

# Provision of Compassionate and Empathic Care as a Well-Being Preservation Tool for Emergency Physicians: A Scoping Review

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**Objective:** Compassion and physician well-being are two key components related to quality care in health including emergency medicine. The objective of this study was to explore the impact of compassion in care on the well-being of emergency physicians. We conducted a scoping review to explore the impact of provision of compassionate care by emergency physicians on their well-being and subconcepts. **Methods:** Four electronic databases and grey literature were searched to find evidence related to compassion, empathy, self-compassion, and their impact on emergency physicians' well-being. Following title and abstract review, two reviewers independently screened full-text articles, and extracted data. Data were presented using descriptive statistics and a narrative analysis. **Results:** A total of 803 reports were identified in databases. Three articles met eligibility criteria for data extraction. None directly examined compassion and well-being. Included studies addressed empathy and burnout in emergency medicine professionals. **Conclusion:** No high-quality evidence could be found on the topic in the population of interest. Literature related to the topic of compassion in physicians, especially in emergency physicians, a field known for its high demand and stress levels, is currently scarce and additional evidence is needed to better describe and understand the association between physicians' compassion and well-being. **Keywords:** compassion fatigue, emergency medicine, empathy, evidence-based emergency medicine, physicians' role

## Introduction

In the last few years, the importance of physicians' well-being has been universally recognized with calls for action by numerous organizations such as the Canadian Medical Association (CMA), the Canadian Association of Emergency Physicians (CAEP) and the Society for Academic Emergency Medicine (SAEM).<sup>1,2</sup> Unwell physicians directly affect the quality of care and negatively impact the healthcare systems secondary to lower productivity and efficiency, increased risk of medical error and reduced patients' satisfaction and adherence to treatment.<sup>3-5</sup> This is of concern considering the higher prevalence of occupational burnout in physicians than in the general population, and that emergency physicians are among those with the highest risk.<sup>6-9</sup> Previous research identified that physicians and nurses' psychosocial risks related to working in the emergency department were different. Indeed, compared to emergency nurses, emergency physicians perceived significantly higher quantitative, cognitive and emotional demands, and their work-related and patient-related burnout scores on the Copenhagen psychosocial questionnaire (COPSOQ) were higher.<sup>10</sup>

Provision of compassionate care by healthcare professionals was studied by Sinclair et al in a scoping review that was recently updated.<sup>11,12</sup> Data from those reviews show that with the growing interest in the field, a more unified definition of compassion in healthcare was possible, underlining the relational nature of compassion that resulted in acknowledging and proactively attending to a person's distress. Also, more recent studies focus on interventions to improve healthcare professional capacities to provide compassionate care. Even though much still is unknown, it appears that innate

capacities could be improved to a certain degree with training, yet the ideal training program to do so remains to be developed and validated.<sup>11</sup> Moreover, among the interventions that could promote compassion, self-compassion is often viewed as a mean to facilitate compassionate care. A systematic review however contradicts this assumption. Self-compassion in healthcare providers is defined as “a composite of self-care, healthy self-attitude, and self-awareness rather than a construct in and of itself”.<sup>13</sup>

In parallel to the concept of compassion, compassion fatigue is a term used to describe a stress response in healthcare providers. A meta-narrative review mapped available evidence on the topic.<sup>14</sup> All identified articles included in the review were related to the nursing profession in a multitude of care settings. It is unknown if the authors’ findings would be valid in a population of emergency physicians. Compassion fatigue is favored by a number of causes, namely environmental and system factors, as well as factors innate to the healthcare professionals. Even though this concept is ill-defined, compassion fatigue is considered an important contributor to loss of compassion in healthcare provider, and possibly to a lesser quality of care.

Compassion and empathy, both concepts defined in the method subsection, are essential to provide quality care. Empathic physicians improve patient satisfaction, health outcomes and treatment adherence, and lessen litigation.<sup>15–17</sup> However, compassionate care in an emergency setting, where emergency physicians are tasked with delivering high-volume of urgent services with limited resources is challenging.<sup>18,19</sup> Research has showed that self-compassion and compassion to other enhance well-being, diminish depression, anxiety and stress.<sup>20,21</sup> With this scoping review, we will attempt to answer the following questions: What is the impact for emergency physicians of providing compassionate care on well-being? What is the impact of compassion on emergency physicians well-being and related constructs, including burnout?

