



CMA 2021

National Physician Health Survey

Medical student report

Prepared for the Canadian Medical Association

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Introduction

About the study

With the objective of informing decision-making regarding physician health initiatives, the Canadian Medical Association (CMA) conducts the National Physician Health Survey (NPHS) to provide insight into health and wellness challenges facing Canadian physicians and medical learners. In the 2021 NPHS, new concepts are introduced that allow for an in-depth comprehension of the workplace factors that contribute to medical professionals' wellness, updating the knowledge gained in the 2017 NPHS.¹

The specific objectives of the 2021 NPHS are to measure and track physicians' and medical learners' wellness indicators over time and to understand the factors that affect these indicators. Using an equity lens, the study also intends to examine whether specific demographic subgroups have been disproportionately affected by the COVID-19 pandemic. This study will help inform recommendations for systemic change to improve health outcomes for medical learners and physicians.

This document presents the results of the 2021 NPHS for medical student respondents.

For the national results, full details on the methodology, study limitations, the questionnaire and other considerations, see the [CMA 2021 National Physician Health Survey](#).

CMA Impact 2040

The CMA has committed to a 20-year agile plan — *Impact 2040* — with a focus on three pillars:

- 1) Health: a society where every individual has equal opportunities to be mentally and physically healthy;
- 2) Health System: a health system designed to promote health; and be sustainable, integrated and patient-partnered; and
- 3) Health Workforce: a medical culture that is safe, inclusive and health promoting.

For more information, see [CMA IMPACT 2040](#).

The Health Workforce pillar prioritizes physician wellness through the following strategic goals:

- Medical culture prioritizes well-being, diversity, collaboration, compassion, respect, accountability, leadership and excellence in care.
- Health care providers and learners thrive in learning and practice environments that are physically, psychologically and culturally safe.
- Physicians and medical learners have access to resources and supports to promote and maintain their health and wellness and can seek help without fear of reprisal.

¹ Canadian Medical Association. (2018). CMA National Physician Health Survey: A National Health Snapshot. CMA. <https://www.cma.ca/sites/default/files/2018-11/nph-survey-e.pdf>

Executive summary

As medical students face high academic demands and a competitive environment in medical schools, there is concern about their mental health and well-being.² Similar to other research,³ the findings of the 2021 NPHS reveal that medical students experience adverse psychological outcomes: students are more likely to be classified as moderate (57%) than flourishing (37%) in their mental health; and they are significantly more likely than practising physicians and medical residents to report moderate or severe levels of anxiety (33%) and recent suicidal ideation in past 12 months (21%) and to screen positive for depression (54%).

With classes moved online and public health restrictions on social gatherings, it is not surprising COVID-19 has had a negative impact on medical students' well-being. Nearly half of medical students report that COVID-19 has contributed to worsening mental health. Specific factors that influenced worsening mental health during the pandemic among students include longer time in social isolation, adjustments to virtual learning, uncertainty about the future and a lack of peer support. Many (over half) score low on social well-being, underscoring the impact of social isolation. Research has shown that many young adults have experienced loneliness during pandemic restrictions;⁴ this is no different for medical students average age is 21.7 years).⁵ These factors along with academic pressures may explain the higher levels of depression and suicidal ideation seen in the NPHS study among medical students compared with practising physicians and residents.

Studying in medical school takes a toll. Almost half of medical student respondents say they are dissatisfied with their work–life integration and rate their control over their workload as marginal or poor. The result is that over two-thirds of students report that they feel fatigued often or always and four in ten say they rarely or never receive optimal sleep.

While students engage in many self-care activities including physical fitness, hobbies and social interactions, there are several barriers to maintaining a healthy lifestyle including a lack of time, heavy workload and/or stressful work environment, scheduling and psychological distress. Even though medical students have access to multiple wellness supports through their academic institutions, such as psychological supports and exercise facilities, there is stigma around seeking wellness supports, with two-thirds of students believing their situation is not severe enough to seek help and over half feeling ashamed to seek assistance.

Despite having more negative psychological outcomes than practising physicians and medical residents, a majority of medical students indicate they are satisfied with their job/training position. However, six in 10 students report feeling a great deal of stress because of their job/training. This demonstrates that institutional factors, such as the stringency and competitiveness of medical school, cause strain on medical students' mental well-being. During the COVID-19 pandemic, the negative impacts of education and training on medical students may have been magnified.

