

Humans not heroes: Canadian emergency physician experiences during the early COVID-19 pandemic

Anna Tran,^{1,2} Clare Wallner,^{1,3,4} Kerstin de Wit ,^{1,5,6} Caroline Gérin-Lajoie,⁷ Kerri Ritchie,^{8,9} Mathew Mercuri,^{4,10} Natasha Clayton,^{1,3} Mary Boulos,¹¹ Patrick Archambault,^{12,13} Lisa Schwartz,⁵ Sara Gray,¹⁴ Teresa Man-Yee Chan ,^{3,4,5,15}
for the Network of Canadian Emergency Researchers

Handling editor Kirsty Challen

► Additional supplemental material is published online only. To view, please visit the journal online (<http://dx.doi.org/10.1136/emermed-2022-212466>).

For numbered affiliations see end of article.

Correspondence to

Dr Kerstin de Wit, Victory 3, Kingston Health Sciences, 76 Stuart St, Kingston, K7L 2V7. Department of Emergency Medicine, School of Medicine, Queen's University, Kingston, ON, Canada; kerstin.dewit@queensu.ca

KdW and TM-YC are joint senior authors.

Received 25 March 2022
Accepted 29 September 2022
Published Online First
17 October 2022

ABSTRACT

Background The pandemic has upended much clinical care, irrevocably changing our health systems and thrusting emergency physicians into a time of great uncertainty and change. This study is a follow-up to a survey that examined the early pandemic experience among Canadian emergency physicians and aimed to qualitatively describe the experiences of these physicians during the global pandemic. The study was conducted at a time when Canadian COVID-19 case numbers were low.

Methods The investigators engaged in an interview-based study that used an interpretive description analytic technique, sensitised by the principles of phenomenology. One-to-one interviews were conducted, transcribed and then analysed to establish a codebook, which was subsequently grouped into key themes. Results underwent source triangulation (with survey data from a similar period) and investigator-driven audit trail analysis.

Results A total of 16 interviews (11 female, 5 male) were conducted between May and September 2020. The isolated themes on emergency physicians' experiences during the early pandemic included: (1) disruption and loss of emergency department shift work; (2) stress of COVID-19 uncertainty and information bombardment; (3) increased team bonding; (4) greater personal life stress; (5) concern for patients' isolation, miscommunication and disconnection from care; (6) emotional distress.

Conclusions Canadian emergency physicians experienced emotional and psychological distress during the early COVID-19 pandemic, at a time when COVID-19 prevalence was low. This study's findings could guide future interventions to protect emergency physicians against pandemic-related distress.

INTRODUCTION

Frontline medical workers, such as emergency physicians, have had their lives upended by the COVID-19 pandemic. Working at the junction between the external world and the hospital, emergency physicians have had a unique experience and a singular vantage point. Much has been publicised about pandemic-related emergency physician moral injury and mental health¹⁻³ related to treating critically ill patients with COVID-19 and inadequate resources. Our early pandemic survey among Canadian emergency physicians also reported large COVID-19 impacts on work and personal life, at

WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ Research shows that the COVID-19 pandemic was associated with psychological distress, anxiety and depression among healthcare workers.
- ⇒ Limited research identified factors associated with this distress.

WHAT THIS STUDY ADDS

- ⇒ Distress was commonly experienced by Canadian emergency physicians in the initial months of the pandemic, when rates of COVID-19 infection in Canada were low.
- ⇒ This distress was thought to be attributed to a combination of workplace and personal factors associated with psychological distress.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- ⇒ We found multiple factors contributing to distress among emergency physicians at a time when there were minimal COVID-19 cases.
- ⇒ This informs our understanding of working during a pandemic.

a time when the Canadian COVID-19 prevalence was low.⁴

When designing our Canadian emergency physician longitudinal survey,⁴ we were mindful that an online survey would capture general themes without fully understanding the reasons behind these findings. At the outset, our survey was designed to be complemented by in-person qualitative physician interviews. The aim of the present study is to highlight how the Canadian emergency physician described their experiences during the first wave of the pandemic, and how they felt the initial part of the pandemic impacted their emotional and mental well-being.

