Emergency medicine resident wellness: Lessons learned from a national survey

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CLINICIAN'S CAPSULE

What is known about the topic?
Emergency medicine (EM) residents face many wellness challenges during residency.

What did this study ask?
What was the current landscape of Canadian EM resident wellness?

What did this study find?
Canadian EM residents face a multitude of psychosocial and physical wellness challenges, while supports may not be adequate.

Why does this study matter to clinicians?
Opportunities exist to further investigate resident wellness with validated tools, engage stakeholders, and advance the EM resident wellness agenda.

ABSTRACT

Objectives: Emergency medicine (EM) residents face many challenges during residency. Given the negative effects of residency training and the paucity of information on EM resident wellness experiences, we conducted a national survey to characterize the current landscape of Canadian EM resident wellness.

Methods: A cross-sectional study of Canadian EM residents was done using an online survey created by a Canadian Association of Emergency Physicians Resident Section working group on wellness. Surveys were sent to chief residents in Canadian EM residency programs accredited by either the Royal College of Physicians and Surgeons of Canada (RCPSC) or the College of Family Physicians of Canada (CFPC) in English and French.

Results: Thirty-one EM programs were contacted (14 RCPSC and 17 CFPC), and 216 (42%) responses were collected. A multitude of negative wellness impacts were noted, including falling asleep while driving and motor vehicle collisions post-night or during a 24-hour call shift. Moreover, experiences included verbal, physical, and sexual harassment, and reports of low mood and suicidal ideation. Wellness supports were not always accessed after negative incidents. Residents reported deficits in formal wellness instruction, with support for formal EM program wellness time.

Conclusions: Canadian EM residents face a multitude of psychosocial and physical wellness challenges, while supports may not be adequate. Opportunities exist to further investigate resident wellness with validated tools, engage stakeholders, and advance the EM resident wellness agenda.

RÉSUMÉ

Objectif: Les résidents en médecine d'urgence (MU) font face à de nombreuses difficultés durant leur programme. Compte tenu des effets néfastes de la formation au niveau de la résidence et du peu d'information sur l'expérience de bien-être que vivent les résidents en MU, nous avons mené une enquête nationale afin de brosser le tableau du bien-être des résidents en MU au Canada.

Méthode: Une étude transversale menée parmi les résidents en MU au Canada a été réalisée à l'aide d'un questionnaire d'enquête en ligne, élaboré par un groupe de travail, sur le bien-être, de la section des résidents de l'Association canadienne des médecins d'urgence. Des questionnaires rédigés en français ou en anglais ont été envoyés aux résidents en chef des programmes de résidence en MU, agréés par le Collège royal des médecins et chirurgiens du Canada (CRMCC) ou par Le Collège des médecins de famille du Canada (CMFC).

Résultats: Nous avons communiqué avec les responsables de 31 programmes de MU (CRMCC : 14; CMFC : 17) et le taux de réponse global a atteint 42 % (216 questionnaires recueillis). De nombreux effets néfastes de la résidence sur le bien-être ont été relevés, par exemple s'endormir au volant ou encore avoir un accident d'automobile après une nuit de travail ou une journée de garde de 24 heures. Des répondants ont aussi fait état de harcèlement verbal, physique ou sexuel, de même

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que d'humeur maussade ou d'idées suicidaires. De plus, il n'était pas toujours possible d'obtenir du soutien en matière de bien-être à la suite d'événements fâcheux. Enfin, les résidents ont indiqué un manque de formation structurée en matière de bien-être et ont accueilli favorablement de l'idée que du temps soit consacré au bien-être dans le programme de MU.

Conclusion: Les résidents en MU au Canada font face à une multitude de difficultés d'ordre physique et psychosocial sur le plan du bien-être, tandis que les mesures de soutien, elles, ne sont pas toujours à la hauteur des besoins. Toutefois, il existe des possibilités d'approfondir la question du bien-être des résidents à l'aide d'outils validés, de faire appel à des intervenants et de promouvoir le programme d'action pour le bien-être des résidents en MU.

Keywords: Wellness, medical education, emergency medicine

INTRODUCTION

Residency training has been shown to have a negative impact on physical, emotional, and social well-being.[1] Residents experience high rates of burnout,[2,3] depression,[4] emotional exhaustion,[5] and social strain.[6] Shift work for emergency medicine (EM) residents also poses long-term risks, including metabolic syndrome[7,8] and cardiovascular disease.[9] Moreover, learning environments include intimidation[1] and personal safety concerns.[10]

Accredited Canadian EM training includes two streams: those leading to a certification through either the Royal College of Physicians and Surgeons of Canada (RCPSC) or the College of Family Physicians of Canada (CFPC). Neither EM stream wellness experience has been well characterized. Given the negative effects of residency training and the paucity of information on EM resident wellness experiences, we conducted a national cross-sectional study to characterize the current landscape of Canadian EM resident wellness.

METHODS

This was a cross-sectional study of Canadian EM residents. A Canadian Association of Emergency Physicians Resident Section (CAEP RS) wellness working group composed of four senior residents (AT, AH, ZP, ND) created a list of survey questions based on a CAEP wellness position statement[11] and Resident Doctors of Canada (RDoC) survey[1] topics. Survey questions were chosen by a working group member consensus. Several questions were discarded due to ambiguity after consultation with a survey methodologist (Appendix).