² Kurki, M., Gilbert, S., Mishina, K., Lempinen, L., Luntamo, T., Hinkka-Yli-Salomäki, S., Sinokki, A., Upadhyaya, S., Wei, Y., & Sourander, A. (2021). Digital mental health literacy -program for the first-year medical students' wellbeing: a one group quasi-experimental study. *BMC medical education*, 21(1), 563. <https://doi.org/10.1186/s12909-021-02990-4>

³ Wilkes, T. C., Lewis, T., Paget, M., Holm, J., Brager, N., Bulloch, A., Macmaster, F., Molodynski, A., & Bhugra, D. (2022). Wellbeing and mental health amongst medical students in Canada. *The International journal of social psychiatry*, 68(6), 1283–1288. <https://doi.org/10.1177/00207640211057724>

⁴ Statistics Canada. (2022). Youth mental health in the spotlight again, as pandemic drags on. *StatsCAN Plus*. <https://www.statcan.gc.ca/o1/en/plus/907-youth-mental-health-spotlight-again-pandemic-drags>

⁵ ElHawary, H., Salimi, A., Barone, N., Alam, P., & Thibaudeau, S. (2021). The effect of COVID-19 on medical students' education and wellbeing: a cross-sectional survey. *Canadian medical education journal*, 12(3), 92–99. <https://doi.org/10.36834/cmej.71261>

Methodology

An open link survey, offered in both English and French, was promoted by the CMA via email to CMA members, social media, creative advertising and CMA communications channels including partner organizations. An open link survey methodology was used to ensure that physicians were invited beyond the CMA membership. The survey was open from Oct. 13 to Dec. 13, 2021. Participation in this study was voluntary.

A total of 3,864 practising physicians and medical residents completed the 2021 NPHS ($n = 3,489$ practising physicians, $n = 375$ medical residents), and a total of 257 medical students completed the survey. This report presents the results of medical student respondents.

	Base size $n=$	Proportion		Base size $n=$	Proportion
TOTAL sample	257	100%	DISABILITY		
YEAR OF STUDIES			Self-identify as having a disability	61	24%
First year	85	33%	Does not self-identify as having a disability	191	76%
Second year	57	22%	CAREGIVER STATUS		
Third year	56	22%	Caregiver of parent(s) and/or child(ren)	16	6%
Fourth year	53	21%	Not a caregiver	241	94%
Other	6	2%	ETHNIC AND RACIAL IDENTITY		
GENDER			Self-identify as "white" only	197	77%
Men	67	26%	Do not self-identify as "white" only	53	21%
Women	186	72%			
Neither applies	3	1%			
AGE					
<25	125	49%			
25–44	130	51%			
45+	1	0%			

Table 1. Respondent sample counts and proportions — medical students only.

In reporting, sample sizes may be further reduced because of survey skip logic, exclusion of “prefer not to answer” responses, respondents not giving consent to collect data on sensitive question topics and respondents not completing the optional section of questions asked near the end of the survey.

Data were not weighted. For more information about considerations around weighting, see Appendix A in the [CMA 2021 National Physician Health Survey](#).

Measures

The NPHS is made up of various scales and questions used to assess psychological factors (e.g., mental health and well-being, burnout, anxiety, etc.), as well as behavioural and occupational factors related to physician wellness. These were carefully selected on the basis of several criteria, including psychometric properties.

Psychological indicators included overall mental health and well-being (Mental Health Continuum Short Form [MHC-SF]), burnout (2-item Maslach Burnout Inventory),⁶ anxiety symptoms (7-item General Anxiety Disorder), depression screening (Patient Health Questionnaire–2); professional fulfillment (Professional Fulfillment Index) and suicidal ideation.

Behavioural and social support indicators included having a personal primary care physician, level of fatigue/optimal sleep, participation in self-care activities, healthy lifestyle barriers and perceived social support.

Educational and occupational indicators include workplace wellness supports, workplace harassment and bullying, work–life integration, satisfaction with efficiency/resources and professional misconduct inquiries (i.e., College complaint or lawsuit).

Reporting conventions

- Unless otherwise indicated, all questions reported exclude “don’t know” and/or “not applicable” responses.
- The data for students are compared with the results for practising physicians and residents, where applicable, using a *t*-test for statistical significance (95% confidence interval). A minimum sample size of $n = 30$ is used.
- The term “significant” is clearly stated when reporting on statistical differences. Notations specific to this report: green text means significantly higher than the national score; red text means significantly lower than the compared group. For some cases where there are notable differences that are **not** statistically significant, the terms “more likely” or “less likely” are used.
- Some results do not add to 100% because of rounding or because the question would have allowed the selection of multiple responses.

⁶ Note that the survey asked the full set of items for the Maslach Burnout Inventory for Human Health Services professionals (MBI-HSS). Further investigations will be presented in additional publications.

Survey Results

Section 1. Psychological factors

Over half of medical students screen positive for depression and one in five report suicidal ideation in the past 12 months.

Table 2 provides a portrait of medical students' and physicians' mental health and well-being. Just over half of medical students (53%) are burned out, with 47% scoring high on emotional exhaustion and 20% high on depersonalization.

In terms of overall mental health, more medical students are classified as moderate (57%) than flourishing (37%) in their mental health; 7% are languishing. A majority of students score high on emotional (81%) and psychological (71%) well-being, but fewer score high on social well-being (45%).