METHODS

We conducted an interview study of emergency physicians from March to September 2020. This qualitative research study followed the Consolidated criteria for Reporting Qualitative research standards of reporting.⁵ Our study was sensitised by the principles of phenomenology⁶ but applied an interpretive description⁷ approach for analysis,



► <http://dx.doi.org/10.1136/emermed-2022-212466>



© Author(s) (or their employer(s)) 2023. No commercial re-use. See rights and permissions. Published by BMJ.

To cite: Tran A, Wallner C, de Wit K, et al. *Emerg Med J* 2023;**40**:86–91.



as we were aiming to best understand the experience of front-line Canadian emergency physicians during the first 6 months of the COVID-19 pandemic. Sensitisation is a process borrowed from sociological traditions that allows qualitative researchers to expand their views to examine the data using perspectives beyond their original analytic technique or theoretical framework.⁸ For the purposes of describing our population, we also asked participants to answer the Anxiety Symptoms Questionnaire (ASQ) and report other demographic data (age, gender, training level or years in practice, etc).

Study participants

Participants were sampled from our longitudinal emergency physician cohort. In brief, this cohort study started in March 2020 with weekly surveys during the first 10 weeks of the COVID-19 pandemic and repeat surveys at discrete intervals thereafter.^{4,9} Participants were recruited to the cohort by direct emails to 20 ED physician groups in seven provinces, email invitations via four key national societies associated with emergency care in Canada (Society of Rural Physicians of Canada, the Canadian Association of Emergency Physicians, Association des Médecins d'Urgence du Québec and Association des Spécialistes en Médecine d'Urgence du Québec) and via social media (Twitter @EmergWell and Facebook).

During the first wave, participants could indicate whether they were interested in further sharing experiences during the initial phase of the pandemic. An interview invitation was sent by email or text (depending on participant choice) to those indicating they would like to share their experiences. The interview invitation was sent by the survey principal investigator (KdW) up to a maximum of three times, following which, no further invitations were offered.

All physicians who work in Canadian emergency departments (EDs) were eligible to participate in our longitudinal survey. Emergency physicians in Canada work in a variety of group practice models. In general, remuneration is per patient or else per shift depending on the department funding model. Most emergency physicians work between 12 and 18 shifts per month, in addition to any academic work. Staff emergency physicians spend each shift directly assessing and managing patients as well as one-on-one supervision of medical students and residents. The data for this analysis were collected at a time when COVID-19 prevalence was low in Canada (see figure 1).¹⁰

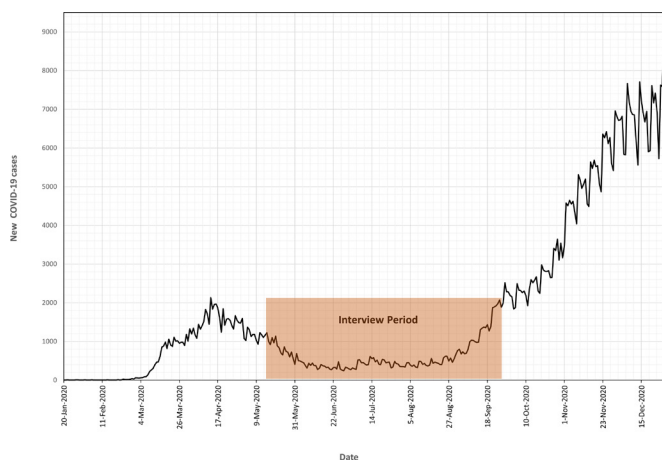


Figure 1 Data obtained from Health Infobase Canada.

Study interview

The semi-structured interviews were designed in March 2020, prior to collection of survey data. The investigators aimed to cover a broad overview of work conditions, physical health as well as mental health. The interview guide can be found in the online supplemental appendix 1. The interview guide was collaboratively created and refined by the investigators. The interviewer was the lead researcher (AT, female, experienced qualitative researcher). We selected AT to conduct the interviews as she did not have any prior relationship with the participants.