## Methods

We conducted a scoping review based on the Joanna Briggs Institute framework.<sup>22</sup> A knowledge synthesis design was chosen because it provides an inventory of the evidence in a given field using a systematic and reproducible method.<sup>22</sup> The iterative nature of this design allows refinement of specific sections of the method as the review progresses. We reported the studies following the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) checklist ([Appendix A](#)).<sup>23</sup> The protocol was not registered in a public database. However, to the best of our current knowledge, no previous or ongoing systematic or scoping review on the topic were registered by searching ClinicalTrials.gov, PROSPERO, The Joanna Briggs Institute systematic review register and the World Health Organization International Clinical Trials Registry Platform portal.

We used the following operational definitions. Wellness is a complex and multifactorial concept defined by Brandy et al as “quality of life, which includes the absence of ill-being and the presence of positive physical, mental, social and integrated well-being experienced in connection with activities and environments that allow physicians to develop their full potential across personal and work-life domains”.<sup>24</sup> The concept of compassion is defined by Strauss et al into five elements. The concept of compassion is defined by Strauss et al into five elements:

- 1) recognizing suffering, 2) understanding the universality of suffering in human experience, 3) feeling empathy for the person suffering and connecting with the distress, 4) tolerating that uncomfortable feelings arose in response to the suffering person and remaining open to and accepting of the person suffering, 5) motivation to act/acting to alleviate suffering.<sup>25</sup>

Moreover, it is important to differentiate empathy from compassion. Even though researchers in the field recognize that the definition of empathy varies, it relies both on cognitive and affective processes in which one person acknowledge another person’s feelings, experiences and insights.<sup>26</sup> Empathy in the clinical setting supports physician compassion towards the patient and has been associated to patient capacity to cope with disease and patient empowerment in the care process.<sup>27</sup> Empathy is the ability to acknowledge an emotion from another individual, while compassion allows oneself to acknowledge an emotion but also to connect with and act on it.<sup>24</sup>

## Eligibility Criteria

The inclusion and exclusion criteria were defined according to the research questions and a PICOS approach (P=Population in study, I=Intervention, C=Comparator, O=Outcome and S=Study design).<sup>23</sup> We sought out studies

that addressed emergency physicians' occupational compassion level in an emergency setting in relation to emergency physicians' well-being and subconcepts as outcomes. All types of comparators were considered. Included studies had to be written in English or French. All study designs were eligible (ie including systematic reviews and practice guidelines, with either a qualitative or a quantitative design or both) except editorial content (eg, commentaries, editorials, narrative synthesis), conference abstracts and thesis ([Appendix B](#)).

## Information Sources and Search Strategy

The search strategy was designed collaboratively by all authors and reviewed by the University of Montreal health sciences librarian. The search strategy, and its adaptations by database, are presented in [Appendix C](#). Medline, EMBASE, Cochrane Central Register of Controlled Trial (CENTRAL) and PsycINFO were searched for eligible studies from inception until January 7, 2022, using relevant Medical Subject Headings (MeSH), key terms and free text. Citations from all information sources were merged and duplicates removed using EndNote (version 9.3.3, Clarivate Analytics, 2021). Finally, reference lists of included studies were searched manually to identify additional relevant studies.

## Study Selection

A stepwise approach was used to screen potential articles identified from the databases. Studies were first screened for inclusion using titles and abstracts and finally, full texts were reviewed. Studies selection was done by two independent reviewers (MFT and FL). The final list of included studies was reviewed by a third reviewer (VB) who was also available in case of disagreement between the two main reviewers for the two first steps. The Cohen's kappa was calculated for the agreement level between the two reviewers (MFT and FL) after the title and abstract screening.<sup>28</sup>

## Data Collection Extraction

One reviewer (MFT) used a data extraction sheet developed by the team. For each included study, the following data were extracted: year, country, study design and aim of the study, as well as study population, intervention and outcomes. Data were double-checked by a second reviewer (VB).