One-third of medical students report high levels of anxiety (22% moderate and 11% severe); another third each report mild (36%) or minimal (32%) anxiety.

Just over half of students screen positive for depression (56%). Four in 10 report having had thoughts of suicidal ideation at some point in their life (39%), and one in five (21%) report having had these thoughts in the past 12 months.

Comparison of medical students with practising physicians and residents

Compared with practising physicians and medical residents, medical students are significantly more likely to report moderate overall mental health and less likely to report flourishing mental health. They are also significantly more likely to indicate moderate anxiety, score low on social well-being, screen positive for depression and have had suicidal ideation in the past 12 months. While both groups are equally likely to be experiencing burnout, practising physicians and medical residents are significantly more likely to score high on depersonalization, one of the two indicators comprising the burnout scale.

Psychological variables (%)	Medical students	Practising physicians and medical residents
OVERALL MENTAL HEALTH		
Flourishing	37%	47%
Languishing	7%	7%
Moderately mentally healthy	57%	46%
<i>n</i>	161	3234
ANXIETY		
Minimal anxiety	32%	42%
Mild anxiety	36%	34%
Moderate anxiety	22%	15%

Psychological variables (%)	Medical students	Practising physicians and medical residents
Severe anxiety	11%	10%
<i>n</i>	257	3864
EMOTIONAL WELL-BEING		
High	81%	79%
Low	19%	21%
<i>n</i>	161	3234
SOCIAL WELL-BEING		
High	45%	53%
Low	55%	47%
<i>n</i>	161	3234
PSYCHOLOGICAL WELL-BEING		
High	71%	77%
Low	29%	23%
<i>n</i>	161	3234
BURNOUT		
High emotional exhaustion	47%	50%
High depersonalization	20%	28%
High in at least one indicator	53%	53%
<i>n</i>	257	3864
DEPRESSION		
Screened positive	56%	48%
<i>n</i>	257	3864
SUICIDAL IDEATION		
Lifetime	39%	36%
Recent (<i>last 12 months</i>)	21%	14%
<i>n</i>	248	3750

Table 2. The prevalence of psychological factors among medical students versus practising physicians and medical residents.

Significance testing: a **green font means significantly higher than practising physicians and medical residents; a **red** font means significantly lower than the compared group. T-test for statistical significance used (95% confidence interval).

Section 2. Impact of COVID-19

Forty-five percent of medical students say their mental health is worse than before COVID-19.

When asked “Compared with before the COVID-19 pandemic, how would you rate your mental health now?” 45% of medical students indicate their mental health is worse now than before the pandemic: 32% rate their mental health as “slightly worse” and 13% rate it as “much worse.”

Comparison of medical students with practising physicians and residents

Medical students are significantly less likely than practising physicians and residents to say that their mental health is slightly or much worse than before the COVID-19 pandemic. In fact, they are more likely to say their mental health is somewhat or much better.

