, a physiotherapist, a neuropsychologist, and a social worker.

Clinical presentations

Patient data collected prospectively included demographics (e.g., age, sex); concussion history (e.g., total number of concussions, date of most recent injury, most recent mechanism of injury); and sleep-related items from three standardized questionnaires completed at first presentation to the clinic: the Rivermead Post Concussion Symptoms Questionnaire (RPQ),[13] the Kutcher Adolescent Depression Scale (KADS),[14] and the Patient-Reported Outcomes Measurement Information System (PROMIS) anxiety scale.[15] We also analyzed patients' clinical reports to find indicators of the five domains of the explorative BEARS mnemonic: *B* stands for *bedtime* (exploring situations associated with disorders of initiating sleep), *E* stands for *excessive daytime sleepiness* (affected daytime functioning due to potential sleep disorders), *A* stands for *awakenings* (challenges with sleep maintenance), *R* stands for *routines/regularity*, and *S* stands for *snoring* (as the core symptom of sleep-disordered breathing).[16]

We used IBM SPSS Statistics to conduct our statistical analysis. Spearman's correlations were calculated to determine the relationship between "sleep disturbance" reported in the RPQ and other sleep–wake symptoms reported in the RPQ (e.g., "fatigue, tiring more easily"; "restlessness"), the KADS (e.g., "feeling tired, feeling fatigued, low in energy, hard to get motivated, have to push to get things done, want to rest or lie down a lot"), and the PROMIS anxiety scale (e.g., "I worry when I go to bed at night").

Semi-structured interviews

The results of the chart review guided the questions for the semi-structured interviews. Four categories of interest were identified: (1) concussion experiences and symptoms directly following the most recent concussion; (2) persistent symptoms, including sleep difficulties in follow-up; (3) treatment-related patient perspectives, with a focus on the patient's involvement in decision making; and (4) willingness of the patient to participate in future research, given their individual experiences.

Inclusion criteria required participants to be former AC3 patients who had been treated between the ages of 12 and 18 years, were between 13 and 30 years at the time of the interview, and were fluent English speakers. Participants were recruited via email invitation. Once a potential participant expressed interest, research assistants scheduled a phone conversation to review the consent/assent forms and ensure their comprehension. Assent was obtained from participants aged 13 to 18, in conjunction with parental consent. Consent was obtained only from participants aged 19 or older. Participants received $25 in compensation. Two research assistants conducted the interviews using the university-licensed version of Zoom. Both video and audio were recorded for transcription and stored via Zoom cloud recordings. Transcripts were anonymized, and three research assistants analyzed the data using descriptive statistics for each domain (demographics, symptoms, sleep disturbances, perception of treatment, future research) and category/question (e.g., keywords used repeatedly).

TABLE. Characteristics of study participants treated at the Adolescent Complex Concussion Clinic.

Characteristic	*n* (%)
Age	Mean: 15 ± 1.7 years
Male/female	25 (51)/24 (49)
Time from last concussion to intake	Mean: 3.4 ± 3.7 months
Cause of concussion	
Sport/recreation (e.g., "hit head on ice while playing hockey," "thrown from a horse")	38 (78)
Transport (e.g., "collided with a car while bicycling")	6 (12)
Head struck object (e.g., "hit head on metal door," "hit head against iron ladder")	5 (10)
Number of concussions	Mean: 2.7 ± 1.5
1	12 (25)
2–5	34 (69)
≥ 6	3 (6)
Additional sleep items (BEARS)	
Bedtime	19 (39)
Excessive daytime sleepiness	33 (67)
Awakenings	8 (16)
Routines/regularity	26 (53)
Snoring	1 (2)

Results

Clinical presentations

In total, 50 patient charts were reviewed. One patient was excluded due to missing chart information; therefore, 49 patients (aged 12 to 18 years at the time of treatment) were included in the study. Using the BEARS screening concept, 43/49 (88%) patient charts reported altered sleep–wake behaviors **[Table]**.

The most prevalent sleep–wake issues identified by the sleep-related items on the questionnaires were "fatigue, tiring more easily" on the RPQ—reported as moderate or severe (on a scale of not experienced, mild, moderate, or severe) by 71% of patients—and "feeling tired, feeling fatigued, low in energy, hard to get motivated, have to push to get things done, want to rest or lie down a lot" on the KADS questionnaire, which affected 70% of patients most or all of the time (on a scale of some, much, most, or all of the time). Thirty-three percent of patients rated "restlessness" as moderate or severe on the RPQ.

"Sleep disturbance" was positively correlated with "restlessness" on the RPQ (Spearman's $r = 0.554$, $P < .01$); with "feeling tired, feeling fatigued, low in energy, hard to get motivated, have to push to get things done, want to rest or lie down a lot" on the KADS questionnaire (Spearman's $r = 0.566$, $P < .01$); and with "I worry when I go to bed at night" on the PROMIS anxiety scale (Spearman's $r = 0.360$, $P < .05$).

Semi-structured interviews

We conducted interviews with 12 patients (mean age = 18.67 years; eight males and four females) **[Figure 1]**. All of them led active lifestyles: five participants played contact sports, and the others participated in noncontact sports. All but two participants had experienced a sport-related concussion. On average, 12% of the interview time was spent discussing sleep (range = 6% to 23%).

Nighttime experiences: When asked about their sleep prior to their concussions, only two participants reported having difficulty sleeping. Following their concussions, all

12 participants reported at least two nighttime symptoms that affected their sleep **[Figure 1]**. One participant mentioned their sleep experiences only once, but when asked about their nighttime symptoms, they reported difficulty falling asleep (up to 1 hour), nighttime restlessness in their lower limbs, and nightly awakenings.

Participant statements were selected based on their clarity and relevance. One participant, who suffered two concussions from playing lacrosse, elaborated on their insomnia experiences when asked about sleep changes prior to and following their concussion and identified their main difficulties: "I could sleep pretty well before; it would take me like 15 minutes to fall asleep, which was like pretty good, but after my concussions, and still kind of now, it takes me about an hour to fall asleep, or like half an hour if I'm like really tired, but I can never fall asleep right away. I'm always moving my legs. I don't know what I'm doing . . . just when I'm sleeping, my legs are just always moving for a while. I don't know why."