The interviews were conducted with video-conferencing software using our institutional license (Zoom via McMaster University), at a time to suit the participant. At the outset, the interviewer made clear that this study intended to explore emergency physician experiences during the pandemic. Participant confidentiality and anonymity were assured. Participants could choose not to answer components of the interview. A clear safety plan with resources was outlined for the interviewer to activate, should there be concerns for participant mental health safety.

Research team and reflexivity

Our research team comprised a diverse group of emergency physicians (CW, KdW, PA, SG, TM-YC), psychologist (KR), psychiatrist (CG-L), students (AT, MB), coordinator (NC) and expert academic researchers (MM, LS). The core analysis team consisted of both emergency physicians (CW, TM-YC) and one non-emergency physician (AT), but the results were presented to all team members for investigator triangulation. To ensure reflexivity, each member of the core analysis team engaged in a self-declaration process to help understand each other's assumptions, perspectives and rationale for working on this project.

Analysis

We performed a qualitative analysis. Interviews were de-identified and transcribed verbatim. Transcripts were reviewed in totality by the interviewer to ensure their veracity and accuracy before being analysed by the research team. We sequentially analysed the interview transcripts, using interpretive description.⁷ Originating in the nursing literature,⁷ the aim of interpretive description is to generate new knowledge within applied health disciplines (such as emergency medicine) to understand clinical scenarios and contexts better.¹¹ A unique codebook (online supplemental appendix 2) was generated by the core analysis team (AT, TM-YC, CW) based on the interviews. We continued to interview participants until our research team achieved thematic sufficiency.¹² Once all analyses were completed, we triangulated our findings with those of our early pandemic survey.⁴ We then amalgamated our final coding schema across both sources to determine the key themes, which are presented in this final report. Finally, two members of our investigatory team (KR, CGL) conducted an audit of the data trail across all the analyses.

Patient and public involvement

We studied Canadian emergency physicians. Our research design was informed by the Canadian Association of Emergency Physician research committee and the Network of Canadian Emergency Researchers.

RESULTS

Demographics

Of the approximately 6500 practising emergency physicians across Canada, 461 physicians participated in the survey, of whom 65 received an email invitation to a virtual interview.

Eighteen participants agreed to an interview and 16 participants completed the interview. Participants lived in six different provinces. We do not report the participant locations to protect their anonymity. Eleven participants were female and five were male. Participant ages ranged from 28 to 62 years (mean 43; SD 10). There were 15 staff physicians and 1 resident. ASQ scores ranged from 11 to 192 (mean 101; SD 53); one participant chose not to complete the ASQ. As a reference, the ASQ can range from 0 to 340; it functions as a global measure of anxiety, and a higher score connotes more self-reported anxiety.

Findings

The interviews lasted from 40 to 112 min (mean 68; SD 19) and yielded a total of 294 pages of transcripts. Our interviews revealed that participants were affected by a combination of workplace-based and personal factors which contributed to their distress. With regard to workplace-based distress, a major contributor was the disruption and loss of ED shift work and the stress of COVID-19 uncertainty coupled with constant information bombardment. They had concern for patient isolation, miscommunication and disconnection from care. However, during this phase, they also found that there was a silver lining in the increased team bonding that occurred during this time period. Meanwhile, many participants described greater personal life stress and emotional distress. Participant quotes illustrating themes are presented in [table 1](#). These statements indicate exemplars of our findings, while the following sections highlight key findings from each theme.

Disruption and loss of emergency department shift work

The first few weeks of the pandemic saw a rapidly changing work environment, both in terms of clinical shifts and operations. The beginning of the survey aligned with both the early phase of the pandemic in Canada, and spring break. There was frequent mention of cancelled shifts due to a myriad of reasons. On return from travel, many physicians were instructed to self-isolate. Physicians quarantined due to acute illness and missed shifts due to fatigue. Participants reported shift loss due to lack of childcare. There were concerns about personal finances due to the decrease in shifts. Participants noted cancellation of regular shifts due to low patient volumes, however, some sites were understaffed despite lower patient volumes.