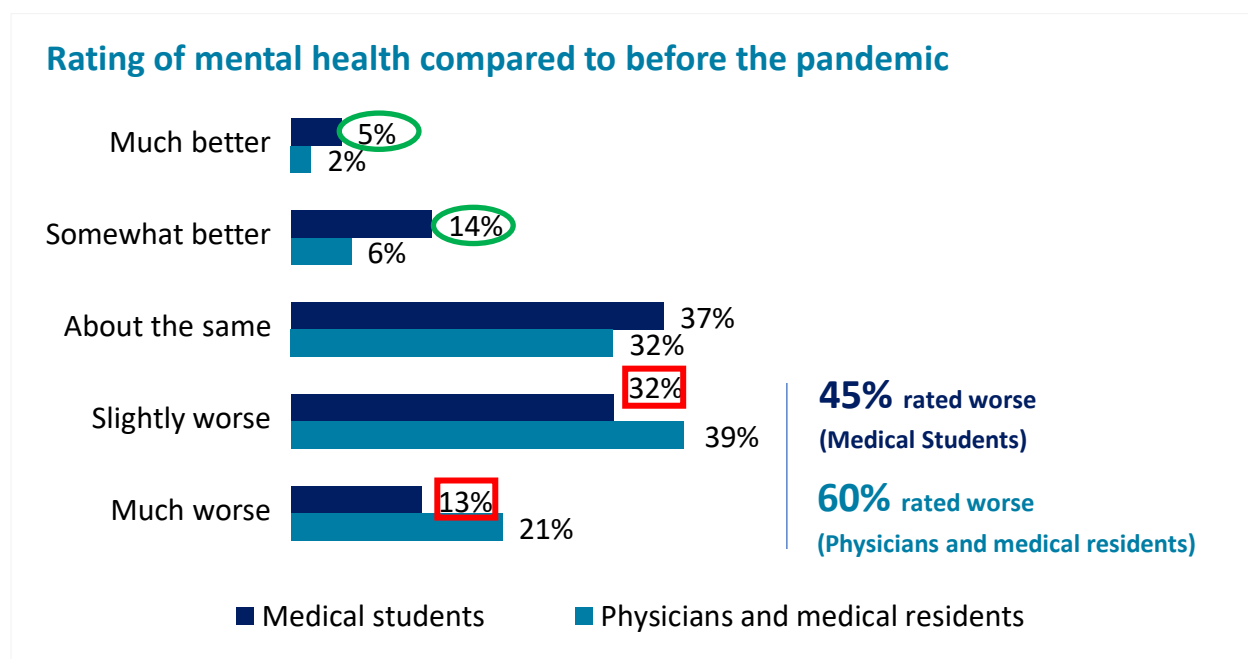


Figure 1. Rating of mental health compared to before the pandemic: responses to question 54. Compared with before the COVID-19 pandemic, how would you rate your mental health now? Base: medical students (n = 257); practising physicians and medical residents (n = 3864)

**Significance testing: a green oval shape means significantly higher than practising physicians and medical residents; a red rectangle means significantly lower than the compared group. T-test for statistical significance used (95% confidence interval).

Social isolation and adjusting to virtual learning were the two biggest differentiating factors contributing to the negative mental health of medical students.

The largest contributors to poor mental health for medical students during the pandemic were longer time with social restrictions, adjustment to virtual learning, continued uncertainty about the future, and increased workload and/or lack of work–life integration, followed by rapidly changing policies/processes.

Comparison of medical students and practising physicians and residents

Compared with physicians and residents, students are more likely to report that the following factors contributed negatively to their mental health during the pandemic: longer time with social restrictions, adjustments to virtual learning and a lack of peer support. However, practising physicians and medical residents are significantly more likely to report nearly every other factor contributing to poorer mental health during the pandemic, including increased workload and/or lack of work–life integration, rapidly changing policies/processes, family issues and obligations, and other health system issues such as concerns about vaccine rollout, lack of human resources, long waitlists and personal protective equipment challenges, among others.

Factors that contributed negatively to mental health during the pandemic	Medical students	Practising physicians and medical residents
Longer time with social restrictions/social isolation	76%	55%
Adjustment to virtual learning	57%	18%
Continued uncertainty about the future	55%	51%
Increased workload and/or lack of work–life integration	41%	57%
Rapidly changing policies/processes	35%	55%
Family issues and obligations	27%	34%
Lack of peer support	27%	14%
Concerns about vaccine rollout	15%	23%
Lack of human resources	15%	35%
Physical health struggles	15%	14%
Financial insecurity	12%	17%
Interpersonal conflict	12%	12%
Adjustment to virtual care	9%	28%
Long waitlists	9%	33%
Challenges acquiring personal protective equipment (PPE)	5%	16%
Concerns about long-term care	5%	10%
Decreased workload	2%	4%
College complaint or lawsuit	0%	7%
Other	9%	18%
None of the above	5%	4%

Table 3. Factors that contributed negatively to mental health during the pandemic: responses to question 55. What do you believe has contributed negatively to your mental health during the pandemic? Select all that apply. Base: medical students ($n = 257$); practising physicians and medical residents ($n = 3864$).

Significance testing: a **green font means significantly higher than practising physicians and medical residents; a **red** font means significantly lower than the compared group. T-test for statistical significance used (95% confidence interval).

Section 3. Behavioural factors and social support

LEVEL OF FATIGUE/OPTIMAL SLEEP

Sixty-five percent of medical students surveyed say they “always” or “often” feel fatigued at work/school; four in 10 say feel they “rarely” or “never” get optimal sleep.

Well over half of respondents (65%) report they frequently (14% “always” or 51% “often”) feel fatigued at work/school. Related to this, thirty-eight percent “rarely/never” get optimal sleep (34% rarely and 4% never).

Comparison of medical students with practising physicians and residents

Compared with physicians and residents, medical students are significantly more likely to report “often” feeling fatigued at work/school and are significantly more likely to report “rarely” getting optimal sleep.