Daytime experiences: Irritability was the most common daytime symptom, followed by headaches, sensitivity to light and noise, memory disturbances, fatigue, fidgeting/restlessness, dizziness, and posttraumatic stress symptoms **[Figure 1]**. One participant described daytime and nighttime irritability and restlessness as a continuum: "I needed a lot—a lot—of sleep. But I wouldn't be able to sleep, like I wouldn't be able to, you know, be able to fall asleep. I would be a little restless, and I was very irritable. That's another symptom. So I was always hyperactive and agitated in my head. Never very calm."

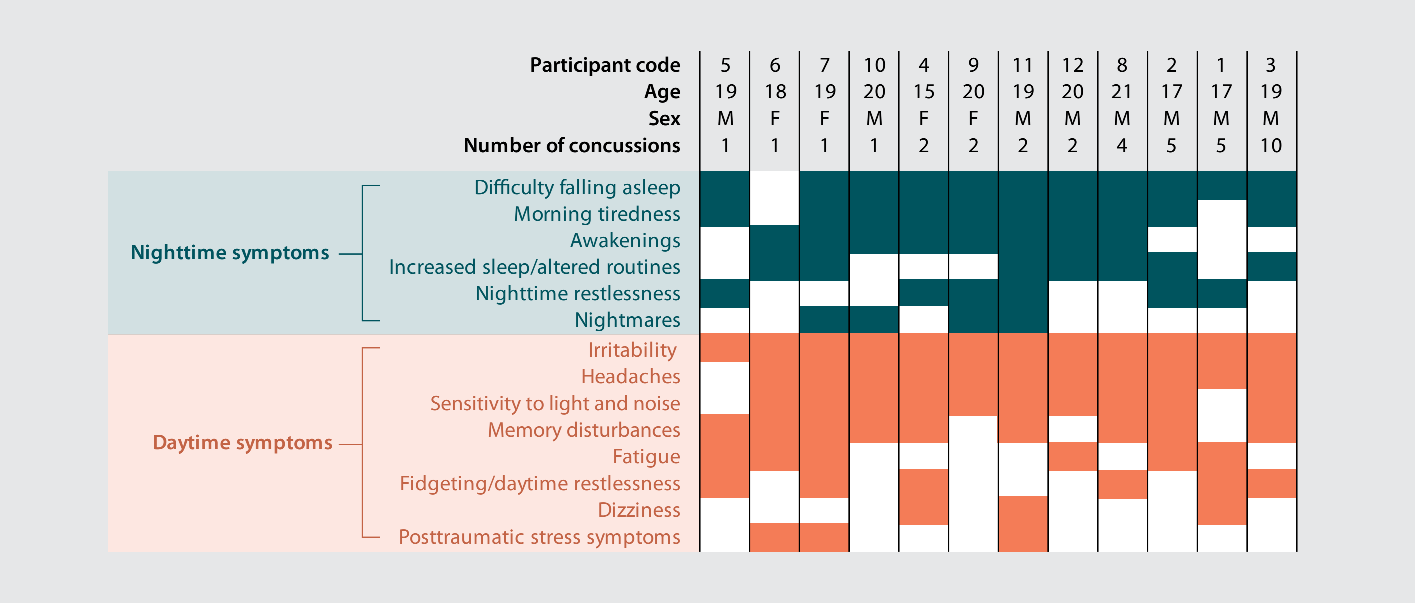
Lifestyle experiences: All participants described how their lives were affected by limitations. Seven participants experienced challenges returning to school following their concussions, with three of them mentioning that the school setting increased the severity of their symptoms. One participant expressed the emotions associated with their new limitations: "More of kind of like anxiety, in a sense. . . . I wasn't as outgoing, type of thing. I kind of more kept to myself. . . . When I got [the concussion], it kind of like took me out from playing sports and everything; it kind of just like built up even more."

Experiences with treatment: Nine of the 12 participants felt adequately involved in decisions about their treatment. The other three either did not feel involved, felt they were not involved because of their age, or were not asked during their interview.

Discussion

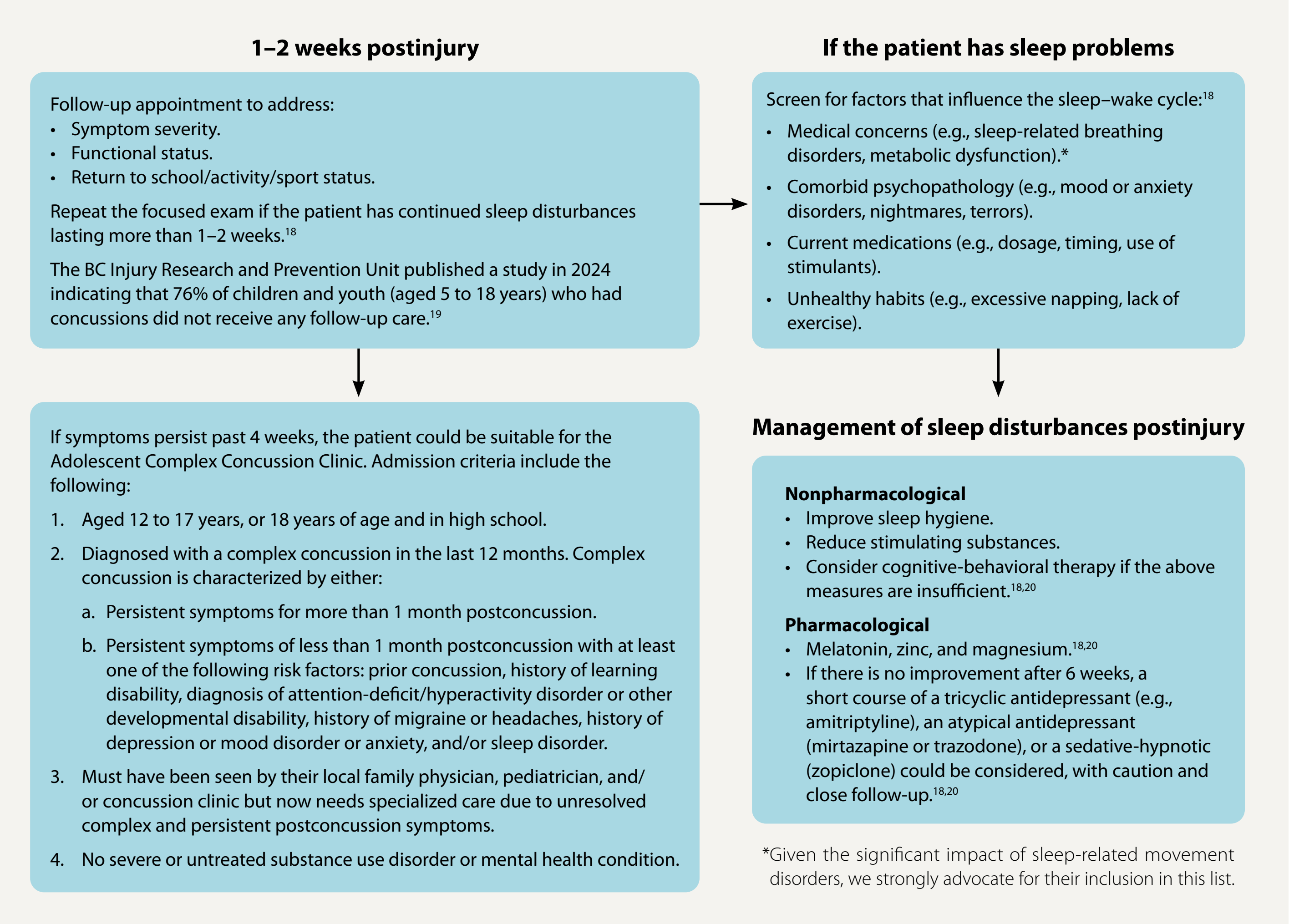
Given the high prevalence of adolescent concussions in Canada[1] and the association between concussions and sleep disturbances,[17] we explored how sleep–wake symptoms present in adolescents with persisting postconcussion symptoms and how sleep disturbances affect their recovery. To our knowledge, this is the first report of semi-structured qualitative interviews conducted with adolescents who suffer from persisting postconcussion symptoms. A review of national and provincial concussion guidelines that include the pediatric population **[Figure 2]** identified sleep as a main consideration in the management of concussions.[18-20]