While clinical shifts were reducing, many noted increased non-clinical duties, often non-paid work in administrative and disaster planning roles, in efforts to rapidly develop pandemic preparation plans. In other cases, lack of regular in-person teaching responsibilities was balanced by increased in situ simulation for the department COVID-19 response preparation. Other changes in work responsibilities included additional clinical work such as COVID-19 assessment clinics and telemedicine.

Stress of COVID-19 uncertainty and information bombardment

Stressors in the first few weeks initially focused on continuously changing guidelines and protocols, poor communication from administration as well as concerns about lack of appropriate use of personal protective equipment (PPE) and uncertain PPE supply. These policies and equipment shortages contributed to a feeling of an unsafe work environment and personalised the risk of being an emergency physician during the pandemic.

This stress added to fears regarding COVID-19 unknowns and how Canadian hospitals would be impacted by the growing number of cases. Efforts to keep up to date on the rapidly

evolving situation manifested as information bombardment via social media and emails. The constant onslaught of updates blurred the divides between participants' work lives and personal lives, generating a great deal of stress that made it challenging to escape a 'work' state of mind. Information was also often inconsistent across regional, provincial and national sources with regard to PPE recommendations and departmental protocols.

Concern for patients' isolation, miscommunication and disconnection from care

Participants were concerned about critically ill patients staying home and avoiding the ED, potentially resulting in increased morbidity and mortality. The sustained low volume contributed to a sense of impending disaster as the surge observed in other regions had yet to be seen. Physicians also noted concern about the impact of restricted visitation policies on patients and their well-being. These visitation policies were reported to exacerbate isolation for patients, as well as create difficult circumstances for emergency physicians whereby they were required to have difficult end-of-life discussions with family members over the phone. Moreover, participants reported that PPE usage throughout their shifts introduced challenges with communication, and created barriers to providing empathetic and high-quality clinical care to their patients.

Increased team bonding

While the initial phase of the pandemic was stressful and anxiety-provoking for many emergency physicians, some participants identified benefits of the pandemic response for their clinical work. For instance, there was a sense of collegiality and teamwork where colleagues were very supportive. In addition, prioritisation of patients with COVID-19 and acute crises improved patient flow through the ED and communication with consultants.

Greater personal life stress

As the pandemic progressed, feelings around the personal impact of the pandemic began to unravel. Sustained low clinical volumes were frequently noted as a contributor of stress. There was ongoing concern for decreased income due to quarantine or cancelled shifts, while having an increased heavy burden of unpaid non-clinical work such as pandemic planning or on-call shifts. These issues increased the overall financial stress experienced by many emergency physicians.

More importantly, the fear of bringing COVID-19 home was one of the most significant contributors to personal stress. Many reported difficulties with trying to self-isolate from family both within and outside of the home. This added to the stress of the pandemic's concomitant unknowns and the lack of adequate pandemic preparation plans in many EDs.

Emotional distress: humanity not heroism

Participants reported feeling fatigue, anxiety, anger, much of which was attributed to the uncertainty of the pandemic and the long hours of PPE usage. Frustration and tensions also arose in the workplace between colleagues regarding PPE complacency, as well as with hospital administrations and governments due to a feeling of a lack of adequate support and communication from these governing bodies. Participants also reported feeling useless in the face of COVID-19 illness.

On a personal level, participants reported intense cravings for social interaction both in and out of work, given the restrictions in social gatherings and limitations in usual outlets for stress