## Data Analysis and Synthesis

No quality appraisal, no meta-analysis and no consultation phase were planned as it is not mandatory for a scoping review.<sup>22</sup> The extracted information was analysed and reported using descriptive statistics for quantitative data. Qualitative data were included in a narrative synthesis focused on the description presented in the tables. The search strategy and selection are presented in a flow diagram.

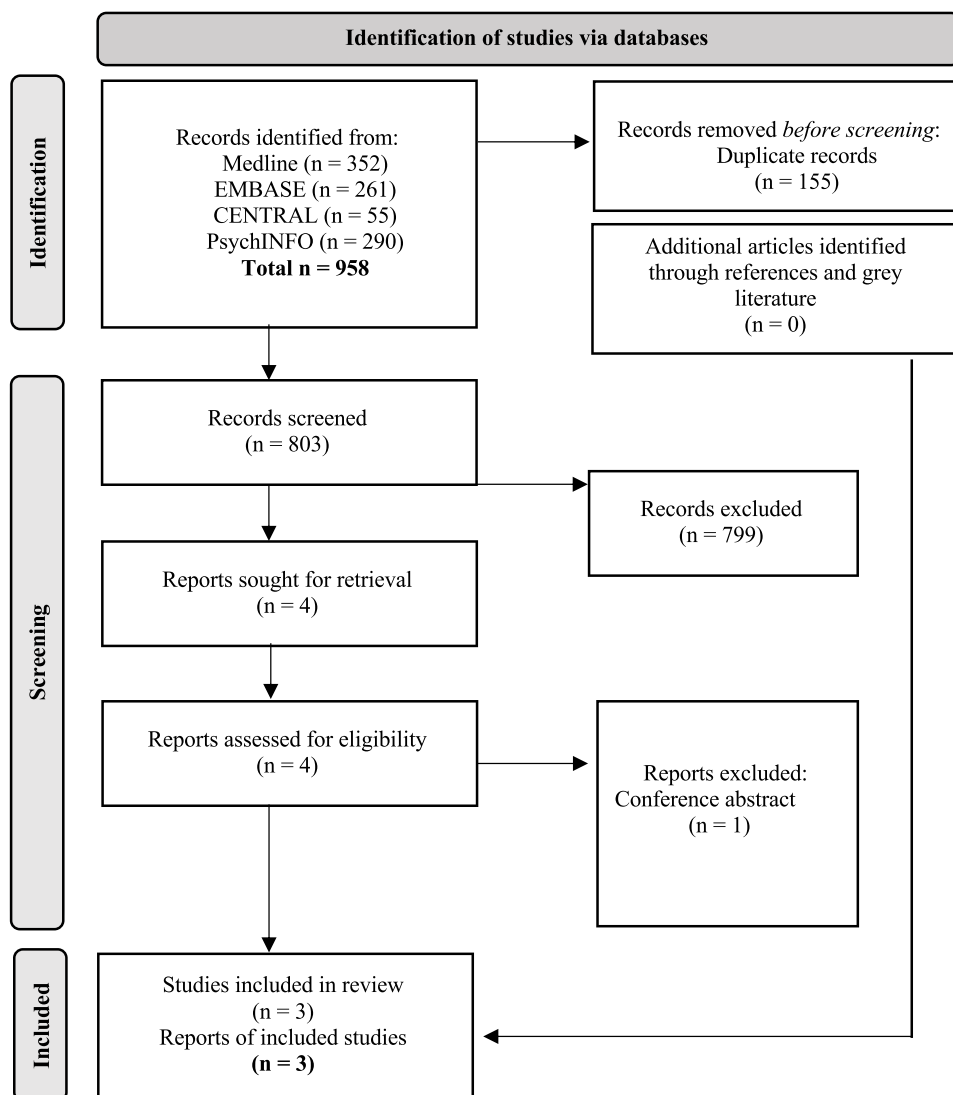
## Results

The literature search identified 958 articles, from which 155 were duplicate records. A total of 803 articles were screened and 4 met criteria for full-text review. Cohen's kappa for the first selection was 0.86, which demonstrates almost perfect agreement between authors regarding the research question. One article was excluded because it was a conference abstract, and three publications were retained for inclusion ([Figure 1](#)). The reference lists of included studies were screened with no additional study being eligible for inclusion.