Our data showed that daytime impairments, which were captured by questions about tiredness, fatigue, and the need to rest or lay down, were the most significant sleep–wake symptoms reported on two separate questionnaires at the time of initial consultation, with 71% of the chart review patients rating these symptoms as moderate or severe and 70% stating they occurred most or all of the time. Additionally, 88%



	Participant code	5	6	7	10	4	9	11	12	8	2	1	3
	Age	19	18	19	20	15	20	19	20	21	17	17	19
	Sex	M	F	F	M	F	F	M	M	M	M	M	M
	Number of concussions	1	1	1	1	2	2	2	2	4	5	5	10
Nighttime symptoms	Difficulty falling asleep	■		■	■	■	■	■	■	■	■	■	■
	Morning tiredness	■		■	■	■	■	■	■	■	■		■
	Awakenings		■	■	■	■	■	■	■	■			
	Increased sleep/altered routines		■	■				■	■	■	■		■
	Nighttime restlessness	■				■	■	■			■	■	
	Nightmares			■	■		■	■					
Daytime symptoms	Irritability	■	■	■	■	■	■	■	■	■	■	■	■
	Headaches		■	■	■	■	■	■	■	■	■	■	■
	Sensitivity to light and noise		■	■	■	■	■	■	■	■	■		■
	Memory disturbances	■	■	■	■	■		■		■	■		■
	Fatigue	■	■	■					■		■	■	
	Fidgeting/daytime restlessness	■		■		■				■		■	■
	Dizziness					■		■				■	
	Posttraumatic stress symptoms		■	■				■					

FIGURE 1. Postinjury symptoms reported by interview participants.



1–2 weeks postinjury

Follow-up appointment to address:
- Symptom severity.
- Functional status.
- Return to school/activity/sport status.

Repeat the focused exam if the patient has continued sleep disturbances lasting more than 1–2 weeks.[18]

The BC Injury Research and Prevention Unit published a study in 2024 indicating that 76% of children and youth (aged 5 to 18 years) who had concussions did not receive any follow-up care.[19]

If symptoms persist past 4 weeks, the patient could be suitable for the Adolescent Complex Concussion Clinic. Admission criteria include the following:

1. Aged 12 to 17 years, or 18 years of age and in high school.
2. Diagnosed with a complex concussion in the last 12 months. Complex concussion is characterized by either:
    a. Persistent symptoms for more than 1 month postconcussion.
    b. Persistent symptoms of less than 1 month postconcussion with at least one of the following risk factors: prior concussion, history of learning disability, diagnosis of attention-deficit/hyperactivity disorder or other developmental disability, history of migraine or headaches, history of depression or mood disorder or anxiety, and/or sleep disorder.
3. Must have been seen by their local family physician, pediatrician, and/or concussion clinic but now needs specialized care due to unresolved complex and persistent postconcussion symptoms.
4. No severe or untreated substance use disorder or mental health condition.

If the patient has sleep problems

Screen for factors that influence the sleep–wake cycle:[18]
- Medical concerns (e.g., sleep-related breathing disorders, metabolic dysfunction).*
- Comorbid psychopathology (e.g., mood or anxiety disorders, nightmares, terrors).
- Current medications (e.g., dosage, timing, use of stimulants).
- Unhealthy habits (e.g., excessive napping, lack of exercise).

Management of sleep disturbances postinjury

Nonpharmacological
- Improve sleep hygiene.
- Reduce stimulating substances.
- Consider cognitive-behavioral therapy if the above measures are insufficient.[18,20]

Pharmacological
- Melatonin, zinc, and magnesium.[18,20]
- If there is no improvement after 6 weeks, a short course of a tricyclic antidepressant (e.g., amitriptyline), an atypical antidepressant (mirtazapine or trazodone), or a sedative-hypnotic (zopiclone) could be considered, with caution and close follow-up.[18,20]

*Given the significant impact of sleep-related movement disorders, we strongly advocate for their inclusion in this list.

