

RESEARCH

Open Access



“Family doctors are also people”: a qualitative analysis of how family physicians managed competing personal and professional responsibilities during the COVID-19 pandemic

Sarah Spencer¹, Julia Lukewich², Emily Gard Marshall³, Maria Mathews⁴, Shabnam Asghari⁵, Judith B. Brown⁴, Thomas R. Freeman⁴, Paul Gill⁴, Samina Idrees⁴, Rita K. McCracken⁶, Sudit Ranade⁴, Steve Slade⁷, Amanda L. Terry⁴, Jamie Wickett⁴, Eric Wong⁴, Richard Buote³, Leslie Meredith⁴, Lauren Moritz³, Dana Ryan^{2,4} and Lindsay Hedden^{1*} 

Abstract

Background Family physicians (FPs) fill an essential role in public health emergencies yet have frequently been neglected in pandemic response plans. This exclusion harms FPs in their clinical roles and has unintended consequences in the management of concurrent personal responsibilities, many of which were amplified by the pandemic. The objective of our study was to explore the experiences of FPs during the first year of the COVID-19 pandemic to better understand how they managed their competing professional and personal priorities.

Methods We conducted semi-structured interviews with FPs from four Canadian regions between October 2020 and June 2021. Employing a maximum variation sampling approach, we recruited participants until we achieved saturation. Interviews explored FPs' personal and professional roles and responsibilities during the pandemic, the facilitators and barriers that they encountered, and any gender-related experiences. Transcribed interviews were thematically analysed.

Results We interviewed 68 FPs during the pandemic and identified four overarching themes in participants' discussion of their personal experiences: personal caregiving responsibilities, COVID-19 risk navigation to protect family members, personal health concerns, and available and desired personal supports for FPs to manage their competing responsibilities. While FPs expressed a variety of ways in which their personal experiences made their professional responsibilities more complicated, rarely did that affect the extent to which they participated in the pandemic response.

Conclusions For FPs to contribute fully to a pandemic response, they must be factored into pandemic plans. Failure to appreciate their unique role and circumstances often leaves FPs feeling unsupported in both their professional and personal lives. Comprehensive planning in anticipation of future pandemics must consider FPs' varied responsibilities, health concerns, and necessary precautions. Having adequate personal and practice supports in place

*Correspondence:

Lindsay Hedden

lindsay_hedden@sfu.ca

Full list of author information is available at the end of the article



© The Author(s) 2024. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.

will facilitate the essential role of FPs in responding to a pandemic crisis while continuing to support their patients' primary care needs.

Keywords Primary care, Family physicians, Pandemic, COVID-19, Personal responsibilities, Professional responsibilities

Background

Family physicians (FPs) are an essential component of any pandemic response, with responsibilities ranging from surveillance and education to managing surge capacity, while continuing to provide routine primary care to their patients [1–9]. As the COVID-19 pandemic progressed in Canada, it became clear that the pandemic response was heavily reliant on FPs to support public health and acute care [6]. Though existing pandemic response plans in Canada articulated goals for primary care, these documents [3, 10, 11] tended to be clinically oriented and rarely recognised the complexity of FPs' work context, which is often split across a variety of practice settings [12] and lacks formal connection to the broader health system.

Consequently, many community-based FPs did not receive sufficient or timely professional supports or resources [13], such as public health and COVID-19 information, practice guidance, and access to appropriate personal protective equipment (PPE) [14, 15]. This lack of support could leave FPs with pre-existing health conditions feeling vulnerable and those without concerned about how to contribute to the pandemic response while protecting their families from their work exposures [13]. FPs were also expected to make rapid adaptations in their practice, such as moving to virtual models of care, often with little support or prior experience [13, 16]. Frequently, the upheaval and lack of support FPs experienced professionally were reflected in broader social disruptions. In particular, just as FPs were being advised to minimise in-person visits [17–20] or asked to redeploy to support acute care or COVID-19 testing centres [6], schools and childcare centres across the country were being shut down [21–23].

Existing research has detailed the challenges that such closures and the pandemic overall have had on healthcare and essential workers more broadly [22–27], however there is little research that focuses specifically on FPs. The objective of our study was to explore the experiences of FPs during the first year of the COVID-19 pandemic to better understand how they managed their competing professional and personal priorities. By understanding how FPs' personal experiences during the COVID-19 pandemic affected their professional activities (and vice versa), we aim to inform the provision of appropriate supports and planning for FPs during future pandemics.

Methods

Study design

We conducted a series of case studies in four regions of Canada (Vancouver Coastal health region in British Columbia, Eastern Health region in Newfoundland and Labrador, the province of Nova Scotia, and Ontario Health West) to document the anticipated and actual personal and professional responsibilities of FPs during the COVID-19 pandemic. Case studies included provincial policy scans to establish a chronology of FP roles and semi-structured interviews with FPs. Mathews et al. [28] have described the full study protocol, case study regions, and broader healthcare system context previously. This paper focuses on how FPs' personal responsibilities influenced and were impacted by their professional practice and participation in the pandemic response.

Sampling and recruitment

We used a maximum variation sampling approach to recruit FPs in each study region. We sought to include individuals representing a diverse group of characteristics, such as gender, urban and rural location, patient population, funding and practice models, and academic, hospital, or health authority affiliations. We used lists from family medicine and physician professional associations and faculty newsletters, provincial College of Physicians and Surgeons' public listings, social media posts by study team members and collaborating organisations, and a snowball approach (where permitted) to recruit participants.