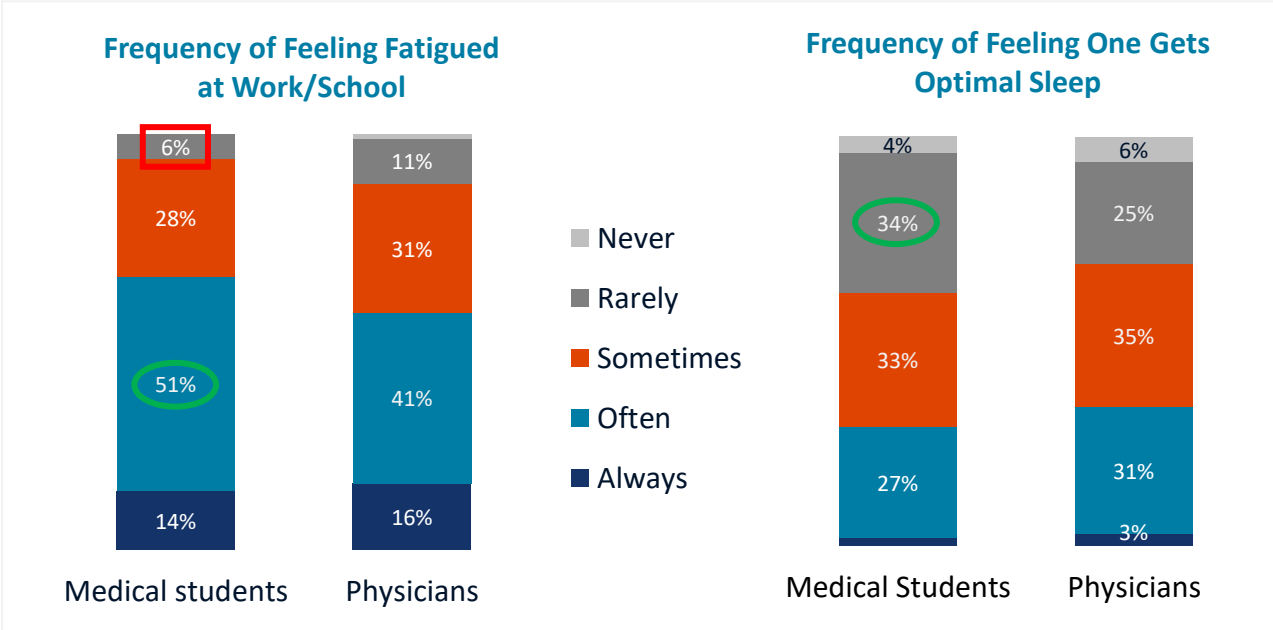


Figure 2. Frequency of feeling fatigued at work/school: responses to question 35. How often do you feel fatigued at work/school? Base: medical students (n = 257); practising physicians and medical residents (n = 3864).

Frequency of feeling one gets optimal sleep: responses to question 37. How often do you feel you are getting optimal sleep? Base: medical students (257); practising physicians and medical residents (n = 3864).

**Significance testing: a green oval shape means significantly higher than practising physicians and medical residents; a red rectangle means significantly lower than the compared group. T-test for statistical significance used (95% confidence interval).

SELF-CARE ACTIVITIES

Medical students' participation in self-care activities is high: 91% engage in physical health and fitness activities, 84% in hobbies and 90% in social activities. Half (49%) participate in spiritual and mindful practices.

Comparison of medical students with practising physicians and residents

Medical students are significantly more likely to be involved in social activities as forms of self-care than practising physicians and residents, including peer support and spending time with family and friends.

Self-care activities	Medical students	Practising physicians and medical residents
PHYSICAL HEALTH & FITNESS (NET)	91%	88%
Physical activity	81%	79%
Healthy eating	58%	55%
Optimal sleep	51%	36%
Stretching	33%	27%
HOBBIES (NET)	84%	87%
Reading	39%	61%
Cooking or baking	49%	42%
Music	48%	39%
Gardening	12%	33%
Art, such as painting or crafting	14%	15%
Volunteering	28%	12%
Dance	10%	5%
SOCIAL (NET)	90%	84%
Spending time with family and/or friends	88%	82%
Peer support	30%	22%
SPIRITUAL AND MINDFUL PRACTICES (NET)	49%	48%
Mindfulness or meditation	21%	25%
Spiritual practices (prayer, worship, etc.)	11%	17%
Mindful breathing (e.g., box breathing)	18%	17%
Practicing gratitude (e.g., journaling)	16%	14%
Building resilience	10%	10%
Self-compassion exercises	17%	11%
Other	9%	12%
None of the above	0%	1%

Table 4. Self-care activities to support well-being: responses to question 38. What self-care activities do you do to support your well-being in your personal life, outside of work (excluding household duties/chores/responsibilities)? Base: medical students (n = 257); practising physicians and medical residents (n = 3864).

**Significance testing: a green font means significantly higher than practising physicians and medical residents; a red font means significantly lower than the compared group. T-test for statistical significance used (95% confidence interval).

BARRIERS TO MAINTAINING A HEALTHY LIFESTYLE

Lack of time and a heavy workload are reported as the top barriers to maintaining a healthy lifestyle among medical students.

Medical student respondents highlight several barriers to maintaining a healthy lifestyle. The top four barriers are:

- Lack of time (84%)
- Heavy workload and/or stressful work environment (67%)
- Scheduling (56%)
- Psychological distress (30%)

Comparison of medical students with practising physicians and residents

Compared with practising physicians and medical residents, medical students are significantly more likely to report a lack of time, heavy workload and psychological distress as the primary barriers to maintaining a healthy lifestyle. They are less likely to report shiftwork, other priorities or having no post-call days as barriers.