FIGURE 2. Summary of national and provincial concussion guidelines that include pediatric populations.

of the chart review patients had at least one altered sleep–wake behavior based on the explorative BEARS screening concept. Evidence has shown that sleep dysfunction is both a symptom of concussion and a risk factor for persisting postconcussion symptoms in adolescents.[6,21] Notably, Milewski and colleagues found that middle school and high school athletes who slept less than 8 hours per night were 1.7 times more likely to sustain a sport injury, including a concussion.[22] This raised the question about whether screening athletes for sleep disturbances and providing sleep health counseling would reduce the incidence of concussion in this population **[Box 2]**, particularly considering the increased attention on concussion education and awareness among interested parties.[23]

Persisting postconcussion symptoms can significantly affect school, leisure, and socialization. This often leads to frustration, anxiety, and/or depression,[24] which were common themes identified in our interviews. Moreover, anxiety and depression have been shown to be positively associated with reduced sleep quality following concussion.[25] Another major theme we identified based on the interviews was persistent sleep disturbances following concussion. When we investigated adolescents' perspectives on the effects of concussion and/or persisting postconcussion symptoms on their lived experiences, each participant reported at least two sleep-related symptoms postconcussion. Difficulty falling asleep and morning tiredness were the most common complaints. Seventy-five percent of interview participants reported experiencing either daytime or nighttime restlessness, which was strongly correlated with sleep disturbance. Restlessness has several differential diagnoses. During the daytime, it may be associated with attention-deficit/hyperactivity disorder, whereas during periods of rest or during transitions from wakefulness to sleep, it may be due to sleep-related movement disorders, such as restless legs syndrome or periodic limb movements in sleep. Walker and colleagues reported an increased prevalence of restless legs syndrome in adults following concussion compared with a control group (32.0% vs 2.7%).[26] To our knowledge, no study has investigated restless legs syndrome in the pediatric population, either as a pre-existing but unrecognized condition or as one that is unmasked after concussion. The impact of restless legs syndrome on daytime functioning is substantial. It has been shown to have a negative influence on children and adolescents' mood and irritability, and it has been linked to higher rates of suicide and self-harm in adults.[27,28]

The relationship between sleep and concussion is likely bidirectional and is not easily diagnosed at a primary care level. The lack of readily available and accessible overnight sleep testing to objectively measure sleep architecture, sleep phase disturbances, arousability, and breathing makes diagnosis and management challenging, even at a specialty clinic level.

The final theme we identified from the interviews was that adolescents yearned for explanations, despite generally feeling adequately involved. Prioritizing the patient rather than the injury in collaborative assessments of persisting postconcussion symptoms promotes meaningful interactions with pediatric patients, their parents, and interdisciplinary professionals.[29] This also highlights the need for shared language and support for our youth as they navigate health care, as demonstrated by the use of the PROMIS anxiety scale at the AC3 to capture individualized patient-reported outcomes.

Study limitations

We reviewed concussions in the adolescent population from both sleep and rehabilitation medicine perspectives. Both perspectives identified significant functional burden during school and daytime activities due to daytime impairment and sleep dysfunctions.

The AC3 did not use a sleep-specific questionnaire, and the sleep-related questionnaire items used are not semantically specific enough. The questionnaires assess restlessness, impaired daytime functioning, and difficulty falling asleep, but they leave other important areas of sleep medicine to be covered by a single question on the RPQ about "sleep disturbances." Data from only one clinic were reviewed. In both our chart reviews and interviews, the number of patients was limited. Despite collecting information according to a prospective protocol, the available clinical data were collected retrospectively, and some charts were incomplete. The time between the most recent injury and assessment at the clinic was not standardized, despite all patients being assessed months after their last concussion. Further, comprehensive follow-up data are missing, which makes it difficult to review many symptoms of interest (e.g., sensory discomfort, pain, balance). We can expect that sleep disturbances would be even more common in this collective, given that formal sleep assessments were not conducted and a validated sleep questionnaire was not used.

BOX 2. Recommendations for systematic sleep health screening.

Current guidelines recognize pre-existing sleep disorders as predictors of persistent postconcussive symptoms and frame sleep as a therapeutic target following concussion. However, they do not provide proactive recommendations for systematic sleep health screening prior to injury.

In routine practice, sport stakeholders receive educational materials that describe concussion definitions and mechanisms; symptom recognition; prevention strategies; and recommended management pathways, including return-to-school, return-to-sport, and medical clearance requirements.[23] From both knowledge dissemination and injury prevention perspectives, we propose a stepped-care approach that begins with brief screening for impaired daytime functioning related to pre-existing sleep disturbances or sleep disorders prior to participation in organized sports or physical activities. This recommendation aligns with the sleep–wake framework of the World Health Organization's *International Classification of Diseases*, 11th revision (ICD-11), which conceptualizes sleep and wakefulness as integrated and interdependent processes. As an initial step, sport stakeholders could ask the following screening questions:

- Are your physical performance and/or daytime functioning affected by your sleep?
- How do you feel upon awakening? Do you feel refreshed after sleep?
- How would you describe your sleep?
- How many hours of sleep do you get per night, on average?

Any identified red flags should prompt presentation to a primary care provider for a structured sleep history. This assessment should include familial sleep history, early childhood sleep patterns, and systematic screening across the six major sleep–wake disorder categories defined in the ICD-11:

1. Insomnia disorders.
2. Hypersomnolence disorders.
3. Sleep-related breathing disorders.
4. Circadian rhythm sleep–wake disorders.
5. Sleep-related movement disorders.
6. Parasomnia disorders.

Such a proactive strategy may strengthen both primary and secondary prevention in sport-related concussion management by establishing baseline sleep health, reducing vulnerability to sport-related injury, and potentially lowering the risk of prolonged recovery.

Conclusions

Functional impairment during the daytime, difficulty falling asleep, and restlessness were strikingly common themes across both patient chart reviews and interviews in our exploratory study. Identification and appropriate management of sleep disturbances is a critical aspect of care for adolescents who suffer from postconcussion symptoms. The first step toward harmonizing concussion care is ongoing evaluation of clinical practices. ■

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Competing interests

None declared.

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Conversations in a changing climate: Embedding environmental history taking into routine care

As climate-related exposures increasingly shape health, routine environmental history taking can help clinicians deliver more precise, preventive, and responsive care.