Regional Research Coordinators shared study information, an invitation to participate, and the consent form with prospective participants. Eligible FPs were clinically active or eligible to be clinically active in study regions. We excluded postgraduate medical residents, unlicensed international medical graduates, and FPs working in exclusively academic, research, or administrative roles.

Data collection and analysis

Participants were scheduled for a 45 min to one hour telephone or Zoom videoconference (Zoom Video Communications) interview. The interviews were conducted between October 2020 and June 2021 and explored the varied expectations, roles, and responsibilities of FPs as the pandemic evolved, the facilitators and barriers that FPs faced in fulfilling these, and any personal or professional gendered experiences they encountered which

affected their participation in the pandemic response. Our semi-structured interview guide (Additional file 1) was created by the regional principal investigators and pre-tested by the broader study team, which includes practising FPs and primary care and public health experts. Interviews were audio recorded, transcribed, and verified by the interviewer.

Transcripts were analysed using a thematic framework [29, 30]. At least two researchers independently reviewed and inductively coded a selection of transcripts from each region before meeting to develop a harmonised regional coding framework. Researchers then used their regional coding framework to code one transcript from each study region. Through a series of meetings, the researchers compared coding decisions and overlapping codes to develop a harmonised coding framework, resolving any conflicts through consensus. This harmonised framework was then used by researchers to code all transcripts in their study region using NVivo V.12 (QSR International).

Ethics

We obtained ethics approval from the appropriate research ethics boards in each study region. All participants provided their written informed consent in advance of their interview, participation was voluntary, and responses have been anonymised. We use

participant codes throughout our presentation of results which include a provincial abbreviation and an indication of the participant’s reported gender (man (M) or woman (W)).

Results

We interviewed 68 FPs (Table 1), of whom 41 (60.3%) identified as women. Forty-six (67.7%) declared dependents, including children, elderly parents, or other family/community members for whom participants were responsible for providing care to varying degrees. Interviews were conducted between October 2020 and June 2021 and therefore covered FPs’ experiences during the early stages of the COVID-19 pandemic in Canada. Prominent themes emerged relating to FPs’ personal and professional responsibilities and concerns: (1) personal caregiving responsibilities; (2) COVID-19 risk navigation to protect family members; (3) personal health concerns; and (4) available and desired supports. The themes describe the issues FPs encountered in balancing their personal and professional responsibilities, followed by the solutions they relied upon versus those they would have liked to have had—for both COVID-19 and future pandemic scenarios; and in many cases, these reflect the natural progression of participants own self-reflections.

Table 1 Participant characteristics [N(%)]

	British Columbia N = 15	Newfoundland and Labrador N = 12	Nova Scotia N = 21	Ontario N = 20	Total N = 68
Sex/gender ^a					
Male/men	4 (26.7)	4 (33.3)	9 (42.9)	10 (50.0)	27 (39.7)
Female/women	11 (73.3)	8 (66.7)	12 (57.1)	10 (50.0)	41 (60.3)
Dependents					
Children	7 (46.7)	7 (58.3)	12 (57.1)	11 (55.0)	37 (54.4)
Elderly parents	1 (6.7)	0 (0.0)	2 (9.5)	1 (5.0)	4 (5.9)
Children and elderly parents	3 (20.0)	1 (8.3)	1 (4.8)	0 (0.0)	5 (7.4)
None reported	4 (26.7)	4 (33.3)	6 (28.6)	8 (40.0)	22 (32.4)
Community size ^b					
Rural	0 (0)	3 (25.0)	8 (38.1)	9 (45.0)	20 (29.4)
Small urban	0 (0)	0 (0.0)	0 (0.0)	1 (5.0)	1 (1.5)
Urban	15 (100.0)	8 (66.7)	13 (61.9)	8 (40.0)	44 (64.7)
Mix	0 (0)	1 (8.3)	0 (0.0)	2 (10.0)	3 (4.4)
Remuneration model					
Fee-for-service	6 (40.0)	5 (41.7)	7 (33.3)	4 (20.0)	22 (32.4)
Alternative payment plan ^c	9 (60.0)	7 (58.3)	14 (66.7)	16 (80.0)	46 (67.7)
Years in practice (mean)	16.9	16.3	15.4	18.7	16.9

^a Gender was asked as an open-ended question and participants frequently responded using sex-based terminology, so we reflect that here by grouping ‘Sex/gender’

^b Rural < 10,000 population, small urban = 10,000–99,999 population, urban > 1,000,000 population. Mix denotes where participants work in more than one community size

^c Alternative payment plan includes all funding models outside of traditional and enhanced fee-for-service

Personal caregiving responsibilities

Both men and women described the toll of their participation in the pandemic response on their personal caregiving responsibilities amidst the broader societal upheaval of the pandemic. For many participants, the pandemic did not shift the distribution of caregiving roles in their household. Rather, pandemic-induced changes reflected the existing distribution of responsibilities that each FPs' family had established prior to the COVID-19 pandemic.