Barriers to maintaining a healthy lifestyle	Medical students	Practising physicians and medical residents
Lack of time	84%	64%
Heavy workload and/or stressful work environment	67%	60%
Scheduling (e.g., long work hours)	56%	56%
Psychological distress	30%	24%
Workplace/training environment does not support these behaviours	17%	18%
Shiftwork (e.g., inadequate recovery between shifts)	14%	19%
Other priorities	11%	38%
No post-call day	6%	17%
Maintaining a healthy lifestyle is not a priority for me	2%	1%
Other	7%	9%
No barriers, I am able to maintain a healthy lifestyle	5%	11%

Table 5. Barriers to maintaining a healthy lifestyle: responses to question 39. Which, if any, of the following barriers prevent you from maintaining a healthy lifestyle? Base: medical students (n = 257); practising physicians and medical residents (n = 3864).

Significance testing: a **green font means significantly higher than practising physicians and medical residents; a **red** font means significantly lower than the compared group. T-test for statistical significance used (95% confidence interval).

WORKPLACE WELLNESS SUPPORTS

A majority of medical students have access to wellness supports provided by their workplace.

Eighty-four percent of medical students are offered wellness supports in their workplace, which can be assumed to be academic institutions. Psychological supports and/or peer support programs (65%) and access to exercise facilities (46%) are the most commonly reported wellness supports offered by current academic institutions. Fewer say they have access to a primary care physician (27%) and nutritious food options (17%) or other wellness-related activities and/or incentives (8%) in their workplace.

Comparison of medical students with practising physicians and residents

Wellness supports offered in the workplace in general are significantly more common among medical students than among practising physicians and medical residents, with the exception of back-up call.

Academic/workplace wellness supports	Medical students	Practising physicians and medical residents
Access to psychological supports and/or peer supports	65%	33%
Access to exercise facilities and/or activities	46%	11%
Access to a primary care physician	27%	9%
Nutritious food options	17%	8%
Other wellness-related activities and/or incentives	8%	7%
Back-up call, when I need time off for urgent life matters	5%	21%
Daycare services	4%	2%
Workplace offers wellness supports	84%	56%
None of the above	16%	44%
Not applicable	0%	8%

Table 6. Wellness support offerings at current workplace: responses to question 40. Which of the following does your current workplace offer to support your wellness (if any)? Base: medical students (n = 257); physicians and medical residents (n = 3864).

Significance testing: a **green font means significantly higher than practising physicians and medical residents; a **red** font means significantly lower than the compared group. T-test for statistical significance used (95% confidence interval).

WELLNESS SUPPORTS ACCESSED IN PAST FIVE YEARS

When asked about the type of wellness supports (including mental health and crisis supports) accessed in the past five years, four in 10 medical students say they have not accessed any.

Medical students have accessed other mental health professionals (40%) and their primary care physician (34%) as the most common forms of wellness support in the past five years. This is followed by mentorship or coaching (16%) and a local peer support program (9%). Only 8% have accessed their provincial Physician Health Program (PHP). Overall, six in 10 have used at least one wellness support in the past five years.

Comparison of medical students with practising physicians and residents

Compared with physicians and residents, medical students are significantly more likely to access mental health professionals, mentorship or coaching and a local support peer program, but significantly less likely to access the PHP. They are equally likely to access their primary care physician and Employee Assistance Program (EAP).

Academic/workplace supports accessed in past five years	Medical students	Practising physicians and medical residents
Other mental health professional (psychiatrist, psychologist, licensed counsellor, etc.)	40%	26%
Primary care physician	34%	32%
Mentorship or coaching	16%	12%
Local peer support program (i.e., not the Wellness Connection)	9%	4%
Provincial Physician Health Program (PHP)	8%	15%
Employee Assistance Program (EAP)	5%	3%
CMA Wellness Support Line	1%	1%
CMA Wellness Connection	0%	1%
Other	3%	4%
Used at least one support in past five years	60%	54%
None of the above	40%	46%

Table 7. Wellness supports accessed in past five years: responses to question 58. In the last five years, have you accessed any of the following wellness supports (including mental health and crisis supports)? Select all that apply. Base: medical students (n = 257); physicians and medical residents (n = 3864).

Significance testing: a **green font means significantly higher than practising physicians and medical residents; a **red** font means significantly lower than the compared group. T-test for statistical significance used (95% confidence interval).

POSSIBLE REASONS FOR NOT SEEKING WELLNESS SUPPORT

When respondents were asked what may prevent some physicians from seeking wellness supports, believing the situation is not severe enough, having no time, and being ashamed to seek help were identified as the main reasons.