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Climate change and environmental determinants of health

Climate change and related environmental determinants are increasingly recognized as major drivers of physical and mental health.[1,2] Exposure to extreme weather, wildfire and smoke, flooding, drought, environmental pollution, and biodiversity loss have all been associated with adverse outcomes. In British Columbia, the 2021 heat dome led to 619 heat-related deaths in a single week, underscoring the urgency of incorporating environmental considerations into clinical care.[3] Seasonal wildfires expose people to high levels of fine particulate matter and other pollutants, worsening respiratory and cardiovascular disease[4] and contributing to increased mortality,[5] such that recurrent wildfire smoke exposure has been associated with an average loss of about 6 weeks of life expectancy in BC.[6] Beyond direct exposures, climate-related events can also harm health through evacuation and displacement, landslides and service disruptions, and shifting infectious disease patterns, with impacts felt inequitably across communities depending on geography, income, baseline health, gender, and other factors.[7,8]

Certain populations are particularly susceptible to environmental exposures, including infants, children, pregnant people, older adults, those with chronic physical and mental health conditions, and those living in poverty.[9] For example, wildfire smoke exposure during pregnancy has been

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associated with lower birth weight,[10] and extreme heat increases the risk of preterm birth.[11] Children have higher air pollution exposure than adults on a per mass basis due to higher ventilation rates and more time spent outdoors.[12] Susceptibility is heightened among children with asthma, the most prevalent chronic childhood disease, increasing their risk of exacerbations during smoky summer months.[13] Older adults, particularly those without access to air conditioning, with limited mobility, and with heat intolerance from medications, are at higher risk of heat-related illness.[14] From a health equity perspective, those living in poverty and those with mental illness were disproportionately affected by the 2021 heat dome, and they are consistently most affected by other environmental exposures.[15,16]

Considering environmental history as part of clinical history

Integrating environmental questions into clinical history can lead to more refined diagnoses, uncovering links between symptoms and environmental exposures. Such refinement may reduce the use of other, more costly diagnostics.[17] Headaches or fatigue could relate to poor indoor environmental quality.[18] Mental health conditions may worsen during climate-related disasters.[19] Chronic kidney disease can progress more rapidly with higher ambient heat exposure.[20] In addition, clinicians sharing their concerns about climate change and its health impacts can strengthen patient relationships and empower preparedness.[21] Physicians play a key role in shaping public perceptions about climate change, often exerting greater influence than other sources.[22]

How to incorporate environmental history

Health care professionals develop deep understandings of the communities they serve. Knowledge of traditional food sources, sacred places, regional industry and employment, and natural features is key to tailoring an informed environmental history and therapeutic plan. Several tools support environmental history taking in clinical practice. The mnemonic CH2OPD2 (community, home, hobbies, occupation, personal habits, diet, and drugs) is a tool to identify a patient's history of exposures to potentially toxic environmental contaminants.[23] Pediatric-specific resources, like the World Health Organization's Paediatric Environmental History tool, help clinicians screen pediatric patients for air quality, heat, and allergens.[24] For disaster-specific readiness, the Climate Resilience for Frontline Clinics Toolkit from the Center for Climate, Health, and the Global Environment at the Harvard T.H. Chan School of Public Health offers heat- and wildfire-focused tools for vulnerable populations.[25] The adaptation presented here synthesizes these approaches into practical, accessible clinical prompts that can be used at the point of care.

Once a patient's presenting problem has been established, clinicians may want to elicit an environmental history of the presenting illness. For example, ask patients if there are any pollution sources near them, such as factories, highways, or other industrial activities; whether their symptoms are affected by the weather, air quality, or wildfire smoke; and about their occupations and job tasks. Answers to these questions can uncover associations between exposures and illness.

The **Table** provides several adaptable approaches for incorporating an environmental context into clinical history taking.[23,25-27] Clinicians may use a brief targeted environmental review of systems when time is limited or apply life-stage, seasonal, and community-context lenses to guide more anticipatory or equity-oriented screening.

The clinical impression should include items from the history that are pertinent to the illness(es) being treated. Environmental considerations should be integrated into the treatment plan if relevant, addressing factors such as exposure to pollutants, heating and cooling methods, ventilation, and water sources that may impact the patient's health.

Resources for BC clinicians

The BC Centre for Disease Control offers clinical guidance tool kits for extreme heat and wildfire smoke exposure, along with tips for effective communication,[28,29] public resources about wildfire smoke and extreme heat, and a guide to building do-it-yourself air cleaners. The Air Quality Health Index provides hourly updates about current conditions,[30] and the national AQmap (https://aqmap.ca) integrates data from a growing network of low-cost air quality sensors. PreparedBC has multiple resources for disaster preparedness, including for extreme heat events, that can be shared with patients.[31] Additionally, environmental recommendations can be supported through formal prescribing pathways. For instance, air filtration or cooling supports can be prescribed where indicated,[32] and clinicians can use programs such as PaRx to prescribe access passes to public parks in BC, facilitating equitable access to nature-based health benefits.[33]

Conclusions

Environmental history taking is an emerging, resource-conscious approach that may improve diagnostic clarity and preventive care, particularly in the context of extreme environmental exposures and climate-related emergencies. When included with a robust occupational and social history, the clinician can be more targeted in using diagnostic tests and gain insights into disease mechanisms to improve treatment. While more research is needed to quantify their cost-effectiveness, using frameworks like the BC Lifetime Prevention Schedule or time-needed-to-treat models,[34,35] environmental histories offer a structured way to identify potentially modifiable exposure risks without requiring additional tests or equipment. Incorporating these conversations into clinical care can strengthen relationship-based care and empower patients to prepare for and mitigate environmental health risks in the changing climate. ■

Competing interests

None declared.