Table 1 Key quotes demonstrating themes

Theme	Participant info	Quote
Disruption and loss of ED shift work	Participant 353 (F) (line 137)	"I think it was easier in a way for people to pick up those [shifts] because the whole rest of their lives were put on hold. So all the things that would normally be reasons why you couldn't pick up a shift, like a particular teaching session, or a meeting, or some other engagement, suddenly your calendar was completely clear so you didn't have all those other engagements and I think people were anxious to find a way that they could do something helpful".
	Participant 527 (F) (line 130)	"So we had about 6 people off at the beginning because they travelled for March break. And some of them couldn't return early, some of them did choose to return early, but they were all on 14-day isolation, so they couldn't work for the 14 days. They ended up trying to do some other admin roles when it was able, not everybody was".
	Participant 531 (F) (line 283)	"One of my [emergency physician] colleagues, she had a babysitter that was hired for the summer taking care of her kids and now the babysitter for whatever reason, learned that the physician was actually an emergency doctor in contact with COVID patients and she bailed out".
Stress of COVID-19 uncertainty and information bombardment	Participant 447 (F) (line 562)	"I think the toughest part for the first month and a half was really the uncertainty, the not having a good grasp. I mean you've been working for 10, 12 years, you know what you need to do, you're comfortable in your work. Now it's like okay, our work is changing almost every day, we don't know what's going to happen, we don't know if we're going to run out of PPE, I'm not sure what this disease looks like, so it was really a lot of the unknown and already you can see a change".
	Participant 268 (F) (line 209)	"I don't think I could have ever pictured that I would have a dangerous job and it kind of felt dangerous for a little bit because you have so little control over how things are going to go. I don't know. I think I picked a field of work where we deal with the unexpected all the time but the unexpected in a pandemic when somebody is coming in with respiratory distress can make it difficult because you have to gown up or down with all of your PPE and you may not have the time to do that.(...) Initially, you don't really think about it because it's just what you have to do but as time goes it just weights a little bit heavier and you wish 'I just wish things could go back to normal' or 'I don't know how good I had it before'. It does play a little bit on the mental psyche".
	Participant 89 (F) (line 657)	"I mean I think the hardest time was right at the beginning when it was really scary, and things were—there was just this huge workload, like the firehose of information to process and the boatload of emails to reply to. I wasn't sleeping very much. I think even if I hadn't been so busy though, I wouldn't have been sleeping very much because you know, you're sitting there scrolling through Twitter trying to understand what's happening and just kind of that adrenaline rush".
Increased team bonding	Participant 524 (M) (line 258)	"So yeah, initially those first three weeks, boom. We're excited, we're in it together. Somebody misses a shift, they'll go oh! I'll take your shift! Right? Because I want to be there, I'm in the trenches ready to go".
	Participant 353 (F) (line 253)	"Well I really loved the sense of collaboration in terms of working with other units and other teams in the hospital. We do a lot of work that can be siloed, I could have a particular idea and take it to somebody, and by the time it filtered through all the various committees and all the different hands it has to pass through, it could take 2 years to get to its final stage. And we were turning things over and having meetings and bringing people together and reaching consensus and agreement, like almost in real time. So, it was satisfying in that way to see those silos come down and people actually make things happen".
Concern for patients' isolation, miscommunication and disconnection from care	Participant 128 (F) (line 289)	"[Low ED volumes] means people are staying home with their appendicitis until it perforated. That means they're staying home with their MI, and then coming in with heart failure a week later when you couldn't tell if they had heart failure or if they had COVID at presentation. People are completing their stroke. These sorts of things, people are... there have been... this drop, emergency department visits in the province went down by 50%. That's not because people are not getting sick".
	Participant 333 (F) (line 575)	"When we intubate a COVID patient, (...) we often give the phone to the person, because they don't have visitors, to talk to their loved ones, and we know that this could be the last time that they talk to them. So, we're witnessing this very personal, intense moment and it's kind of soul crushing so... most of medicine is not personalized. But suddenly you are taken into a very personal part of someone's life that you could probably relate to, what if it was you talking or somebody you love talking?"
	Participant 268 (F) (line 350)	There's been probably a lot of times when I've discharged the patient home and they just didn't understand some of the stuff that I explain and it would be lost in translation (...) Then later on a family member will call and be like 'can you just summarize what happened because my mom or dad didn't really understand' and you're like 'oh shoot'".
Greater personal life stress	Participant 41 (F) (line 519)	"[My elderly parents] basically said 'we would rather get COVID from you and die than continue with this. So we will take that risk so that we will have more normal interactions and that we feel that we're happier human beings and quality of life is better'. But that's a hard conversation to have. Like I'm tearing up just now, just thinking about it (chuckles), (holds back tears) Um, so... that scares me. Bringing it home".
	Participant 128 (F) (line 524)	"I think when this whole thing first hit, and provincial lockdown occurred through late March, I was really anxious, I was really nervous, I was worrying a lot, I felt a lot of tension, I was having trouble falling asleep, I was having... I was... actually, I was anxious enough that I had chest pain (chuckles).(...) you know the feeling you get in your chest if you're about to cry because somebody said something really upsetting to you or really hurtful? Almost that feeling when you would think about, 'oh my god' there's just this... and I realize I was really, really worried and there was no way I... and we can't make it safe".