Medical students reported “believing the situation is not severe enough” (67%), “having no time” (63%), and “being ashamed to seek help” (56%) as the main barriers to seeking wellness supports.

Comparison of medical students with practising physicians and residents

Believing a situation is not severe enough, having no time and being ashamed to seek help are all significantly more likely to be reported by medical students than practising physicians and residents as reasons for not seeking wellness supports. Medical students are significantly less likely to cite confidentiality as an issue compared with practising physicians and residents.

Reasons for not seeking wellness supports	Medical students	Practising physicians and medical residents
Believing the situation is not severe enough	67%	55%
No time	63%	55%
Ashamed to seek help	56%	47%
Other professional consequences (e.g., fewer career advancements opportunities, denied insurance, etc.)	26%	21%
Risk of losing medical licence and ability to practise	21%	21%
Confidentiality	21%	30%
Not aware of the services available	18%	19%
Concerns about quality of care	5%	6%
Service not required	5%	8%
Professional supports already in place	0%	2%
Other	2%	7%

Table 8. Possible reasons for not seeking wellness supports: responses to question 60. What do you think are the main reasons some physicians may have for NOT seeking wellness supports? Base: medical students (n = 257); physicians and medical residents (n = 3864).

Significance testing: a **green font means significantly higher than practising physicians and medical residents; a **red** font means significantly lower than the compared group. T-test for statistical significance used (95% confidence interval).

Section 4: Educational and occupational factors

The majority of medical students report being satisfied with their training position, but over half report feeling a great deal of stress due to it.

Almost six in 10 (58%) medical students say they agree (45%) or strongly agree (13%) that they feel a great deal of stress due to their training position. However, three-quarters (75%) are satisfied with their training position (59% agree, 17% strongly agree) and six in 10 (59%) feel their professional values align with those of their department or academic institution (52% agree, 7% strongly agree).

Comparison of medical students with practising physicians and residents

In relation to physicians and medical residents, medical students are significantly more likely to be satisfied with their training position and significantly more likely to feel their professional values align with those of their department or academic institution.

Educational and occupational variables (%)	Medical students	Practising physicians and medical residents
SATISFACTION WITH JOB/TRAINING POSITION		
Strongly agree	17%	15%
Agree	59%	45%
Neither agree or disagree	14%	19%
Disagree	8%	15%
Strongly disagree	2%	7%
<i>n</i>	251	3859
PROFESSIONAL VALUES ALIGNED WITH THOSE OF DEPARTMENT/ACADEMIC INSTITUTION		
Strongly agree	7%	10%
Agree	52%	46%
Neither agree or disagree	25%	22%
Disagree	13%	15%
Strongly disagree	3%	7%
<i>n</i>	246	3699

Educational and occupational variables (%)	Medical students	Practising physicians and medical residents
I FEEL A GREAT DEAL OF STRESS DUE TO MY JOB/TRAINING POSITION		
Strongly agree	13%	17%
Agree	45%	40%
Neither agree or disagree	24%	18%
Disagree	15%	18%
Strongly disagree	3%	7%
<i>n</i>	252	3840

Table 9. Educational and occupational factors among medical students and practising physicians and medical residents. Q43, part of Mini-Z scale. To what extent do you agree or disagree with the following statements?

Significance testing: a **green font means significantly higher than practising physicians and medical residents; a **red** font means significantly lower than the compared group. T-test for statistical significance used (95% confidence interval).

Roughly half of medical students say their control over their workload is poor or marginal; a similar proportion are satisfied with their work–life integration. The workplace atmosphere for many is “busy, but reasonable.”

Almost half of medical students (46%) say their control over their workload is poor (17%) or marginal (29%), while over half (55%) say they are satisfied (51%) or very satisfied (4%) with their work–life integration.

Twelve percent rate the atmosphere in their primary work area as “1” or “2” on a scale of 1 – chaotic to 5 – calm, and 66% rate it a “3” – busy, but reasonable.

Fourteen percent say they experience intimidation, bullying, harassment and/or microaggressions in the workplace frequently (4%) or often (10%). Over four in 10 (44%) say they have not experienced it.

Comparison of medical students with practising physicians and residents

Medical students are not any more or less likely to say their control over their workload is poor or marginal than practising physicians and residents. They are, however, more likely to be satisfied with their work–life integration and are more likely to experience a calm or busy, but reasonable, workplace environment. They are also significantly less likely to have ever experienced intimidation, bullying, harassment and/or microaggressions.