TABLE. **Suggested approaches for environmental history taking. Components of an environmental history relevant across the lifespan, incorporating life-stage, seasonal, and Indigenous lenses.**

Environmental history approaches	Sample questions
Targeted review of systems	• Have you recently been exposed to extreme heat, wildfire smoke, chemical air pollution, or flooding? • Do you use air filtration at home? • Do you have air conditioning at home? • What protections do you have in place in the event of extreme heat or air pollution? • Do you or your household have an emergency plan at home and/or an evacuation plan? • What types of things are you exposed to at work? Is your personal protective gear tested regularly to ensure it functions properly? • Is your workplace adequately ventilated? Do you find it stuffy at home or at your workplace?
Alternative review of systems (connection to food, water, air, and land)	• Do you get your home drinking water from a community system or private well? • Do you experience seasonal allergies or breathing difficulties? • Do you live near a busy road or industrial site? • Do you have access to a park or other green space? • Are there water restrictions in your community (either seasonal or year-round)?
Home and community environment	• Are you housed? • How old is the building where you live? • What is your primary source of heating? • Do you have a central or portable air conditioner? • Is your cooking appliance gas or electric? • Do you live near a significant source of noise or air pollution?
Life-stage considerations	• Pregnancy: Clean air, cooling, food security, prenatal health care disruptions. • Infants and children: Indoor environmental quality, respiratory symptoms, food security, safe housing. • Adolescents: Eco-anxiety, missed school during disasters, food security. • Adults: Occupational exposures, income, worsening chronic diseases, housing stability. • Older adults: Income, cooling access, social supports, access to food, emergency planning. • All ages: Heat-sensitive medications (e.g., diuretics, beta-blockers, anticholinergics, psychotropics), adequate rescue medication supply.
Seasonal lens	• Winter: Is your home adequately heated? Do you have joint pain or cardiovascular symptoms in the cold? • Spring: Do you have pollen or seasonal allergy symptoms? • Summer: Do you have symptoms during heat waves or on poor air quality days? • Fall: Do your mental health symptoms worsen with the days getting darker?
Indigenous lens	• Have environmental events affected your ability to be on the land or partake in ceremony? • Are traditional food sources or medicines harder to find or less abundant than they once were? • Has habitat loss led to food insecurity?

Adapted from various sources.[23,25-27]

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Building culturally safe care through connection and community

On any given day in British Columbia, a physician may travel for hours by road, air, or water to provide care in an Indigenous community. This work is deeply relational; it is shaped by trust, continuity, and cultural understanding, and it often extends beyond traditional clinical settings. While meaningful, it is also complex and can be isolating, especially when carried out in health care systems that are still evolving to support culturally safe care.

National Indigenous Peoples Day, observed in Canada annually on 21 June, offers an opportunity to reflect on these realities and the ongoing efforts to strengthen health care and address Indigenous-specific racism. The Indigenous Clinical Care Circle (ICCC) is one example demonstrating how connection, shared learning, and reflection can support physicians working in these unique contexts.

FIGURE. A conceptual illustration of an Indigenous Clinical Care Circle gathering, capturing participants in discussion on "Why we do this work."

A relational network

Launched in October 2024, the ICCC is a physician-led network that brings together clinicians from across BC who provide health care to Indigenous patients, many in rural, remote, and northern communities. Rather than a formal program, the ICCC is a relational space grounded in peer support and practical learning.

The ICCC meets regularly throughout the year, with gatherings intentionally structured to reflect Indigenous cultural values. Sessions typically begin with Elder participation, territory acknowledgments, and greetings and gratitude. These elements reinforce the importance of both relationship building in clinical care and professional connection.

Through peer-led discussions, including "day in the life" presentations, participants share how health care is delivered across diverse community contexts. These exchanges bring to the surface practical approaches to integrating Elders, Knowledge Keepers, and traditional medicines into care. By sharing these approaches, physicians learn to create more welcoming environments for patients and their families and adapt standard care models to reflect the local, lived realities of the communities they serve **[Figure]**.

Today, the ICCC includes approximately 35 clinicians, forming a provincial network that reduces professional isolation and strengthens culturally informed practice.

Aligning with system-wide change

The ICCC is supported through the Joint Collaborative Committees (JCCs), a partnership between Doctors of BC and the Ministry of Health. As part of a broader Indigenous-Specific Anti-Racism (ISAR) initiative, the ICCC contributes to the JCCs' mandate to proactively dismantle racism in service delivery and improve the health care experience for Indigenous Peoples.

Insights from the ICCC highlight key areas for ongoing consideration. These include addressing travel-related barriers in remote First Nations communities, strengthening leadership and training opportunities for Indigenous physicians and trainees, and exploring compensation and funding approaches that reflect the costs of providing care in these contexts. Additional areas include supporting the integration of traditional wellness practices into clinical care; enhancing practice supports for Indigenous physicians; and enabling participation in learning, leadership, and peer-networking opportunities.

Created and guided by the JCC ISAR and Cultural Safety Steering Committee, the ICCC ensures these priorities are embedded into health care system planning. By creating a vital feedback loop, the ICCC brings forward frontline clinical experiences that can inform policy and structural change.

This article is the opinion of the Joint Collaborative Committees (JCCs) and has not been peer reviewed by the BCMJ *Editorial Board.*

Understanding the realities of care

Findings from a 2025 ICCC survey of current participants further underscore these dynamics. More than 80% of respondents reported traveling long distances, often more than 4 hours, to deliver care. Many serve predominantly Indigenous patient populations within team-based models of care.

The survey also reflects a strong commitment to culturally informed care. More than half of the respondents reported incorporating Elders, Knowledge Keepers, or traditional wellness providers into their practice. Many also integrated traditional approaches alongside Western medicine, reflecting principles such as Two-Eyed Seeing.

At the same time, physicians identified ongoing challenges, including professional isolation, emotional strain, and systemic barriers. These insights reaffirm the importance of connection and support for those working in complex and underserved settings.

Advancing practice through connection

Within this context, the ICCC provides a trusted space for open dialogue, mentorship, and mutual support among physicians navigating similar complexities. Physicians describe their work as both a privilege and a responsibility, supporting communities that have experienced significant harm within colonial systems while working to improve care experiences within.

At its core, the ICCC is rooted in relationships between clinicians, with communities, and across the health care system. It reflects a simple but critical understanding: supporting those who provide care is essential to advancing culturally safe and antiracist health care systems. ■

To learn more about the ICCC, email isar.edi@doctorsofbc.ca.