Continued

Table 1 Continued

Theme	Participant info	Quote
Emotional distress: humanity not heroism	Participant 531 (F) (line 238)	"I'm more afraid about the long-term consequences. To be honest, there have been days where I have been like, 'Do I really still want to do this for the rest [of my life?]' (...) I never felt at any point like a hero. On the opposite, we're kind of like, we feel so useless to be honest. Most of the time we're powerless and those people just, being at the end of their life dying without anything we can do. It's almost — I mean at the beginning it was kind of nice, now it's almost like, I'm almost angry at this term to be honest".
	Participant 490 (M) (line 619)	"Yeah, a desire for human connection. I got off call this morning for example, off night call, and we hand over among colleagues all the cases on the board and it was an hour after my shift was done that we were still there, because you know, we were just craving human connection. And connection with the people that we would normally connect with. So we're standing around all masked up at the hospital and it's like, 'what have you been doing?' 'Hey, what about politics this?' 'Have you read the news of that?' And 'hey you know I got married 2 weeks ago?' Which by the way, I got married 2 weeks ago, which is another challenge (laughs) that I didn't tell you about".
	Participant 585 (F) (line 391)	"So, in my hospital when we want to bring info up, it has to go up all through that top, and then it has to be uniformized—it has to be the same for all the hospitals—so they try to change things to bring them down to all the hospitals. But in the same group we have very different hospitals: we have big regional hospitals and small, remote hospitals. So it cannot be the same for everyone. That's why it takes so much time so have that protocol going down. And yeah, it's all barriers, it's frustrating".

F, female; M, male; PPE, personal protective equipment.

coping, such as going to the gym. Additionally, participants reported experiencing challenges in emotionally processing how their personal and work lives were changing because of the pandemic. Notably, participants also stated that they began feeling the weight of social expectations during the later stages within this early period of the pandemic. Many remarked that they did not feel like they represented the 'hero' persona that many members of the public had been expressing gratitude for.

DISCUSSION

We describe the early COVID-19 pandemic experience from the personal vantage point of emergency physicians across Canada. Although the data presented an array of experiences, key common themes emerged. We found that Canadian emergency physicians experienced loss of clinical shift work, stress from COVID-19 unknowns and information bombardment, increased team bonding, greater personal life stress, concern for patients and emotional distress during the early period of this pandemic.

We reported previously that Canadian emergency physicians experienced work-related impacts and lifestyle-related COVID-19 impacts.⁴ In our qualitative interviews, we explored how these changes caused participants to experience psychological and emotional distress. We identified multiple sources of distress, even though Canadian COVID-19 prevalence remained low during the first pandemic wave. Distress arising from moral injury during times of emergency triage and resource shortage likely contributes only a proportion of all personal distress experienced by emergency physicians. Our findings agree with an American College of Emergency Physician survey where almost half of the respondents reported distress from reduced hours and pay, and a quarter reported distress caused by additional administrative demands.¹³ Other studies have pointed to poor communication of rapid protocol changes as a major source of distress.^{11–16}

We identified several positive pandemic effects very early in the first few weeks of the pandemic such as greater team bonding. These good experiences included the perception that familiar, inefficient systems were replaced by rapid, effective versions because of a confluence of factors. Hallway medicine disappeared and consultants were 'at the ready'. Similar to other studies, our physicians reported colleagues¹⁷ and members of the public were respectful and thankful.¹⁸ However, the positive

impacts on physician mental health were short lived and the overall sense was that participants had experienced negative mental health during the early pandemic. The mean participant anxiety score was comparable with those reported in outpatients with general anxiety, social anxiety and panic disorder.¹⁹

LIMITATIONS

While there are some strengths to our study, there are still some limitations to our findings that we must report. Our study recruited a broad, national cohort of interviewees that complement data from a survey study and the interviews featured in our study were conducted real-time during the first pandemic wave. The main limitation was that only those who had expressed an interest in sharing their story were invited to avoid overburdening survey participants at a stressful time.