Where women carried the majority of household responsibilities pre-pandemic, they often felt the weight of the pandemic more so than others who more equally shared those roles with their partners: *"our roles as caregivers often falls to the woman—maybe that's a sexist thing to say.... But it seems to me we get the brunt, the main responsibility for childcare—at least in my house"* [ON03W]. This was particularly the case where partners were either unwilling or unable to scale back on their professional duties, and could prompt women FP to limit their pandemic workforce participation: *"I felt like I had to cut back on my work just to keep things manageable at home with my personal life and with my kids and it felt like my partner really didn't cut back on any of his roles"* [BC05W].

For many participants, every aspect of their lives became more challenging. As one participant noted, the increased difficulty—both at home and at work—was experienced equally between herself and her spouse: *"I feel really fortunate in that my spouse, we're pretty equal in terms of how we share our workloads. So, my personal workload didn't increase relative to his; both of our workloads just increased in every dimension"* [BC15W]. This heightened difficulty was particularly true during the initial stay-at-home closures when childcare centres and schools shut down. While this experience was not necessarily unique to FPs, the level of challenge participants faced was even greater in households comprising multiple essential workers: *"...childcare was a big challenge. Schools closed, I have three little kids, my husband's also an essential worker. So childcare was a huge barrier for our family"* [NS02W]. Access to childcare, having older and more independent children, or a spouse who relieved childcare pressures could determine FPs' ability to continue working at their pre-pandemic level or take on additional pandemic-specific roles. As one physician noted regarding their workload, *"When most of the rest of the world was slowing down, my world was ramping up"* [NL02W].

During school closures, FPs supervised and homeschooled their children using virtual platforms. For one household with two physicians, this required the FPs to

split and schedule their clinic time around their children's needs:

...we have two kids, and for the first little bit with schools locked down it meant that we had to adjust all of our clinic schedules, so that if she was in clinic, I was at home and if I was at home, you know, and vice versa. And it really felt like we had to become teachers... [ON14M]

For other FPs, homeschooling was an unrealistic expectation: *"The concept that you should somehow homeschool while you work, I thought that was crazy. The teacher literally emailed me and said, 'You don't seem to have logged in yet.' I was like, 'Nope, I'm not going to log in...'"* [NS15W].

With the rapid, widespread introduction of virtual modalities to support stay-at-home closures, some FPs saw patients from home. This was not always straightforward, however, as their work required privacy for confidential patient consultations which could be challenging to achieve with other family members at home:

So I would do my virtual care... I'd be at home for exactly that reason—to try to support, as I could, my kids and my family. [...] so I tried to be in a physical isolation room as much as possible. And then come out between patients and say, 'Hey, what can I do?' and make you a quick sandwich, and then run back in. And then come back out again, and break up a fight, and go back in again. [NS13M]

To continue their clinical practice and assist with the pandemic response, participants acknowledged the sacrifices that their partners made, including taking leaves from work in non-essential sectors, having only one essential worker in a family working or working full-time, and delaying the completion of academic studies.

COVID-19 risk navigation to protect family members

While the pandemic introduced new complexities for all adults with personal caregiving responsibilities, FPs who provided in-person clinical care—sometimes with limited access to appropriate PPE—encountered an added stressor due to concerns surrounding the risk of exposure for themselves and their dependents. This was a frequent and explicit source of stress noted during the interviews and often revealed a conflict between competing identities of care provision—that of a physician versus that of a parent or child:

So, it was just a real tangible stress and I think that I really internalised that because you never forget being a mom. [...] I know that maternal feeling runs deep for me and I'm cuddling my kids in the mid-

dle of the night when they're waking up and can't fall back asleep, [...] and so whatever I've been in touch with that day—the whole family's getting it. And then you feel bad as a doctor for having faced that situation and now it's like, am I a bad parent? Literally the conversations that doctor moms were having were, are you a bad parent for cuddling your kid? [NL03W]

Yet, the measures FPs took to protect family members from any COVID-19 exposures could be another source of stress. One FP who lived in the basement, separate from his family to limit exposure, noted that some of these measures were not sustainable over a prolonged period:

I didn't want to be the guy that brought COVID to my family [...] I was isolated from my family. I was in full work mode and when I'd come home late at night, they'd come down and visit with me from the opposite side of the barrier and that was not good for my mental health, not good for my family's health. So, we eventually abandoned that and sort of said, there has to be some sort of compromise here, and I went more to the strip and shower approach that my colleagues were doing. [ON04M]

These decisions were not without impact for FPs or their family members. Amidst PPE shortages and increased workload, participants knew that their families were worried about both their physical and emotional wellbeing. FPs similarly faced the emotional toll of having to minimise contact with family:

So my sister lives two hours away. She's also a family doctor who was working at the ER last year [...] her husband stays home full-time with their three children. So my ten year old went and lived in their house [...] from March break until the end of May [...] And two households with two doctors in them seemed like a bad idea to mix us up [...] So I stayed home, worked full-time and I didn't see my youngest daughter. [NS15W]

Personal health concerns

FPs who identified as young and healthy acknowledged the importance of continuing to work and see patients in-person, while also expressing fears about their health and level of protection against COVID-19: *"I told myself that this is my duty to be there [...] and I kept my fears just at the back corner"* [NS12W]. This duty of care expressed by FPs often superseded their personal concerns:

[I knew] that I was going to be at risk and that I couldn't change that. I couldn't abandon my patients

and I also couldn't tell everybody to go to emerg with all their concerns [...]. I think early March I knew that it was going to be a long-haul and I knew that I wasn't going to be protected. And I would still have to deliver care. [NL11W]

These concerns were heightened for FPs with chronic illnesses, who were immunocompromised, or older. As one participant noted, *"I'm the old guy without young children and able to probably do some of that backfilling. But on the age side, I'm also at greater risk, being 65—how do we take [that] into consideration?"* [NS01M]. This was echoed by another participant after inquiring about supports for FPs:

And at the time, the concern was, 'well what about the older doctors with comorbidities and lack of protection? Is there any exemption or support for us?' And [the Medical Officer of Health's] answer, I remember, was just, 'No: [...]. It was just unbelievable, I thought, we're just cogs in a wheel. They're talking about vulnerable patients, older patients with comorbidities. Well, many of our doctors are also older, like in their 70s or 60s, and with comorbidities. So, what about us?' [BC10W]

Available and desired supports

Personal supports available to FPs varied by study region, reflecting provincial-level pandemic responses. In British Columbia, FPs expressed gratitude for the decision to prioritise keeping schools open:

I have been deeply appreciative of the approach BC's taken, whatever criticism other people may have about trying to keep schools opened at all costs. I know that's been highly controversial ... It [school closure] was a disaster for our family last year, it was not good at all and I'm sure we're not alone. [BC13W]

In Nova Scotia, participants were disappointed by the lack of consideration for FPs and other essential workers' childcare needs, with one FP expressing particular frustration at the Premier's suggestion during a daily briefing [31] that these needs were being taken care of "organically" by nearby family members, friends, and neighbours, as this assumes that all FPs had these local supports available to allow them to continue working and contributing to the pandemic response:

They talked a lot about families supporting each other and helping young families take care of kids. And I'm listening to this and thinking, I don't know who you're talking about. You're talking about families that are from Nova Scotia, who have gen-

erations of family in Nova Scotia [...] So that's none of the immigrants, that's none of the single parents, that's none of the people who have moved here. [...] And it was a very difficult message to hear from two older white men [the Premier and the Chief Medical Officer of Health]. [NS15W]

Other participants from Nova Scotia echoed this sentiment, pointing to the need to provide a more equity-oriented and “gendered response” to the pandemic that supported FPs professionally and “in the context of their family and the stress they're going through, and we didn't do that at all” [NS13M].

In Ontario, participants provided little indication of available supports beyond some medical students offering childcare. In Newfoundland and Labrador, participants suggested that care for children was available but limited to FPs providing in-person care: “So, if you were working outside the home, there was supports. But, as far as I know, if you were working in your home, there's not” [NL10W].

More often, participants noted their reliance on informal supports to manage their personal responsibilities and continue working throughout the pandemic. Family and community supports were the most prominently mentioned, with many participants—both men and women—acknowledging their spouse: “I think having a spouse who looked after the family was the number one thing that allowed me to do what I did.” [ON13M]. There were even instances where spousal support included supporting FPs professionally. Multiple participants noted that their spouses stepped in to provide them clerical support which, in one case, involved training on their electronic medical record and signing a confidentiality agreement with the health authority [NL12W].

Participants also cited the importance of a strong practice community to provide professional support. This was especially crucial for FPs who were limited to virtual practice due to their own clinical vulnerabilities: “I'm strictly virtual care and the docs I'm filling in for know that and provide back-up for me so that my patients still get seen if they need to be” [NL10W].

When asked what FPs would need to participate fully in a pandemic response, the variety of supports articulated reflected the varied experiences and personal circumstances of FPs. Certainly, childcare was a prominent request, particularly childcare that reflected the idiosyncrasies of FPs' schedules: “So, having affordable, reliable childcare and flexible childcare. And so that's the other piece that is more challenging perhaps for physicians is that often the traditional daycare, 8–5 or whatever, isn't always helpful” [BC07W].

For other FPs, there was a desire for schedule flexibility, noting that this requires administrative and colleague support, and a funding model that provides some “*leeway in your deliverables to be able to do that*” [NS11W]. Though some FPs felt fortunate that they had financial privileges that other families may not, enabling them to retain or hire caregivers or cut back on their work during the pandemic, others felt financially compelled to continue working to support their families. This was certainly a concern for one fee-for-service FP who struggled to support her mother in caring for her father with dementia: “*it's difficult for me [...] I have to consider the financial ramifications to my more immediate family if I was to take time off work—which would be unpaid—in order to provide homecare or respite for mom*” [NL07W].

Discussion

Familial roles and personal circumstances including personal caregiving responsibilities, COVID-19 risk navigation to protect family members, and personal health concerns complicated FPs' ability to deliver routine primary care and participate in the pandemic response. Many of the experiences articulated by FPs during our interviews echo those of other healthcare professionals and essential workers, especially with respect to the added stress resulting from school and childcare centre closures [21–23], minimising the risk of exposing family to COVID-19 through their work [26, 32–34], and a lack of equity-informed formal supports to help manage conflicting personal and professional responsibilities [24, 27, 35].