—Terri Aldred, MD, CCFP
Family Physician, Co-Lead, Indigenous Clinical Care Circle

—Lester Todd Alec, MD, CCFP
Family Physician, Co-Lead, Indigenous Clinical Care Circle

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Doctors of BC welcomes new chief medical advisors


Kelsey Louie, MD


Joshua Greggain, MD


Chad Kim Sing, MD

Doctors of BC is pleased to welcome three new chief medical advisors: Dr Kelsey Louie for Indigenous care, Dr Joshua Greggain for primary care, and Dr Chad Kim Sing for specialist care. Together, these physician leaders will provide expert guidance and clinical insight and, in collaboration with the Board of Directors, help shape the direction of advocacy, negotiations, and policy work. They will strengthen the connection between Doctors of BC's strategic plan and the lived experiences of physicians across the province, integrating medical leadership into day-to-day operations.

Dr Louie, who previously served as deputy chief medical officer at the First Nations Health Authority, focuses on advancing culturally safe care within physician services and responding to the ongoing impacts of colonialism on Indigenous health outcomes. He is also actively involved in initiatives focused on equity, inclusivity, and elimination of Indigenous-specific racism, including the First Nations Virtual Doctor of the Day program.

Dr Greggain has a broad appreciation for the priorities and challenges of physicians in both rural and urban settings, having led and practised for years in remote communities throughout the Fraser Canyon before relocating to Vancouver Island. He intersperses his work with locums across the province in family practice, emergency medicine, and inpatient care, and he co-leads the Network of Rural Divisions at the Rural Coordination Centre of British Columbia.

These physician leaders will provide expert guidance and clinical insight and, in collaboration with the Board of Directors, help shape the direction of advocacy, negotiations, and policy work.

Dr Kim Sing has held a variety of clinical, academic, and executive health care roles—most recently as vice president of medicine and academic affairs at Vancouver Coastal Health. He also brings an extensive teaching background, both as a clinical associate professor in the University of British Columbia Department of Emergency Medicine and as a certified organizational coach, helping individuals and medical teams improve their performance, engagement, and strategic planning.

Each chief medical advisor brings a unique perspective shaped by prior involvement with Doctors of BC. Dr Louie has been central to the association's truth and reconciliation work, playing a key role in establishing our Indigenous Guiding Circle and, until recently, serving on the Board, where he facilitated several learning sessions on cultural safety in health care. Dr Greggain served as president of the association in 2023 and as a member of the Joint Standing Committee on Rural Issues, and he played an instrumental role in developing the Longitudinal Family Physician Payment Model. Dr Kim Sing has been a member of the Section of Emergency Medicine, has served as the Vancouver Coastal Health lead in Physician Master Agreement negotiations, and has supported more than 100 physician quality improvement projects through the Joint Collaborative Committees.

Drs Louie, Greggain, and Kim Sing have long demonstrated their advocacy for colleagues and patients through decades of leadership, with a strong focus on physician engagement. We look forward to the guidance and collaboration they will bring as we continue to support BC physicians to be leaders in transforming health care. ■

—Doctors of BC

Obituaries

We welcome original tributes of less than 700 words; we may edit them for clarity and length. Email obituaries to journal@doctorsofbc.ca. Include birth and death dates, full name and name deceased was best known by, key hospital and professional affiliations, relevant biographical data, and a high-resolution head-and-shoulders photo.

Dr Brian Mayo Hunt

1939–2026

Dr Brian Mayo Hunt, born on 14 January 1939 to Dr Leigh Hunt and Jean Hunt, was the third of four boys. He was predeceased by his parents; his brothers, Drs John Hunt and David Hunt; and his infant son, Andrew, who died of sudden infant death syndrome. Brian was a colorful person with industrious energy who always put service first. He passed away at his home in North Vancouver on 11 January 2026 on his own terms, at peace with his life, surrounded by family.

Brian was raised in Vancouver and graduated from Prince of Wales Secondary School in 1957. He attended the University of British Columbia and solidified the family medical pedigree by graduating from UBC medical school in 1964. He headed east to Montreal General Hospital for his internship, where he met and married Barb, before returning to Vancouver General Hospital for a year-long junior assistant surgical residency (sadly, such positions don't exist anymore). Brian completed an externship at Lions Gate Hospital as a medical student and followed his attraction to the North Shore by joining the North Shore Medical Group, where he worked as a full-service family doctor for 2 years, becoming an engaged member of the community.

In 1968, Brian and Barb moved to Winnipeg for Brian's neurosurgical residency under Dr Parkinson. They returned to North Vancouver in 1972, with three young daughters, and Brian returned to Lions Gate Hospital to establish the neurosurgical division with his colleague Dr Barrie Purves. Call demands were heavy and frequent, covering both the North Shore and Burnaby. With no resident staff at Lions Gate Hospital, the success of the unit relied heavily on the well-educated and well-trained nurses. Brian understood the need for a culture of trust and respect, which he cultivated on the unit. Sometimes at odds with administration, Brian's goal was always to improve patient care.

Brian was very passionate about medicine, recognizing the privilege of service and the care he was able to provide. Although he regretted that the time he spent with his children was limited when they were young, countless patients' lives were either saved or improved because of his dedication. His commitment to medicine was possible only because of Barb's steady presence at home, and for that he was eternally grateful. Together they were a team, with Barb being the unsung hero. Knowing Brian's character, I am not sure he would or could have done it differently.

Brian was very interested in head-injury prevention, espousing the importance of helmets years prior to their mainstream acceptance in sport. He was an expert on cerebral concussion and its management, and he lectured on the topic extensively.

He loved skiing and was a physician with the Canadian women's national alpine ski team and a doctor on the hill at Whistler and Grouse Mountain for many years. Brian was an avid outdoorsman. He enjoyed fishing and hunting. He had strong ties to the Cariboo and loved his annual grouse-hunting trip to the Chilcotin with his brothers, nephews, and faithful Labrador retrievers. Camaraderie was foremost on these adventures. Brian was also an accomplished yodeler, and his yodeling skills were often on full display on those trips.

Brian and Barb built a beautiful property on Gabriola Island, where they spent most of their free time with family and entertaining friends. Their daughters, sons-in-law, and grandchildren no doubt have many fond memories of their time with Brian, learning everything from how to drive a stick shift to how to use a chainsaw. His practical knowledge was boundless. Brian's workshop was something to behold; he was meticulous in keeping it clean and organized, like an OR. He loved to garden and fix things. In his retirement, he taught himself how to play the bugle and took to writing stories, sometimes making his family blush with the content. Part of Brian's charm was his irreverence, but he was honest with people, too—a nice combination. Brian had a wonderful memory and loved to tell stories. Cocktail hours overlooking the Salish Sea were immensely entertaining—Brian loved a good laugh.