Another important limitation is that this pandemic has not been a static phenomenon. While many of our themes may resonate with us later in the pandemic, each new wave brings new sources of stress. For example, the current wave has seen increased workload with fewer additional resources for overcrowded departments and many more emergency physicians have contracted the illness.²⁰

CONCLUSIONS

Canadian emergency physicians experienced emotional and psychological distress during the early COVID-19 pandemic, at a time when COVID-19 prevalence was low. We highlight the many adverse effects they experienced, some of which were linked to unique work setting of the ED.

Author affiliations

¹Department of Medicine, McMaster University, Hamilton, Ontario, Canada

²School of Medicine, Queen's University, Kingston, Ontario, Canada

³Emergency Department, Hamilton Health Sciences, Hamilton, Ontario, Canada

⁴Division of Emergency Medicine, Department of Medicine, McMaster University, Hamilton, Ontario, Canada

⁵Health research methodology, Evidence, and Impact (HEI), McMaster University, Hamilton, Ontario, Canada

⁶Emergency Medicine, Queen's University, Kingston, Ontario, Canada

⁷Department of Psychiatry, Ottawa Hospital, Ottawa, Ontario, Canada

⁸Department of Obstetrics and Gynecology, Ottawa Hospital, Ottawa, Ontario, Canada

⁹Department of Obstetrics and Gynecology, University of Ottawa, Ottawa, Ontario, Canada

¹⁰University of Toronto, Toronto, Ontario, Canada

¹¹Michael G. DeGroote School of Medicine, McMaster University, Hamilton, Ontario, Canada

¹²Department of Anesthesiology and Critical Care Medicine, Université Laval Faculté de médecine, Québec, Québec, Canada

¹³Centre intégré de santé et de services sociaux de Chaudière-Appalaches, Lévis, Québec, Canada

¹⁴Division of Emergency Medicine, Department of Medicine, University of Toronto, Toronto, Ontario, Canada

¹⁵Division of Education & Innovation, Department of Medicine, McMaster University, Hamilton, Ontario, Canada

Twitter Kerstin de Wit @kerstindewit and Teresa Man-Yee Chan @TChanMD

Contributors KdW, MM, CW, NC, KR, CG-L, LS, SG and TM-YC planned and designed the study. KdW obtained research ethics approval and study funding. AT, KdW, CW, NC and TM-YC conducted the study. AT, CW, KR, CG-L and TM-YC analysed the data. All authors reviewed the study results and contributed to the interpretation. All study authors contributed to writing this manuscript and have approved the final version. KdW, TM-YC have agreed to serve as guarantors for the full responsibility for the work and/or the conduct of the study, had access to the data, and supervised the publication process.

Funding This study was funded by Hamilton Health Sciences, The Juravinski Research Fund.

Competing interests CG-L reports employment with the Canadian Medical Association and notes that the opinions and conclusions expressed are the writers' own and are not those of the Canadian Medical Association.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Consent obtained directly from patient(s).

Ethics approval The study was approved by the Hamilton Integrated Research Ethics Board. Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Not commissioned; internally peer reviewed.

Data availability statement Data are available on reasonable request.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

This article is made freely available for personal use in accordance with BMJ's website terms and conditions for the duration of the covid-19 pandemic or until otherwise determined by BMJ. You may download and print the article for any lawful, non-commercial purpose (including text and data mining) provided that all copyright notices and trade marks are retained.