Educational / occupational variables (%)	Medical students	Practising physicians and medical residents
CONTROL OVER WORKLOAD		
Optimal	3%	5%
Good	23%	21%
Satisfactory	27%	28%
Marginal	29%	31%
Poor	17%	15%
<i>n</i>	231	3849
WORK-LIFE INTEGRATION		
Very satisfied	4%	8%
Satisfied	51%	41%
Dissatisfied	40%	41%
Very dissatisfied	6%	10%
<i>n</i>	227	3847
ATMOSPHERE IN PRIMARY WORK AREA		
5 – Calm	8%	4%
4	14%	9%
3 – Busy, but reasonable	66%	48%
2	11%	28%
1 – Chaotic	2%	11%
<i>n</i>	257	3864
EXPERIENCED INTIMIDATION, BULLYING, HARASSMENT AND/OR MICROAGGRESSIONS IN THE WORKPLACE		
Frequently	4%	11%
Often	10%	17%
Less than often	42%	50%
Never	44%	22%
<i>n</i>	257	3864

Table 10. Educational and occupational factors among medical students and physicians and medical residents. Q45, How would you rate the following? Q45aa. Please rate your degree of satisfaction with each of the following dimensions of your workplace. Q45b. Which number best describes the atmosphere in your primary work area? Q25. Have you ever personally experienced intimidation, bullying, harassment and/or microaggressions in the workplace or in a training environment?

Significance testing: a **green font means significantly higher than practising physicians and medical residents; a **red** font means significantly lower than the compared group. T-test for statistical significance used (95% confidence interval).

Discussion

The results indicate that medical students score high on several psychological factors, including depression and recent suicidal ideation. Their mental health is also classified as more “moderate” than it is “flourishing.” The ongoing pandemic can contextualize these findings. Nearly half of medical students report their mental health as “worse” than before the pandemic, with longer time in social isolation, adjustments to the challenges of virtual learning, uncertainty about the future and a lack of peer support as factors contributing to worsening mental health. In addition to changes in the learning environment,⁷ social isolation is probably one of the largest contributing factors to decreased mental well-being: more students score “low” on social well-being than “high” on the scale. In fact, in a recent study, Canadian medical students reported feeling loneliness and depression as a result of the pandemic.⁸

Other factors that may impact medical students' well-being can be connected to lifestyle behaviours. The majority of medical students report rarely or never feeling like they receive optimal sleep. They are also significantly more likely to feel fatigued from their job training than practising physicians and medical residents. This is coupled with the fact that almost six in 10 medical students report a great deal of stress due to their training. These findings are consistent with other literature demonstrating that medical students face several sources of stress from their studies, which lead to worsening mental health.⁹ Medical students also experience several barriers that prevent them from achieving a healthy lifestyle, including a lack of time (84%), a heavy workload and/or stressful work environment (67%), scheduling and psychological distress (30%).

Furthermore, the stigma around mental health may also play a role in worsening mental health, as this study found that medical students were significantly more likely to indicate believing their situation wasn't severe enough and feeling ashamed to seek help as reasons for not accessing wellness services. These findings support the results of other studies indicating that students fear disclosure of mental health conditions and show reluctance to seek help.¹⁰ The NPHS results show that students have greater access to mental health professionals and other supports in their academic institutions than practising physicians and medical residents have. Addressing mental health stigma and providing psychiatric education in medical schools can help encourage more medical students to access well-being supports. This is critical as one in five medical students in this study report having had suicidal ideation in the past year.

The data also show that medical students have less exposure to harassment and bullying than practising physicians and residents. Educating medical students and providing them with tools and resources on how to address these negative behaviours in their future workplaces can assist them as they advance into their professional medical careers (in addition to addressing issues around medical culture in general).

⁷ Dhillon, J., Salimi, A., & ElHawary, H. (2020). Impact of COVID-19 on Canadian Medical Education: Pre-clerkship and Clerkship Students Affected Differently. *Journal of medical education and curricular development*, 7, 2382120520965247. <https://doi.org/10.1177/2382120520965247>

⁸ ElHawary, H., Salimi, A., Barone, N., Alam, P., & Thibaudeau, S. (2021). The effect of COVID-19 on medical students' education and wellbeing: a cross-sectional survey. *Canadian medical education journal*, 12(3), 92–99. <https://doi.org/10.36834/cmej.71261>

⁹ Wilkes, T. C., Lewis, T., Paget, M., Holm, J., Brager, N., Bulloch, A., Macmaster, F., Molodynski, A., & Bhugra, D. (2022). Wellbeing and mental health amongst medical students in Canada. *The International journal of social psychiatry*, 68(6), 1283–1288. <https://doi.org/10.1177/00207640211057724>

¹⁰ Khurram, A., Abedi, D., & Abedi, M. (2020). Stigma around mental health disclosure in medical students. *Medical education online*, 25(1), 1774347. <https://doi.org/10.1080/10872981.2020.1774347>

Conclusion

The data from this study can be used to educate, advocate and build the case for new and additional wellness resources and supports for medical students. The CMA's Impact 2040 strategy will continue to work towards preventive and protective measures surrounding physicians' and medical learners' well-being to create a sustainable health care system for those who work within it and for those who utilize it – [CMA: Seizing the moment — Impact 2040 strategy](#).