FPs, however, did articulate a distinct experience with the rapid introduction of virtual care to facilitate stay-at-home closures early in the pandemic and minimise COVID-19 exposure risks throughout [16]. For FPs who employed this new modality to work from home, finding private spaces to hold confidential conversations with patients could be a challenge. This was particularly the case for FPs with younger children, who had to support homeschooling, or who did not have a partner who took on additional household responsibilities. These experiences informed the ardent call from participants for childcare supports. They reflected the difficulty of prolonged school and childcare centre closures, as well as the loss of informal sources of childcare due to both the need to protect high-risk family members who would ordinarily have provided care and the formation of social bubbles [21, 25, 36]. They also reflected regional variation in formal supports available to FPs amidst stay-at-home closures [37, 38], and existing research that documents FPs' perceived exclusion from formal pandemic supports relative to frontline or hospital-based staff [24].

For FPs with heightened personal health concerns, including those who were immunocompromised and/or older, virtual modalities did provide them opportunities to continue working and seeing patients throughout the pandemic while minimising their exposure risks. There are limitations, however, to the utility of virtual modalities in providing care to patients and not all patients are comfortable with or have access to the requisite technologies [39]. Recognising this limitation, many FPs continued to provide in-person care throughout the pandemic but did so in the face of COVID-19 exposure concerns for both them and their family members [13]. These concerns were most prominent early in the pandemic when less was known about COVID-19 transmission and as FPs struggled to secure appropriate PPE, particularly those without access to government PPE supplies [40–42]. Though the FPs we interviewed displayed resilience and resourcefulness in navigating these health concerns and PPE deficiencies, quicker and easier access to PPE for all FPs in future pandemics should help ameliorate their personal and family health concerns and better support their participation in a pandemic response [40].

While many of the women with whom we spoke did not feel that their domestic responsibilities had increased relative to their partners, this tended to reflect the distribution of labour in each family unit that had been established prior to the pandemic. For women who were already providing more child or parental care, or those without partners and local supports to attenuate those demands, the pandemic certainly amplified their unpaid care roles [22, 25, 32, 33]. Meanwhile, men who described the pressures of domestic responsibilities during the pandemic reflect the impact of broader societal disruptions on all personal caregivers, as well as reports of increases in men's participation in childcare during stay-at-home closures [43].

The impact of personal responsibilities and circumstances on FPs' ability to participate in a pandemic response occur amid wider concerns about primary care funding and access [44–47], including FP access to disability insurance and locum coverage [48]. Collectively, these individual and system level concerns are believed to contribute to the burnout, turnover, and disillusionment with family medicine in general [49–51]. Additional analyses suggest that inter-professional team-based and larger group practices may provide collegial support to FPs while alternative payment models (rather than fee-for-service) can alleviate financial concerns, allowing FPs to take time off [51, 52]. However, the diversity of FP experiences and desired supports we heard during interviews may reflect the challenge in establishing supports to meet everyone's needs. Regardless, our findings highlight the need to address more comprehensive

employment supports in future primary care reforms to strengthen the availability of primary care throughout a pandemic, and more broadly.

Limitations

We interviewed FPs in four regions of Canada between October 2020 and June 2021; accordingly, our findings may not reflect the experiences of FPs in other jurisdictions or during later stages of the pandemic. We were unable to recruit any FPs who left practice during the pandemic due to personal circumstances and thus those perspectives are absent from our analysis. While we specifically asked all participants about the impact of gender and personal responsibilities on their participation in the pandemic response, personal health concerns and FPs' pandemic-related risk mitigation efforts were not included in our interview guide and emerged organically during some interviews. Further, while interviewers ask for participants' gender, responses frequently employed sex-based terminology (i.e. male or female). Though we recognise the distinction and do not want to conflate participants' gender identity with their biological sex, we have grouped 'sex/gender' in our participant characteristics and included an indication of gender in each participant code. Finally, interviews are susceptible to social desirability and recall bias [53, 54].

Conclusion

This analysis adds the voices of FPs to existing literature on the experiences of essential and healthcare workers during the COVID-19 pandemic in Canada, identifying both overlapping and distinct experiences. Notably, for FPs to contribute fully to a pandemic response, future pandemic plans must recognise the complexity of FPs' experiences—in both their professional and personal lives. Where stay-at-home closures and homeschooling are required, childcare supports must be made available to all essential workers. Governments and health systems need also to make PPE readily available to healthcare workers in all settings to protect physicians themselves, and to help physicians protect their family members as they contribute to a pandemic response. Conversely, failure to appreciate their pandemic roles, the contexts in which they practise, as well as their competing personal and professional responsibilities leaves FPs and their practices unsupported. Comprehensive planning in anticipation of future pandemics must consider FPs' varied responsibilities, health concerns, and necessary protective measures. Having adequate personal and practice supports in place will facilitate the essential role of FPs in responding to a pandemic crisis while continuing to support their patients' primary care needs.

Abbreviations

FP Family physician
PPE Personal protective equipment

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12960-024-00901-4>.

Additional file 1: Interview guide.

Acknowledgements

We extend our gratitude to study participants for sharing their time with us while continuing to provide care for patients and family members during the COVID-19 pandemic.