ORCID iDs

Kerstin de Wit <http://orcid.org/0000-0003-2763-6474>

Teresa Man-Yee Chan <http://orcid.org/0000-0001-6104-462X>

REFERENCES

- Dean W, Jacobs B, Manfredi RA. Moral injury: the invisible epidemic in COVID health care workers. *Ann Emerg Med* 2020;76:385–6.
- Hines SE, Chin KH, Glick DR, *et al.* Trends in moral injury, distress, and resilience factors among healthcare workers at the beginning of the COVID-19 pandemic. *Int J Environ Res Public Health* 2021;18:488.
- Gualano MR, Sinigaglia T, Lo Moro G, *et al.* The burden of burnout among healthcare professionals of intensive care units and emergency departments during the COVID-19 pandemic: a systematic review. *Int J Environ Res Public Health* 2021;18:8172.
- de Wit K, Mercuri M, Wallner C, *et al.* Canadian emergency physician psychological distress and burnout during the first 10 weeks of COVID-19: a mixed-methods study. *J Am Coll Emerg Physicians Open* 2020;1:1030–8.
- Booth A, Hannes K, Harden A. *COREQ (consolidated criteria for reporting qualitative studies). Guidelines for Reporting Health Research: A User's Manual*, 2014: 214–26.
- Rodriguez A, Smith J. Phenomenology as a healthcare research method. *Evid Based Nurs* 2018;21:96–8.
- Thorne S, Kirkham SR, O'Flynn-Magee K. The analytic challenge in interpretive description. *Int J Qual Methods* 2004;3:1–11.
- Flemmen AB. Chapter 5: sensitizing concepts in action: expanding the framework. In: *Concepts in action*, 2017: 79–94.
- Mercuri M, Clayton N, Archambault P, *et al.* Canadian emergency medicine physician burnout: a survey of Canadian emergency physicians during the second wave of the COVID-19 pandemic. *CJEM* 2022;24:288–92.
- Health Infobase Canada. COVID-19 cases in Canada by date as of August 12, 2022. Available: https://health-infobase.canada.ca/covid-19/?stat=num&measure=cases_total&map=pt#a2 [Accessed 16 Aug 2022].
- Hunt MR. Strengths and challenges in the use of interpretive description: reflections arising from a study of the moral experience of health professionals in humanitarian work. *Qual Health Res* 2009;19:1284–92.
- Vasileiou K, Barnett J, Thorpe S, *et al.* Characterising and justifying sample size sufficiency in Interview-Based studies: systematic analysis of qualitative health research over a 15-year period. *BMC Med Res Methodol* 2018;18:1–18.
- Marco CA, Larkin GL, Feeser VR, *et al.* Post-Traumatic stress and stress disorders during the COVID-19 pandemic: survey of emergency physicians. *J Am Coll Emerg Physicians Open* 2020;1:1594–601.
- Rodriguez RM, Medak AJ, Baumann BM, *et al.* Academic emergency medicine physicians' anxiety levels, stressors, and potential stress mitigation measures during the acceleration phase of the COVID-19 pandemic. *Acad Emerg Med* 2020;27:700–7.
- Monzani A, Ragazzoni L, Della Corte F, *et al.* COVID-19 pandemic: perspective from Italian pediatric emergency physicians. *Disaster Med Public Health Prep* 2020;14:648–51.
- Canadian Medical Association Association CM. *Executive summary: CMA rapid POLL on the supply of personal protective equipment and mental health impact of COVID-19*, 2020.
- Ford TR, Fix ML, Shappell E, *et al.* Beyond the emergency department: effects of COVID-19 on emergency medicine resident education. *AEM Educ Train* 2021;5:e10568.
- Jehle D, Leggett J, Short R, *et al.* Influence of COVID-19 outbreak on emergency department press Ganey scores of emergency physicians. *J Am Coll Emerg Physicians Open* 2020;1:1413–7.
- Baker A, Simon N, Keshaviah A, *et al.* Anxiety symptoms questionnaire (ASQ): development and validation. *Gen Psychiatr* 2019;32:e100144.
- Yong E. Hospitals are in serious trouble. The Atlantic, 2022. Available: <https://www.theatlantic.com/health/archive/2022/01/omicron-mild-hospital-strain-health-care-workers/621193/> [Accessed 03 Feb 2022].