## Studies' Characteristics

[Table 1](#) summarizes the general characteristics and aims of included studies.<sup>29–31</sup> All studies were observational and used surveys for data collection.<sup>29–31</sup> Two were conducted in the United States<sup>29,30</sup> and one in Spain.<sup>31</sup> Two studies explored the prevalence of empathy and burnout and the relation between both concepts.<sup>30,31</sup> One study explored the concept of compassion fatigue, burnout and compassion satisfaction.<sup>29</sup>

[Table 2](#) presents included studies detailed by population and intervention. [Table 3](#) summarizes included studies outcomes. All studies comprised emergency physicians in their study population. One study addressed pediatrics emergency physicians specifically.<sup>29</sup> Another included emergency nurses in its population, but emergency physicians' data were available as a subgroup.<sup>31</sup> One study used the Compassion satisfaction and fatigue self-test for helpers and



**Figure 1** Study selection flowchart. Adapted from Page MJ, McKenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021;372:n71. Open Access.

modified some statements with the authors permission to better match emergency physicians' work context.<sup>29</sup> The Jefferson scale of empathy (JSE) was the measuring tool used in two out of three studies.<sup>30,31</sup> Burnout was evaluated using COPSOQ in one of those studies,<sup>30</sup> and the Maslach burnout inventory (MBI) was used in the other one.<sup>31</sup>

## Synthesis of Included Studies Results

Two studies demonstrated a relation between empathy and burnout, one as a weak association,<sup>30</sup> while the strength of the other is not mentioned.<sup>30,31</sup> One study demonstrated a strong positive association between compassion fatigue and burnout, and a negative association between burnout and compassion satisfaction.<sup>29</sup> Talking with their own family as a means of self-care seemed to diminish burnout score in emergency physicians, while emotional exhaustion and distress due to coworkers favored it.<sup>29</sup> No correlation was found between gender or years of practice and burnout or empathy.

**Table 1** Characteristics of Included Studies

First Author	Year	Country	Settings	Study Design	Aims
Gribben <sup>23</sup>	2018	United States	Mixed Urban (88%) Academic medical center (93%)	Observational cross-sectional	<ul style="list-style-type: none"> <li>• Prevalence of CF, burnout, CS</li> <li>• To identify potential personal and professional predictor of these phenomena</li> </ul>
Wolfshohl <sup>24</sup>	2019	United States	Tertiary	Observational comparative prospective	<ul style="list-style-type: none"> <li>• To measure empathy and burnout</li> <li>• To determine association between burnout and empathy</li> </ul>
Yuguero <sup>25</sup>	2017	Spain	Mixed Urban (88%) Rural (12%)	Observational cross-sectional	<ul style="list-style-type: none"> <li>• Association between empathy and burnout</li> </ul>

**Abbreviations:** CF, compassion fatigue; CS, compassion satisfaction.

**Table 2** Population and Intervention of Included Studies

Study	Population				Intervention	
	Type	(n)	Gender	Years of Practice	Scales	Response Rate (%)
Gribben <sup>23</sup>	Pediatric EPs	390	Women: 236/ 380 (62.1%) Men: 144/380 (37.9%)	0–10: 51.7% 11–20: 27.7% >21: 20.6%	Survey Compassion satisfaction and fatigue self-test for helpers	22.7
Wolfshohl <sup>24</sup>	EM residents and ED attending physicians	68	Women: 20 (29.4%) Men: 48 (70.6%)	PGY-1: 12 PGY-2: 12 PGY-3: 11 Junior attending <sup>†</sup> : 14 Senior attending <sup>‡</sup> : 19	Survey JSE health professional COPSOQ	93.0
Yuguero <sup>25</sup>	RN and EP	100	Women: 67 (67%) Men: 33 (33%)	<5: 17 (17%) 5–10: 27 (27%) 11–15: 25 (25%) 16–20: 21 (21%) >21: 10 (10%)	Survey JSPE MBI <sup>¶</sup>	40.8

**Notes:** <sup>†</sup><5 years of practice, <sup>‡</sup>>5 years of practice, <sup>¶</sup>Low: 4–31, Moderate: 31–47, High: 47–78.