Author contributions

SS coordinated research activities, interviewed family physicians, analysed the data, led the analysis of this data and the preparation of the manuscript. LH designed the study, supervised its implementation, and was a major contributor in writing the manuscript. JL, EGM, and MMA designed the study, supervised its implementation, interviewed family physicians, analysed the data, and assisted in the preparation of the manuscript. SA, JBB, TRF, PG, SI, RKM, SR, SS, ALT, JW, and EW provided advice in the implementation of the study, assisted in the analysis of data, and contributed to the preparation of the manuscript. RB, LME, LMo, and DR coordinated research activities, interviewed family physicians, analysed the data, and assisted in preparation of the manuscript. All authors have read and approved the final version of the manuscript.

Funding

This work is funded by a grant from the Canadian Institutes of Health Research (VR41 72756).

Availability of data and materials

The datasets generated and analysed during the current study are not openly available to maintain the anonymity and confidentiality of participants but may be available from the corresponding author on reasonable request.

Declarations**Ethics approval and consent to participate**

Ethical approval for this study was granted by Research Ethics British Columbia (No. H20-02998), and Health Research Ethics Board of Newfoundland and Labrador (No. 2020.251), Nova Scotia Health Authority Research Ethics Board (File No. 1026085), and Western University Research Ethics Board (Project ID 116315). Participation in the study was voluntary and participants understood that they could withdraw at any point up until their data were combined with other participants'. Written, informed consent was obtained prior to data collection and kept confidentially. All methods were carried out in accordance with relevant guidelines and regulations.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Author details

¹Faculty of Health Sciences, Simon Fraser University, 8888 University Drive, Burnaby, BC V5A 1S6, Canada. ²Faculty of Nursing, Memorial University, 300 Prince Philip Drive, St. John's, NL A1B 3V6, Canada. ³Primary Care Research Unit, Department of Family Medicine, Dalhousie University, 1465 Brenton Street, Halifax, NS B3J 3T4, Canada. ⁴Department of Family Medicine, Schulich School of Medicine & Dentistry, Western University, 1465 Richmond Street, London, ON N6G 2M1, Canada. ⁵Family Medicine, Faculty of Medicine, Memorial University, 300 Prince Philip Drive, St. John's, NL A1B 3V6, Canada. ⁶Department of Family Practice, Faculty of Medicine, University of British Columbia, 5950 University Boulevard, Vancouver, BC V6T 1Z3, Canada. ⁷The College

of Family Physicians of Canada, 2630 Skymark Avenue, Mississauga, ON L4W 5A4, Canada.

Received: 9 June 2023 Accepted: 20 February 2024

Published online: 04 March 2024

References

- Mazowitz G. Role for primary care in epidemic surge capacity. *Can Fam Physician*. 2006;52(August):951.
- Public Health Agency of Canada. COVID-19 pandemic guidance for the health care sector. 2020 [cited 2020 Nov 6]. Available from: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/covid-19-pandemic-guidance-health-care-sector.html>.
- Public Health Agency of Canada. Canadian Pandemic Influenza Preparedness: Planning Guidance for the Health Sector. 2018 [cited 2020 Nov 3]. Available from: http://epe.lac-bac.gc.ca/100/201/301/weekly_acquisitions_list-ef/2019/19-06/publications.gc.ca/collections/collection_2019/aspc-phac/HP40-144-2018-eng.pdf.
- Runkle JD, Brock-Martin A, Karmaus W, Svendsen ER. Secondary surge capacity: a framework for understanding long-term access to primary care for medically vulnerable populations in disaster recovery. *Am J Public Health*. 2012;102(12):e24-32.
- Hogg W, Huston P, Martin C, Saginur R, Newbury A, Vilis E, et al. Promoting best practices for control of respiratory infections. *Can Fam Physician*. 2006;52(September):1110-6.
- Mathews M, Meredith L, Ryan D, Hedden L, Lukewich J, Marshall EG, et al. The roles of family physicians during a pandemic. *Healthc Manage Forum*. 2022;17:08404704221112311.
- Haldane V, Zhang Z, Abbas RF, Dodd W, Lau LL, Kidd MR, et al. National primary care responses to COVID-19: a rapid review of the literature. *BMJ Open*. 2020;10(12):e041622.
- Desborough J, Dykgraaf SH, Phillips C, Wright M, Maddox R, Davis S, et al. Lessons for the global primary care response to COVID-19: a rapid review of evidence from past epidemics. *Family Pract*. 2021;cmaa142.
- Kinder K, Bazemore A, Taylor M, Mannie C, Strydom S, George J, et al. Integrating primary care and public health to enhance response to a pandemic. *Primary Health Care Res Dev*. 2021;22:e27.
- Vancouver Coastal Health. The Regional Pandemic Outbreak Response Plan. Vancouver: Vancouver Coastal Health; 2018 Sep [cited 2020 Sep 15]. Available from: <https://web.archive.org/web/20200720024051/https://sneezesdiseases.com/assets/uploads/1578342909B2QYPNFKRE5cNSE DsglaGYPKRX9A.pdf>.
- Ontario Ministry of Health. Planning Guide for Respiratory Pathogen Season. Toronto: Government of Ontario; 2019 Oct [cited 2020 Nov 3]. Available from: http://www.health.gov.on.ca/en/pro/programs/public_health/flu/docs/planning_guide_rps.pdf.
- Hedden L, Banihosseini S, Strydom N, McCracken R. Modern work patterns of "classic" versus millennial family doctors and their effect on workforce planning for community-based primary care: a cross-sectional survey. *Hum Resour Health*. 2020;18(1):67.
- BC Family Doctors. Reimagining Family Medicine: Learning from the COVID-19 Experience. Vancouver: BC Family Doctors; 2020 Oct [cited 2023 Jan 30]. Available from: <https://bcfamilydocs.ca/wp-content/uploads/2020/09/BC-Family-Doctors-Reimagining-Family-Medicine.pdf>.
- Young G, Mathews M, Hedden L, Lukewich J, Marshall EG, Gill P, et al. "Swamped with information": a qualitative study of family physicians' experiences of managing and applying pandemic-related information. *Front Commun*. 2023. <https://doi.org/10.3389/fcomm.2023.1186678>.
- Mathews M, Ryan D, Hedden L, Lukewich J, Marshall EG, Brown JB, et al. Family physician leadership during the COVID-19 pandemic: roles, functions and key supports. *Leadersh Health Serv*. 2022;35(4):559-75.
- Hedden L, Spencer S, Mathews M, Marshall EG, Lukewich J, Asghari S, et al. "There's nothing like a good crisis for innovation": a qualitative study of family physicians' experiences with virtual care during the COVID-19 pandemic. *BMC Health Serv Res*. 2023;23(1):338.
- Oetter HM. COVID-19: Important update from the registrar. *College of Physicians and Surgeons of British Columbia*; 2020. Available from:

- <https://www.cpsbc.ca/files/pdf/2020-03-24-COVID-19-Update-from-the-Registrar.pdf>.
18. Government of Ontario. CORRECTION: Province Implementing Enhanced Measures to Protect Ontarians from COVID-19. 2020 [cited 2023 Apr 20]. Available from: <https://news.ontario.ca/en/release/56257/correction-province-implementing-enhanced-measures-to-protect-ontarians-from-covid-19>.
 19. College of Physicians & Surgeons of Nova Scotia. College COVID-19 Bulletin 1—Telemedicine: Advice to the Profession Regarding Virtual Care During the Pandemic. College of Physicians & Surgeons of Nova Scotia; 2020 [cited 2023 Apr 20]. Available from: https://cpsns.ns.ca/wp-content/uploads/2020/03/COVID-19_Bulletin1-Mar20_2020.pdf.
 20. The College of Physicians and Surgeons of Newfoundland and Labrador. College Expectations for Clinic-Based Patient Care (Re: COVID-19): Notice to College Members. The College of Physicians and Surgeons of Newfoundland and Labrador; 2020 [cited 2023 Apr 20]. Available from: <https://cpsnl.ca/wp-content/uploads/2020/06/2020-04-09-College-Expectations-for-Clinic-Based-Patient-Care-Re-COVID-19.pdf>.
 21. Johnston RM, Sheluchin A, van der Linden C. Evidence of exacerbated gender inequality in child care obligations in Canada and Australia during the COVID-19 pandemic. *Pol Gen*. 2020;16(4):1131–41.
 22. Smith J, Abouzaid L, Masuhara J, Noormohamed S, Remo N, Straatman L. "I may be essential but someone has to look after my kids": women physicians and COVID-19. *Can J Public Health*. 2022;113(1):107–16.
 23. Smith J. From "nobody's clapping for us" to "bad moms": COVID-19 and the circle of childcare in Canada. *Gend Work Organ*. 2022;29(1):353–67.
 24. Chemali S, Mari-Sáez A, El Bcheraoui C, Weishaar H. Health care workers' experiences during the COVID-19 pandemic: a scoping review. *Hum Resour Health*. 2022;20(1):27.
 25. Mele BS, Holroyd-Leduc JM, Harasym P, Dumanski SM, Fiest K, Graham ID, et al. Healthcare workers' perception of gender and work roles during the COVID-19 pandemic: a mixed-methods study. *BMJ Open*. 2021;11(12):e056434.
 26. Duffy CC, Bass GA, Fitzpatrick G, Doherty EM. What can we learn from the past? Pandemic health care workers' fears, concerns, and needs: a review. *J Patient Saf*. 2022;18(1):52–7.
 27. Morgan R, Tan HL, Oveisi N, Memmott C, Korzuchowski A, Hawkins K, et al. Women healthcare workers' experiences during COVID-19 and other crises: a scoping review. *Int J Nurs Stud Adv*. 2022;4:100066.
 28. Mathews M, Spencer S, Hedden L, Marshall EG, Lukewich J, Meredith L, et al. Development of a primary care pandemic plan informed by in-depth policy analysis and interviews with family physicians across Canada during COVID-19: a qualitative case study protocol. *BMJ Open*. 2021;11(7):e048209.
 29. Berg BL. *Qualitative research methods for the social sciences*. 2nd ed. Boston: Allyn and Bacon; 1995.
 30. Guest G. *Applied thematic analysis*. Thousand Oaks: Sage; 2012.
 31. Nova Scotia Government. Update COVID-19 for Nova Scotians: Tuesday May 26. 2020 [cited 2023 May 12]. Available from: https://www.youtube.com/watch?v=swopyY_wvrl.
 32. Mehta S, Machado F, Kwizera A, Papazian L, Moss M, Azoulay É, et al. COVID-19: a heavy toll on health-care workers. *Lancet Respir Med*. 2021;9(3):226–8.
 33. Khan N, Palepu A, Dodek P, Salmon A, Leitch H, Ruzycski S, et al. Cross-sectional survey on physician burnout during the COVID-19 pandemic in Vancouver, Canada: the role of gender, ethnicity and sexual orientation. *BMJ Open*. 2021;11(5):e050380.
 34. Smeltzer SC, Copel LC, Bradley PK, Maldonado LT, Byrne DC, Durning JD, et al. Vulnerability, loss, and coping experiences of health care workers and first responders during the covid-19 pandemic: a qualitative study. *Int J Qual Stud Health Well-being*. 2022;17(1):2066254.
 35. Ranasinghe PD, Zhou A. Women physicians and the COVID-19 pandemic: gender-based impacts and potential interventions. *Ann Med*. 2023;55(1):319–24.
 36. Gulland J. Households, bubbles and hugging grandparents: caring and lockdown rules during COVID-19. *Fem Leg Stud*. 2020;28(3):329–39.