Brian taught me much along my journey into medicine. He was not only an uncle but also a mentor, a colleague, and, more recently, a friend. His unique personality and dedication to caring will be missed. He set a high bar in medicine.

—Harold Hunt, MD
Victoria

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We are seeking a physician injector to provide Botox and dermal filler treatments once a month (on a Saturday) at a well-established clinic in West Vancouver. You will work alongside an experienced provider who performs consultations and marks injection points, with assistant support for preparation, allowing you to focus on injections. At the clinic, 80% of injections are neuromodulators and 20% are fillers. This is a 6- to 7-hour high-volume session with strong earning potential (60% of net profit after product costs) and an excellent opportunity for mentorship and skill development. Ideal for a physician early in aesthetic practice. Please email your CV to VahidSahih@gmail.com.

MEDICAL OFFICE SPACE

LANGLEY, WILLOUGHBY TOWN CENTRE—MEDICAL OFFICE SPACE, PRIME LOCATION
Three or four brand-new medical exam rooms available in Willoughby Town Centre. The clinic is built to a luxury standard, with high ceilings and lots of parking spaces for visitors; ideal for physicians, specialists, or other health care providers. Reception area, Wi-Fi, and utilities included. For more information, please contact Jeff at 778 862-5153.

NEWTON (SURREY)—CLINIC SPACE FOR SPECIALIST
Share 2500 sq. ft. of premium clinic space in Newton, Surrey. Join a medical subspecialist in a professional turnkey environment perfectly suited for specialist use. Enjoy a reasonable split in a high-demand area. Secure your spot in this modern medical hub. Text 236 862-0006 or email adeepsarao@hotmail.com.

NORTH VANCOUVER—NEW MEDICAL OFFICE SPACE
New medical office space in a prime location in North Vancouver, with two or three exam rooms available for lease. Wi-Fi, utilities, and reception area included, with access to public transit as well as underground public parking near the SeaBus. Please contact Jeff at 778 862-5153 for details.

MISCELLANEOUS

ACROSS BC—NEW MIND AND MOOD CLINICAL CARE NETWORK NOW OPEN
Drs Ron Remick, Philip Brost, Carmen Chornell, Kayhan Ghatavi, Nicholas Misri, and Saby Ramirez wish to inform you that, as of 1 June 2026, their services can be accessed through the new Mind and Mood Clinical Care Network. Two other doctors have also joined the team: Drs Trisha Chakrabarty and Michael Passmore. The network offers psychiatric assessment and consultation, dialectical behavior therapy skills training, food as medicine, and yoga therapy. Services are available in the office and virtually to patients throughout the province. Our offices are located at 905 1130 West Pender Street, Vancouver, V6E 4A4. We are now open for referrals. Please visit www.mindandmoodbc.ca for referral information.

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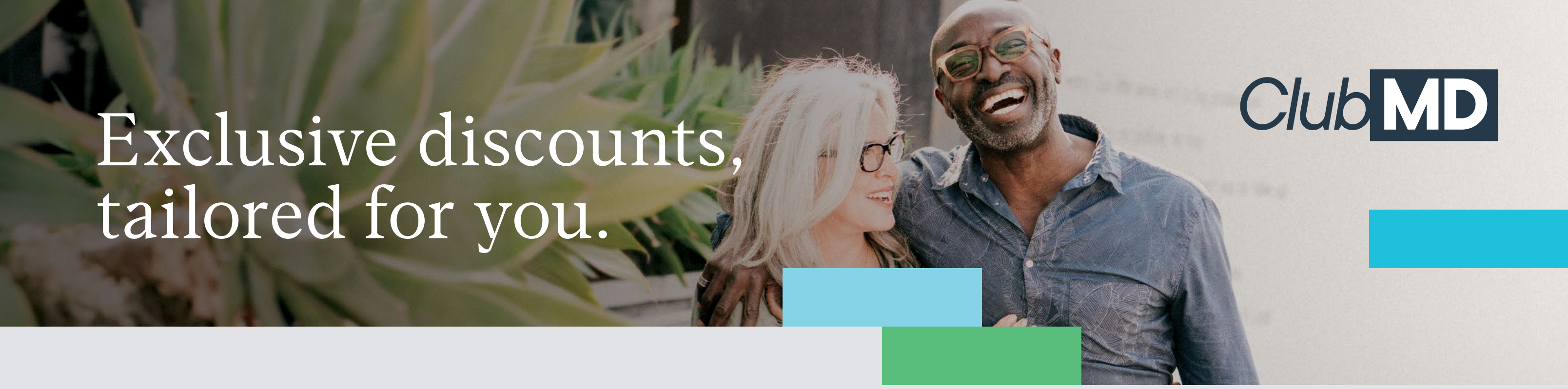
Email "Stop print, start online" to contact@doctorsofbc.ca with your name and address.

Instead of print issues, you will receive the table of contents via email (10/year) with links to each new issue.



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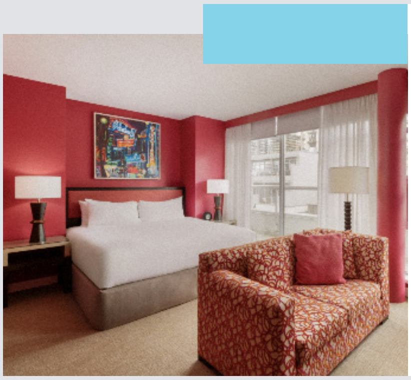

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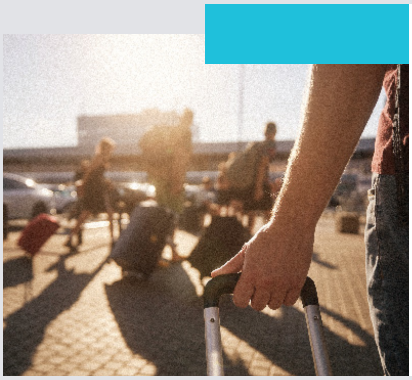

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