**Abbreviations:** CF, Compassion fatigue; COPSOQ, Copenhagen psychosocial questionnaire; CS, Compassion satisfaction; EM, Emergency Medicine; EP, Emergency Physician; JSE, Jefferson scale of empathy; JSPE, Jefferson scale of physician empathy; MBI, Maslach burnout inventory; RN, Registered nurse; PGY, post-graduate year.

## Discussion

This scoping review found that there is few available evidence in the literature pertaining to the impact of empathy specifically on emergency physicians' well-being. However, it appears that a negative association exists between empathy and burnout among emergency physicians. This key finding is concordant with studies conducted in emergency nurses and medical students.<sup>31–33</sup> None of the included studies addresses directly the relation between compassion and emergency physicians' well-being. Although one study identified through our search strategy aimed at answering this question, it was excluded during the screening process as its population did not meet inclusion criteria. Indeed, this cross-sectional descriptive correlation study of 40 emergency nurses showed a positive association between empathy and well-being among emergency nurses.<sup>34</sup> Also, neuropsychological and psychological studies demonstrated that showing compassion towards others improves psychological wellness and reduces physiological response to stress.<sup>35–37</sup> Self-

**Table 3** Outcome of Included Studies

Study	Outcome
Gribben <sup>23</sup>	<p><b>Prevalence:</b> CF 16.4%; burnout 21.5%; CS 18.5%</p> <p><b>Positive association</b> CF: burnout scores, physical work environment, engaging in prayer/meditation and a clinical situation. Burnout: CF scores, emotional depletion, distress due to coworkers. CS: socializing with family/friends and &gt;20 years as PEM.</p> <p><b>Negative association</b> CF: socializing with family/friends. Burnout: CS score, talking with a family member. CS: emotional depletion, distress about physical work environment, administrative issues.</p> <p><b>Conclusion</b> No correlation between sex and CF, burnout and CS.</p>
Wolfshohl <sup>24</sup>	<p><b>Median Self-reported empathy</b> PGY-1: 113 PGY-2: 112 PGY-3: 106 Junior attending<sup>†</sup>: 112 Senior attending<sup>‡</sup>: 114</p> <p><b>Median reported burnout</b> PGY-1: 43 PGY-2: 51 PGY-3: 43 Junior attending: 33 Senior attending: 25</p> <p><b>Conclusion</b> Weak association between patient-related burnout and overall empathy.</p>
Yugero <sup>25</sup>	<p><b>Median of JSPE and MBI<sup>¶</sup></b> were 112 and 37 respectively.</p> <p><b>Conclusion</b> High levels of burnout were associated with the lowest levels of empathy. Highest levels of empathy were associated with lowest levels of burnout, especially in depersonalization. No association with age group, years of practice, sex, place of work.</p>

**Notes:** <sup>†</sup><5 year of practice, <sup>‡</sup>>5 years of practice, <sup>¶</sup>Low: 4–31, Moderate: 31–47, High: 47–78.

**Abbreviations:** CF, Compassion fatigue; CS, Compassion satisfaction; JSPE, Jefferson scale of physician empathy; MBI, Maslach burnout inventory; PGY, post-graduate year.

compassion and its subconcepts seem to enhance well-being and diminished burnout.<sup>37,38</sup> These findings refute concerns about increased risk of burnout when exercising compassion towards others in a healthcare work environment.<sup>39</sup>

Generalizing the results of this review is hazardous due to lack of evidence regarding the relation between compassion and emergency physicians' wellbeing. This represents a limitation of our study. As these concepts are of recent interest in research, especially in physicians, we expected scarce literature. A scoping review, which is a preliminary assessment of available research literature and has often a broader scope than a systematic review, allowed us to extend our search to subconcepts that derived from our main focus such as empathy, self-compassion and burnout. Also, the absence of robust self- or observer-rated measures and scores for compassion and well-being renders their assessment complex and susceptible to biases.<sup>25</sup> This may explain why there is also a paucity of literature about these subconcepts, while empathy and burnout are better studied as they can be assessed with use of validated scales. Another limitation is the cross-sectional design of two out of three included studies that does not allow to establish a cause-and-effect relationship between burnout and empathy and limits external validity.