An anonymous survey link, along with study information, was sent to chief residents (CRs) of Canadian EM residency programs by email, with two follow-up emails over a 4-month period. Francophone programs received all information and the survey in French. CRs were then asked to forward the information to their residents. Total resident numbers were calculated from program websites, the Canadian residency matching service (CaRMS),[12] and confirmation with programs. The study period was from January to May 2017. Two programs with the highest response rates were awarded $250. A full list of survey questions is illustrated in the online Appendix. No program information was collected to maintain anonymity. Approval was obtained from the Research Ethics Board of Sunnybrook Health Sciences Centre.

RESULTS

A total of 511 Canadian EM residents were included, 31 EM programs were contacted (14 RCPSC and 17 CFPC), and a 42% (n = 216) response rate was obtained. A full list of responses and demographics is illustrated in the online Appendix. RCPSC residents comprised 25% (n = 128), with most in their first 3 years of training. Forty-four respondents (8.6%) did not specify their year.

EM residency experiences are illustrated in Tables 1 and 2. During residency training, 20% (n = 103) reported falling asleep while driving post-night shift, or after a 24-hour call shift, and 3.5% (n = 18) were involved in a motor vehicle collision (MVC) post-night or during a call shift. Verbal, physical, and sexual harassment and assault occurred at varying levels by patients, accompanying persons, other residents, or faculty. During residency, 35% (n = 178) reported low mood, and 4.3% (n = 22) reported suicidal ideation. Six percent (n = 14) reported social isolation. Overall, residents reported gaps in wellness instruction, with 34% (n = 173) welcoming dedicated program wellness time and 31% (n = 160) for resilience training.

DISCUSSION

In this survey of Canadian EM residents, we identified a multitude of significant wellness challenges and

Table 1. EM residency training experience survey responses

During your residency training, have you experienced:					
Question\answer	None	Once	2-5 times	5 + times	N/A
Falling asleep at the wheel (post-night shift or post-call)	98	56	38	9	0
Motor vehicle collision (post-night shift or post-call)	182	17	1	0	1
Verbal harassment from patient or accompanying person	33	21	88	59	0
Physical threats from patient or accompanying person	92	41	55	13	0
Physical assault from patient or accompanying person	167	22	12	0	0
Sexual harassment from patient or accompanying person	151	20	26	4	0
Sexual assault from patient or accompanying person	197	4	0	0	0
Verbal harassment from other residents	117	32	39	13	0
Physical threats from other residents	196	3	0	0	0
Physical assault from other residents	200	0	0	0	0
Sexual harassment from other residents	196	3	2	0	0
Sexual assault from other residents	200	0	0	0	0
Verbal harassment from faculty or hospital staff	102	32	51	15	1
Physical threats from faculty or hospital staff	197	3	0	0	0
Physical assault from faculty or hospital staff	199	1	0	0	0
Sexual harassment from faculty or hospital staff	195	4	2	0	0
Sexual assault from faculty or hospital staff	200	1	0	0	0
Needle stick injury	114	59	28	0	0
Exposure to body fluids	85	62	42	12	0

Table 2. EM residency survey responses for frequency of experiences

How would you describe the frequency you experience of the following over the past 6 months?					
Question\answer	Never	Rarely	Sometimes	Often	Always
Fatigue	2	4	44	113	37
Daytime sleepiness (not post-call or night)	4	12	74	87	23
Stress	0	11	77	91	20
Anxiety	7	51	71	57	14
Low mood	22	64	78	31	5
Hopelessness	96	63	28	11	2
Passive thoughts of wanting life to end	154	29	12	5	0
Thoughts of self harm	179	14	3	4	0
Thoughts of suicide	178	14	6	2	0
Drinking alcohol or doing recreational drugs to cope	112	44	33	11	0

important opportunities for improvement. Burnout, mental health struggles, and concerns for safety such as MVCs were notable. These experiences support previously reported rates of burnout and decreased quality of life.[2-4] Moreover, our rate of suicidal ideation is in keeping with previously reported rates in medical trainees of 4.4% to 14%.[13-15]

Responses suggest actionable areas for further investigation and mitigation. Resiliency training has previously shown positive effects on quality of life for staff physicians[16] and residents.[17] However, the need for more training needs to be reconciled with program curricula time limitations. The transition to Competence by Design (CBD) may provide an opportunity for this (a national working group of stakeholders should form to address this need).

Secondly, there is a low reported rate of seeking wellness resources, with some dissatisfaction when accessed. It would be important to determine whether this is due to a lack of knowledge of their existence or whether accessibility barriers exist. RCPSC and CFPC accreditation standards govern EM residency programs,[18] which programs may be meeting, but there remains a deficit in EM residents accessing these

resources. Therefore, residents need to be involved as stakeholders to inform future mitigation.

Several limitations were identified. The survey questions were not pilot tested on an independent sample of potential respondents but rather among the consensus committee. An external survey methodologist was also consulted. Although the questions seemed to have face validity, some improved clarity could have been achieved. We cannot determine any program-related patterns or biases due to the confidentiality inherent in our model. Low response rates were received from francophone (n = 19) and CFPC training programs (n = 44), as well as RCPSC senior residents; 8.6% of respondents did not answer the demographics section. Moreover, one program was not contacted (Saint John, New Brunswick) due to the inability to locate it on the CaRMS website. Although the overall response rate was 42%, these limitations may impede national generalizations and the ability to make associations between subgroups.

CONCLUSION

Our exploratory survey suggested that Canadian EM residents are facing psychosocial and physical wellness challenges. These present opportunities to further investigate resident wellness with validated tools, engage stakeholders, and advance the EM resident wellness agenda.

SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit https://doi.org/10.1017/cem.2018.416

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