 37. Gorman M. Nova Scotia to reassess child-care needs of essential workers. *CBC News*. 2020 [cited 2023 May 12]. Available from: <https://www.cbc.ca/news/canada/nova-scotia/covid-19-childcare-daycare-essential-service-workers-1.5552926>.
 38. Thomas J. Critics say Nova Scotia economic recovery plan hurtful to parents and women. *Global News*. 2020 [cited 2023 May 12]. Available from: <https://globalnews.ca/news/6999449/critics-say-nova-scotia-economic-recovery-plan-hurtful-to-parents-and-women/>.
 39. Spencer S, Hedden L, Vaughan C, Marshall EG, Lukewich J, Asghari S, et al. "It was horrible for that community, but not for the way we had imagined": a qualitative study of family physicians' experiences of caring for communities experiencing marginalisation during COVID-19. *SSM Qual Res Health*. 2022;2:100176.
 40. Mathews M, Ryan D, Hedden L, Lukewich J, Marshall EG, Asghari S, et al. Family physicians' responses to personal protective equipment shortages in four regions in Canada: a qualitative study. *BMC Primary Care*. 2023;24(1):56.
 41. Snowdon AW, Saunders MJ. Supply chain integration as a strategy to strengthen pandemic responsiveness in Nova Scotia. *Healthc Manage Forum*. 2022;35(2):62–70.
 42. Snowdon AW, Saunders M. COVID-19, workforce autonomy and the health supply chain. *Healthc Q*. 2021;24(2):15–26.
 43. Shafer K, Scheibling C, Milkie MA. The division of domestic labor before and during the COVID-19 pandemic in Canada: stagnation versus shifts in fathers' contributions. *Can Rev Sociol*. 2020;57(4):523–49.
 44. Vogel L. Pay gap growing between family doctors, other specialists. *CMAJ*. 2017;189(41):E1300.
 45. Duong D, Vogel L. National survey highlights worsening primary care access. *CMAJ*. 2023;195(16):E592–3.
 46. Fitzgerald M, Gunja MZ, Tikkanen R. Primary Care in High-Income Countries: How the United States Compares. *The Commonwealth Fund*. 2022 [cited 2023 May 23]. Available from: <https://www.commonwealthfund.org/publications/issue-briefs/2022/mar/primary-care-high-income-countries-how-united-states-compares>.
 47. Martin DD, Bell DB, Black G, Butts J, Cowper-Fung B, Goel DV, et al. Primary Care for Everyone: An Urgent To-Do List for Reform. *Public Policy Forum*; 2023 Apr [cited 2023 May 23]. Available from: <https://ppforum.ca/wp-content/uploads/2023/04/PrimaryCareForEveryone-PPF-April2023-EN.pdf>.
 48. The College of Family Physicians of Canada. Position Statement on Locum Availability in Canada. The College of Family Physicians of Canada. 2022 [cited 2023 May 23]. Available from: <https://www.cfpc.ca/en/policy-innovation/health-policy-government-relations/cfpc-policy-papers-position-statements/position-statement-on-locum-availability-in-canada>.
 49. Hedden L, Banihosseini S, Strydom N, McCracken R. Family physician perspectives on primary care reform priorities: a cross-sectional survey. *CMAJO*. 2021;9(2):E466–73.
 50. Canadian Medical Association. CMA 2021 National Physician Health Survey. Ottawa: Canadian Medical Association; 2022 [cited 2023 May 12]. Available from: https://www.cma.ca/sites/default/files/2022-08/NPHS_final_report_EN.pdf.
 51. Mathews M, Idrees S, Ryan D, Hedden L, Lukewich J, Marshall EG, et al. System-based interventions to address physician burnout: a qualitative study of Canadian family physicians' experiences during the COVID-19 pandemic. *Int J Health Policy Manage*. 2024.
 52. Mathews M, Hedden L, Lukewich J, Marshall EG, Meredith L, Moritz L, et al. Adapting care provision in family practice during the COVID-19 pandemic: a qualitative study exploring the impact of primary care reforms in four Canadian regions. *BMC Primary Care*. 2024.
 53. Bergen N, Labonté R. "Everything is perfect, and we have no problems": detecting and limiting social desirability bias in qualitative research. *Qual Health Res*. 2020;30(5):783–92.
 54. Coughlin SS. Recall bias in epidemiologic studies. *J Clin Epidemiol*. 1990;43(1):87–91.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.