This study exposed the need for more robust evidence about emergency physicians' compassion and well-being considering their importance for providing quality care. Even though small studies claim that self-compassion increases

physicians' wellbeing and empathy, reduces physician's burnout and enhances patients' satisfaction,<sup>15,17,40,41</sup> a recent systematic review finds much less convincing evidence, no direct link between self-compassion and compassionate care, and a generally unclear definition of the construct.<sup>13</sup> A recent observational study has shown a positive synergistic relation between emergency physicians' higher empathy levels and lower burnout levels with patients' satisfaction.<sup>42</sup> These concepts seem to be interconnected, and some experts advocate they should be recognized as quality indicators.<sup>5,43</sup> Yet, large studies of higher quality designs and validated tools to measure concepts of interest are lacking. The growing interest on the topic, the more diverse populations studied in terms of healthcare professionals and patients (and caregivers), and the focus on assessing potential interventions to improve compassion should be encouraged.

## Conclusion

The evidence obtained from this scoping review is inconclusive regarding the impact for emergency physicians of providing compassionate care in regard of their well-being and related constructs. Of the three included studies, all with an observational design, one study showed an association between higher empathy and lower burnout level and an association between lower empathy and higher burnout level, one study showed a weak association between burnout level and empathy, and one study was inconclusive. Literature related to the topic of compassion in physicians, especially in emergency physicians, a field known for its high demand and stress levels, is currently scarce and additional evidence is needed to better describe and understand the association between physicians' compassion and well-being.

## Abbreviations

CMA, Canadian Medical Association; CAEP, Canadian Association of Emergency Physicians; SAEM, Society for Academic Emergency Medicine; EPs, Emergency physicians; PRISMA-ScR, Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews; CENTRAL, Cochrane Central Register of Controlled Trial; MeSH, Medical Subject Headings; CF, Compassion fatigue; CS, Compassion satisfaction; JSE, Jefferson scale of empathy; COPSOQ, Copenhagen psychosocial questionnaire; MBI, Maslach burnout inventory.

## Consent for Publication

All individuals named in the acknowledgements section below consented to being acknowledged in this publication. We did not include any other individual person's data in any form.

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## Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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## Disclosure

The authors report no potential conflicts of interest in this work.

## References

1. Canadian Association of Emergency Physicians. CAEP emergency medicine wellness; 2021. Available from: <https://caep.ca/caep-emergency-medicine-wellness/>. Accessed January 11, 2023.
2. Canadian Medical Association. CMA statement on physician health and wellness; 2018. Available from: <https://www.cma.ca/physician-wellness-hub/resources/policies-standards-best-practices/cma-statement-on-physician-health-and-wellness>. Accessed October 11, 2021.
3. Dewa CS, Loong D, Bonato S, Thanh NX, Jacobs P. How does burnout affect physician productivity? A systematic literature review. *BMC Health Serv Res*. 2014;14(1):1–10. doi:10.1186/1472-6963-14-325
4. Dewa CS, Loong D, Bonato S, Trojanowski L. The relationship between physician burnout and quality of healthcare in terms of safety and acceptability: a systematic review. *BMJ Open*. 2017;7(6):e015141. doi:10.1136/bmjopen-2016-015141
5. Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. *Lancet*. 2009;374(9702):1714–1721. doi:10.1016/S0140-6736(09)61424-0
6. Canadian Medical Association. CMA physician workforce survey. Available from: <https://surveys.cma.ca/>. Accessed January 11, 2023.
7. Kane L. Medscape national physician burnout, depression & suicide report; 2019. Available from: <https://www.medscape.com/slideshow/2019-lifestyle-burnout-depression-6011056#29>. Accessed January 11, 2023.
8. Lim R, Van Aarsen K, Gray S, Rang L, Fitzpatrick J, Fischer L. Emergency medicine physician burnout and wellness in Canada before COVID19: a national survey. *Can J Emerg Med*. 2020;22(5):603–607. doi:10.1017/cem.2020.431
9. Zhang Q, M-C M, He Y, Z-L C, Z-C L. Burnout in emergency medicine physicians: a meta-analysis and systematic review. *Medicine*. 2020;99(32):e21462.
10. Ilić IM, Arandjelović MŽ, Jovanović JM, Nešić MM. Relationships of work-related psychosocial risks, stress, individual factors and burnout-Questionnaire survey among emergency physicians and nurses. *Med Pr*. 2017;68(2):167–178. doi:10.13075/mp.5893.00516
11. Malenfant S, Jaggi P, Hayden KA, Sinclair S. Compassion in healthcare: an updated scoping review of the literature. *BMC Palliat Care*. 2022;21(1):1–28. doi:10.1186/s12904-022-00942-3
12. Sinclair S, Norris JM, McConnell SJ, et al. Compassion: a scoping review of the healthcare literature. *BMC Palliat Care*. 2016;15(1):1–16. doi:10.1186/s12904-016-0080-0
13. Sinclair S, Kondejewski J, Raffin-Bouchal S, King-Shier KM, Singh P. Can self-compassion promote healthcare provider well-being and compassionate care to others? Results of a systematic review. *Appl Psychol*. 2017;9(2):168–206. doi:10.1111/aphw.12086
14. Sinclair S, Raffin-Bouchal S, Venturato L, Mijovic-Kondejowski J, Smith-MacDonald L. Compassion fatigue: a meta-narrative review of the healthcare literature. *Int J Nurs Stud*. 2017;69:9–24. doi:10.1016/j.ijnurstu.2017.01.003
15. Derksen F, Bensing J, Lagro-Janssen A. Effectiveness of empathy in general practice: a systematic review. *Br J General Pract*. 2013;63(606):e76–e84. doi:10.3399/bjgp13X660814
16. Kim SS, Kaplowitz S, Johnston MV. The effects of physician empathy on patient satisfaction and compliance. *Eval Health Prof*. 2004;27(3):237–251. doi:10.1177/0163278704267037
17. Smith DD, Kellar J, Walters EL, Reibling ET, Phan T, Green SM. Does emergency physician empathy reduce thoughts of litigation? A randomised trial. *Emerg Med J*. 2016;33(8):548–552. doi:10.1136/emermed-2015-205312
18. Dasan S, Gohil P, Cornelius V, Taylor C. Prevalence, causes and consequences of compassion satisfaction and compassion fatigue in emergency care: a mixed-methods study of UK NHS Consultants. *Emerg Med J*. 2015;32(8):588–594. doi:10.1136/emermed-2014-203671
19. Wong ML, Chung AS. Strategies for provider well-being in the emergency department. *Emerg Med Clin*. 2020;38(3):729–738. doi:10.1016/j.emc.2020.03.005
20. Duarte J, Pinto-Gouveia J. *Focusing on Self or Others Has Different Consequences for Psychological Well-Being: A Longitudinal Study of the Effects of Distinct Interpersonal Goals*. University of Coimbra; 2015.
21. Saarininen A, Keltikangas-Järvinen L, Viding E, et al. Compassion protects against vital exhaustion and negative emotionality. *Motiv Emot*. 2021;45(4):506–517. doi:10.1007/s11031-021-09878-2
22. Peters MD, Marnie C, Tricco AC, et al. Updated methodological guidance for the conduct of scoping reviews. *JBIM Evid Synthes*. 2020;18(10):2119–2126. doi:10.11124/JBIES-20-00167
23. Tricco AC, Lillie E, Zarin W, et al. A scoping review on the conduct and reporting of scoping reviews. *BMC Med Res Methodol*. 2016;16(1):1–10. doi:10.1186/s12874-016-0116-4
24. Brady KJ, Trockel MT, Khan CT, et al. What do we mean by physician wellness? A systematic review of its definition and measurement. *Acad Psychiatry*. 2018;42(1):94–108. doi:10.1007/s40596-017-0781-6
25. Strauss C, Taylor BL, Gu J, et al. What is compassion and how can we measure it? A review of definitions and measures. *Clin Psychol Rev*. 2016;47:15–27. doi:10.1016/j.cpr.2016.05.004
26. Davis MA. A perspective on cultivating clinical empathy. *Complement Ther Clin Pract*. 2009;15(2):76–79. doi:10.1016/j.ctcp.2009.01.001
27. Mercer SW, Reilly D, Watt GC. The importance of empathy in the enablement of patients attending the Glasgow Homoeopathic Hospital. *Br J General Pract*. 2002;52(484):901–905.
28. Banerjee M, Capozzoli M, McSweeney L, Sinha D. Beyond kappa: a review of interrater agreement measures. *Can J Statist*. 1999;27(1):3–23. doi:10.2307/3315487
29. Gribben JL, MacLean SA, Pour T, Waldman ED, Weintraub AS, Meisel ZF. A cross-sectional analysis of compassion fatigue, burnout, and compassion satisfaction in pediatric emergency medicine physicians in the United States. *Acad Emerg Med*. 2019;26(7):732–743. doi:10.1111/acem.13670
30. Wolfshohl JA, Bradley K, Bell C, et al. Association between empathy and burnout among emergency medicine physicians. *J Clin Med Res*. 2019;11(7):532. doi:10.14740/jocmr3878
31. Yuguero O, Forné C, Esquerda M, Pifarré J, Abadías MJ, Viñas J. Empathy and burnout of emergency professionals of a health region: a cross-sectional study. *Medicine*. 2017;96(37):e8030. doi:10.1097/MD.0000000000008030
32. Brazeau CM, Schroeder R, Rovi S, Boyd L. Relationships between medical student burnout, empathy, and professionalism climate. *Acad Med*. 2010;85(10):S33–S36. doi:10.1097/ACM.0b013e3181ed4c47
33. Yuguero O, Ramon Marsal J, Esquerda M, Vivanco L, Soler-González J. Association between low empathy and high burnout among primary care physicians and nurses in Lleida, Spain. *Eur J General Pract*. 2017;23(1):4–10. doi:10.1080/13814788.2016.1233173



34. Bourgault P, Lavoie S, Paul-Savoie E, et al. Relationship between empathy and well-being among emergency nurses. *J Emerg Nurs.* 2015;41(4):323–328. doi:10.1016/j.jen.2014.10.001
35. Cosley BJ, McCoy SK, Saslow LR, Epel ES. Is compassion for others stress buffering? Consequences of compassion and social support for physiological reactivity to stress. *J Exp Soc Psychol.* 2010;46(5):816–823. doi:10.1016/j.jesp.2010.04.008
36. Sheldon KM, Cooper ML. Goal striving within agentic and communal roles: separate but functionally similar pathways to enhanced well-being. *J Pers.* 2008;76(3):415–448. doi:10.1111/j.1467-6494.2008.00491.x
37. Yu H, Qiao A, Gui L. Predictors of compassion fatigue, burnout, and compassion satisfaction among emergency nurses: a cross-sectional survey. *Int Emerg Nurs.* 2021;55:100961. doi:10.1016/j.ienj.2020.100961
38. Neff KD, Knox MC, Long P, Gregory K. Caring for others without losing yourself: an adaptation of the Mindful Self-Compassion Program for Healthcare Communities. *J Clin Psychol.* 2020;76(9):1543–1562. doi:10.1002/jclp.23007
39. Khanjani S, Asmari Bardezdard Y, Foroughi A, Yousefi F. Burnout, compassion for others and fear of compassion: a quantitative study in Iranian nurses. *Trends Psychiatry Psychother.* 2021;43:193–199. doi:10.47626/2237-6089-2020-0082
40. Babenko O, Mosewich AD, Lee A, Koppula S. Association of physicians' self-compassion with work engagement, exhaustion, and professional life satisfaction. *Med Sci.* 2019;7(2):29. doi:10.3390/medsci7020029
41. Wang H, Kline JA, Jackson BE, et al. Association between emergency physician self-reported empathy and patient satisfaction. *PLoS One.* 2018;13(9):e0204113. doi:10.1371/journal.pone.0204113
42. Byrd J, Knowles H, Moore S, et al. Synergistic effects of emergency physician empathy and burnout on patient satisfaction: a prospective observational study. *Emerg Med J.* 2021;38(4):290–296. doi:10.1136/emermed-2019-209393
43. Lown BA, Rosen J, Marttila J. An agenda for improving compassionate care: a survey shows about half of patients say such care is missing. *Health Aff.* 2011;30(9):1772–1778. doi:10.1377/hlthaff.2011.0539

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